CHAPTER I

INTRODUCTION

1.1 Background Of The Study

Each and Every industry, commerce and trade play a vital role to growth the economic development of any country. Many developed countries have proved that for overall development of the country industry and commerce as well as trade plays a dominant role. As development proceeds, the share of industry and service sector dominant. Nepal is predominantly and agricultural country. Agricultural is still the mainstay of Nepalese economy. This sector alone has provided employment to nearly 81% of the labor force. It contributes 41% to gross domestic product (GDP). Similarly, it contributes about 80% to the export trade. Despite the emphasis being given to the development of agriculture sector since the 5th long term plan, a radical change is yet to be seen in this sector. There is a need of better efforts to transfer the increased labor force to the non-agriculture sectors like industry, tourism, trade and so on just. The average per capita income of Nepalese is just \$ 236, which is too much lower than in developed countries. (*Joshi*; 2000:184)

This has resulted into lower savings or negative saving in most of the cases. So, capital formation is either very slow or negative. Therefore, several efforts have been made from concerned sectors to diversify the economic contributions from slowly agro-based towards industry based. To increase the pace of industrialization huge amount of capital is needed and at this threshold, actual need of bank or financial institution occurs. The banking and financial infrastructure is inadequate and insufficient and needs to be expanded to finance the growth of industrialization and service sector in the country. Finance is the lifeblood and the role of banks to the development of Nepal is Paramount (Joshi; 2000:185) from Financial management is an art & science of managing all the money transfer among to the all stakeholders. Financial analysis measures the strength

and weakness of firms and improves the weakness. It analysis estimated the firms, risk, return potentiality and evaluates the opportunity and threats then graves the hedging security as well as protect from financial threats.

In simple language, bank can be defined as a place where the transactions of money take place. In other words, bank is such an institution that collects scattered deposits and advances loans. A bank collects deposits from different individuals and institutions. These collected deposits are mobilized by giving loans to different industries, commercial enterprises, individuals, households and so on. A bank does not only perform the activity of receiving deposits and advancing loans but at the same time it performs payment or remittance and other credit activities as well. Therefore, bank playa a significant role in the economic development of the country. Bank fills the gap between the searcher and provider of fund. It also provides sufficient back support for the growth and expansion of trade and industry of the country, which eventually aids to its economic condition.

Earlier bank were different from modern commercial banks in many respects. The banks, which operated in the past, combined central banking functions, such as issue of currency with commercial banking functions like accepting deposits and financing business. In course of time this practice was abandoned and specialized institutions for the central banking functions were created. Now a central Bank can be easily distinguished from a commercial bank due to their objectives and unique functions.

Commercial banks are the supplier of finance for trade and industry and play a vital role in the economic and financial life of the country. By investing the saving in the productive areas, they help in the formation of capital. The qualitative credit policy ensures certain portion of the credit of bank invested in the productive and priority sectors so that there may not be shortage of resources in such areas. Moreover, flexible monetary, flexible monetary and credit policy improve the prevailing slow down in the economic activities to alleviate sluggish credit expansion to the private sector from the

banking sectors. People living in rural areas of the underdeveloped countries like Nepal need various banking facilities. In most of the countries, the banks are generally concentrated in the urban and semi urban areas and the rural areas are neglected due to risk and low return. But in fact, the rural development is the key to the economic development without which the economy of the country can not be flourished. In the developing countries like Nepal the propensity to save is quite low. This hinders the capital formation and which is a major cause of poor economic condition of the developing countries. That's why; the basic problem of the developing countries is raising the level of saving. Now a days in Nepal, several banks such as Development Banks, Joint Venture Banks, Commercial banks, Agricultural Banks, Co-operative Banks and so on are coming into existence in quite a few numbers with the purpose to collect the scattered saving and put them into returnable channels so that the saving will be safely and properly utilized for the all round development of the country.

Banks of Kathmandu Limited and NABIL Bank Limited are the two well-known Joint Venture Banks. These banks undertake significant monetary transactions carried throughout the country. Such as they receive deposits from customers, provide loans to different individuals and commercial enterprises. These banks provide the facility of remittance and other credit activities like taking guarantee on behalf of traders, opening letter of credit and so on. So, it requires large amount of time and energy, as well as it will be tough to know over all function and activities performed by these banks. Consequently, this report tries to show the clear picture of comparative analysis of working capital management of Bank of Kathmandu Limited and NABIL Bank Limited as much as possible.

The acquisition and utilization of money is vital challenge and threats in the modern competitive era. Working capital concerns itself management of flow of liquid money and optimization of cash money. Working capital should trade-offing between the borrowing and lending to exploit the different return benefit. Working capital deals ever

on the monetary risk. The working capital depends on the volatility of current assets and current liability.

Rational managerial finance division is a yardstick of stakeholders benefit for financial returns. Proper or optimal finance division is provides more earns to owner, revenue to government, quality goods to customer and better salary to employee. Sound working capital management is caused to smooth wide & long-run operation of corporation neither this vice versa.

1.2 Origin And Growth Of Bank In Nepal

Though, there is no exact date of beginning the money and banking deal in Nepal. It is said that the region of the king Mandev the coin "Manaka" and during the region of the king Gunakamadev "Gunak" were in use. In the 7th century, the minted coin of Amshuverma and the coin of Vishnu Gupta were in practice. In the beginning of the 8th century, king Gunakamadev renovated the Kathmandu city by taking loans and at the end of the same century, a merchant named Shankhadhar Sakhwa has started the New Year "Nepal Sambat" to mark the event of freeing all the people of Kathmandu from their debts. (*Bhandari*; 2003:7)

In the 11th century, during Malla regime there was an evidence of professional moneylenders and bankers. It is further believed that the money lending business, especially for financing the foreign trade with Tibet, became quite popular during Malla period. However, in the absence of any regulatory measures, the unscrupulous moneylenders were known to have charged exorbitant rates of interest and other extra dues on loans advanced.

During the reign of Prime Minister Ranodeep Singh, an office named "Tejarath Adda" was established at Kathmandu in 1933 B.S. It used to provide loans to the Government

officials and the people, against the deposit of gold and silver. It had also extended its branches outside Kathmandu Valley for giving loans. Even though this office had no right to accept deposit of public and it had no characteristics of modern banks, we can say that in Nepal the institutional banking system had started after this.

The concept of financial institution was introduced in 1957. Later it was converted in Nepal Industrial Development Corporation in 1959 by special charter. Then after, three financial institutions are established in 1992 under the company act 1964. They are NIDC Capital Market Ltd. Nepal Finance and Saving Co. Ltd. and National Finance Co. Ltd. subsequently various financial institutions are established after then.

Banking consciousness is also lacking. The general concept of banking system was introduced in deal with the establishment of Nepal Bank Ltd. in 1994 B.S. (1937 A.D.) under the Nepal Bank Act 1994. Its initial authorized capital was ten million rupees and issued capital was twenty five lakh with paid-up eight lakh forty two thousands. This first commercial bank was established 128 years after the establishment of the first commercial bank in India. Now a day, the trend of establishment of financial and banking sector is rapidly increases. The entire commercial and development bank has been raising all the debt, equity capital and lending them in the productive sector or field. Nepal Rastra Bank was established as a central bank in 14th Baisakh 2013 B.S. under the Nepal Rastra Bank Act 2012 B.S. The economic growth and development of the country is possible only when competitive and efficient banking service reaches every corner of the country. The government established Rastriya Banijya Bank in 2022 B.S. (1965 A.D.) under the Banijya Bank Act 2021, as a fully state owned commercial bank. (*Dahal;* 2002:11).

The first Joint Venture Commercial Bank is Nepal Arab Bank Limited (NABIL), which was established in 2041 B.S. There after Nepal Indosuez bank Ltd (2042 B.S.) Nepal Grind lays Bank (2043 B.S.), Himalayan Bank Ltd. (2049 B.S.), Nepal SBI Bank Ltd.

(2050 B.S.) and other were established as JVB. A JVB is the joining of force between two or more enterprises for the purpose of carrying out a specific operation i.e. industrial/Commercial investment, production or trade. The government of Nepal established different five rural development banks, which are as follows.

- (a) Eastern Rural Development Bank
- (b) Central Rural Development Bank
- (c) Western Rural Development Bank
- (d) Mid-western Rural Development Bank
- (e) Far-western Rural Development Bank

1.3 Joint Venture Banks

If two or more persons make a joint agreement for working for mutual benefit by mutual investment of capital in mutual management, organization and control of business is known as joint venture. When these features followed by each and other is called joint venture bank. Different Joint Venture Bank (JVB) has growth their financial condition in terms of raising and allocation of funds. JVB brought seeds of competition in the banking sector. The banks began to offer their valuable services to the people by the use of advanced technologies. JVB are financial intermediaries, financing deficit unit with money deposited with them by surplus units. The financial system or the banking industry in precise is a complex network embracing payment mechanism and the borrowing and lending of funds. Though they have other important functions, the key role played by these banks in the system is to act as financial intermediaries channeling funds from those with excess income to those wishing to borrow. JVB are formed in Nepal as full-flagged commercial banks under the Economic Act-2021 B.S. and operated under the commercial bank act -2023 B.S.

All the Nepalese Joint Venture Banks are established and operated under the rules, regulation and guidance of Nepal Rastra Bank. Banks opened with foreign joint ventures are NABIL Bank Limited, Standard Chartered Bank Nepal Limited, Himalayan Bank Limited, Nepal SBI Bank Limited, Nepal Bangladesh Bank Limited, Everest Bank Limited and Bank of Kathmandu Limited. In addition to above joint ventures banks, till this date, there are all together 27 commercial banks. Entire JVB enhance their bankable capacity through competition, efficiency, modernization, mechanization via computerization and prompt customer service. That's why, It will be ultimately affected the stakeholders profitability.

1.4 Focus Of The Study

Different types of capital acquisition, mobilization and return achieving is the most important part of the corporation. Until or unless, working capital business organization, corporation, bank, financial institution can not establish or run smoothly. Working capital management is a crucial aspect of financial management of an organization, whether they are trading or manufacturing concerns. It is the life blood and controlling nerve system for any type of business because without the optimum working capital management an organization earns nothing on the current movement. The management of current assets and current liabilities of the business organization is necessary for day to day operations. Thus, it plays vital and key role in the success and failure of an organization.

Financial management generally divided in two parts as one is management of assets (Investment) and liabilities (Sources of financing) in the long term and short term. Working capital is a short term financial management. It conducts with management of current assets and current liabilities of a firm or corporation. We all know, a firm's value cannot be maximized in the long run unless it survives in the short term. Firms fail most often due to deprived or lack working capital management. The working capital should be optimal from the prior benchmark of the capital requirement in the firm. Working

capital deals with the matrix of current assets and current liabilities. The conversion process of current assets that include cash, inventory and account receivables and so on must be quick as possible to get readily available cash within one year to meet current obligations. In a like manner, the current liabilities comprising sundry creditors, account payables, short-term bank loans, outstanding expenses etc. must be paid within in one fiscal year.

Bank is a business organization where monetary transactions occur. It creates funds from its client's saving and lends the same to needy person or business companies in term of loans, advances and investments. So proper financial decision making is more important in banking transactions for its efficiency and profitability. Most of the financial decisions of bank are concerned with current assets and current liabilities. The working capital management of a bank is different from other type of business enterprises. A bank plays a significant role to fulfill the requisite of working capital of any other type of business enterprises. It requires efficient management. Investment in working capital of other business enterprises is a part of current assets of a banks working capital and we can regard as deposits and short term borrowings as a part of current liabilities. So, this study is a favorite regarding the working capital management.

1.5 Statements Of Problems

The individual investor always faced the lack of proper fund management knowledge. They also exploited by the different intermediaries, institutions. Investor's motive, knowledge, past trend of stock market, guess and objectives play the chief role in investing in the common stock. Most people don not know about capital market, shares, bond, debenture and so on just securities. Government, security market, institution, stock broker have not any effective plan, programmed, procedures and policy to instruct and familiar with the stock investment benefit and losses.

The investors attitude, perception, beliefs are responsible to make rational investment decision. Most of the Nepalese organizations are still facing the problem of working capital management due to the unprofessional and irrational human resources. Managers still focus their attention on the procurement aspect of working capital but not on the efficient utilization of funds defined in terms or working capital. The management of working capital is synonymous to the management of short term liquidity. It has been regarded as one of the conditioning factor in the decision making issues. It is no doubt, very difficult to point out as to how much working capital is optimum to an organization. An organization, which is not willing to take financial risk, can go for more short term liquidity. The most of short term liquidity means more of current assets and less of current liabilities. So it is very essential to analyze and find out trouble and solutions to make efficient use of funds for minimizing the risk or losses to achieve any kinds of profit objectives.

There are 27 commercial banks on the till date. Whereas Nepal Bank Ltd. is the oldest on government sectors, Nabil Bank Ltd. is the oldest one among the joint venture commercial banks. These banks are playing importance role in the economic development of the country. Any decision on working capital management of these banks not only affect the liquidity and profitability of the bank but also economic condition of the country. Here, Nabil Bank Ltd. and Bank of Kathmandu have been taken for the analysis of working capital management.

Management of working capital on bank is also very crucial that of manufacturing and non-manufacturing business organization. Commercial banks are great monetary institutions. Which are playing important role to general welfare of the economy of the country? The responsibility of commercial banks is more than any other financial institutions. They must be standing by to pay on demand without warning or notice, a good share of their liabilities. Banks collect funds from different types of deposits, loans and advances. To get higher return, banks must try to increase funds from deposits as

well as invest them in the different returnable portfolio. The first motive of banking business is to borrow public savings and lend them to those who are in needy of funds. But commercial banks always face the problem for efficient and effective utilization of more deposits due to less research and development activities. The gap between collection of deposits and disbursement of loans increase the cash balance on bank, which require paying its large amount of liabilities on its depositors demand without notice. But large amount of idle cash balance also decreases the profitability of the banks. The selected joint venture banks i.e. Bank of Kathmandu and Nabil Bank Ltd. have been competitive so far to other joint venture banks on the account of their performance and profitability as well.

Nepal Rastra Bank eliminates the Nepal Development Bank. That's why, due to poor management of capital, internal management conflict and unused the current market movement trend in the Banks. From the above consideration, the investor, owner and stakeholders how can maintain the benchmark of the prior internal and external value of stock? When and How and investor or owner can achieved the more return from the working capital on the low risk bearing capacity? So, the following major problems are identified which are to be researched now.

- (a) Either Bank of Kathmandu Ltd. or Nabil Bank Ltd. can able to utilize their current assets properly.
- (b) In what extent, current liabilities are problematic in Bank of Kathmandu and Nabil Bank Ltd.
- (c) Is the composition of the working capital of Bank of Kathmandu Ltd. and Nabil Bank Ltd. optimum?
- (d) In which situation are the liquidity positions of both banks?
- (e) How do they know the assets management for BOKL and NABIL?
- (f) There is not certainty of profitability earnings for both banks.

- (g) Maintaining liquidity can earn favorable return. But what are the criteria for evaluation?
- (h) How can define the risk return position of selected commercial banks?

1.6 Research Questions

There are many issues to be deal for the purpose of the study. This research can only focused the comparative study of the working capital of BOK and NABIL Bank Ltd. The research attempt to sort out the answer to the following questions.

- (a) Which current assets are more problematic in Bank of Kathmandu and Nabil Bank Ltd?
- (b) How far have Bank of Kathmandu Ltd. and Nabil Bank Ltd. been able to utilize their current liabilities properly?
- (c) How working capital is being financed by the Bank of Kathmandu Ltd. and Nabil Bank Ltd.?
- (d) What is the condition of liquidity of BOKL and NABIL?
- (e) What are the tools to evaluate the assets management?
- (f) How many earnings or profits earned by the BOKL and NABIL?
- (g) What is the relationship between liquidity and profitability?
- (h) What are the comparative risk positions of selected commercial banks?

1.7 Objectives Of The Study

In the fact of problem faced by Nepalese investors, the main objectives of this study are to assess, analyze the working capital management of Bank of Kathmandu Ltd. and Nabil Bank Ltd. Working capital plays a vital role behind the success or failure of the business firm. The excess or the shortfall of the working capital is harmful for a business. The main objective of this study is to test the working capital management. i.e. The working capital analysis of the Bank of Kathmandu Ltd. and Nabil Bank Ltd. are lies on the basis

of selective financial, statistics tools and techniques. Some major objectives of this study lies as follows.

- (a) To present the current assets composition of Bank of Kathmandu Ltd. and Nabil Bank Ltd.
- (b) To demonstrate the current liabilities composition of BOKL and NABIL.
- (c) To analyze the working capital management between Bank of Kathmandu Ltd. and Nabil Bank Ltd.
- (d) To evaluate the liquidity position, assets utilization positions of Bank of Kathmandu Ltd. and Nabil Bank Ltd.
- (e) To examine the profitability of BOKL & NABIL.
- (f) To analysis the risk position of the BOKL & NABIL.
- (g) To provide suggestions, ideas and materialize recommendation for the working capital investors based on the analysis of data.

1.8 Significance Of The Study

To study, analysis and sensation of the current assets and current liabilities is more importance in investment decision, managerial decision as well as academic students and practitioners. Working capital analysis influences to investor and market price of the stock. Every investor should take the optimum portfolio of the risk and return in short term and long term too.

Public have huge scattered capital but they don't know how to invest? And Where to invest? The JV Company only have the rational capacity and efficiency for collect the ideal capital and then investment these in the more returnable field. The MPS of JV company is greater then the company in the context of Nepal now.

The target of this study is not only fulfillment of the requirement for the degree of M.B.S., T.U. but also provides the some key knowledge and idea to the Nepalese investor in terms of working capital (operating finance) analysis of competitive joint venture bank Bank of Kathmandu and Nabil Bank Ltd. Benefit for the primary and potential investors, security owner and broker, marketing manager and all stakeholders as well as to the "Comparative analysis of Working capital management" researchers.

1.9 Limitation Of The Study

This research only analyzes comparative analyze of Bank of Kathmandu and Nabil Bank Ltd. under the already established analytical tools, techniques and methods. It can not cover the all dimension of the subject matter and resource. This study is conclusion oriented but not decision oriented. Considering the above matter, following are the major limitations of the research.

- a. This research only concern with the Working capital analysis of only Bank of Kathmandu Ltd. and Nabil Bank Ltd.
- b. This study is mainly based on published secondary data.
- c. Secondary data gathered from the related sources has been used. The reliability and transparency depends up on it.
- d. The study covers the data for only a period of six years i.e. from 2060/61 to 2065/66 B.S.
- e. Time and financial constraints are also major limitation of the study.
- f. This study has been conducted to fulfill the requirement of the MBS programs of T.U. for a prescribed time, not for generalization purpose.

1.10 Organization Of The Study

This research has been organized in five chapters. The titles of the chapter are listed below.

Chapter I. Introduction

This chapter is introductory and deals with subject matter of the study including general back ground of the study, Origin and growth of banking in Nepal, Joint Venture banks, Focus of the study, Statement of problem, Objectives of the study, Significance of the study, Limitation of the study and Organization of the study

Chapter II. Review of the Literature

This chapter contains the profound review of available literature e.g. books, journals, articles, thesis etc. Conceptual framework and structure about working capital management briefly reviewed. This can find the relationship, determinants variable, measuring tools, techniques and methods for the research start to end.

Chapter III. Research Methodology

This units presents research methodology used in the study which includes various tools and techniques of data. It consists of research method as library research and field research as introduction, research design, population and sample, sources of data, tools for analysis, methods of presentation of analysis etc.

Chapter IV. Data Presentation and Analysis

This chapter presents and analysis the collected data using the various statistical, financial tools i.e. tables, charts, bar-diagram and trend line etc. will be use accordingly.

Chapter V. Summary, Conclusion and Recommendation

This topic is for summary of main findings, conclusion, recommendation and segmentations for the further important. This chapter contains profound review of available literature, conceptual frame work as bibliography and appendices are incorporated in the end of the study.

CHAPTER: II REVIEW OF LITERATURE

2. Introduction

The second chapter of this thesis throws light on the conceptual framework of commercial bank working capital management. It also provides insight into the findings of earlier studies through the review of books, publications and previous studies related to the working capital management.

2.1 Concept Of Working Capital

The concept evolved from the concept of commerce and bank. Commercial bank is the financial institution that deals in accepting deposits of individuals and institutions, and giving loans against securities. Commercial bank also provides technical and administrative assistance to industries, trades and businesses. There are different types of banks such as Agricultural Bank, Industrial Bank, Central Bank, Commercial Bank and so. This classification is done on the basis of their functions, which they render to their customers with regard to the functions of banks, commercial bank perform their own functions, which are different from the functions performed by the other banks.

