CHAPTER -I

INTRODUCTION

1.1 General Background

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

In other words, bank facilities also become right hand for the growth of trade and industry of national economic of developing country like Nepal. The above fact shows that a bank plays vital role for the economic development of the country.

Commercial Bank Act, 2031 of Nepal has defined commercial bank as "An organization which exchanges money accepts deposits, growth loans and performs commercial banking functions and which isn't a bank meant for co-operative, agriculture, industries or for such specific purpose."

The organized banking business in Nepal began with the establishment of Nepal Bank Ltd. in 1994 B.S. under Nepal Bank Act. 1994 B.S. although, some form of Banking was known to be practiced in the ancient period, As days passed by, their were dynamic changes visible in the commercial

banking system until the establishment of Nepal Rastra Bank in 2013 B.S. the Govt. Owned banks were setup for the genuine purpose of expending the financial development and pursing, the financial intermediation process to fulfill the development requirement of the nation. However, the defective way of management and their scant regarding to the consideration, of competence, quality, service, delivery, productivity and efficiency, led these institutions to become unbound and inefficient in delivering the services.

In Nepal, the Nepal Arab bank limited (Renamed as NABIL bank limited since 1st Jan 2002) became the first foreign joint venture commercial bank to begin its operation in 2041 B.S. This bank proved to be a milestone in the history of banking sector. It was established with joint venture of U.S.E. Bank, financial institution of Nepal. The second JVB, Nepal is NIBL (Nepal investment bank Ltd.) which was established in 6th Magh 2042 B.S. Similarly other JVBs Like, Nepal Grindlays bank Ltd. on 2049 B.S, Nepal SBI Bank Ltd. on 2050 B.S, Nepal Bangladesh bank Ltd. on 2051 B.S, Everest Bank Ltd. on 2051 B.S, Bank of Katmandu on 2052 B.S. and other are in the process of establishment commercial banks. At present, there are 27 commercial banks operating in Nepal. Among them 24 commercial banks are listed in Stock Exchange and there are altogether 17 commercial banks including JVBs operating in Nepal (2068 Aswin End).

JVBs are registered in Nepal under company act, 2021 B.S., and operated under the commercial bank act, 2031 B.S.; they have joint Venture between Nepalese investor and their parent banks. The domestic portion of investment has been shared by financial and non-financial institution.

JVBs play an important role for economic development of nation. They have adopted new banking technique, management like, hypothecation, syndication lending polices, tale banking, credit card, master card from international banking technique. Although, existing number of JVB are

17, the researcher has attempted to take only two banks for purpose of the research study.

1.1.1 Brief Description of Sample Commercial Banks

i) Nepal Investment Bank Ltd.(NIBL)

Nepal Investment Bank Ltd, previously Nepal Indosuez Bank was established in 1986. It is an association of French and Nepalese Entrepreneurs regarding the composition to equity capital Indosuez pairs, Rashtriya Banijya Bank, Rashtriya Beema sansthan and General public share 50%, 15%, 15% and 20% respectively. It is managed by a team of experience bankers and professional having proven track records, can offer you what you are looking for. The Bank operates with the objectives of providing loan to industry, commerce and trade.

The bank has more than 40 branches in various parts of the kingdom. Its Head office and main branch office is located in Durbar Marga, Kathmandu. The branches are - Seepadole , Birgunj, Pulchock, Banepa, Jeetpur, Newroad, Biratnager,Butwal, Bhairahawa, Pokhara, Putalisadak, Narayangunj, Janakpur, Nepalgunj, Thamel, Kalimati, Birtamod, Battisputali, Dhangadi, Gongabu, Surkhet, Jumla, Boudha, Hetauda, Palpa, Lukla, Nayabaneshwor, Dhumbarahi, Bhotahiti, Tulsipur, Tripureshower, Damauli, Krishnanager, Gaighat, Lazimpat, Parsa, Maharajgunj, Lalbandhi, Lagankhel and Waling branch. The Bank has utilized advance computerized techniques in its operation.

It provides following facilities:

a) It provides loan and advance by means of term loans as well as working capital.

b) It provides its facilities of opening latter of credit and guarantees.

c) It provides remittance facility to various part of the world. It is going to introduce SWIFT transfer system in future.