Commercial bank serves the followings functions: To accept deposit. To provide loan. To purchase bills/letter of exchange. To transfer money. To serve agency function. To work for foreign currency exchange. To open letter of credit. To helps in issuing capital. (*Cox*; 1988:246)

"In today's context the operating functions of the commercial banks are but not limited to, collection working capital, utilizing the working capital in various purposes, earning profit by utilizing the working capital and distributing a part of the profit as dividend while retaining the other for the expansion o banking transactions." (*Grag*; 1997:127)

Commercial Bank Act, 2031 B.S. of Nepal has defined it as "A Commercial bank is the one which exchanges money, accepts deposits, grants loans and performs the other commercial which exchanges money, accepts deposits, grants loans and performs the other commercial banking functions and which is not a bank meant for co-operative agricultural, industries of for such specific purpose." The commercial Bank Act, 2031 also pointed the functions of commercial banks. Commercial banks provide short term debts necessary of trade and commerce. They take deposits from the public and grant loans in different forms. They purchase and discount bills of exchange, promissory notes, and exchange foreign currency. They discharge various functions on behalf of their customers provided that, they are paid for this services. (Commercial Bank Act: 2031)

(a) Concept of working Capital Management:

Finance is the key organs for any organization, without which the operation of a business concern is not possible. But only the availability of funds is not enough, it requires the proper management of those funds to drive a firm on the road to success. The management of funds of a business can be described as financial management. Financial management is mainly concerned with two aspects. They are fixed assets & liabilities and current assets & liabilities. Fixes assets and fixed liabilities are long term investments and

sources of funds. Current assets and current liabilities means current or the short term uses and sources of funds both of such funds play an important role in financial aspects of a business concern. (Wagle; 2003:320)

To be more precise, the term working capital management is associated with the short term financing and it is concerned with the collection and allocation of resources in the proper manner. Working capital management is the tool by which we can find solutions related to the problems that arise in attempting to manage the current assets, the current liabilities and the appropriate combination of these for the efficient operation of the business activities. (Sapkota; 2004:241)

Working capital refers to the resources of the firm that are sued to conduct operations of day to day activities that make the business successful. Without cash bills can not be paid, without receivables & payables the firm cannot allow the timing difference between delivery of goods and services and collecting the money to pay for them without inventories the firm cannot engage in production and nor can it stock good to provide immediate deliveries. As a result of the critical nature of current assets the management of working capital is one of the most important areas in determining whether a firm will be successful. Working capital are those resources which can be converted into cash within a year and net working capital is defined as the difference between current assets and current liabilities. (Joshi; 2005:220)

The goal of working capital management is to support the ling term operation and financial goals of the business. In effect, this involves recognizing the relationship between risk and return. Three elements must be included in analyzing the trade off between risk and return when managing working capital. The first one is insolvency, which is the condition that occurs when a firm can no longer pay its bills and must default on obligating and possibly declares bankruptcy. A firm without the adequate level of working capital may have to face this risk. (*Rana*; 2006:277)

The second one is profitability of the assets. Different level of current assets will have varied bearings on profits. A high level of inventory will require high carrying cost. At the same time, the firm will have a wide range of goods to sell and may be able to generate higher sales and profit. Each decision on the level of cash, receivables and inventory should consider the effects to different levels. The third one is the cost of financing. When interest rates are high, it costs more to carry inventory that when the rates are low. Large cash balances may not earn the return that is possible if the cash is converted into operating assets. The cost of debt and the opportunity cost of alternative investments are the items to consider when evaluating working capital level. (K.C.; 2007:256)

"There are two concepts of working capital, gross concept and net concept. The gross working capital, simply called as working capital, refers to the firm's investment in current assets. Current assets are the assets, which can be converted into cash within the accounting year (or operating cycle) and include cash, short term securities debtors, bills receivables and stocks. The term net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders, which are expected to mature for payment within an accounting year and include creditors, bills payables, and outstanding expenses. Net working capital can be positive or negative. A positive net working capital will arise when current assets exceed current liabilities and a negative net working capital arise when current liabilities are in excess of current assets." (Pandey; 2008:284)

After going through the above concepts of working capital, we can conclude that adequate working capital is the essential condition for any organization, whether it is private or public, manufacturing or non-manufacturing. When a firm holds excessive working capital, it affects a firm's profitability just because and idle investment yields nothing. Likewise, inadequate investment or working capital affects the liquidity position

of the company and leads to financial crisis and downfall of the company. So, it is very clear that any mismanagement in working capital can hamper the overall efficiency of an organization. (*Pandey*; 2009:176)

2.3 Types Of Working Capital

There are two types of working capitals permanent and variable working capital. These working capitals are necessary for any organization for continuous production and sales without any interruption.

(i) Permanent working capital

Permanent working capital refers to that level of current assets, which is required on continuous basis over the entire year. A manufacturing concern cannot operate regular production and sales functions in the absence of this portion or working capital. That is why a firm holds certain amount of working capital in order to ensure uninterrupted production and sales functions. It is directly related to the firm's expansion of operation capacity. (Van Horne & Wachowicz; 1999:204)

(ii) Variable working capital:

Variable working capital represents that portion of working capital which is required over permanent working capital. If the nature of production and sales of a firm is directly related seasonal variations, it should stock extra raw materials, work in progress and the inventory of finished goods. Hence, this portion of working capital depends on the nature of firm's production relation between labor and management. If a firm has sound management on this portion of working capital, it can easily win over other competitors. (*Pandey*; 1992:808)

2.4 Working Capital Policy

Working capital policy refers to the firm's basic policies regarding target level for each category of current assets and how current assets will be financed. So, in working capital management, a firm has to determine how much funds should be invested in working capital in gross concept. Every firm can adopt different financing policies according to the financial manager's attitude towards the risk-return trade off. Working capital policy refers to the firm's basic policies regarding (i) target levels for each category of current assets and (ii) How current assets will be finances. (Weston & Brigham; 1996:355)

(i) Current assets investment policy:

Current assets investment policy refers to the policy regarding the total amount of current assets to be carried support the given level of sales. There are three alternative current asset investment policies: Fat-Cat, Lean & Mean and Moderate. (Weston & Brigham; 1996:321)

(ii) Fat cat policy:

This is also known as relaxed current assets investment policy, under which relatively large amount of cash, marketable securities and inventories are carried while sales are stimulated by a liberal credit policy which results in a high level of receivables which also creates the longer receivables collection period. Thus this policy provides the lowest expected return on investment with lower risk. (Weston & Brigham; 1993:344)

(iii) Lean and mean policy:

This is also known as restricted current assets investment policy, under which holdings of cash, marketable securities, inventories and receivables are minimized. This policy tends to reduce the receivable conversion cycle. Under it firm follows a tight credit policy and bears the risk of losing sales. (Weston & Brigham; 1996:344)

(iv) Moderate policy:

It is the policy that lies in between the relaxed and restrictive policies, under it; a firm holds the amount of current assets in between the relaxed and restrictive policies. Both the risk & return are moderate in this policy. (Western, Beslay & Brigham; 1996:421)

(v) Current assets financing policy:

Under this policy, permanent & temporary current assets are financed with funds raised from different sources. As cost & risk affect the financing of any assets, it should clearly outline the sources of financing. Aggressive, conservative and matching are the three policies under current assets financing.

(vi) Aggressive policy:

Under aggressive policy, all the fixed assets of the firm are financed with long term capital, yet some of the firm's permanent current assets are financed with short term, non spontaneous sources of fund. In other words, the firm not only finances temporary current assets but also a part of permanent current assets with short term financing. In general, interest rate increased with time, i.e. shorter the time, lower the interest rate. It is because lenders are risk averse and risk generally increases with the length of lending period. Thus under normal circumstances, the firm borrows on a short term financing rather than long term financing. On the other hand, if the firm finances its permanent current assets by short term financing, then it runs the risk of renewing the borrowing again and again.

This future interest expense will fluctuate widely, and it may also be difficult for the firm to raise the funds during the stringent credit policy. In conclusion, there is higher risk, higher return and low liquidity position under this policy. (Weston & Brigham; 1996:348)

(vii) Conservative policy:

Under this policy, the firm uses long term financing not only to finance fixed assets and permanent current assets but also a part of temporary current assets. It means that the firm depends upon the long term sources for financing needs. This policy leads to the high level of current assets, long conversion cycle, low level of current liabilities and higher interest cost. The risk and return are lower than that of aggressive one. The risk adverse management follows this policy. (Weston & Brigham; 1996:351)

(viii) Matching policy:

It is self-liquidity approach, in which the firm finances the permanent current assets with long term financing and temporary current assets with shorn term financing. It means that the firm matches the maturity of financing source with an assets useful life. It lies in between the aggressive and conservative policies. It leads to neither high nor low level of current assets and current liabilities. It lies in between profitability. (Weston & Brigham; 1996:353)

2.5 Determinants Of Working Capital

All the firms, whether public or private, manufacturing or non-manufacturing, must have adequate working capital to survive in competitive market. It should have neither too excess nor too inadequate working capital. But there are no sets of rules or formula to

determine the working capital requirement of a firm. It is because a large number of factors that influence the working capital requirement of a firm. A number of factors affect different firm in different ways. Internal policies and changes in environment also affect the working capital requirement. Generally the following factors affect the working capital requirement of the firm. (*Pandey; 1999:816*)

(i) Nature and size of business:

Working capital requirement depends on the nature & size of the business. Bigger firm requires more working capital while a small needs less working capital. Trading & financial firm require larger amount of working capital to public utilities, while manufacturing concern lies between the two extremes.

(ii) Growth and expansion:

A growing firm needs more working capital than those of static ones. However it is difficult to precisely determine the relationship between the growth & expansion of the firm and working capita requirements.

(iii) Credit policy:

Working capita requirement depends on terms of sales. Different terms may be followed to different customers according to their credit worthiness. If a firm follows the liberal credit policy then it requires more working capita conversely, if it follows the stringent credit policy, it requires less working capital.

(iv) Production policy:

If a firm produces seasonal goods, then it sells its products in a certain month of the year. In such circumstances, it can either confine its production to only that period when goods are sold or follow a steady production policy throughout the year and produce goods at that level to meet the peak demand. The former policy does not need more working capital than the latter does.

(v) Availability of credit:

It is another factor that affects the working capital requirement. If the creditors avail a liberal credit terms then the firm will need less working capital and vice versa. In other words, if the firm can get credit facility easily on favorable conditions, it requires less working capital to run the firm smoothly otherwise more working capital will be required to operate the firm smoothly. (*Pandey; 1999:156*)

(vi) Manufacturing cycle:

Working capital requirement of a firm is also influenced by the manufacturing or production cycle. Production cycle refers to the time involved to make the finished goods from raw materials. During the process of production cycle, the larger will be the working capital requirement and vice versa. (*Khan & Jain; 1990:189*)

(vii) Profit margin:

The level of profit differs from firm to firm. It depends upon the nature and quality of product, marketing management and monopoly power in the market. If a firm deals with the high quality product, has a sound marketing management and has enjoyed monopoly

power in the market then it earns quite high profit and vice versa. Profit is a source of working capital pool by generating more internal funds. (*Rana*; 1997:289)

(viii) Price level change:

Generally a firm is required to maintain the higher amount of working capital if the price level rises as the same level of current assets needs more funds to the increasing price. Hence, the implication of changing price level on working capital position will vary from firm to firm depending on the nature and other relevant consideration of the operation of the concerned firms. (*Sherestha*; 2001:356)

(ix) Operating efficiency:

Operating efficiency also has a big influence on the working capital requirement of the firm. Operating efficiency refers to the efficient utilization of the available resources at minimum cost. Thus, financing manager and contribute to strong working capital position through operating efficiency. If a firm has strong operating efficiency then it needs less amount of working capital otherwise it requires large amount of working capital. (*Pandey*; 1999:817-819)

(x) Level of taxes:

The level of taxes also influences the working capital requirements of the firm. The amount of taxes to be paid in advance is determined by the prevailing tax regulations. Bu the firm's profit is not constant or can't be predetermined. Tax liability in a sense of short term liquidity is payable in cash. Thus, the provision for tax amount is one of the

important aspects of working capital planning. If tax liability increases, it needs to increase the working capita and vice versa.

2.6 Need For Working Capital

Working capital is the lifeblood and controlling nerve center of every business organization or corporation as without the proper control upon working capital no business organization can operate smoothly. Therefore, it plays a crucial role in the success & failure of the organization. The need for working capital to run the day to day business activities cannot be overemphasized. We can hardly find a business firm which does not require any amount of working capital. Indeed, firms differ in their requirements of the working capital. As we know that business firms aim at maximizing the wealth of shareholders. In its endeavor to do so, a firm should earn sufficient return from its operation. The extent to which profit can be earned naturally depends upon the magnitude of sales among other this. For the constant operation of business, every firm needs to hold the working capital components such as cash, receivables, inventory etc. Hence, every firm needs working capital to meet the following motives: (*Pandey; 1999:809*)

(i) Transaction motive:

Transaction motive require a firm to hold cash & inventories to facilitate smooth production and sales operations regularly. Thus, the firm needs working capital to meet the transaction motive.

(ii) Precautionary motive:

Precautionary motive is the need to hold cash & inventories to guard against the risk of unforeseen & unpredictable change in demand & supply force and other factors such as strike, failure of important customers, unexpected slowdown in collection of account receivables, cancellation of some other order for goods and some other unexpected emergencies, Therefore, the firm needs the working capital to meet contingencies in the future. (*Paudel*; 2004:365)

(iii) Speculative motive

It refers to the desire of a firm to exploit opportunities as an opportunity of purchasing raw material at reduced price on immediate payment, making investment on lucrative field, to speculate on interest rates, to make purchase at favorable price and the like. Hence, the firm needs the working capital to meet the speculative motive. (Van Horne & Waschowicz; 1999:220)

2.7 Financing Of Working Capital

Every manufacturing concern or industry requires additional assets whether they are in stable or growing state. When the growing firm wants to generate sustained profit, it normally requires fixed as well as working capital. Additional portion of the working capi9tal is approximately dominated by the same rate of sales. However, this portion of capital requirement depends upon the nature of the firm. So, the most important function of a finance manager is to determine the level of working capital and to decide how it is to be financed. Financing of any asset is concerned with two major factors cost and risk. Therefore, the financial manager must determine an appropriate financing mix decide how current liabilities should be used to finance current assets. However, a number of financing mixes are available to the finance manager. He or She can present generally three kinds of financing:

(i) Long term financing:

Long term financing has high liquidity and low profitability. Ordinary share, debenture, preference share, retained earnings and long term debts are the major sources of long term financing.

(ii) Short term financing:

Business firm must arrange short term credit in advance. The sources of short term financing or working capital are trade credit and bank credit.

♦ Trade credit:

It refers to the credit that a customer gets from supplies of goods in the normal course of business. The buying firms does not have to pay cash immediately for the purchase, is trade credit. It is mostly an informal arrangement and granted on an open account basis. Another for of trade credit is bills payable. It depends upon the term of trade credit. (*Sharma*; 2005:387)

♦ Bank credit:

Bank credit is a primary institutional source for working capital financing. For the purpose of bank credit, amount of working capital requirement has to be estimated by the borrowers and banks are approached with the necessary supporting data. Bank determines the maximum credit based on the margin requirements of the security. The following types of loan are provided by commercial banks. (*Sharma*; 2005:388)

♦ Loan arrangement:

Under this arrangement the entire amount of loan is given credit by the bank to the borrowers account, and the loan is repaid in installments and the interest is payable on actual outstanding balance. (Sharma; 2005:389)

♦ Overdraft arrangement:

Under this arrangement the borrower is allowed to over draw on their current account with the bank up to the stipulated limit. Within this limit, any numbers of drawing are permitted and repayment should be made in short period.

♦ Commercial papers:

It is used only by well established high quality business houses. The evidence of debts is an unsecured short term promissory note sold in the money market. It sold either through dealers or directly to investors. Besides the above form of credit, bank provides loan against the warehouse receipt, inventory receivables. In our context, most poplar sources of short term financing are short term loan from public deposit, which is also a major source of working capital financing. (Sharma; 2005:391)

(iii) Spontaneous financing:

Spontaneous financing arises from the normal operation of the firm. The two major sources of such financing are trade credit and accruals. Whether trade credit is free of cost or not actually depends on the term of trade credit. Finance manager of the firm would like to finance its working capital with spontaneous sources as much as possible. In practical aspect, the real choice of current assets financing is either short term of long term sources. Thus, the finance manager concentrates his/her power in short term versus long term financing. Hence, the financing of working capital depends on the working

capital policy, which is perfectly dominated by the management's attitude towards the risk & return. (Pandey; 1999:827)

2.8 Review Of Journals/Articles

This part is mainly focused on the review of journals & articles published by various management experts in working capital management.

(a) Sherestha (2006) in his study, "Working capital Management in Public Enterprises" stated that manager often lacked basic knowledge of working capital and its overall impact on the operative efficiency and financial viability of public enterprises. The study was based on sample of ten public enterprises namely Birgunj Sugar Factory, Janakpur Cigarette Factory, Raghupati Jute Mills, Dairy Development Corporation, National Trading Ltd., Royal Drugs Ltd., National Construction Company of Nepal, Harisiddhi Brick and Tile Factory, Nepal Cheerul Ghee Industry Ltd and Chandeshowri Textile factory Ltd. The study had pointed at certain policy flows such as deficient financial planning, neglect of working capital management, deviation between liquidity and turnover etc. He had suggested some measures for their effective operation and efficient result. The problem could be sorted out through identification of needed funds, development of proper management information system determination of sound combination of short term and long term sources to finance working capital requirements.

The study was based on ration analysis. He had selected different types and nature of PEs. That is why with lower turnover, had higher liquidity position. The author should have selected similar nature of PEs or analysis should have been made separately. He had taken only single year data for the study. But to find the real situation of PEs, it should be more than five years.

- (b) Pradhan and Koirala (2007) jointly prepared a research study, "Aspect of Working Capital Management in Nepalese Corporations" during 02/03 to 06/07. Among the eleven public corporations, five were manufacturing and six were non-manufacturing. The problem dealt in the study was size if investment in current assets management. It also dealt with the motive for holding cash and inventory and the major factors affecting the size of investment. In the study report, they concluded that investment in current assets had declined over the period of time in both type of corporations. However, the Nepalese PEs had consistently more investment in cash and receivables as compared to nonmanufacturing corporations due to more liberal and less consistent credit policies. Inventory management was of great significance to manufacturing corporations and the management of cash and receivables was of great significance to non-manufacturing corporations. The major motive for holding cash in Nepalese corporations was to provide a reserve for routine net outflows of cash and that for holding inventories was to facilitate smooth operation of production and sales. They also found that working capital was more difficult to manage than fixed capital. Furthermore, the inventory in manufacturing corporations and cash & receivables in non-manufacturing corporations were more problematic to manage. With reference to the above problems and findings they recommended the need to control investment in working capital as a whole for manufacturing corporations, as the average proportion of a working capital to sales increased over time. Since manufacturing and non-manufacturing corporations had been trying to control investment in receivables, the focus of the attention should be derived to control the investment in cash and inventory whereas, manufacturing corporations should pay attention to control the investment in inventory.
- (c) Acharya (2008) in his article, "The Management of Working Capital in the PEs of Nepal" had described the two major problems, operational and organizational problems regarding the working capital management in Nepalese PEs. The operational problems he found, listed in the first part were increase of current liabilities than current assets, not maintain current ratio 2:1 and slow turnover of inventory. Similarly, the change in

working capital in relation to fixed capital had very low impacts over the profitability, thin transmutation of capital employed to sales, absence of apathetic management information system break even analysis, funds flow analysis and ratio analysis were either undone or ineffective for performance evaluation. Finally, monitoring of the proper functioning of working capital management had never been considered a managerial job.

In the second part he had listed the organizational problems in the PEs. In most of the PEs there was lack of regular internal and external audit system as well as evaluation of financial result. Similarly, very few PEs had been able to present their capital requirement, in addition functioning of finance department was not satisfactory and some PEs was even facing the problem of capacity underutilization.

To make an efficient use of funds for minimizing the risk of loss to attain profit objectives, he had made some suggestions. The PEs should avoid the system of crisis decision which prevailed frequently in their operation, avoid fictitious holding of assets, the finance staff should be acquainted with the modern scientific tools used for the presentation and analysis of data and lastly, he had suggested optimizing the level of investment at a point of time. Neither over nor under investment in working capital be desired by the management of an enterprise because both of these situations will erode the efficiency of the concern.

(d) **Pradhan** (2009) in his article, "The Demand of Working Capital by Nepalese Corporations," selected nine manufacturing public corporations for the analysis with 12 data from 1998 to 2009. Regression equation had been adopted for the analysis. From his study, he concluded that:

Earlier studies concerning the demand for cash and inventories by business firms did not report unanimous findings. A lot of controversies exist with respect to the presence of economies of scale, role of capital cost, capacity utilization rates, and the speed with which actual cash and inventories are adjusted to describe cash and inventories respectively. The pooled regression results strongly suggested that the demand for working capital and its components is a function of both sales and their capital cost. The estimated results revealed that the inclusion of capacity utilization variable in the model seemed to have contributed to the demand functions of cash and net working capital only. The effect of capacity utilization on the demand for inventories, receivables and gross working capital was doubtful.

- (e) Yogi (2010) in his article, "The conceptual setting sources of working capital", the study has pointed that there is deficient financial planning, neglect of working capital management, deviation between liquidity and turn over etc. In this analysis he found that 4 PEs had maintained adequate liquidity position; two PEs had excess and remaining four PEs had failed to maintain desirable liquidity position. Out of ten PEs six PEs were operating at losses and only four were getting some percentage of profit. The problem can be sorted out through identification of needed funds, development of management information system, determination of sound combination of short-term and long-term sources to finance working capital requirements.
- (f) Tamrakar (2010) in his article, "Study of working capital optimization" She has carried out a study of working capital optimization of National Trading Ltd. (NTL). This study she has covered the span of six years (2004/05 to 2009/10). The objectives of the study were to analyze the importance of proper management of working capital and to show the relation between different components of current assets and current liabilities. She has used financial ratio as major tools in her study. She found very low inventory turnover and high collection period of outstanding debt. Further, She found improper financing of current assets and low earning capacity. In this study, She has drawn the conclusion that the WC management of NTL, in general, is poor.

2.9 Review Of Previous Thesis

In this section, an attempt has been made to review the studies on Working Capital Management done by MBA and MBS students of Tribhuvan University.

- (a) Joshi (1986) has carried our a research work on the topic "A study on working Capital Management of Biratnagar Jute Mills Ltd." The main objectives of the study was to show the composition of working capital and the relationship between working capital and working capital components. To fulfill these objectives, he has taken a five years study period (2036/37 to 2040/41) and secondary data with opinion survey method and limited to gross concept of working capital. The study has embodied various financial rations for measuring Biratnager Jute Mill's financial viability. He found out that inventory, cash & bank balance and receivables are the components of working capital. The major portion of current assets has been occupied by inventory and cash which have not been efficiently management. The company has relied heavily on bank support for meeting additional funds without making the best utilization of realized funds, receivable turnover was in favorable condition and collection period was also favorable which means the company can change in cash in very short period. The major findings of the study were:
 - ◆ Inventory held major share of current assets followed by debtors with negligible cash balance.
 - ◆ The company held poor liquidity position and was financed by short term sources.
 - The company had not earned sufficient profit even to pay the interest on short term loans.
- (b) Shrestha (1989) has carried out a study on the topic "Comparative Study of Working Capital Management in Bhaktapur Brick Factory (BBF) and Harishiddhi Brick Factory (HBF)". The objectives of the study were to comparatively asses the management of

working capital and to analyze the financial performance. He has focused on the components or working capital: cash, inventory, receivables and current liabilities. He has used financial ratios as a major tool of analysis. In addition to this, he has used 'mean, index, standard deviation and coefficient of variation'. The findings of the study were as follows:

The liquidity and profitability of two brick factories followed various working capital policies at both factories did not have proper planning of working capital. BF had generated positive return while BBF had seriously suffered from negative return. However both had no satisfactory profitability position. Overall management of working capital was not strong in both brick factories.

(c) Amatya (1993), Carried out a research on the topic "An Appraisal of Financial Position of Nepal Bank Limited". The objectives of the study were to examine, analyze and to interpret the financial position of the bank. The main findings of the study are as follows:

Both the bank have the uniform policy to finance current assets and current liabilities. The bank was successful in deposit collection. Although the reserve of the bank was increasing gradually. The reserve played a nominal role in credit expansion control. The major portion of investment of the bank was in government's securities. And the volume of transaction was high in all respects but the bank did not show higher ration of profit, rather it showed a decreasing trend of profit.

(d) Shrestha (1998), has carried out a research work on working capital management of Bhrikuti Paper Mills Ltd. on his study entitles, "A study on Working Capital Management of Bhrikuti Paper Mills Ltd." He has analyzed the financial statement of the Limited for five years (2044/45 to 2048/49). The objectives of the study were to analyze the current assets and current liabilities and impact of current assets on current liability.

He has used ration analysis as a major tool of the study. In the study he fined that cash and bank balance, inventories and receivables were the major components of current assets. Cash and bank balance had held the largest part of current assets. He found the increasing trend in liquidity and decreasing trend in current assets turnover. Finally, he has concluded that the discouraging profitability was caused by the low return on total investment of the Limited.

- (e) Giri (2003), in his study entitled "A study on Working Capital Management in Birgunj Sugar Factory Ltd." has analyzed the financial statements of the factory for ten years (2041/42 through 2050/51). The objectives of the study were to analyze the net working capital and relationship between current assets and liabilities, effect of working capital on profitability and other operations. He has used financial ratios as the major tool of his study. He found that inventories, receivables, cash and bank balance were the major share of current assets. Inventory had held the major portion of current assets. He found the fluctuating trend in current assets and their improper use. Moreover, He found the unsatisfactory profitability position of the factory.
- (f) Poudel (2005), in his thesis entitled "A Comparative Analysis of Financial Performance between NBL and NGBL", has drawn some major findings. The main objective of his study was to comparatively analyze the financial activities of the banks. He found that although the liquidity position of NBL was better than NGBL, on the whole the current assets of these banks were adequate to meet the current liabilities. NGBL had better credit position than NBL in terms of short term investment. NBL had better turnover and was highly leveraged than NGBL. Joint venture banks such as NGBL was fast growing and the overall profitability were higher shares, government owned commercial banks such as NBL had higher expenditure and the profit making capacity was lower and gradually decreasing.

(g) K.C. (2006), in his thesis entitled "Comparative Study of Working Capital Management of NBL and Nabil Ltd." aims to examine the management of working capital in NBL and Nabil. The specific objectives were taken in his study were: To study the current assets and current liabilities, To analyze the comparative study of working capital management of NBL and Jabil.

His study had mentioned the following findings:

The average cash and bank balance and loans and advances were higher on Nabil than NBL. Management of loans and advances was more problematic in NBL than Nabil. Interest income Of NBL was better than Nabil. Liquidity management policies of these two banks were significantly different. Due to more conservative working capital policy risk of insolvency was lesser, though the cost of fund was higher on NBL than Nabil. Profitability position of Nabil is far better although, NBL earned higher interest than Nabil.

(h) Lamsal (2009) has carried out a research work on the topic, "A Comparative Study of Working Capital Management of NABIL and Standard Chartered Bank Limited". The prime objective of his study was to comparatively asses the management of working capital of the concerned banks .He found that average cash and bank balance and government securities percentage were higher in Standard Chartered than Nabil but loans and advances percentage was higher in Nabil Bank. Standard Chartered had less costly source of funds. So, Nabil had higher interest income. Liquidity position of Standard Chartered (except in current ratio) was better than Nabil Bank. Due to conservative working capital policy risk of insolvency was lesser but the cost of fund was higher in Nabil than in Standard Chartered. Profitability position of Standard Chartered was better although Nabil earned higher interest than Standard Chartered.

- (i) Paudyal (2010) in his study entitled, "A Study of the Working Capital Management of Bhirkuti Pulp Paper Nepal Ltd." He studied five years fiscal year data. The sole objective of this study was to study the relationship of sales & different variables of in profitability. Finally, he got to the conclusion, if all the receivables cycles faster then short payable cycle's increases the liquidity & the investing liquid amount in short gaining opportunity increases the profit too.
- (j) Sharma (2010) has carried out a research work on the topic, "A Study on Working Capital Management of Selected Manufacturing Companies Listed in Nepal." The main objective of her study was to analyze the relationship between working capital variables. She found that the higher investment in cash means higher idle fund in the company & the lowest investment in cash means unable to meet its operating financial benefits & operating liabilities on time.

CHAPTER: III RESEARCH METHODOLOGY

3.1 Introduction

This is the third chapter of the thesis, named as Research Methodology. Research methodology is the way to solve the research problems systematically. The research methodology considers the logic behind the methods used in the context of research study and explains why particular method of technique is used. It also highlights about how the research problem has been defined, what data have been collected, what particular method has been adopted, why the hypothesis has been formulated etc. (*Joshi*; 2002:19)

This chapter describes the methodology employed in the study. It consists of research design, population and sample study, sources of data, data processing procedure and technique of analysis of data. This study is more analytical and empirical. It covers quantitative methodology using financial and statistical tools. The study is mainly based on secondary data gathered from respective annual reports of concerned banks, especially from profit and los account, balance sheet and other publications published by the bank.

3.2 Research Design

Research design is a plan structure and strategy of investigation conceived so as to obtain answer to research questions and to control variances. The study aims to portraying accurately up on the working capital and its impact on overall financial position of the two banks taken for the study. The research design followed for the study is basically descriptive and analytical research methodology.

3.3 Population And Sample

In Nepal, there are 27 commercial banks in existence till the date. Among them few are government owned banks, few are joint venture banks and the others are private banks. To carry out the study, Bank of Kathmandu Ltd. and Nabil Bank Ltd. have been taken as a sample for the study. Financial statements of six years from 2060/61 to 2065/66 B.S. have been taken as sample data.

3.4 Sources Of Data

To prepare this thesis, secondary data collection method has been applied. The data relating to financial performance are directly obtained from concerned banks, and other information are obtained from unpublished official records of concerned banks, booklets, journals, bank's official website, related publications of performance and other organization like Nepal Rastra Bank.

3.5 Data Processing Procedure

Data are analyzed by using simple methods so that it would be easy to understand. The obtained data are presented in various tables, diagrams and charts that will definitely help to reach towards meaningful and fruitful interpretations of the presented data. For convenience, the calculations that cannot be shown in the body part of the report are presented in the appendices section.

3.6 Tools And Techniques Of Analysis

Various tools and techniques are used for the analysis of numerical data. For this study, financial and statistical tools have been used.

(A) Financial Tools:

In this research study various financial tools are employed for the analysis. There are various financial ratios but in this study some selected ratios among them have been used.

(a) Ratio Analysis:

Ratio analysis is used as an index of yardstick for evaluating the financial position and performance of the firm. It is a technique of analysis and interpretation of financial statements. It helps in making decisions as it helps establishing relationship between various ratios and interprets theorem. It helps to make quantitative judgment about the financial position and performance of the firm. Liquidity, turnover, capital structure and profitability ratios are calculated under presentation and data analysis chapter.

(I) Liquidity Ratio:

One of the main objectives of working capital management is keeping sound liquidity position. Cash is a main liquid asset and other assets which can be easily converted into cash are also called near cash or liquid assets. So managing or maintaining liquid assets is termed as liquidity. In banking sector liquidity is very essential for smooth & continuous operation of day to day activities. Thus liquidity is concerned with maintaining adequate liquid assets. The followings are the liquidity ratios:-

(i) Current Ratio:

It is a test of liquidity. It measures short-term debt paying ability of the firm. In other words, it measures the availability of current assets for meeting current liabilities. This ratio is also called working capital ratio. It is calculate by dividing current assets by

current liabilities. It indicated the current short term solvency position of the bank. Higher current ratio indicated better liquidity position. In other words, current ratio represents a margin of safety, i.e. a 'caution' of protection for creditors. Hence, higher the current ratio, greater the margin of safety and larger the amount of current assets in relation to current liabilities, more the bank's ability to meet current obligations. Generally, the standard of 2:1 of current ratio is the optimum to the banks.

Current Ratio (C.R.) = Current Assets (C.A.) / Current Liabilities (C.L.)

(ii) Quick Ratio or Acid Test Ratio or Liquid Ratio:

It measures the short term liquidity of the firm but it emphasized the instant debt paying capacity of the firm. Liquidity refers to the ability of the concern to meet its current obligations as and when these become due. The short term obligations are met by realizing amount from current assets. The quick assets include current assets less stock and prepaid expenses. Quick ratio, also called acid test ratio is calculated by dividing quick assets by current liabilities. The quick ratio should be on the standard of 1:1 i.e. Quick assets neither greater nor less with the current liabilities.

(II) Activity Ratio/Turnover Ratio:

Activity ratios are intended to measure the effectiveness regarding the employment of the resources in a business concern. These ratios reveal whether the funds employed have been used effectively in the business activities or not. The followings are the ratios employed to analyze the activeness of the concerned joint ventures.

(i) Loans and Advances to Total Deposit Ratio:

This ratio assesses, to what extent the bank is able to utilize the depositor's funds to earn profit by providing loans and advances. It is computed by dividing the total amount of loans and advances by total deposit funds. The ratio is computed as:

Loans and advances to total deposit ratio = Loans and Advances/Total Deposits

High ratio is the symptom of higher or proper utilization of funds whereas low ratio is the signal of underutilized or idle funds.

(III) Capital Structure or Leverage Ratio:

To judge the long term financial position of the firm, the leverage ratio is calculated. Leverage refers to the ratio of debt to equity is the capital structure of the firm. Debt and equity are long term obligations and the remaining parts in the liability side of the balance sheet are termed as short term obligations. Both types of obligations are required in the formation of the capital structure of the firm. The appropriate mix of all types of securities in the capital structure brings about sound position of the firm. Therefore, a firm should have strong short term liquidity as well as long term financial position. The long term financial position of the firm is determined by the leverage or capital structure. The different leverage ratios are computer to measure the financial risk or the proportion of outsiders fund and owner's capital. The relevant leverage ratios are discussed below.

(i) Long term Debt to Net worth Ratio:

Long term debt refers to the amount of fixed deposits and loan of the banks. The ratio measures the proportion of outsiders and owner's fund employed in the capitalization of banks. It is calculated by dividing the fixed obligations of the banks by owner's claim as:

Long term Debt to Net worth Ratio = Long term Debt/Net worth

(ii) Net Fixed Assets to Long term Debt Ratio:

Net fixed assets are applied to both physical and financial assets. This ratio is calculated to find out how many times net fixed assets are compared to the fixed liabilities. It is calculated as:

Net Fixed Assets to Long term Debt Ratio = Net Fixed Assets/Long term Debt

(IV) Profitability Ratio:

This ratio shows the overall efficiency of the business concern. The relation of the return of the firm to either of its sales or equity or assets is known as profitability ratio. It is related to the profit of the business. Profit is essential for the survival of the business, so it is regarded as the engine that drives the business and indicated the economic progress. Different profitability ratios are required to support the purpose of the study. So, the various ratios have been developed as mentioned below:

(i) Interest Earned to Total Assets Ratio:

It is the ratio that has been calculated to find out the percentage of interest earned to total assets. It is derived by dividing the amount of interest earned by the total assets of the firm as:

Interest Earned to Total Assets Ratio = Interest Earned/Total Assets

(ii) Net Profit to Total Assets Ratio:

This ratio is very much crucial for measuring profitability of funds invested in the bank's assets. It measured the return on assets. It is computed by dividing the net profit after tax by total assets. The formula used for computing this ratio is as:

Net Profit to Total Assets Ratio = Net Profit after tax/Total Assets

(iii) Net Profit to Total Deposit Ratio:

This ratio used for measuring the internal rate of return from deposits. It is computed by dividing the net profit by total deposits as:

Net Profit to Total Deposit Ratio = Net Profit/Total Deposit

Higher ratio indicated the return from investment on loans and advances are desirable whereas lower ratio indicated the funds have not been properly mobilized.

(B) Statistical Tools:

In this study some statistical tools have been used for the analysis of data more accurately. The tools used are as follows:

(a) Mean:

The means value is a single value within the range of the data that is used to present all the values in the series. Since it is somewhere within the range of data, it is also called a measure of central value. It is obtained by adding together all the terms and dividing this total by the number of items. If X_1 , X_2 , X_3 ,... X_n are the given n observations, then their mean, usually denoted by X is given by,

$$\overline{\mathbf{X}} = \mathbf{X}/\mathbf{n}$$

(b) Standard Deviation:

Standard deviation is defined as the positive square root of the arithmetic mean of the squares of the deviations of the given observations from their arithmetic mean. Thus if $X_1, X_2, X_3, ... X_n$ is a set of n observations then its standard deviation denoted by '' is given by,

$$= \overline{1/n} (X-\overline{X})^2$$

(c) Correlation Analysis:

Correlation is the statistical tool that is used to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship between two sets of figures. If two quantities vary in a relative manner so that a movement, an increase or decrease in one variable tend to accompanied by a movement in the same or opposite direction in the other, they are correlated. If the relationship is direct then they are positively correlated whereas inverse relationship point towards negative correlation. If any change none variable does not have any bearing on the other, they are uncorrelated. The correlation may be perfect, imperfect or zero. Among the various methods of finding out coefficient, Karl Pearson's method is applied in the study. The result of coefficient of correlation, "r" is always between +1 and -1. When it is +1 there will be perfect relationship between two variables and vice versa. When it is zero, there will be no relationship between two variables.

(d) Co-efficient of Variation:

The relative measure of dispersion based on standard deviation is called coefficient of standard deviation and is given by,

Coefficient of standard deviation = \sqrt{X}

This is a pure number independent of the units of measurement and thus, is suitable for comparing the variability, homogeneity or uniformity of two or more distributions. Hundred times the coefficient of dispersion based on standard deviation is called the coefficient of variation, abbreviated as **C.V.** Thus,

Coefficient of variation (C.V.) = $100 \text{ x} / \overline{\text{X}}$

For comparing the variability of two distributions we compute the coefficient of variation for each distribution. A distribution with smaller C.V. is said to be more homogeneous of uniform or less variable than the other and the distribution with greater C.V. is said to be more heterogeneous or more variable than the other.

(e) Trend Analysis:

The tools used to show increase or decrease in variables over a period of time is known as trend analysis. Wit the help of trend analysis the tendency of variables over the period can be seen clearly.

(a) Karl Person's Coefficient Correlation:

Out of several mathematical method of measuring correlation, the Karl Person Population popularity known as Pearson's coefficient of correlation is widely used in practice to measure the degree of relationship between two variables. Two variables are said to have correlation when the value of one variable is accompanied by the change in the value of the other. So, it can measure by following formula using two variables. (*Bajracharya*, 2056:250)

$$r = \frac{N \Sigma XY - \Sigma X \times \Sigma Y}{\sqrt{N\Sigma X^2 (\Sigma x)^2} \sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

r = Coefficient of correlation

 $\Sigma XY = Sum of product of deviation in two series$

 ΣX^2 = Sum of squared deviation in X series

 ΣY^2 = Sum of squared deviation in Y series

The value of this coefficient can never be more than +1 or less than -1 are the limit of this coefficient. The r = +1 implies that correlation between variables is positive and vice versa. And zero denoted no correlation.

(h) Coefficient of Correlation Probable Error (PE):

Probable error of the correlation coefficient by PE is the measure of testing the reliability of the calculated value of correlation. If r be the calculated value of correlation as sample of n pair of observations. Then PE is defined by:

P.Er. =
$$\frac{1-r^2}{\sqrt{n}}$$

If correlation (r) < PE, It is insignificant. So perhaps there is no evidence of correlation. If correlation (r) > PE, It is significant. (*Bajracharya*, 2056:250)

CHAPTER: IV PRESENTATION AND DATA ANALYSIS

4.1 Introduction

This chapter attempts to serve the purpose by analyzing collected data and is the heart of the entire report. After the collection of data, an analysis of the data and the interpretation of the results are necessary. Analysis of data comes prior to the interpretation. The facts and figures collected are to be processed with a view of reducing them to manageable proportions. Only be such a careful and systematic processing, the data collected will

lend itself for statistical treatment and meaningful interpretations. The relevant data and information of working capital as well as financial performance of Bank of Kathmandu Limited and Nabil Bank Limited are presented, tabulated, compared and analyzed accordingly. To reach toward accurate interpretation, this study analyzes the composition of current assets, different ratios such as liquidity, leverage and profitability and correlation analysis.

4.2 Composition Of Current Assets

Business needs different types of assets to operate its activities. Some assets are needed for the long term fulfillment of the business activities while others are needed to carry out the day to day operation of the business. The assets that are used to carry out day to day operation of the business are known as current assets. The composition of current assets of the Bank of Kathmandu Limited and Nabil Bank Limited are cash and bank balance, money at call and short notice, loans, advances and bills purchased investments and other current assets. The following table shows the composition of current assets of Bank of Kathmandu Ltd, and Nabil Bank Ltd, from 2060/61 to 065/66.

Table No. 4.1 (a)
Composition of Current Assets of BOKL
(Rs. in Million i.e. 000.000)

		Money at		Loans,	Other	
Fiscal	Cash &	Call &	Investments	advances &	Current	Total
Year	Bank	Short		Bills	Assets	Current
	Balance	notice		Purchased		Assets
2060/61	782.88	272.32	2477.41	5646.70	233.41	9412.72
2061/62	740.52	328.87	2598.25	5912.58	181.67	9761.89
2062/63	728.70	594.05	3374.71	7259.08	211.04	12167.58
2063/64	1315.90	259.27	2992.43	9399.32	289.97	14256.89
2064/65	1440.46	72.68	3204.06	12462.63	154.34	17334.17

2065/66	2182.11	243.35	2783.59	14647.29	222.60	20078.94

Sources: Appendix 1(a)

Table No. 4.1 (b)
Composition of Current Assets of NABIL
(Rs. in Million i.e. 000,000)

		Money at		Loans,	Other	
Fiscal	Cash &	Call &	Investments	advances &	Current	Total
Year	Bank	Short		Bills	Assets	Current
	Balance	notice		Purchased		Assets
2060/61	970.49	918.73	5835.95	8189.99	492.20	16407.36
2061/62	559.38	868.43	4267.23	10586.17	543.88	16825.09
2062/63	630.24	1734.90	6178.53	12922.54	544.67	22010.88
2063/64	1399.82	563.53	8945.31	15545.78	512.05	26966.49
2064/65	2671.14	1952.36	9939.77	21365.05	606.39	36534.71
2065/66	3372.51	552.89	10826.38	27589.93	864.69	43206.40

Sources: Appendix 1(b)

The above tables show the fluctuation in the components of current asset of BOKL and NABIL during the study period of 2060/61 to 2065/66. NABIL has overall more investment in the current assets than that of BOKL during the study period. Loans, advances & bills purchased hold the major share in the composition of current assets for the both banks. Other current assets of BOK at least on at 2060/61 to 2062/63 & 2064/65. Money at call in short notice of BOKL also holds the least share in the year 2063/64 to 2064/65 B.S. Similarly, other current assets of the NABIL for the year 2060/61 to 2064/65 hold the least share and money at call & short notice share few on the year 2065/66.