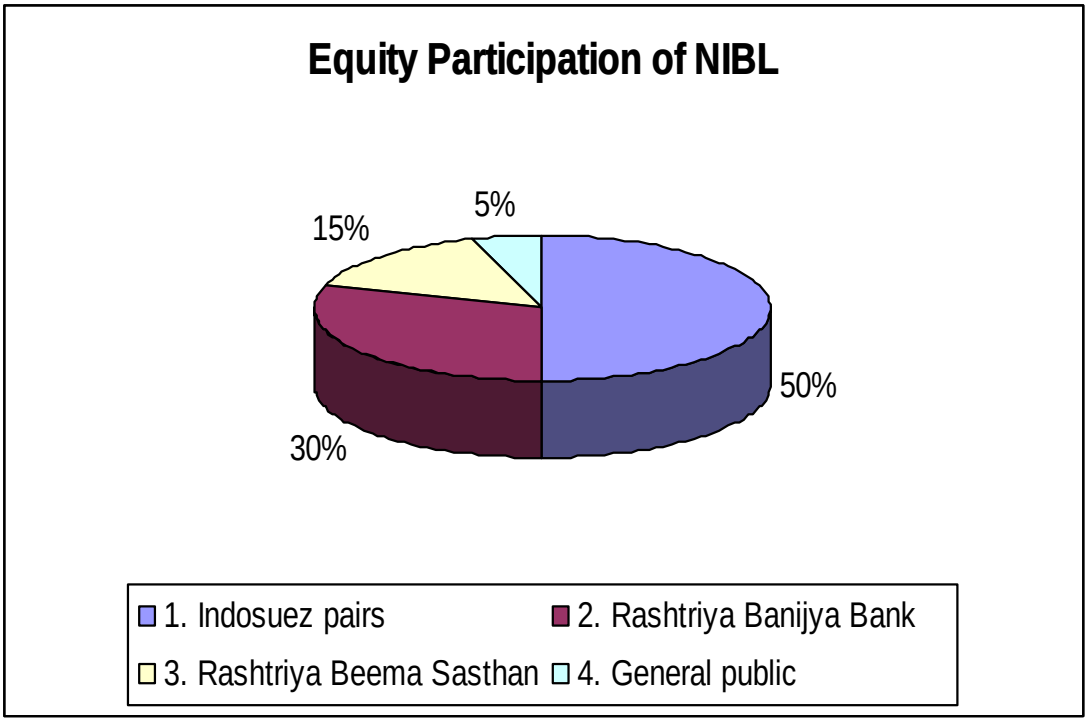
d) It provides merchant Banking facilities.

Table no. 1.1

Current Equity Participation (2067/068)

Participants	Share in equity percentage
1. Indosuez pairs	50%
2. Rashtriya Banijya Bank	30%
3. Rashtriya Beema Sasthan	15%
4. General public	5%

Figure NO. 1.1



Source: - Annual Financial Reports of NIBL

ii) Everest Bank Ltd.(EBL)

Similarly, Everest Bank limited was established in 1994 with an authorized capital of Rs. 240 million and paid up capital of Rs. 120 million under the company act 1964. It is joint venture with Punjab National Bank of India. This bank is managed in accordance with the joint venture and technical service agreement between Punjab National Bank of India and Nepali promoters. Its head office is located at Lazimpat, Katmandu, Nepal.

Awards

- The bank has been conferred with "Bank of the Year 2006, Nepal" by the banker, a publication of financial times, London.
- The bank was bestowed with the "NICCI Excellence award" by Nepal India chamber of commerce for its spectacular performance under finance sector. Recognizing the value of offerings a complete range of services, we have pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus (Future Lease Rental), Home Equity Loan, Vehicle Loan, Loan Against Share, Loan Against Life Insurance Policy and Loan for Professionals.
  EBL was one of the first banks to introduce Any Branch Banking System (ABBS) in Nepal.
  EBL has introduced Mobile Vehicle Banking system to serve the segment deprived of proper banking facilities through its Birtamod Branch, which is the first of its kind. EBL has introduced branchless banking system first time in Nepal to cover unbanked sector of Nepalese society.
- EBL is first bank that has launched e-ticketing system in Nepal. EBL customer can buy yeti airlines ticket through internet.