To be more precise about the proportion of each item of current assets, percentage of each item of current assets to total current assets has been taken shown in the following table and graphs:

Table No. 4.2(a)

Percentage Composition of Current Assets of BOKL

		Money at		Loans,	Other	
Fiscal	Cash &	Call &	Investments	advances &	Current	Total
Year	Bank	Short		Bills	Assets	Current
	Balance	notice		Purchased		Assets
2060/61	8.32	2.89	26.32	59.99	2.48	100.00
2061/62	7.59	3.37	26.62	60.56	1.86	100.00
2062/63	5.99	4.88	27.74	59.66	1.73	100.00
2063/64	9.23	1.82	20.99	65.93	2.03	100.00
2064/65	8.31	0.42	18.48	71.90	0.89	100.00
2065/66	10.87	1.21	13.86	72.95	1.11	100.00
Average	8.39	2.43	22.33	65.16	1.69	100.00

Sources: Appendix 1(a)

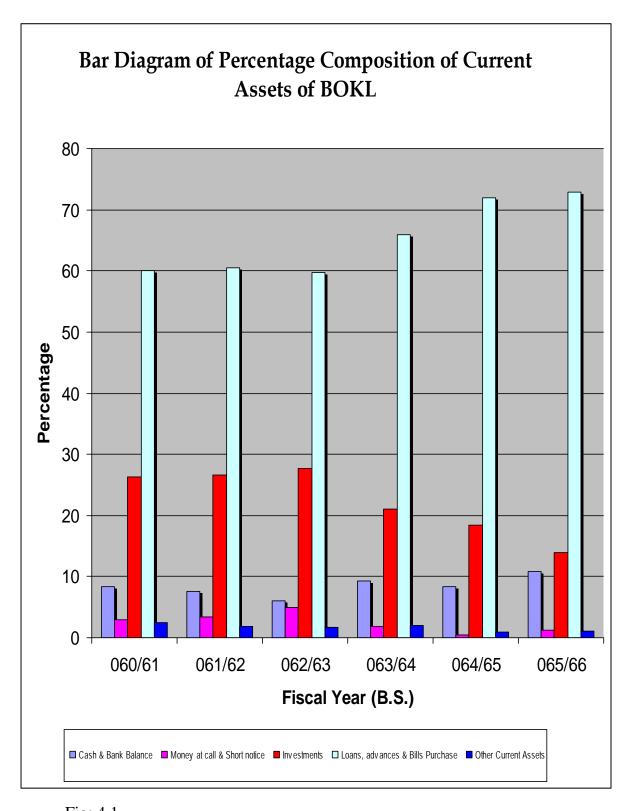


Fig: 4.1 **Table No. 4.2(b)**

Percentage Composition of Current Assets of NABIL

		Money at		Loans,	Other	
Fiscal	Cash &	Call &	Investments	advances &	Current	Total
Year	Bank	Short		Bills	Assets	Current
	Balance	notice		Purchased		Assets
2060/61	5.91	5.60	35.57	49.92	3.00	100.00
2061/62	3.32	5.16	25.37	62.92	3.23	100.00
2062/63	2.86	7.89	28.07	58.71	2.47	100.00
2063/64	5.19	2.09	33.18	57.65	1.89	100.00
2064/65	7.31	5.34	27.21	58.48	1.66	100.00
2065/66	7.80	1.28	25.06	63.86	2.00	100.00
Average	5.40	4.56	29.07	58.59	2.38	100.00

Sources: Appendix 1(b)

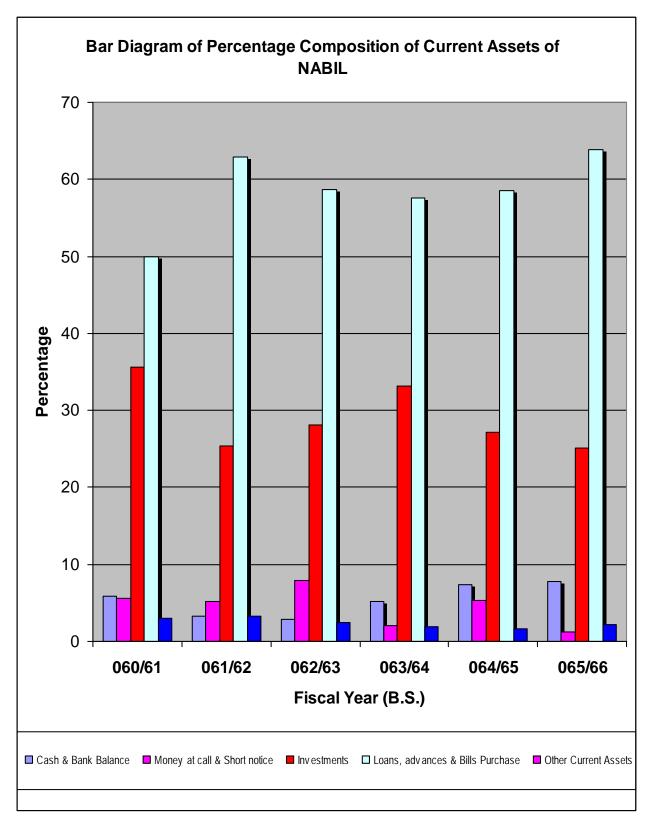


Fig: 4.2

The above tables and graphs represent that the Loans, advances & Bills Purchased in the major building block of current assets of the both banks which plays a vital role in the working capital management of these companies. Investment then comes after loans, advances & bill purchased as is important part of current assets. This investment represents the banks, investment in government securities. Money at call, cash & bank balance and other current assets are the outstanding elements which have modest share in the total current assets have their own characters on the day to day operation of the banks.

4.2 (i) Cash and Bank Balance Percentage

Cash and bank balance percentage of BOKL had been fluctuating over the study period. In the year 2060/61, the percentage was 8.32 and it decreased to 7.59 in the year 2061/62, it again least decreases to 5.99 in the year 2062/63, it increases to 9.23 in the year 2063/64, but it decreases to 8.31 in the year 2064/65 & again increases highest as 10.87 in the year 2065/66. The average cash and bank balance percentage of BOKL was 8.38 over the study period.

Cash and Bank balance percentage of NABIL has also irregular over the study period. In the first year, the percentage was 5.91 and decreases to 3.32 in the second year, and it again decreases to 2.86 in the third year, which wash the least to the entire study period. It was 5.19 in the fourth year and 7.31 in the fifth year and gradually increases highest as 7.80 in the last year. The average cash and bank balance percentage of NABIL was 5.40.

BOKL has the higher percentage of cash and bank balance than that of NABIL in the every year of the study period i.e. 2060/61 to 2065/66.

From the calculation of cash and bank balance percentage trend as per appendices 2(a) and 2(b), the value of trend constants 'a' & 'b' of BOKL and NABIL are as follows:

Banks	a	b
BOKL	8.38	0.52
NABIL	5.40	0.68

The positive value of rate of change on cash and bank balance percentage i.e. 'b' for both the banks implies that the banks had the increasing trend of cash and bank balance percentages to total current assets.

The trend values calculated as per appendices 2(a) and 2(b) the actual values of the ratio of percentage of cash and bank balance to current assets of BOKL and NABIL have been plotted in the following graphs in order to derive respective trend lines.

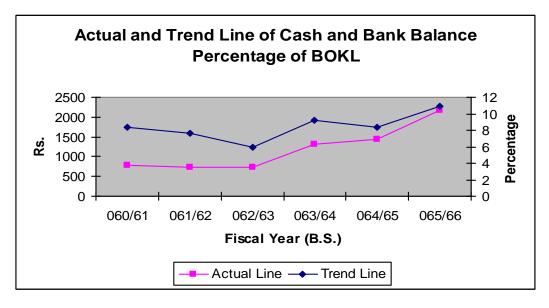


Fig: 4.3

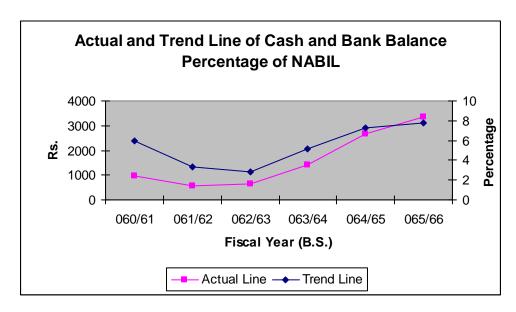


Fig: 4.4

From the above graphs we can concluded that NABIL increases its cash and bank balance percentage on total assets faster than that of BOKL. The trend value also shows that the NABIL effectively and efficiently utilizes its cash balance to invest in productive sector.

4.2 (ii) Money at Call and Short Notice Percentage:

Money at call and short notice percentage of BOKL had been fluctuating over the study period. It was 2.89 in the first year, increasing to 3.37 in the second year. It was growing pick at 4.88 in the year third year and decreased to 1.82 in the year fourth. It also again decreases to 0.42 and increased to 1.21 in the last year. The average or normal of six years was 2.43. While seeking towards money at call and short notice percentage of NABIL, it was just calculated the current assets.

While looking towards money at call and short notice percentage of NABIL, it was just 5.60 in the first year, which rising to 5.16 in the second year, then again rising to 7.89 in the third year. It was decline to 2.09 in the fourth year and grows up 5.34 in the fifth year

and decline to 1.28 in the last year. The average over the study period of six years was 4.56.

From the conclusion of money at call short notice percentage trend as per appendices 3(a), 3(b) the value of trend constants 'a' & 'b' of BOKL and NABIL are as follows:

Banks	a	b
BOKL	2.43	(0.58)
NABIL	4.56	0.68

The positive value of 'b' for both NABIL implies that have the increasing trend of money at call and short notice percentage to total current assets. Greater value of 'b' for NABIL reflects that its money at call and short notice percentage is increasing faster than that of BOKL. The trend values calculated as per appendices 3(a) and 3(b) and the actual values of the ratio of percentage of money at call short notice to current assets of BOKL and NABIL have been plotted in the following graphs in order to derive respective trend lines.

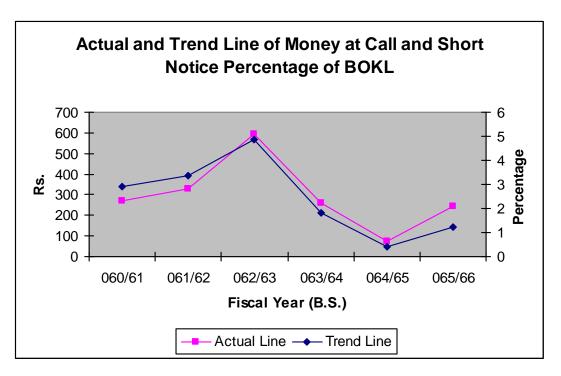


Fig:4.5

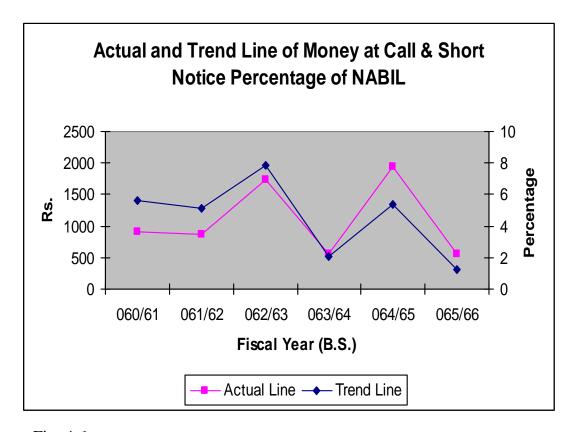


Fig: 4.6

The above graphs depict that BOK had more of its percentage contribute to money at call and short notice as current assets than that of NABIL. NABIL banks money at call and short notice as more turnover trend i.e. the bank tried to exploit the shorter returnable investment.

4.2 (iii) Investments Percentage:

Most of the investments of BOKL were comprised of Government Securities. Almost, the investments percentage of BOKL was in the decreasing line. It was 26.32 in the first year, which slightly increases to 26.62 in the second year; thereafter it had increased to 27.74 in the third year. It was decreased to 20.99, 18.48 and 13.86 in the fourth, fifth and sixth year respectively. The average over the six years was 22.33 of BOKL had been continuously decreasing except second and third year in its investments as current assets.

While gazing towards the investments percentage of NABIL, it was also in the decreasing trend. It was at the highest of 35.57 in the first year, which declined rapidly to 25.37 in the second year, reached 28.07 in the third year, which further increased to 33.18 in the fourth year, it was decreased to 27.21 and 25.06 in the year fifth and final year of the study period. The average investments percentage of NABIL was 29.07.

From the calculation of the investments percentage trend as per appendices 4(a) and 4(b), the value of trend constants 'a' & 'b' of BOL and NABIL are as given below:

Banks	a	b
BOKL	22.33	(2.67)
NABIL	29.07	(1.19)

The valued of 'b' of BOKL & NABIL both shows the negative value i.e. (2.67) & (1.19) its decreasing trend of investment of percentage to total current assets.

The trend values calculated as per appendices 4(a) and 4(b) and the actual values of the ratio of percentage of investment to current assets of BOKL and NABIL have been plotted in the following graphs in order to derive respective trend lines.

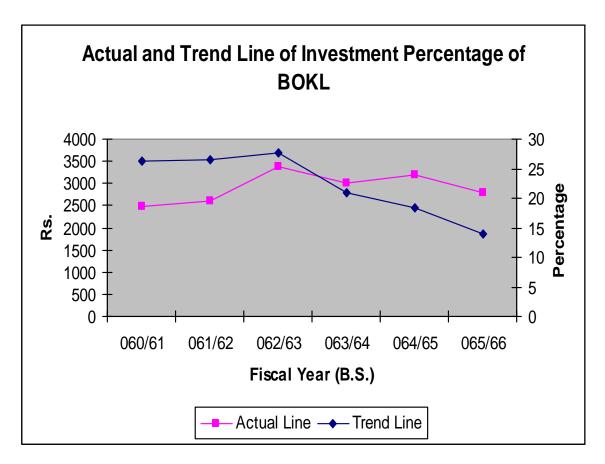


Fig: 4.7

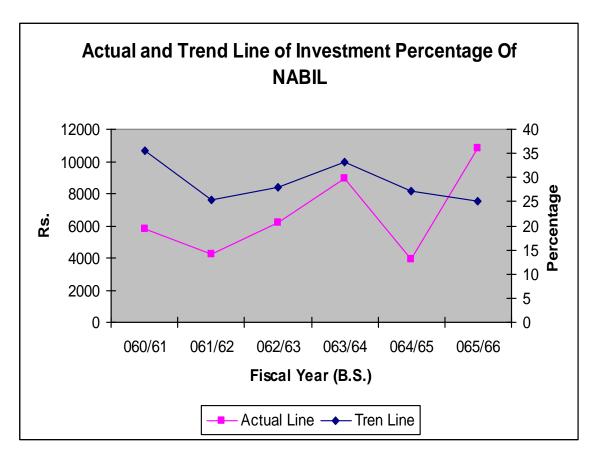


Fig: 4.8

The above graphs depict that NABIL had been continuously increasing its investment percentage as a part of its current assets whereas BOKL had been reducing its investments percentage and diverting its share to other sectors.

4.2 (iv) Loans, Advances & Bills Purchased Percentage:

Loans, Advances & Bills Purchased percentage of BOKL was up and down over the period of six years of the study period. It was the 59.99 in the first year and increased to second year to 60.56. It was 59.66 in the third year and gradually increases to 65.93, 71.90, 72.95 in the year fourth, fifth and six or last years. There were 72.95 highest and 59.66 least in the year last and third year. The average over the five years was 65.16.

While looking the Loans, Advances & Bills Purchased percentage of NABIL it was just 49.92 in the year first, it grow up to 62.92 in the second year. It again declines to 58.71, 57.65, 58.48, and 63.86 in the year third, fourth, fifth and last years. The average over the six years was 58.59.

From the calculation of the Loans, Advances & Bills Purchased percentage trend as per appendices 5(a) and 5(b), the value of trend constants 'a' & 'b' of BOKL and NABIL are as follows:

Banks	a	b
BOKL	65.16	3.00
NABIL	58.59	1.58

The positive value of 'b' for BOKL & NABIL reflects its increasing trend of Loans, Advances & Bills purchased percentage to total current assets. If there was negative value of 'b' then it would reflects its decreasing of Loans, Advances & Bills purchased percentage to total current assets.

The trend values calculated as per appendices 5(a) and 5(b) and the actual values of the ratio of percentage of Loans, Advances & Bills purchased to current assets of BOKL and NABIL have been plotted in the following graphs in order to derive respective trend lines.

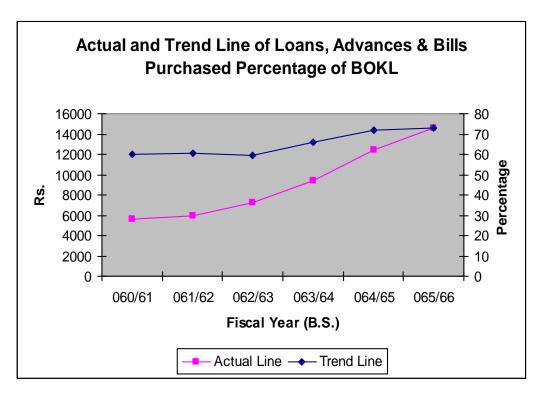


Fig: 4.9

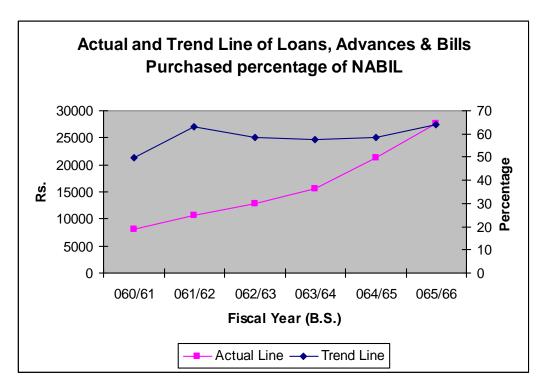


Fig: 4.10

The above graphs represents that the percentage of Loans, Advances & Bills Purchased to current assets of BOKL had been gradually increasing over the over the six years. We may conclude it as, the banks was increasing its investments percentage by reducing its loans and advances percentage. It may be due to that the bank was generating comparatively more percentage of income from investments than that from loans and advances. On the other hand Loans, Advances & Bills Purchased to current assets of NABIL had been gradually increasing over the six years period. In the case of NABIL, its investments percentage was decreasing and at the same time its loans and advances percentage was increasing. NABIL was finding it's more productive to divert its current assets on loans and advances rather than on investments.

4.2 (v) Other Current Assets Percentage:

Other current assets percentage of BOKL was in the increasing trend though it was slightly decreased in the fifth year to 0.89. It was 2.48 in the first year & get to 1.86 in the second year. It was 1.73 in the third year & get to 2.03 in the fourth year. Again, it was 0.89 and 1.11 in the year fifth and sixth years. The average of other current assets percentage to total current assets over the six years was 1.68.

On another hand, while looking towards the current assets percentage of NABIL, It was fluctuating. It was 3 in the first year, the highest of 3.23 in the second year. It was then declined to 2.47, 1.89, 1.66, & 2 in the year third, fourth, fifth and last years respectively.

From the calculation of the other current assets trend as per appendices 6(a) and 6(b), the value of trend constants 'a' & 'b' of BOKL and NABIL are as follows:

Banks	a	b
BOKL	1.68	(0.27)
NABIL	2.37	0.29

The negative value of 'b' for BOKL denotes the it's decreasing trend of other current assets where as the positive value of 'b' for NABIL reflects its increasing trend of Other current assets percentage to total current assets.

The trend values calculated as per appendices 6(a) and 6(b) and the actual values of the ratio of percentage of other current assets of BOKL and NABIL have been plotted in the following graphs in order to derive respective trend lines.

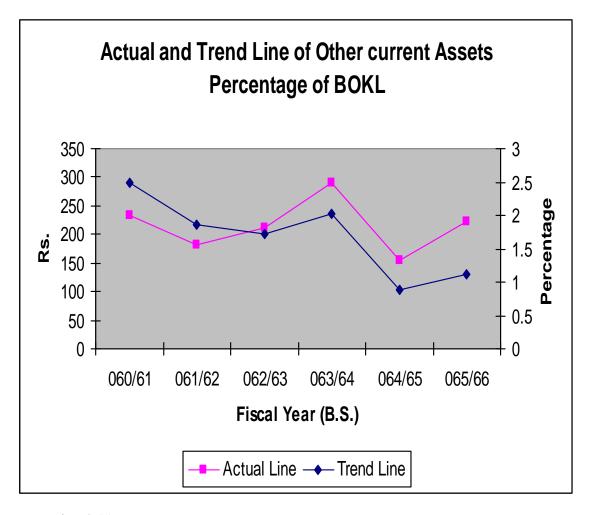


Fig: 4.11

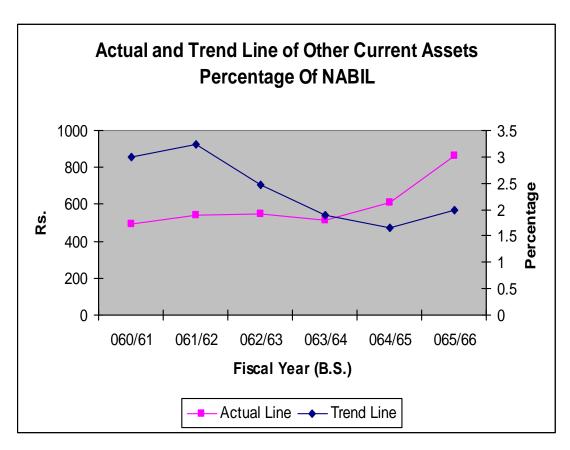


Fig: 4.12

The above presenting graphs show the increasing trend of other current assets of the both BOK and NABIL bank. NABIL had been launched the current assets more returnable. Due to fluctuating of the trend line also is a risky message to the related banks. The excessive cash holding earns no thing so the cash should rigid long time.