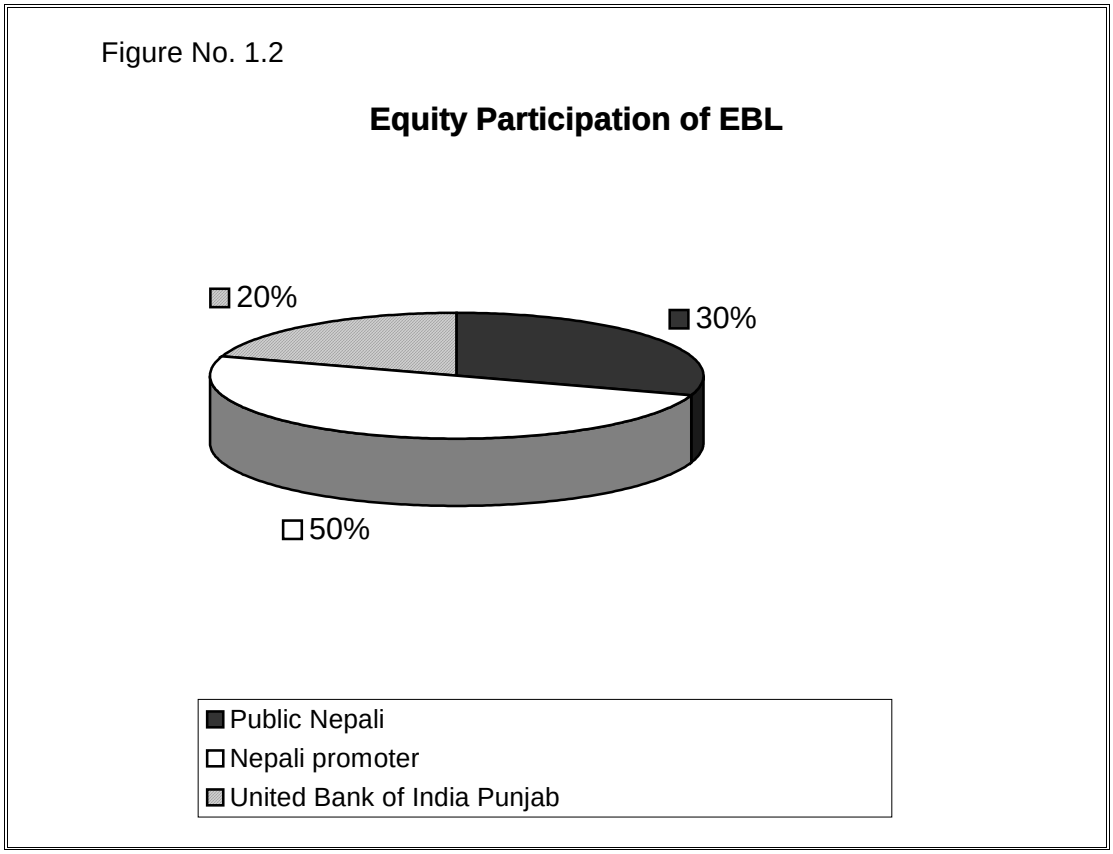
Its initial and present Equity Participation is as follows:

Table No. 1.2

Equity Participation:

Participants	Share in Equity Percentage
1. Public (Nepali)	30%
2. Nepali promoter	50%
3. Punjab National Bank of India	20%

Figure No. 1.2



***Source**: Annual report of EBL.*

To increase its banking transactions, there are 15 branches already established within the territory of Nepal. Its objective is to carry out modern banking business in the country. It has been able to provide the excellent services to its clients in this competitive market by the available latest technology. It provides many services such as consortium finance, working capital loan, term loan, demand loan, hire purchase loan, trade loan, letter of credit, bank guarantee, bills purchase, remittance services all over the world, bearer certificate of deposits, underwriting of shares, housing loans, car financing and education loan, any branch banking within the valley etc. It provides more services to its customers and participates and plays a great role in economic development of the country.