4.3 Composition Of Current Liabilities

Each and every corporate have not interested to hold the liabilities. But knowingly or unknowingly the liabilities we can hold to grave the short term return. The liabilities which should pay with in one year accounting period are called the current liabilities. The composition of current liabilities of the BOK and NABIL Bank are as given below:

Table No. 4.3 (a)

Composition of Current Liabilities of BOKL

(Rs. in Million i.e. 000,000)

Fiscal Year	Loans & Borrowings	Deposit Liabilities	Bills Payable	Other Liabilities	Total Current Liabilities
2060/61	912.15	7,741.64	38.71	153.11	8,845.61
2061/62	6.00	8,942.76	19.87	167.77	9,136.4
2062/63	753.18	10,485.36	11.62	188.44	11,438.6
2063/64	730.00	12,388.92	25.77	107.84	13,252.53
2064/65	1.044	18,083.98	51.57	161.73	18,298.324
2065/66	1.00	15,833.73	51.12	241.97	16,127.82
Total	2,403.37	73,476.39	198.66	1,020.86	77099.28

Sources: Appendix 1(a)

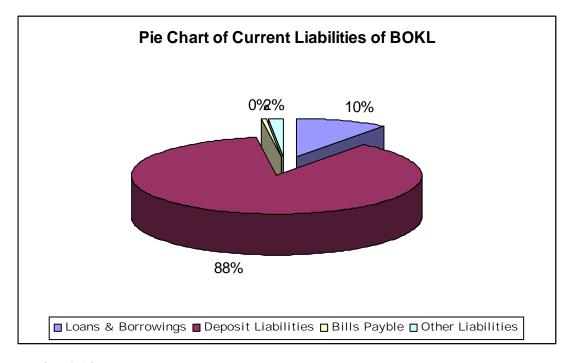


Fig: 4.13

Above table and graphs shows that the current liabilities condition of the BOKL. Loans and borrowing for the year 2060/61 is the highest 912.15 million & least 1 million for the year 2065/66. It is so fluctuating for the other year. i.e. BOKL has no rigid rules for loans and borrowings. Deposit liabilities for the year 2064/65 are the highest 18,083.98 million & least 7,741.64 for the year 2060/61. It is increasing for the each and every year. i.e. the depositors depositing money in the bank is increasing and better liquid money. Bills Payable for the year 2065/66 is the highest 51.12 million and least 11.62 million for the year 2062/63. The bills payable is also in changing position. Other liabilities for the year 2065/66 are the highest 241.97 million & least 107.84 in the year 2063/64. It means other liabilities are not so fluctuating.

Table No. 4.3 (b)

Composition of Current Liabilities of NABIL

(Rs. in Million i.e. 000,000)

Fiscal Year	Loans & Borrowings	Deposit Liabilities	Bills Payble	Other Liabilities	Total Current Liabilities
2060/61	229.66	14,119.03	173.50	741.61	15,263.8
2061/62	17.06	14,586.61	119.75	805.27	15,528.69
2062/63	173.20	19,347.40	112.61	821.77	20,454.98
2063/64	882.57	23,342.28	83.51	378.55	24,686.91
2064/65	1,360.00	31,915.05	238.42	465.94	33,979.41
2065/66	1,681.30	37,348.25	463.14	502.90	39,995.59
Total	4,343.79	140,658.62	1,190.93	3,716.04	149,909.38

Sources: Appendix 1(b)

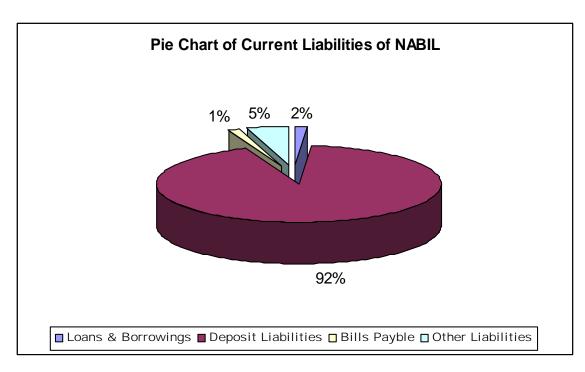


Fig: 4.14

Above table and graphs shows that the current liabilities condition of the NABIL. Loans and borrowing for the year 2065/66 is the highest 1,681.30 million & least 17.06 million for the year 2061/62. It is so fluctuating for the other year. i.e. NABIL has also no strict rules for loans and borrowings. Deposit liabilities for the year 2065/66 are the highest 37,348.25 million & least 14,119.03 for the year 2060/61. It is in slightly changing condition. Bills Payable for the year 2065/66 is the highest 463.14 million and least 83.51 million for the year 2063/64. Other liabilities for the year 2062/63 are the highest 821.77 million & least 378.55 in the year 2063/64. It means other liability is in the up and down condition.

Since, both the bank BOKL & NABIL has showed the increasing trend of current liabilities. But, the NABIL has higher current liabilities then that of BOKL. Higher the current liabilities means the NABIL has greater responsibility of short term debt but not the BOKL.

STUDY OF WORKING CAPITAL MANAGEMENT

4.4 Working Capital Analysis

Working capital always represents the different between the current assets and current liabilities. It is a better tools & technique to analysis, interprets and get to decision of Banks liquidity position. Each and every bank has different policy, procedures & plan to hold the amount of cash as liquid.

Table No. 4.4 (a)

Composition of working capital of BOKL

(Rs. in Million i.e. 000,000)

Fiscal	Current Assets	Current Liabilities	Working Capital
Year	(CA)	(CL)	(WC = CA-CL)
2060/61	9412.72	8845.61	567.11
2061/62	9761.89	9136.4	625.49
2062/63	12167.58	11438.6	728.98
2063/64	14256.89	13252.53	1004.36
2064/65	17334.17	18298.324	-964.154
2065/66	20078.94	16127.82	3951.12

Sources: Appendix 1(a)

The above tables show the increasing trend of current assets of BOKL over the study period 2060/61 to 2065/66. The current liabilities of this bank also increasing trend except in the current year 2065/66. The working capital presents that in the increasing trend but there is negative working capital in the year 2064/65. It shows the current liabilities is less then the current asset i.e. there is no liquid cash.

Table No. 4.4 (b)
Composition of working capital of NABIL

(Rs. in Million i.e. 000,000)

Fiscal	Current Assets	Current Liabilities	Working Capital
Year	(CA)	(CL)	$(\mathbf{WC} = \mathbf{CA} \cdot \mathbf{CL})$
2060/61	16407.36	15263.8	1143.56
2061/62	16825.09	15528.69	1296.4
2062/63	22010.88	20454.98	1555.9
2063/64	26966.49	24686.91	2279.58
2064/65	36534.71	33979.41	2555.3
2065/66	43206.40	39995.59	3210.81

Sources: Appendix 1(b)

The above table show that the current assets, current liabilities and working capital of the NABIL has in the more increasing way over the study period up to 2060/61 to 2065/66. It represents that there is no lack of liquid capital. The NABIL could grave the current opportunity.

Table No. 4.4 (c)
Percentage of working capital of BOKL & NABIL
(Rs. in Million i.e. 000,000)

	BOKL		NAE	BIL	
Fiscal Year	WC (000,000)	Percentage	WC (000,000)	Percentage	WC
2060/61	567.11	7.23	1143.56	9.50	NABIL > BOKL
2061/62	625.49	7.98	1296.4	10.77	NABIL > BOKL
2062/63	728.98	9.30	1555.9	12.92	NABIL > BOKL
2063/64	1004.36	12.81	2279.58	18.93	NABIL > BOKL
2064/65	-964.154	-12.29	2555.3	21.22	NABIL > BOKL
2065/66	3951.12	50.39	3210.81	26.66	BOKL > NABIL
Total	7841.214	100 %	12041.55	100 %	NABIL > BOKL
Mean	1306.87		2006.92		NABIL > BOKL

Sources: Tab no. 4.4 (a, b)

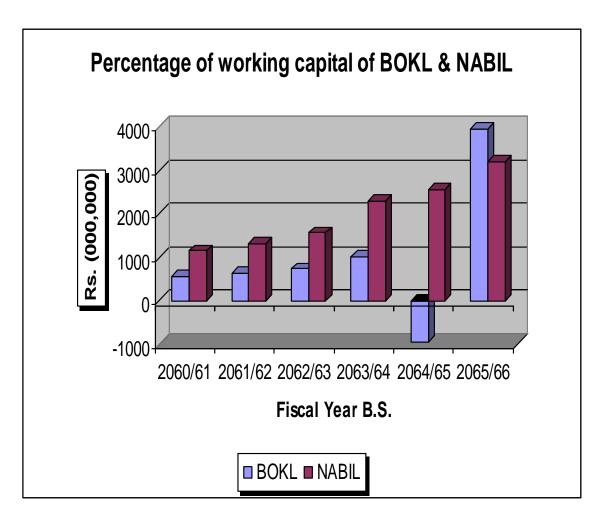


Fig: 4.15

The above table & figures shows that the comparative working capital of both Banks BOKL and NABIL over the year 2060/61 to 2065/66. 1306.87, 2006.92 are the expected working capital of BOKL & NABIL Banks for the coming year i.e. 2066/67. The working capital of BOK is in the negative in the year 2064/65. Working capital for the year 2065/66 of BOKL has 50.39% & NABIL has 26.66 %. BOKL has the greatest working capital then that of NABIL. From this, we can conclude that the NABIL Bank has the optimum working capital than that of BOKL.

ANALYSIS OF LIQUIDITY

4.5 Ratio Analysis

In financial comparative analysis, ratio analysis is utilized as an index of yardstick for

evaluating the financial position and performance of the firm. It is a technique of analysis

and interpretation of financial statements. It aids in making decisions as it helps in

establishing relationship between various ratios and interpretations theorem. As

mentioned in the Research Methodology liquidity ratio, turnover ratio, capital structure

ratio and profitability ratio have been calculated here for the study purpose. To find the

overall performance as well as general movement of important ratios, trend analysis has

been used.

4.5 (i) Liquidity Ratio:

Liquidity ratios are used to measure the short term solvency capacity of the firm. These

ratios provide insight into the present cash solvency at the event of adverse financial

condition. One of the main objectives of the working capital management is to keep

sound liquidity position. Cash is the main liquid asset and other assets that can be easily

converted into cash with in one accounting of financial year are also called near cash or

liquid assets. To measure the bank's liquidity position, liquidity ratios have been

calculated and in order to know the trend of liquidity, trend analysis of the liquidity ratios

have been considered.

4.5 (i) (a) Current Ratio:

The ratio measures the short term solvency of the fir, i.e. bank's ability to meet the short

term obligations. As a measure of creditors versus current assets, it indicates each rupee

of cash availability by dividing current assets by current liabilities.

Table No. 4.5 (a)

Current Ratio (2:1 Times)

75

Fiscal Year (B.S.)	BOKL	NABIL
2060/61	1.06	1.07
2061/62	1.06	1.08
2062/63	1.06	1.07
2063/64	1.07	1.09
2064/65	0.94	1.07
2065/66	1.23	1.08
Total	6.42	6.46
Mean $(\overline{\mathbf{X}})$	1.07	1.07
Standard Deviation ()	0.084	0.01
Coefficient of Variation (C.V.)	0.0785	0.00934

Source: Appendices 7(a) & 7(b)

The above table shows the current ratios of BOKL and NABIL from the year 2060/61 to 2065/66. The ratios were fluctuating in each and every year for the both banks. The current ratios for both banks were less than 1.3 over the six years period, which show that they are operating with low amount of working capital. The standard of current ratio is 2:1 i.e. the current assets should be about double of current liabilities. When Banks hold minimum 2:1, (current assets: current liabilities) that will be optimum funds for operation.

The BOKL had the highest current ratio of 1.23 in the sixth year and the lowest of 1.06 in the first, second & third year. It was 1.07 and 0.94 in fourth and fifth year. The average current ratio over the six years for BOKL was 1.07, standard deviation was 0.084 and the coefficient of variation was 0.0785 i.e. 7.85%.

While looking towards the current ratios of NABIL, it was at the higher of 1.09 in the fourth year and the lower of 1.07 in the first, third and the fifth year wile it was slightly

up at 1.08 in the second and final year. The average current ratio over the six years of the study period for NABIL was 1.07. The standard deviation and the coefficient of variation were 0.01 and 0.93% respectively. The similar value of average 1.07, the lower value standard deviation and the coefficient of variation of NABIL sows the uniformity in current ratio than that of BOKL.

The trend values calculated as per appendices 8 (a) and 8 (b) and the actual values of the quick ratios of BOKL and NABIL have been plotted in the followings graphs in order to derive respective trend lines.

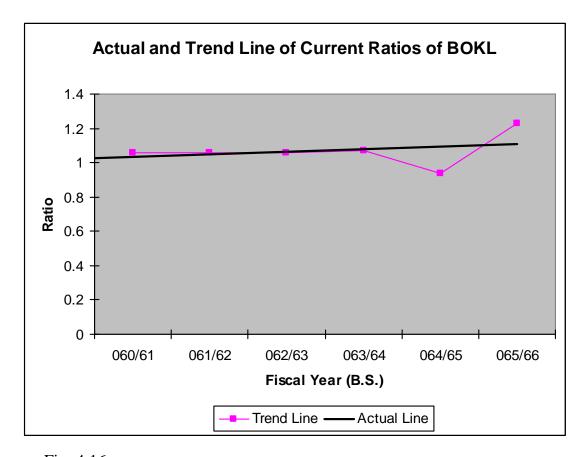


Fig: 4.16

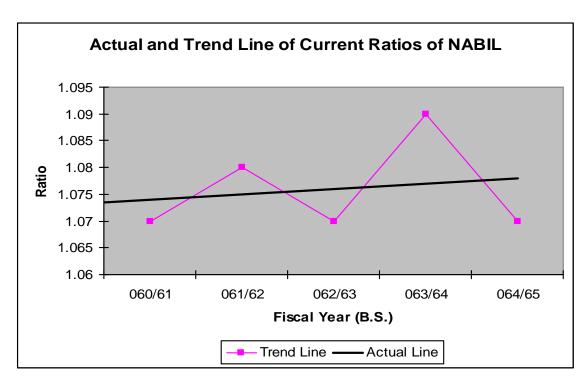


Fig: 4.17

Though the trend line of current ratios for both the banks were fluctuating, the above graph depict that BOKL hand the increasing trend of current ratios while on the other hand NABIL had the decreasing trend of the current ratios over the six years of the study period. The ratios of BOKL were also higher than that of NABIL. On the basis of above analysis we can conclude that the liquidity position of BOKL was better than that of NABIL during the study period.

4.5 (i) (b) Quick Ratios:

Quick ratio establishes a relationship between quick assets and current liabilities. An asset is said to be quick if it can be converted in to cash immediately or with an accounting period and without a loss of original value. For this study, cash and bank balance, money at call and short notice and investment (mainly on government securities) are considered as quick assets because of their tendency of conversion into cash shortly without the any loss of value. Quick ratio reflects the instant debt paying capacity of the firm or corporation. It is also called acid or liquid test ratio.

Table No. 4.5 (b)

Quick Ratio (1:1 Times)

Fiscal Year (B.S.)	BOKL	NABIL
2060/61	0.39	0.50
2061/62	2.66	0.36
2062/63	0.41	0.41
2063/64	0.34	0.44
2064/65	0.25	0.43
2065/66	0.32	0.36
Total	4.37	2.206
Mean $(\overline{\mathbf{X}})$	0.7283	0.4176
Standard Deviation ()	0.8653	0.0474
Coefficient of Variation (C.V.)	1.1882	0.1135

Source: Appendices 9(a) & 9(b)

The above table shows the quick ratios of BOKL and NABIL from the year 2060/61 to 2065/66. BOKL has highest quick ratio 2.66 second year and lowest of 0.25 in the fifth year, it stayed 0.39 in the first year, increase to 0.41 in the third year, decreased to 0.34 in the fourth year & again decrease to 0.32 in the last year. The average quick ratio over the six years of the study period for BOKL was 0.7283, while the standard deviation and the coefficient of variation were 0.8653 and 1.1882% respectively.

NABIL had the highest quick ratio of 0.50 in the first year, it declined 0.366 both the second & last year as least, gradually increased to 0.41, 0.44 & 0.43 in the year third, fourth, fifth year respectively. The average quick ratio, standard deviation and coefficient of variation over the six year were 0.4176, 0.0474 & 0.1135% respectively. The higher coefficient of variation of BOKL shows the higher variability in quick ratio than that of NABIL. Here both the banks had the quick ratio of lesser values except second year of

BOKL which reveals that they were keeping very less quick assets to pay off short term liabilities. But BOKL holds the sufficient cash in the year second.

The trend values calculated as per appendices 9(a) and 9(b) the actual values of the quick ratios of BOKL and NABIL have been plotted in the following graphs in order to derive respective trend lines.

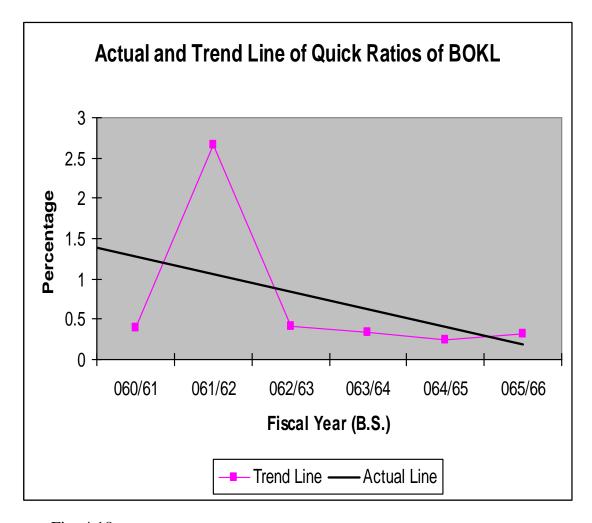


Fig: 4.18

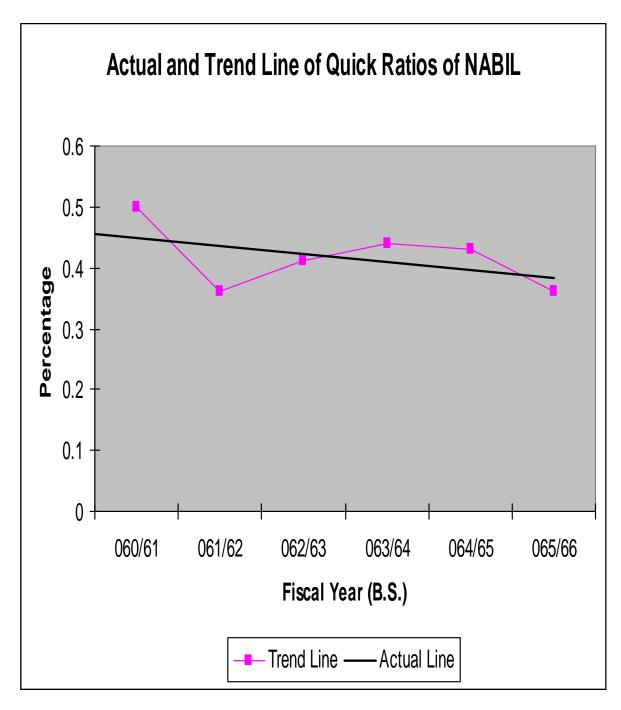


Fig: 4.19

The above graphs depict that the BOKL had the increasing trend of the quick ratios while NABIL had the decreasing trend of the quick ratios over the six years. It can be concluded that BOKL had the better liquidity position than that of BOKL while

observing the above graphs. Overall NABIL was operating with more NABIL was operating with more quick assets except second year than that of BOKL.

STUDY OF ASSETS UTILIZATION

4.5 (ii) Activity or Turnover Ratio:

Activity of Turnover Ratios are used top evaluate the efficiency with which the firm manages and utilizes its assets. These ratios are useful to evaluate the speed with which assets are being converted a turnover. These ratios moreover, help in measuring the bank's ability to utilize their available resources.

4.5 (ii) (a) Loans Advances and Bills Purchased to Total Deposit Ratio:

The ratio measures the extent to which banks are successful in utilizing their working capital for the profit generating purpose. In other words, how quickly or at what rate total collected deposits are converted into loans, advances and bills purchased to earn returns on them. It is calculated by dividing loans, advances and bills purchased by total deposits. The loans, advances and bills purchased to total deposit ratios calculated as per the figures in appendices 1(a) and 1(b) have been tabulated as under:

Table No. 4.5 (c)

Loans, Advances and Bills Purchased to Total Deposit Ratio

Fiscal Year (B.S.)	BOKL	NABIL
2060/61	0.7293	0.5800
2061/62	0.6611	0.7257
2062/63	0.6923	0.6679
2063/64	0.7586	0.6659
2064/65	0.6891	0.6694
2065/66	0.9250	0.7387
Total	4.4554	4.0476
Mean (X)	0.7425	0.6746
Standard Deviation ()	0.08730	0.05134
Coefficient of Variation (C.V.)	11.75%	7.61%

Source: Appendices 1(a) & 1(b)

Loans, advances and bills purchased to total deposit ratio of BOKL was at the highest of 0.92 times in the first year, it least decrease to 0.66 in second year. It increased to 0.69, 0.75 in the third and fourth year. It again decreased to 0.68 in the fifth year and increased to six years as 0.92. The average ratio over the six years period was 0.7425 times. The standard deviation and coefficient of variation over the period were 0.08730 and 11.75% respectively. In the first year BOKL had utilized up to 72% of its deposits in the income generating sectors as loans and advances, however it declined in the second, third and fifth year and climb up in the year fourth and last years.

While looking towards the Loans, advances and bills purchased to total deposit ratio of NABIL, it was less than that of BOKL except in the second & fourth year. But, that the ratio of NABIL was greater in the year second and fourth year. It was the least of 0.58 times in the first year, which gradually climbed up to 0.72, 0.66, 0.66, 0.66 times in the year second, third, fourth, fifth year. It was the greatest of 0.73 times in the final year of

the study period. The average ratio over the six years was 0.67. The standard deviation and coefficient of variation over the period were 0.0513 & 7.61% respectively. Higher coefficient of variation of BOKL shows the wide fluctuation in the ratio than that of NABIL. BOKL had lagged behind, as compared to NABIL in utilizing its deposits for income generating purpose. The higher ratios of NABIL are the indication of the better performance.

4.5 (b) Capital Structure or Leverage Ratio:

Leverage refers to the ratio of debt to equity in the capital structure of the firm. Debt and equity are the long term obligations and the remaining parts in the liability side of the balance sheet are termed as short term obligations. Both kind of obligation are required in forming the capital structure of the firm. The long term financial position of the firm is determined by the leverage or capital structure. The different leverage ratios are calculated to measure the leverage or capital structure. The different leverage ratios are calculated to measure the financial risk or proportion of outsider's fund and owner's capital used by the firm.

4.5 (c) Long Term Debt to Net worth Ratio:

This ratio measures the proportion of outsiders fund and insider's fund in the capitalization of the banks by owners claim. It is calculated as under:

Long Term Debt to Net Worth Ratio = Long Term Debt/Net Worth

The Long Term Debt to Net worth Ratio calculated as per the figures in appendices 1(a) and 1(b) have been tabulated as under:

Table No. 4.5 (d)

Long Term Debt to Net worth Ratio

Fiscal Year (B.S.)	BOKL	NABIL
2060/61	1.40	0.15
2061/62	0.00	0.01
2062/63	0.89	0.09
2063/64	0.73	0.43
2064/65	0.00	0.56
2065/66	0.00	0.54
Total	3.02	1.78
Mean $(\overline{\mathbf{X}})$	0.50	0.29
Standard Deviation ()	0.29	0.04
Coefficient of Variation (C.V.)	0.57	0.16

Source: Appendices 1(a) & 1(b)

The above table shows the long term debt to net worth ratio of BOKL and NABIL. Overall both the banks had the minimum amount of outsider's fund as compared to insider's fund. For BOKL, as there was 1.40 debt employed in the first year and it was nil in the second year, 0.89, 0.73 in the third and fourth year. Similarly, about nil in the fifth and sixth year. The average ratio over the six year period was 0.50. The standard deviation and coefficient of variation over the study period were 0.29 and 0.57 respectively.

For NABIL, long term debt to net worth ratio was 0.15 in the first year; it was at the leas 0.01 in the second year, 0.09, 0.43, 0.56, and 0.54 in the year third, fourth, fifth and sixth year respectively. The average over the period was 0.29 and standard deviation 0.04 and Coefficient of variation 0.16.

Higher coefficient of variation of both the banks shows the heterogeneity in the long term debt to net worth ratio. BOKL had employed comparatively less amount of outsiders fund

than that of NABIL. Though the ratio for both the banks are low, NABIL stood ahead to have aggressive capital structure than that of BOKL

4.5 (d) Net Fixed Assets to Long Term Debt Ratio:

The ratio is calculated to find out how many timer net fixed assets are, in comparison to the fixed liabilities. This ratio helps to find out the portion of fixed assets that has been covered outsiders fund. It is calculate as:

Net Fixed Assets to Long Term Debt Ratio = Net Fixed Assets/Long Term Debt

The Net Fixed Assets to Ling Term Debt Ratio calculated as per the figures in appendices 1(a) and 1(b) have been tabulated as under:

Table No. 4.5 (e)
Net Fixed Assets to Long Term Debt Ratio

Fiscal Year (B.S.)	BOKL	NABIL
2060/61	0.09	1.47
2061/62	15.87	21.17
2062/63	0.14	1.84
2063/64	0.43	0.32
2064/65	3.70	0.43
2065/66	4.17	0.39
Total	24.42	25.64
Mean $(\overline{\mathbf{X}})$	4.07	4.27
Standard Deviation ()	5.53	7.58
Coefficient of Variation (C.V.)	1.35	1.77

Source: Appendices 1(a) & 1(b)

The above table shows the ratio of Net Fixed to Long Term Debt. The ratio was quite fluctuating over the years for both the banks. As there was 0.09 debt in the first year. It was 15.87, 0.15, 0.43, remaining balance lies on the declining field. The average over the

six year was 4.07. The standard deviation and coefficient of variation over the period were 5.53 & 1.35% respectively.

While for NABIL the ratio was 1.47 in the first year, it dramatically in creases to 21.17 in second year. Similarly, 1.84, 0.32, 0.43 & 0.39 ratio's are in the year third, fourth, fifth and sixth years. The average over the period was 4.27. The standard deviation and coefficient of variation over the period were 7.58, 1.77% respectively. The variability in the ratio has been explained by the awkwardly low value of debt in the fourth year.

The ratio was low for the both banks except in the second year. Hence, we can conclude that net fixed assets covers very low portion of long term debt in both the banks. In fact, they might have been used in current assets.

ANALYSIS OF PROFITABILITY

4.5 (e) Profitability Ratios:

Profitability Ratios indicate the degree of success in achieving desired profit. Various profitability ratios are calculated to measure the operating efficiency of business enterprises. It is through profitability ratios that the lenders and investors decide whether to invest in a particular business or not. Here some of the important profitability ratios used for the study is as follows:

4.5 (f) Interest Earned to Total Assets Ratio:

This ratio helps to find out how much a firm has earned interest from its investment with reference to its total assets. This is derived by dividing the amount of interest earned by total assets of the firm.

Interest Earned to Total Assets Ratio = Interest Earned/Total Assets

The ratios calculated for BOKL and NABIL has been tabulated as under:

Table No. 4.5 (f)
Interest Earned to Total Assets Ratio (%)

Fiscal Year (B.S.)	BOKL	NABIL
2060/61	5.971	5.981
2061/62	6.158	6.218
2062/63	5.848	5.866
2063/64	5.618	5.826
2064/65	5.835	5.328
2065/66	6.575	6.379
Total	36.005	35.598
Mean (\overline{X})	6.00	5.933
Standard Deviation ()	0.1842	0.1107
Coefficient of Variation (C.V.)	0.03070	0.01866

Source: Appendices 1(a), 1(b), 1(c) & 1(d)

Though fluctuating, the interest earned to total assets ratio of both BOKL and NABIL was in the decreasing trend. For BOKL, it was at the highest of 6.575 in the fifth years, which is less in the year first 5.971, year second 6.158, year third 5.848. Year fourth 5.618 & year fifth 5.835. The average over the five years of the BOKL is 6. The standard deviation and Coefficient of variation is 0.1842 & 0.03070.

ON the other hand, for NABIL interest earned to total assets ratio was 5.981 in the first year, slightly increases and being high 6.218 in the year second, 5.866, 5.826, 5.328,

6.379 in the year third, fourth, fifth year and sixth year respectively. The average over the year is 5.933. The standard deviation and coefficient of variation is 0.1107, 0.01866.

Interest earned to total assets ratio was higher for both the banks was higher in the beginning, which then gradually declined in the following years. The higher average of 6% of BOKL than 5.9933% of the NABIL indicates that it was mobilizing its assets better to earn interest income by providing loans and advances to its different kinds of customers.

4.5 (g) Net Profit to Total Assets Ratio:

This ratio aids to find out the profitability of all financial resources invested in the firm's assets. This ratio is the focal point of the stakeholders. The return on assets or profit to assets ratio is calculated by dividing the amount of after tax profit y the amount of total assets employed. The ratio can be expressed as:

Net Profit to Total Asset = Net Profit/Total Assets

The ratios calculated for BOKL and NABIL has been tabulated as under:

Table No. 4.5 (g)
Net Profit to Total Assets Ratio (%)

Fiscal Year (B.S.)	BOKL	NABIL
2060/61	1.34	2.72
2061/62	1.41	3.02
2062/63	1.65	2.84
2063/64	1.80	2.47

2064/65	2.04	2.01
2065/66	2.25	2.35
Total	10.49	15.41
Mean $(\overline{\mathbf{X}})$	1.75	2.5683
Standard Deviation ()	0.3240	0.1116
Coefficient of Variation (C.V.)	0.1851	0.04346

Source: Appendices 1(a), 1(b), 1(c) & 1(d)

The above table presents that the overall return on assets ratio was quite low for both the banks. The ratio was in the increasing trend for both BOKL. For BOKL, it was at the lowest of 1.34 in the first year, which then gradually increased to 1.41, 1.65, 1.80, and 2.04 in the second, third, fourth, fifth year and then reached the highest of 2.25 in the final year. The average return on assets for BOKL was 1.75% and the standard deviation and coefficient of variation were 0.3240 & 0.1851 respectively.

On the other hand, for NABIL the ratio was higher in each year instead of year 2064/65 as 2.01 than that of BOKL. It was the lower of 2.01 in the fifth year, which then 2.35, 2.47, 2.72, 2.84 & 3.02 in the last, fourth, first, third & second year. The average return on assets over the period for NABIL was 2.5683 and the standard deviation and coefficient of variation were 0.1116 & 0.04346% respectively.

From the above analysis, we can conclude that the almost profitability of NABIL is higher than BOKL. but not in year 2064/65. NABIL was better utilizing its working funds efficiently to earn higher rate of profit. The low values of return on assets of these banks might reflect their slow growth.

4.5 (h) Net Profit to Total Deposit Ratio:

Deposits collected by the banks are mobilized through giving loans and advances to different individuals and institutions with a purpose to earn revenue. Interest earned from the loans and advances is a major source of income for the banks. Net profit to total deposit ratio measures the percentage of profit earned from the utilization of the total deposits. The ratio can be expressed as:

Net Profit to Total Deposit Ratio = Net Profit/Total Deposit

The ratios calculated for BOKL and NABIL has been tabulated as under:

Table No. 4.5 (h)

Net Profit to Total Deposit Ratio (%)

Fiscal Year (B.S.)	BOKL	NABIL
2060/61	1.64	3.22
2061/62	1.56	3.55
2062/63	1.93	3.28
2063/64	2.12	2.89
2064/65	2.00	2.34
2065/66	2.91	2.76
Total	12.16	18.04
Mean $(\overline{\mathbf{X}})$	2.02	3.00
Standard Deviation ()	0.44	0.39
Coefficient of Variation (C.V.)	0.2178	0.1315

Source: Appendices 1(a), 1(b), 1(c) & 1(d)

The above table shows the net profit to total deposit ratio of BOKL and NABIL over the period of six years from the fiscal year 2060/61 to 2065/66. The ratio was in the increasing and decreasing trend for the both banks. For BOKL, it was lowest 1.56 in the second year and highest 2.91 in the final years. It was 1.64, 1.93, 2.12 & 2.00 in the year first, third, fourth and fifth years. The average net profit to total deposit ratio of BOKL was 2.02 and the standard deviation and coefficient of variation were 0.44 & 0.2178% respectively. Though, the ratio was gradually increasing for BOKL. For any commercial

bank mobilization of depositor's fund is very crucial to earn profit. Hence, it can be concluded that NABIL stood ahead in the mobility of deposits as compared to BOKL.

On the other hand for NABIL, It was lowest 2.34 in the fifth year and highest 3.55 in the second years. It was 3.22, 3.28, 2.89, 2.76 in the year first, third, fourth and final years. The average net profit to total deposit ratio of NABIL was 3.00 and the standard deviation and coefficient of variation were 0.39 & 0.1315% respectively.

The above analysis aids to conclude that the mobilization of depositor's fund by NABIL was better than that of BOKL from year first up to fifth year but final year just opposite of NABIL. For any commercial bank mobilization of depositor's fund is very crucial to earn profit. Hence it can be concluded that NABIL stood ahead in the mobility of deposits as compared to BOKL.

4.6 Correlation Analysis

Correlation is the statistical tool, which measures the relationship between two or more variables of a population or a sample. In other words, it describes the degree to which one variable is linearly related to other. The coefficient of correlation measures the degree of relationship between two sets of figures. Among the various methods of finding out coefficient of correlation, Karl Pearson's method has been applied in the study. The result of coefficient of correlation denoted by 'r' is always between +1 and -1. When r is +1, it means there is perfect relationship between two variables and vice versa. When r is 0, it means there is no relationship between them.

4.7 Coefficient Of Correlation Between Loans And Advances And Net Profit

The basic function of a commercial bank is to collect deposit and invest these funds on loans and advances to generate higher profit. Therefore, large amount of loans and

advances generate higher interest and hence higher profit. The coefficient of correlation between loans and advances and net profit is to measure the degree of relationship between loans and advances and net profit. In the analysis, loans and advances has been taken as independent variable (Y) whereas net profit has been taken as dependent variable (X). The purpose of computing the coefficient of correlation between loans and advances and net profit is to justify whether the loans and advances significantly generate profit or not and whether there is any relationship between these two variables.

The following table shows the coefficient of correlation between loans and advances and net profit of BOKL and NABIL.

Table No. 4.5 (i)

Coefficient of Correlation between Loans & Advances and Net Profit

Bank	r	PEr	6PEr
BOKL	0.9973	0.0006062	0.003637
NABIL	0.9769	0.0051336	0.030801

Source: Appendices 10 (a), 10 (b)

The above table shows the coefficient of correlation between loans and advances and net profit of BOKL and NABIL. The computed value of 'r' is 0.99 for BOKL and 0.97 for NABIL which obviously shows the high degree positive correlation between loans and advances and net profit. By considering the Probable Error i.e. PEr, since the value of 'r' is greater than 6PEr for both banks, it can be concluded that the relationship between loans and advances and net profit is highly significant which higher amount of loans and advances to higher amount of returns.

4.8 Coefficient Of Correlation Between Loans And Advances And Total Deposit

The rational behind the calculation of coefficient of correlation between loans and advances an total deposit is to measure the degree of relationship between major components of current assets i.e. loans and advances and the major source of fund at the bank i.e. total deposit. In the correlation analysis, deposit is taken as independent variable (Y) and loans and advances is taken as dependent variable (X). The purpose of computing the coefficient of correlation is to justify whether the deposits are significantly used in loans and advances or not whether there is any relationship between these two variables. The following table shows the coefficient of correlation between loans and advances and total deposits of BOKL and NABIL:

Table No. 4.5 (j)
Coefficient of Correlation between Loans & Advances and Total Deposit

Bank	r	PEr	6PEr
BOKL	0.9298	0.0152293	0.0913758
NABIL	0.3256	0.0100498	0.6029992

Source: Appendices 11 (a), 11 (b)

The above table depicts that the correlation coefficient between loans and advances and total deposits 'r' is 0.93 for BOKL and 0.32 for NABIL. The values of BOKL is greater than 0.6, but NABIL is less than 0.6, It shows that there is highly positive relationship between these two variables. By considering the probable error i.e. PEr, since the value of 'r' is greater than 6PEr of BOKL and the value of 'r' is less than 6PEr of NABIL. It can conclude that the value of 'r' is highly significant and there is significant relationship between total deposits and loans and advances of BOKL. But, there is no significant relationship between total deposits and loans and advances of NABIL. The relatively higher value of 'r' in case of BOKL than that of NABIL depicts that BOKL have been better utilizing its total deposits on loans and advances though NABIL has also been effectively utilizing them.

4.9 Conclusion Table And Figure

Table No. 4.5 (k)
Conclusion table for working capital of BOKL & NABIL
(Rs. in Million i.e. 000,000)

	ВОН	KL	NABIL		
Fiscal Year	WC (000,000)	Percentage	WC (000,000)	Percentage	
2060/61	567.11	7.23	1143.56	9.50	
2061/62	625.49	7.98	1296.4	10.77	
2062/63	728.98	9.30	1555.9	12.92	
2063/64	1004.36	12.81	2279.58	18.93	
2064/65	-964.154	-12.29	2555.3	21.22	
2065/66	3951.12	50.39	3210.81	26.66	
Total	7841.214	100 %	12041.55	100 %	
Mean	1306.87		2006.92		

Sources: Tab no. 4.4 (c)

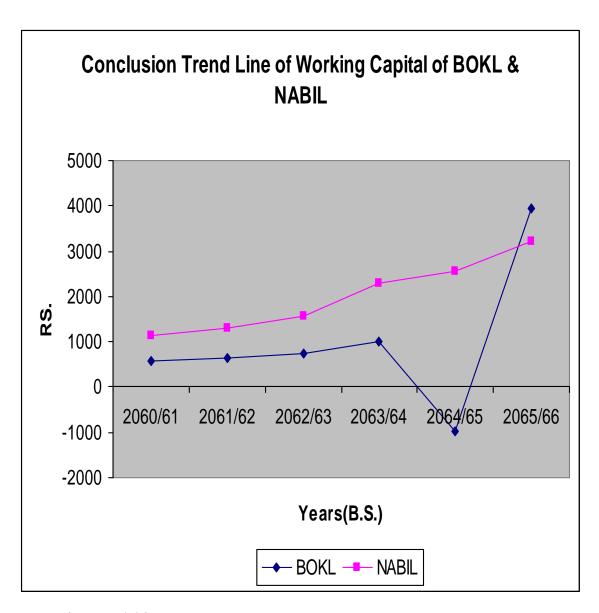


Fig. No: 4.20

The above table and figures presents that the working capital of BOKL has in the fluctuating trend as well as negative in the year 2064/65. But the NABIL banks working capital has gradually increasing trend from 2060/61 to 2065/66. The decreasing working capital of BOKL can not exploited the present opportunity but NABIL can do this. It can conclude that the NABIL is in the better position then that of BOKL.

4.9 Major Findings

The major findings of the study out of the period of six years for BOKL and NABIL from the analysis are summarized below:

- 1. The average percentage converted by cash and bank balance, money at call and short notice, investments, loans and advances and bills purchased and other current assets to total current assets over the study period were 8.39%, 2.43%, 22.33%, 65.16% & 1.69% for BOKL while 5.40%, 4.56%, 29.07%, 58.59% & 2.38% for NABIL respectively. It shows that the average percentage of cash and bank balance and loans, advances and bills purchased were higher for BOKL while the average percentage of money at call and short notice, investment and other current assets were higher for NABIL. Both the banks had the fluctuating trend of cash which means they were keen on increasing money at call and short notice by reducing cash balance. BOKL had the increasing trend of investment and at the same time decreasing trend of loans and advances which means it was increasing investments by reducing loans and advances while on the other hand NABIL had the just reverse situation, it was increasing its loans and advances by reducing investments. The increasing trend of loans and advances of NABIL implies that it was investing its current assets towards income generating sectors better than BOKL.
- 2. The liquidity position of BOKL & NABIL was analyzed with the current ratio and quick ratio. The current ratios for BOKL over the period were 1.06, 1.06, 1.06, 1.07, 0.94 & 1.23 times which though slightly fluctuating a bit, were in the increasing trend that average current ratio was 1.07 times and the standard deviation and coefficient of correlation were 0.084 and 0.0785%. On the other hand the current ratios for NABIL over the period were 1.07, 1.08, 1.07, 1.09, 1.07 & 1.08 which were fluctuating trend and the average current ratio was 1.07 times and the standard deviation and coefficient of variation were 0.01 &

0.00934% which implies that both the bank NABIL and BOKL were on equal condition but the per unit risk of BOKL was greater risk than that of NABIL. The average quick ratio of BOKL 0.7283 times and its trend was in fluctuating trend while the average quick ratio of NABIL was 0.4176 times and its trend was decreasing. Both the banks were operating with low amount of quick assets.

- 3. The average value of loans and advances to total deposit ratio were 0.75 and 0.68 for BOKL and NABIL respectively. The higher turnover ratio of BOKL shows that it was utilizing its deposits for income generation sectors than that of NABIL. The lower value of coefficient of variation of BABIL (7.61%) as compared to BOKL (11.75%) shows the better uniformity in utilization.
- **4.** The average long term debt to net worth ratio of BOKL was 0.50 which was higher than 0.29 of NABIL which implies that BOKL was adopting more aggressive capital structure than that of NABIL. Higher value of coefficient of variation of BOKL (0.5793) shows the variability in mobilizing outsider's fund & lower value of coefficient of variation of NABIL (0.1644) shows the less variability in mobilizing outsider's fund.
- 5. Profitability is the measure of efficiency for BOKL and NABIL. The average interest earned to total assets ratios for BOKL and NABIL were 6% and 5.93% respectively, the average net profit to total assets ratio for BOKL was 1.75% and NABIL was 2.57% and the average net profit to total deposit ratios for BOKL and NABIL were 2.02% and 3%. Though BOKL stood ahead in the interest earned ratio, the higher return on assets and return on deposits ratio of NABIL suggests that it was in the better profitability position than that of BOKL.
- **6.** The value of correlation coefficient 'r' between loans and advances and net profit, 0.99 for BOKL and 0.97 for NABIL show the high degree of positive

correlation between them which implies the significant of increasing loans and advances to generate more profit for both the banks .

7. The higher value of coefficient of correlation between loans and advances and total deposit i.e. 0.92 for BOKL and 0.32 for NABIL show that BOKL had the more better utilizing its total deposits on loans and advances though NABIL had also been effectively utilizing them.

CHAPTER: V SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

This thesis work has been divided into five chapters. They are: Introduction, Review of Literature, Research Methodology, Presentation, Data Analysis and Findings and finally Summary and Recommendation.

Bank can be defined as a place where the transactions of money and money like product take place. Bank fills the gap between the searcher and provider of fund. This sector alone has provided employment to nearly 81% of the labor force. It contributes 41% to gross domestic product (GDP). Similarly, it contributes about 80% to the export trade. Nepal Rastra Bank was established as a central bank in 14th Baisakh 2013 B.S. There are 27 commercial banks in Nepal for till date. The BOK & NABIL two joint Venture Banks are registered established and regulated by NRB. The main objective of this study is to make the comparative analysis of the working capital and financial performance of BOKL and NABIL. There have the certain limitation of time and financial constraints to organize this study.

A Commercial bank is the one which exchanges money, accepts deposits, grants loans and exchanges money, transfer money, accepts deposits, grants loans and performs the other commercial banking functions and which is not a bank meant for co-operative, agricultural, industries for such specific purpose. Working capital means different between current assets and current liabilities. The working capital should be optimum not adequate. Permanent & Variable working capital are the types of working capital. There are current assets investments, fat cat, and lean & mean, moderate, aggressive, conservative, and matching working capital policy. Working capital needs for speculative, precautionary, transitive motive and it determined on the basic of production, availability of credit, price level change, taxes etc. Working capital is financing for short term, long term and spontaneous. Most of the articles, thesis say that, working capital creating and utilization depends up on their nature, objectives & situation.

To make this thesis more understandable to the readers, available literature and information are presented using different methodology as financial and statistical tools and techniques. Which includes the ratio analysis as a financial tool, trend analysis & correlation coefficient as statistical tools?

The major composition of working capital position, liquidity position, turnover position, capital structure position and profitability position. Under these main ratios, their trend values, Karl Pearson's correlation coefficient 'r' has been calculated and analyzed in the fourth chapter. To carry out this thesis work secondary data have been utilized. The necessary data are derived from the Balance Sheet and Profit and Loss Account of BOKL and NABIL for the period of six years from the fiscal year 2060/61 to 2065/66 B.S. To achieve the objectives mentioned in the chapter one, a suitable research methodology has been developed.

The last chapter finds the whole study's conclusion, suggestions and recommendation which might be useful for the concerned banks to improve the performance, have been presented.

5.2 Conclusion

Bank means a monetary institution where the performing money & moneys works. There are 27 commercial banks registered in NRB to the till time. Among them, NABIL Bank and BOKL as sample to study the comparative analysis of working capital. Only six year data had been receive from 2060/61 to 2065/66 B.S. for these banks.

- Cash and bank balance and loans, advances and bills purchased were higher for BOKL and money at call and short notice, investment and other current assets were higher for NABIL. The increasing trend of loans and advances of NABIL implies that it was investing its current assets towards income generating sectors better than BOKL.
- 2. The average current ratio of BOK was 1.07 times and the standard deviation and coefficient of correlation were 0.084 and 0.0785% and the average current ratio was 1.07 times and the standard deviation and coefficient of variation were 0.01 & 0.00934% of NABIL. Which implies that both the bank NABIL and BOKL were on equal condition but the per unit risk of BOKL was greater risk than that of NABIL. Both the banks were operating with low amount of quick assets.
- 3. The average value of loans and advances to total deposit ratio were 0.75 and 0.68 for BOKL and NABIL respectively. The higher turnover ratio of BOKL implies that it was utilizing its deposits for income generation sectors than that of NABIL. The lower value of coefficient of variation of BABIL (7.61%) as compared to BOKL (11.75%) shows the better uniformity in utilization.
- 4. The average long term debt to net worth ratio of BOKL and NABIL was 0.50 0.29 which implies that BOKL was adopting more aggressive capital NABIL. Higher value of coefficient of variation of BOKL (0.5793) shows the variability in mobilizing outsider's fund & lower value of coefficient of variation of NABIL (0.1644) shows the less variability in mobilizing outsider's fund.

- 5. The average interest earned to total assets ratios for BOKL and NABIL were 6% and 5.93%. The average net profit to total assets ratio for BOKL was 1.75% and NABIL was 2.57% and the average net profit to total deposit ratios for BOKL and NABIL were 2.02% and 3%. Though BOKL stood ahead in the interest earned ratio, the higher return on assets and return on deposits ratio of NABIL suggests that it was in the better profitability position than that of BOKL.
- 6. The value of correlation coefficient 'r' between loans and advances and net profit, 0.99 for BOKL and 0.97 for NABIL show the high degree of positive correlation between them which implies the significant of increasing loans and advances to generate more profit for both the banks.
- 7. The higher value of coefficient of correlation between loans and advances and total deposit i.e. 0.92 for BOKL and 0.32 for NABIL show that BOKL had the more better utilizing its total deposits on loans and advances though NABIL had also been effectively utilizing them.
- 8. This research what we can conclude that though both the banks are competent players in the Nepalese banking industry, NABIL has been in the better side as compared to BOKL.

5.3 Recommendations

On the basis of the above study, following recommendations have been made which might be useful for concerned banks.

1. The loans and advances percentages as a part of current assets of BOKL were in the slightly fluctuate & increasing trend. So, it should maintain more effective. On the other hand, the average loans and advance as a part of current assets of NABIL

- were just above 50%. So, it should increase the percentage by adopting new loans and advances policies.
- 2. The low liquidity ratios of both the banks except BOKL year 2061/062 B.S. (i.e. quick ratio, 2.66) suggest that they should enhance their liquidity position by keeping optimum current assets.
- 3. Both the banks had low average turnover on total deposits which is less than one. Due to low turnover non earning idle funds might be high on these banks. So, these banks should give proper attention on the utilization of idle funds in more productive sectors.
- 4. By adopting the matching working capital management policy instead of adopting conservative policy these banks can improve their profitability in the short as well as in the long run.
- 5. Low return on assets of BOKL suggests that it should cut down its operating cost & increase invest able liquid assets in order to maximize its profitability.
- 6. Both the banks need to utilize the outsider's as well as insider's fund effectively and efficiently in order to keep all the stakeholders wealth maximization.
- 7. As the services of these banks have been limited to urban and semi urban regions of the nation, they should initiate some measures to widen their branch to the people of rural and remote areas.
- 8. These banks should also focus on research and development activities in order to retain and keep competitive, profit winning with better banking services. More and more players are rapidly entering into the limited market of banking industry of Nepal.

BIBLIOGRAPHY

- Acharya, Krishna (1988), *The management of Working Capital in the Public Enterprises of Nepal*, Nepalese Development Study, Kathmandu
- Amatya, Narendra Bahadur (1993), *An Appraisal of Financial Position of Nepal Bank Limited*. Unpublished Master's Degree Thesis, Kathmandu, Faculty of Management, T.U.
- Bank of Kathmandu Limited, 2060/61 to 2065/66, *Annual Report*, Kathmandu: Bank of Kathmandu Limited.
- Bhandari, Dilli Raj (2003), *Banking and Insurance*, Kathmandu; Aayush Publication.
- Dahal, Sarita and Bhuwan (2002), *A Handbook of Banking*, Kathmandu: Asmita Books and Stationary.

- Sarg, Krishna Naryan (1997), *Money, Banking, Trade & Finance*, Allahabad: Kitab Mahal.
- Giri, Basudev (1996), Working Capital Management in Birgunj Sugar Factory

 Ltd. Unpublished Master's Degree Thesis, Kathmandu, Faculty of

 Management, T.U.
- MG Neapl Commercial Bank Act, 2031
- Joshi, Prem Raj (2002), *Research Methodology*, Kathmandu: Buddha Academic Publishers and Distributors Pvt. Ltd.
- ** K.C., Niraj (2000), Comparative Study of working Capital Management of Nepal Bank Limited and NABIL. Unpublished Master's Degree Thesis, Kathmandu, Faculty of Management, Shanker Dev Campus.
- Khan, Monor Yean and Jain Prem Krishana (1993), Financial Management Text and Problem, New Delshi: Tata McGraw-Hill Publishing Company Limited.
- Lamsal, Hari Prasad (2002). A Comparative Study of Working Capital Management of NABIL and Standard Chartered Bank, Unpublished Master's Degree Thesis, Kathmandu, Faculty of Management, Shankar Dev Campus.
- NABIL Bank Limited, 2060/61 to 2065/66, *Annual Report*, Kathmandu: NABIL Bank Limited.
- Pandey, Indra Man (1992), *Financial Management*, New Delhi: Vikash Publishing House.
- Poudel, Ramji (1997), A Comparative Analysis of Financial Performance Between

 Nepal Bank Limited and Nepal Grindlays Bank Limited, Unpublished

 Master's Degree Thesis, Kathmandu, Factulty of Management, T.U.
- Pradhan, Radhe Shyam (1986), *Management of Working Capital*, New Delshi: National Books Organization.

- Pradhan, Radhe Shyam and Koirala, Kundan Dutta (1982) Aspect of Working

 Capital Management in Nepalese Corporations, Kathmandu, Institute of

 Management T.U.
- Sherestha, Mnaohar Krishna (1982), Working Capital Management in Public Enterprises, A Study on Financial Results and Constrainsts, A Quarterly ISDOC Bulletin, Kathmandu, Vol. 8(1-4).
- Shrestha, Prem Kumar (1994), *A Study on Working Capital Management in Bhirkuti Paper Mills Ltd.* Unpublished Master's Degree Thesis, Kathmandu, Faculty of Management, T.U.
- Sherestha, Subash Chandra (1992), A Comparative Study on Working Capital

 Management in Publich Sector Brick Factories. Unpublished Master's

 Degree Thesis, Kathmandu Faculty of Management, T.U.
- ➤ Van Horne, James C. (1998), *Financial Mnanagement and Policy*, New Delshi: Prentic Hall of India.
- Weston, J. Fred and Brigham Eugene F. (1984), *Managerial Finance*, Chicago: The Dryden Press.

APPENDICES

Appendix 1(a)

Balance Sheet of BOK from the year 2060/61 to 2065/66 B.S. (Amount in Million of Rs. i.e. 000,000)

Assets	2060/61	2061/62	2062/63	2063/64	2064/65	2065/66
Cash & bank	782.88	740.52	728.70	1315.90	1440.46	2182.11
balance						
Money at call &	272.32	328.87	594.05	259.27	72.68	243.35
short notice						
Investments	2,477.41	2,598.25	3,374.71	2992.43	3,204.06	2,783.59
Loans, Advances	5,646.70	5,912.58	7,259.08	9399.32	12,462.63	14,647.29
& Bills purchase						
Fixed Assets	83.63	95.23	110.75	320.84	387.27	417.04
Other Assets	233.41	181.67	211.04	289.97	154.34	222.60
Total Assets	<u>9,496.35</u>	<u>9,857.12</u>	<u>12,278.33</u>	<u>14,577.73</u>	<u>17,721.44</u>	<u>20,495.98</u>
Liabilities & Capital						
Share Capital	463.58	463.58	463.58	603.14	603.14	844.39
Reserve &	187.16	257.16	376.15	390.13	738.93	897.19
Surplus						
Loans &	912.15	6.00	753.18	730.00	1.044	1.00.00
Borrowings						
Deposit	7,741.64	8,942.76	10,485.36	12388.92	18,083.98	15,833.73
Liabilities						
Bills Payable	38.71	19.87	11.62	25.77	51.57	51.12
Others	153.11	167.77	188.44	107.84	161.73	241.97
Liabilities						
Total Liabilities	<u>9,496.35</u>	<u>9,857.14</u>	12,278.33	<u>14,245.8</u>	<u>19,640.394</u>	<u>1,7968.84</u>
& Capital						

www.bok.com.np

Appendix 1(b)
Balance Sheet of NABIL from the year 2060/61 to 2065/66 B.S.
(Amount in Million of Rs. i.e. 000,000)

Assets	2060/61	2061/62	2062/63	2063/64	2064/65	2065/66
Cash & bank balance	970.49	559.38	630.24	1399.82	2671.14	3372.51
Money at call & short	918.73	868.43	1,734.9	563.53	1952.36	552.89
notice						
Investments	5,835.95	4,267.23	6,178.53	8945.31	9939.77	10826.38
Loans,	8,189.99	10,586.17	12,922.54	15545.78	21365.05	27589.93
Advances &						
Bills purchase						
Fixed Assets	338.13	361.24	319.09	286.89	598.03	660.99
Other Assets	492.2	543.88	544.67	512.05	606.39	864.69
Total Assets	<u>16,745.49</u>	<u>17,186.33</u>	<u>22,329.97</u>	<u>27,253.38</u>	<u>37,132.74</u>	<u>43,867.39</u>
Liabilities & Capital						
Share Capital	491.65	491.65	491.65	491.65	689.22	965.74
Reserve &	990.03	1,165.98	1,383.34	1565.39	1747.98	2164.49
Surplus						
Loans &	229.66	17.06	173.20	882.57	1360.00	1681.30
Borrowings						
Deposit	14,119.03	14,586.61	19,347.40	23342.28	31915.05	37,348.25
Liabilities						
Bills Payable	173.50	119.75	112.61	83.51	238.42	463.14
Others	741.61	805.27	821.77	378.55	465.94	502.90
Liabilities						
Total Liabilities &	<u>16,745.48</u>	<u>17,186.34</u>	22,329.97	<u>26,743.95</u>	<u>36,416.61</u>	43,125.83
Capital						

www.nabilbank.com

Appendix 1(c)

Profit and Loss Account of BOKL from the year 2060/61 to 2065/66 B.S.

(Amount in Million of Rs. i.e. 000,000)

Income Statement	2060/61	2061/62	2062/63	2063/64	2064/65	2065/66
Total Interest Income	567.1	607.1	718.12	819.00	1034.15	1347.75
Exchange Earnings	64.05	72.11	78.96	80.82	93.76	136.03
Commission & Discount	77.71	70.32	70.78	97.43	129.41	150.91
Other Operating Income	1.96	6.5	16.97	19.00	23.16	43.22
Other Non-operating Income	15.46	0.05	9.75	(2.77)	0.81	(2.02)
Total Income	726.29	<u>756.08</u>	894.58	1,013.48	1,281.29	1,675.89
<u>Expenses</u>						
Total Interest Expenses	286.3	241.64	308.16	339.18	417.54	563.11
Staff Cost	47.73	53.82	59.12	69.74	90.60	146.49
Provision for Staff Bonus	20.52	22.7	30.12	38.34	52.78	66.12
Office Operating Costs	85.83	99.19	117.6	138.42	170.48	233.66
Other Costs & Losses	-	0.52	-	-	-	-
Total Cost Before Tax &	440.38	417.87	515	585.68	731.14	1009.38
Provision						
Profit/Loss Before Tax &	285.91	338.21	379.58	421.75	580.68	727.39
Provision						
Income Tax Provision	57.17	64.76	98.76	121.02	166.40	199.53
Provision for Loan loss	101.26	133.92	78.38	81.89	38.43	33.74
Net Profit/Loss After Tax	<u>127.48</u>	<u>139.53</u>	<u>202.44</u>	<u>262.38</u>	<u>361.49</u>	<u>461.73</u>

www.bok.com.np

Appendix 1(d)

Profit and Loss Account of NABIL from the year 2060/61 to 2065/66 B.S.

(Amount in Million of Rs. i.e. 000,000)

Income Statement	2060/61	2061/62	2062/63	2063/64	2064/65	2065/66
Total Interest Income	1,001.62	1,068.75	1,310.00	1,587.79	1,978.69	2,798.48
Exchange Earnings	157.32	184.88	185.48	209.93	196.48	251.92
Commission & Discount	135.96	128.88	138.29	150.61	156.23	179.69
Other Operating Income	38.75	55.93	82.90	87.57	97.44	144.16
Other Non-operating	92.78	72.24	34.54	56.94	75.17	56.33
Income						
Total Income	<u>1,426.44</u>	<u>1,510.68</u>	<u>1,751.21</u>	<u>2,092.95</u>	<u>2,504.01</u>	<u>3,430.58</u>
<u>Expenses</u>						
Total Interest Expenses	282.95	243.54	357.16	555.71	758.43	1,153.28
Staff Cost	180.84	199.52	219.78	240.16	262.90	339.89
Provision for Staff Bonus	71.94	84.2	89.90	99.50	108.90	147.86
Office Operating Costs	150.76	190.3	182.70	188.18	220.75	265.15
Other Costs & Losses	81.82	31.13	0.00	0.00	0.00	0.00
Total Cost Before Tax &	768.31	748.69	849.44	1,83.55	1,350.98	1,906.18
Provision						
Profit/Loss Before Tax &	358.13	761.99	901.77	995.04	1,089.00	1,478.66
Provision						
Income Tax Provision	201.76	239.15	262.56	321.08	342.52	447.61
Provision for Loan loss	1.05	4.21	3.77	14.20	64.05	45.72
Net Profit/Loss After Tax	<u>455.31</u>	<u>518.64</u>	<u>635.44</u>	<u>673.95</u>	<u>746.47</u>	<u>1,031.05</u>

www.nabilbank.com

Appendix 2(a)

Calculation of Trend values of Cash and Bank Balance to Current Assets Ratio of BOKL

Fiscal Year	Ratio(y)	$(\mathbf{x}) = \mathbf{X} - 3.5$	Xy	X^2	Y=a+bx
(X)					
2060/61	8.32	-2.5	-20.80	6.25	7.08
2061/62	7.59	-1.5	-11.38	2.25	7.60
2062/63	5.99	-0.5	-2.99	0.25	8.12
2063/64	9.23	0.5	4.61	0.25	8.64
2064/65	8.31	1.5	12.46	2.25	9.16
2065/66	10.87	2.5	27.17	6.25	9.68
Total(n) = 6	Σ y = 50.31	$\Sigma x = 0$	$\Sigma \times y = 9.07$	$\Sigma x^2 = 17.5$	

$$a = \Sigma y/n = 50.31/6 = 8.38$$

$$b = \Sigma xy/\Sigma x^2 = 9.07/17.5 = 0.52$$

Appendix 2(b)

Calculation of Trend values of Cash and Bank Balance to Current Assets Ratio of NABIL

Fiscal Year (X)	Ratio(y)	$(\mathbf{x}) = \mathbf{X} - 3.5$	Xy	\mathbf{X}^2	Y = a + bx
2060/61	5.91	-2.5	- 14.77	6.25	3.7
2061/62	3.32	-1.5	- 4.98	2.25	4.38
2062/63	2.86	-0.5	- 1.43	0.25	5.06
2063/64	5.19	0.5	2.59	0.25	5.74
2064/65	7.31	1.5	10.95	2.25	6.42
2065/66	7.80	2.5	19.5	6.25	7.1
Total (n) = 6	Σ y = 32.39	Σ x = 0	Σ x y=11.86	$\Sigma x^2 = 17.5$	

a =
$$\Sigma$$
 y/n = 32.39/6 = 5.40
b = Σ xy/ Σ x² = 11.86/17.5 = 0.68

Appendix 3(a)

Calculation of Trend values of Money at Call & Short notice to Current Assets

Ratio of BOKL

Fiscal Year (X)	Ratio(y)	(x) = X - 3.5	Xy	\mathbf{X}^2	Y = a + bx
2060/61	2.89	-2.5	-7.22	6.25	3.88
2061/62	3.37	-1.5	-5.05	2.25	3.3
2062/63	4.88	-0.5	-2.44	0.25	2.72
2063/64	1.82	0.5	0.91	0.25	2.14
2064/65	0.42	1.5	0.63	2.25	1.56
2065/66	1.21	2.5	3.02	6.25	0.98
Total (n) = 6	Σ y = 14.59	Σ x = 0	Σ x y= (10.15)	$\Sigma x^2 = 17.5$	

$$a = \Sigma y/n = 14.59/6 = 2.43$$

$$b = \Sigma xy/\Sigma x^2 = (10.15)/17.5 = (0.58)$$

Appendix 3(b)

Calculation of Trend values of Money at Call & Short notice to Current Assets

Ratio of NABIL

Fiscal Year (X)	Ratio(y)	(x) = X - 3.5	Xy	\mathbf{X}^2	Y = a + bx
2060/61	5.60	-2.5	- 14.77	6.25	3.7
2061/62	5.16	-1.5	- 4.98	2.25	4.38
2062/63	7.89	-0.5	- 1.43	0.25	5.06
2063/64	2.09	0.5	2.59	0.25	5.74
2064/65	5.34	1.5	10.95	2.25	6.42

2065/66	1.28	2.5	19.5	6.25	7.1
Total (n) = 6	Σ y = 27.36	$\Sigma x = 0$	Σχ	$\Sigma x^2 =$	
			y=11.86	17.5	

 $a = \Sigma y/n = 27.36/6 = 4.56$

 $b = \Sigma xy/\Sigma x^2 = 11.86/17.5 = 0.68$

Appendix 4(a)
Calculation of Trend values of investment to Current Assets Ratio of BOKL

Fiscal Year	Ratio(y)	$(\mathbf{x}) = \mathbf{X} -$	Xy	\mathbf{X}^2	Y=a+bx
(X)		3.5			
2060/61	26.32	-2.5	-65.80	6.25	29.00
2061/62	26.62	-1.5	-39.93	2.25	26.33
2062/63	27.74	-0.5	-13.87	0.25	23.66
2063/64	20.99	0.5	10.49	0.25	20.99
2064/65	18.48	1.5	27.72	2.25	18.32
2065/66	13.86	2.5	34.65	6.25	15.65
Total (n) = 6	Σ y = 134.01	Σ x = 0	Σ x y= (46.74)	$\Sigma x^2 =$	
				17.5	

 $a = \Sigma y/n = 134.01/6 = 22.33$

 $b = \Sigma xy/\Sigma x^2 = (46.74)/17.5 = (2.67)$

Appendix 4(b) Calculation of Trend values of investment to Current Assets Ratio of NABIL

Fiscal Year (X)	Ratio(y)	(x) = X - 3.5	Xy	\mathbf{X}^2	Y = a + bx
2060/61	35.57	-2.5	-88.92	6.25	32.04
2061/62	25.37	-1.5	-38.05	2.25	30.85
2062/63	28.07	-0.5	-14.03	0.25	29.66

Total (n) = 6	Σ y = 174.46	$\Sigma x = 0$	Σ x y=(20.95)	$\Sigma x^2 = 17.5$	
2065/66	25.06	2.5	62.65	6.25	26.09
2064/65	27.21	1.5	40.81	2.25	27.28
2063/64	33.18	0.5	16.59	0.25	28.47

 $a = \Sigma y/n = 174.46/6 = 29.07$

 $b = \Sigma xy/\Sigma x^2 = -20.95/17.5 = (1.19)$

Appendix 5(a)
Calculation of Trend values of Loan, Advances & Bills Purchased Percentage to
Current Assets Ratio of BOKL

Fiscal Year (X)	Ratio(y)	$(\mathbf{x}) = \mathbf{X} - 3.5$	Xy	\mathbf{X}^2	Y = a + bx
2060/61	59.99	-2.5	-149.97	6.25	57.66
2061/62	60.56	-1.5	-90.84	2.25	60.66
2062/63	59.66	-0.5	-29.83	0.25	63.66
2063/64	65.93	0.5	32.96	0.25	66.66
2064/65	71.90	1.5	107.85	2.25	69.66
2065/66	72.95	2.5	182.37	6.25	72.66
Total (n) = 6	Σ y = 390.99	$\Sigma x = 0$	Σ x y= 52.54	Σ x ² =	
				17.5	

 $a = \Sigma y/n = 390.99/6 = 65.16$

 $b = \Sigma xy/\Sigma x^2 = 52.54/17.5 = 3.00$

Appendix 5(b) Calculation of Trend values of Loan, Advances & Bills Purchased Percentage to Current Assets Ratio of NABIL

Cultural librets ituito di l'albie									
Fiscal Year (X)	Ratio(y)	$(\mathbf{x}) = \mathbf{X} - 3.5$	Xy	\mathbf{X}^2	Y = a + bx				

			y = 27.66	17.5	
Total (n) = 6	Σ y = 351.54	$\Sigma x = 0$	Σχ	Σ x ² =	
2065/66	63.86	2.5	159.65	6.25	62.54
2064/65	58.48	1.5	87.72	2.25	60.96
2063/64	57.65	0.5	28.82	0.25	59.38
2062/63	58.71	-0.5	-29.35	0.25	57.8
2061/62	62.92	-1.5	-94.38	2.25	56.22
2060/61	49.92	-2.5	-124.8	6.25	54.64

 $a = \Sigma y/n = 351.54/6 = 58.59$

 $b = \Sigma xy/\Sigma x^2 = 27.66/17.5 = 1.58$

Appendix 6(a)
Calculation of Trend values of Other current assets to Current Assets Ratio of BOKL

Fiscal Year (X)	Ratio(y)	$(\mathbf{x}) = \mathbf{X} -$	Xy	\mathbf{X}^2	Y=a+bx
		3.5			
2060/61	2.48	-2.5	-6.2	6.25	2.35
2061/62	1.86	-1.5	-2.79	2.25	2.08
2062/63	1.73	-0.5	-0.86	0.25	1.81
2063/64	2.03	0.5	1.01	0.25	1.54
2064/65	0.89	1.5	1.33	2.25	1.27
2065/66	1.11	2.5	2.77	6.25	1.00
Total (n) = 6	Σ y = 10.1	$\Sigma x = 0$	Σ x y= (4.74)	$\Sigma x^2 = 17.5$	

 $a = \Sigma y/n = 10.1/6 = 1.68$

 $b = \Sigma xy/\Sigma x^2 = (4.74)/17.5 = (0.27)$

Appendix 6(b)
Calculation of Trend values of other current assets to Current Assets Ratio of NABIL

Fiscal Year (X)	Ratio(y)	(x) = X - 3.5	Xy	\mathbf{X}^2	Y=a+bx
2060/61	3.00	-2.5	-7.5	6.25	3.09
2061/62	3.23	-1.5	-4.84	2.25	2.80
2062/63	2.47	-0.5	-1.23	0.25	2.51
2063/64	1.89	0.5	0.94	0.25	2.22
2064/65	1.66	1.5	2.49	2.25	1.93
2065/66	2.00	2.5	5.00	6.25	1.64
Total (n) = 6	Σ y = 14.25	$\Sigma x = 0$	$\Sigma \times y = (5.14)$	$\Sigma x^2 =$	
				17.5	

$$a = \Sigma y/n = 14.25/6 = 2.37$$

$$b = \Sigma xy/\Sigma x^2 = (5.14)/17.5 = (0.29)$$

Appendix 7(a)

Calculation of Current and Quick Ratios of BOKL

Fiscal Year (B.S.)	2060/61	2061/62	2062/63	2063/64	2064/65	2065/66
Total Current Assets	9412.72	9761.89	12167.76	14256.89	17334.17	20078.94
Total Quick Assets	3532.61	3667.64	4797.93	4567.6	4717.2	5209.05
Total Current Liabilities	8845.61	9136.4	11438.6	13252.27	18298.32	16227.26
Current Ratio (C.R.)	1.06	1.06	1.06	1.07	0.94	1.23
Quick Raio (Q.R.)	0.39	2.66	0.41	0.34	0.25	0.32

Appendix 7(b)

Calculation of Current and Quick Ratios of NABIL

Fiscal Year (B.S.)	2060/61	2061/62	2062/63	2063/64	2064/65	2065/66
Total Current Assets	16407.36	16825.09	22010.88	26966.39	36534.71	43206.4
Total Quick Assets	7725.17	5695.04	8543.67	10908.56	14563.27	14751.78
Total Current Liabilities	15263.8	15528.71	20454.98	24686.91	33979.41	39995.59
Current Ratio (C.R.)	1.07	1.08	1.07	1.09	1.07	1.08
Quick Raio (Q.R.)	0.50	0.36	0.41	0.44	0.43	0.36

Appendix 8(a)

Calculation of Trend values of Current Ratio of BOKL

Fiscal Year (X)	Ratio(y)	(x) = X - 3.5	Xy	\mathbf{X}^2	Y = a + bx
2060/61	1.06	-2.5	-2.65	6.25	1.0345
2061/62	1.06	-1.5	-1.59	2.25	1.0487
2062/63	1.06	-0.5	-0.53	0.25	1.0629
2063/64	1.07	0.5	0.535	0.25	1.0762
2064/65	0.94	1.5	1.41	2.25	1.0913
2065/66	1.23	2.5	3.075	6.25	1.1055
Total (n) = 6	Σ y = 6.42	$\Sigma x = 0$	Σ x y=0.25	$\Sigma x^2 = 17.5$	

a =
$$\Sigma$$
 y/n = 6.42/6 = 1.07
b = Σ xy/ Σ x² = 0.25/17.5 = 0.0142

Appendix 8(b)

Calculation of Trend values of Current Ratio of NABIL

Fiscal Year (X)	Ratio(y)	$(\mathbf{x}) = \mathbf{X} - 3.5$	Xy	\mathbf{X}^2	Y = a + bx
2060/61	1.07	-2.5	-2.675	6.25	1.0671
2061/62	1.08	-1.5	-1.62	2.25	1.0682
2062/63	1.07	-0.5	-0.535	0.25	1.0694
2063/64	1.09	0.5	0.545	0.25	1.0705
2064/65	1.07	1.5	1.605	2.25	1.0717
2065/66	1.08	2.5	2.7	6.25	1.0728
Total (n) = 6	Σ y = 6.42	$\Sigma x = 0$	Σ x y=0.02	$\sum x^2 =$	
				17.5	

$$a = \Sigma y/n = 6.42/6 = 1.07$$

 $b = \Sigma xy/\Sigma x^2 = 0.02/17.5 = 0.001142$

Appendix 9(a)

Calculation of Trend values of Quick Ratio of BOKL

Fiscal Year (X)	Ratio(y)	$(\mathbf{x}) = \mathbf{X} - 3.5$	Xy	\mathbf{X}^2	Y = a + bx
2060/61	0.39	-2.5	-0.975	6.25	1.2745
2061/62	2.66	-1.5	-3.99	2.25	1.0560
2062/63	0.41	-0.5	-0.205	0.25	0.8375
2063/64	0.34	0.5	0.17	0.25	0.6190
2064/65	0.25	1.5	0.375	2.25	0.4005
2065/66	0.32	2.5	0.8	6.25	0.1820
Total (n) = 6	Σ y = 4.37	Σ x = 0	Σ x y=(3.825)	$\Sigma x^2 = 17.5$	

a = Σ y/n = 4.37/6 = 0.7283 b = Σ xy/ Σ x² = (3.825)/17.5 = (0.2185)

Appendix 9(b)

Calculation of Trend values of Quick Ratio of NABIL

Fiscal Year (X)	Ratio(y)	$(\mathbf{x}) = \mathbf{X} - 3.5$	Xy	\mathbf{X}^2	Y = a + bx
2060/61	0.5	-2.5	-1.25	6.25	0.4516
2061/62	0.366	-1.5	-0.549	2.25	0.438
2062/63	0.41	-0.5	-0.205	0.25	0.4244
2063/64	0.44	0.5	0.22	0.25	0.4108
2064/65	0.43	1.5	0.645	2.25	0.3972
2065/66	0.36	2.5	0.9	6.25	0.4516
Total (n) = 6	Σ y = 2.506	Σ x = 0	Σ x y=(0.239)	$\Sigma x^2 = 17.5$	

a =
$$\Sigma$$
 y/n = 2.506/6 = 0.4176
b = Σ xy/ Σ x² = (0.239)/17.5 = (0.0136)

Fiscal Year (X)	NP (x)	LA (Y)	X^2	\mathbf{Y}^2	XY
2060/61	127.48	5646.70	16251.15	31885220.89	719841.316
2061/62	139.53	5912.58	19468.62	34958602.26	824982.28
2062/63	202.44	7259.08	40981.95	52694242.45	1469528.155
2063/64	262.38	9399.32	68843.26	88347216.46	2466193.582
2064/65	361.49	12462.63	130675.02	155317146.5	4505116.119
2065/66	461.73	14647.29	213194.59	214543104.3	6763093.212
N = 6	Σ X=1555.05	Σ Υ=55327.6	Σ X ² =489414.59	Σ Y ² =577745532.9	Σ XY=16748754.66

Appendix 10(a)

Calculation of Coefficient of Correlation between Net Profit (NP) and Loans & Advances (LA) of BOKL

Here,

$$N = 6 \Sigma X = 1555.05 \Sigma Y = 55327.6 \Sigma X^2 = 489414.59 \Sigma Y^2 = 577745532.9$$

ΣXY=16748754.66

Coefficient of Correlation(r)

$$r = \frac{N\Sigma XY - \Sigma X * \Sigma Y}{\sqrt{N\Sigma X^2 - (\Sigma X)^2} \sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

$$r = \frac{6x16748754.66 - (1555.05)(55327.6)}{\sqrt{6x489414.59 - (1555.05)^2}\sqrt{6x577745532.9 - (55327.6)^2}}$$

$$= \frac{100492528 - 86037184.38}{\sqrt{2936487.54 - 2418180.503} \cdot 3466473197 - 3061143322}$$

$$= \frac{14455343.62}{\sqrt{518307.037} \sqrt{405329875}}$$

Now, calculation of probable error (P.E.):

We know that,

P.E. =
$$[0.6745] \times \frac{1-r^2}{N}$$

$$= [0.6745] \times \frac{(1-0.9973)^2}{6}$$

= 0.0006062

Where
$$\mathbf{r} = 0.9973$$
 and $\mathbf{N} = 6$

Appendix 10(b)

Calculation of Coefficient of Correlation between Net Profit (NP) and Loans & Advances (LA) of NABIL

Fiscal Year (X)	NP(x)	LA (Y)	\mathbf{X}^2	\mathbf{Y}^2	XY
2060/61	455.31	8189.99	207307.19	67075936.2	3728984.347
2061/62	518.64	10586.17	268987.44	112066995.3	5490411.209
2062/63	635.44	12922.54	403783.99	166992040.1	8211498.81
2063/64	673.95	15545.78	454208.60	241671275.8	10477078.43
2064/65	746.47	21365.05	557217.46	456465361.5	15948368.87
2065/66	1031.05	27589.93	1063064.10	761204237.4	28446597.33
N = 6	$\Sigma X = 4060.86$	Σ Y = 96199.46	$\Sigma X^2 = 2954568.78$	$\Sigma Y^2 = 1805475846$	$\Sigma XY = 72302939$

Here,

$$N = 6$$
 $X = 4060.86$ $Y = 96199.46$ $X^2 = 2954568.78$

 $Y^2 = 1805475846$ XY = 72302939

Coefficient of Correlation(r) =
$$\frac{N XY - X * Y}{N X^2 - (X)^2} \frac{N Y^2 - (Y)^2}{N Y^2 - (Y)^2}$$

$$\mathbf{r} = \frac{6x72302939 - (4060.86)(96199.46)}{6x2954568.78 - (4060.86)^2} \frac{6x1805475846 - (96199.46)^2}{6x1805475846 - (96199.46)^2}$$

$$= \frac{433817634 - 390652539.1}{17727412.68 - 16490583.94} \frac{10832855000 - 9254336104}{10832855000 - 9254336104}$$

Now, calculation of probable error (P.E.):

P.E. =
$$[0.6745] \times 1-r^2$$

N

$$= [0.6745] \times \frac{(1-0.9769)^2}{6}$$

= 0.0051336

6PEr =
$$6 \times 0.0051336 = 0.03080198$$

Where
$$\mathbf{r} = 0.9769$$
 and $\mathbf{N} = 6$

Appendix 11(a)

Calculation of Coefficient of Correlation between Loans & Advances (LA) and Total

Deposit (TD) of BOKL

Fiscal Year (X)	LA(x)	TD (Y)	\mathbf{X}^2	\mathbf{Y}^2	XY
2060/61	5646.70	7741.64	31885220.89	59932989.89	43714718.59
2061/62	5912.58	8942.76	34958602.26	79972956.42	52874783.92
2062/63	7259.08	10485.36	52694242.45	109942774.3	76114067.07
2063/64	9399.32	12388.92	88347216.46	153485338.8	116447423.5
2064/65	12462.63	18083.98	155317146.5	327030332.6	225373951.7
2065/66	14647.29	15833.73	214543104.3	250707005.7	231921235.1
N = 6	Σ X=55327.6	$\Sigma Y = 73476.39$	$\Sigma X^2 = 577745532.9$	$\Sigma Y^2 = 981071397.7$	Σ XY =746446179.9

Here,

$$N = 6$$
 $X = 55327.6$ $Y = 73476.39$

$$X^2 = 577745532.9$$
 $Y^2 = 981071397.7$ $XY = 746446179.9$

Coefficient of Correlation(r)

$$r = \frac{N XY - X * Y}{N X^2 - (X)^2 N Y^2 - (Y)^2}$$

$$= \frac{6x 746446179.9 - (55327.6) (73476.39)}{6x577745532.9 - (55327.6)^2} \frac{6x981071397.7 - (73476.39)^2}{6x981071397.7 - (73476.39)^2}$$

$$= \frac{4478677079 - 4065272315}{\overline{3466473197 - 3061143322}} \overline{5886428386 - 5398779887}$$

$$= \frac{413404764}{\overline{405329875}} \frac{487648499}{\overline{487648499}}$$

Now, calculation of probable error (P.E.):

We know that,

P.E. =
$$[0.6745] \times \frac{1-r^2}{N}$$

$$= [0.6745] \times \frac{(1-0.9298)^2}{6}$$

= 0.0152293

6PEr =
$$6 \times 0.0152293 = 0.0913758$$

Where
$$r = 0.9298$$
 and $N = 6$

Appendix 11(b)

Calculation of Coefficient of Correlation between Loans & Advances (LA) and Total

Deposit (TD) of NABIL

Fiscal Year (X)	LA(x)	TD (Y)	\mathbf{X}^2	\mathbf{Y}^2	XY
2060/61	8189.99	14119.03	67075936.2	199347008.1	115634714.5
2061/62	10586.17	14586.61	112066995.3	212769191.3	154416333.2
2062/63	12922.54	19347.40	166992040.1	374321886.8	250017550.4
2063/64	15545.78	23342.28	241671275.8	544862035.6	362873949.6
2064/65	21365.05	31915.05	456465361.5	1018570417	681866639
2065/66	27589.93	37348.25	761204237.4	1394891778	1030435603
N = 6	Σ X =96199.46	Σ Y =140658.62	$\Sigma X^2 = 3980515846$	$\Sigma Y^2 = 3744762317$	$\Sigma XY = 2595244790$

Here,

$$N = 6$$
 $\Sigma X = 96199.46$ $\Sigma Y = 140658.62 \Sigma X^2 = 3980515846 $\Sigma Y^2 = 3744762317$$

 $\Sigma XY = 2595244790$

Coefficient of Correlation(r) =
$$N\Sigma XY - \Sigma X *\Sigma Y$$

$$\sqrt{N\Sigma X^2 - (\Sigma X)^2} \sqrt{N\Sigma Y^2 - (\Sigma Y)^2}$$

$$\begin{array}{rcl} \mathbf{r} & = & \frac{6 \times 2595244790 - (96199.46) (140658.62)}{\sqrt{6 \times 3980515846 - (96199.46)^2}} \sqrt{6 \times 3744762317 - (140658.62)^2} \\ & = & \frac{15571468740 - 13531283290}{\sqrt{23883095080 - 9254336104}} \\ & = & \frac{2040185450}{\sqrt{14628758980}} \sqrt{2683726520} \\ & = & \frac{2040185450}{120949.40 \times 51804.69} \\ & = & \frac{2040185450}{6265746889} \\ \end{array}$$

Now, calculation of probable error (P.E.):

0.3256

We know that,

=

P.E. =
$$[0.6745] \times \frac{1-r^2}{N}$$

= $[0.6745] \times \frac{(1-0.3256)^2}{6}$
= 0.01004987

$$6PEr = 6 X 0.01004987 = 0.6029992$$

Where
$$r = 0.3256$$
 and $N = 6$

BIO-DATA

A. Personal Details:

Devendra Bahadur Thapa

Father's Name :- Yam Bahadur Thapa

Address :- Devinagar-13, Butwal, Rupandehi, Nepal

Date of Birth :- 13-02-1979 A.D.

Gender :- Male
Marital Status :- Married
Nationality :- Nepali
Religion :- Hindu

Language Skill :- Nepali, English, Hindi, Korean

Tel. No. :- +97771544446, +9779847025112, +9779747036112

E-mail :- devkusu@yahoo.com

B. Educational Qualification:

- 1. SLC passed from Sarada Secondary School, Baglung in 2053 B.S.
- 2. PCL passed from Bhairahawa Multiple Campus, Bhairahawa in 2056 B.S.
- 3. BBS passed from Lumbini Banijya Campus, Butwal in 2060 B.S.
- 4. MBS passed from Lumbini Banijya Campus, Butwal in 2066 B.S.

C. Extra Curricular Activities:

- 1. Completion the six months certificate in computer course from Star Computer Pvt. Ltd. Butwal in 2002 A.D.
- 2. Completion the one month audio/video, radio program production & basic of news writing training from MSDTI, Pokhara in 2003 A.D.
- 3. Completion the Accounting Package Tally 7.2 from Datasoft Computer Tally Academy, Butwal in 2063 B.S.

D. Experience:

1. Worked experience in the TEMB Consultancy and Support Center, Butwal as an Account Officer since 10 March, 2005 to 18 March, 2007.

2. Teaching experience in the AIMS English Higher Secondary School, Butwal as a secondary level account teacher since 2062.01.15 to 2066.08.15 B.S.

E. Now Working:

- 1. Working as a radio program producer and radio jokey in Radio Lumbini 96.8 MHz, Manigram, Rupandehi (Each Thursday & Saturday 4.10 P.M. Mantaranga & Majheri)
- 2. Working as an account & economics teacher in Kusum Coaching Center, Butwal, Rupandehi.
- 3. Working as a manager of Suva Shree Saving & Credit Co-operative Ltd. Butwal, Rupandehi.
- 4. Working as a management subject teacher in Green Plant Higher Secondary School, Khairai, Rupandehi from two years before.