1.2 Focus of the Study

In Nepal banking seems to be growing more rapidly than industry and commerce itself because more and more banks are being established and apparently they all are providing good return to the investors. Strength and sound management of their resources directly enhances the profit or profitability. A comparative analysis of working capital management of two banks is crucial as it determines the strength and weakness of these two JVBs on the aspect of w/c Management.

This study will focus on the comparative w/c management of Nepalese Commercial JVBs from the period of 2002/03 to 2006/07.

This study focuses on how the Nepalese JVBs utilizes the available working capital funds very well. Besides this, study also focuses on the relationship between, current assets and current liabilities and relationship of other variables which affect the working capital management.

W/C is a very crucial and important aspect of financial Management. The most common definition of net w/c is the difference between current assets and current liabilities. W/c management is to manage the current assets and current liabilities of a firm in such a way that the satisfactory several of w/c can be attained. Excess of w/c implies idle fund, which earns no profit for the business. Therefore, excessive and inadequate w/c, both are harmful for a firm. W/C is very important in any business firm mainly for these four reasons.

(a) Business firm determine the adequate of investment in current assets, otherwise it would seriously erode their liquidity base.

(b) They must be selected the type of current assets suitable for investment so as to raise their operational efficiency.

(c) That are required to ascertain the turnover, the current assets that greatly determine the profitability of private enterprises and,

(d) That must find out the appropriate source of funds to finance current assets.

The risk can be measured by w/c. W/C increase in two conditions, by increasing on current assets or decreasing current liabilities. So it is assumed that the greater the amount of net w/c, less risky the firm is. By increasing the w/c, the firm will be more liquidity position. The changes of insolvent will be low in that case. In same ways, if the working capital decreases, the risk increases and side-by-side these will be more chance of insolvent.

All the above facts are taken by the researcher. The study is directed towards the w/c management of selected different Nepalese commercial JVBs, to analyze the major bleeps and provide suggestive recommendation to may the w/c Management efficient which will help to achieve the object of the selected company.

1.3 Statement of the Problems

To earn profit is chief destination of each business. Therefore each business has been forwarding their efforts to achieve their organization goal. But it isn't so easy to get their organization goal, because they have several problems. Out of them, Nepalese commercial JVBs aren't free from the problem since it establishment.

This study focuses to analyze JVBs. Joint venture commercial banks are the most important financial institutions that help in the economic development of a country. Commercial bank earns profit by providing quality services to the customer but there are so many problems in the commercial JVBs of Nepal. Besides it, they have their own name and

fame. There aren't appropriate training and orientation class in different level of employees. The other main problems of Nepalese commercial JVBs are lackness of effective management policy, planning, controlling and reporting sources.

Similarly, one of the major problems of these selected commercial JVBs is the ill management of w/c. To fulfill above mentioned objective, the study attempts to answer the following question:

a) How is the Nepalese JVBs managing its working capital needs and is the appropriate?
b) How far Nepalese JVBs are being able to utilize their different assets?
c) How efficiently JVBs are managing their liquidity assets, capital structure etc.?
d) How far have JVBs been able to mobilize its resources into profitable investment?
e) Is the position of current assets and current liabilities appropriate?
f) To what extent these banks have been able to raise their profitability?
g) Is there proper investment in each types of working capital in the Nepalese JVBs?
h) Based on the above questions, which bank has faced more financial risk?

Hypothesis of the Study

In order to evaluate the problem and to meet the objectives of the study following null (H_0) hypothesis is formulated.

a) There is no significant difference between current asset and current liabilities in the sense of average proportion increase, i.e. current assets are affected by current liabilities.

b) There is no significant difference between current asset and total current assets in regard of average proportion increases.

c) The relationship between cash balance and current assets does not differ in the regard of average proportion increase.

1.4 Objectives of the Study

The basic objectives of the study are to examine measure and interpret the w/c management and effectiveness of comparative w/c management of selected different Nepalese commercial JVBs. To achieve this, the following objectives have been carried out:

a) To evaluate and analyze the net profit on current assets, debt to equity and EPS of the selected joint venture banks.

b) To analyze the current assets and current liabilities of the selected JVBs

c) Find the basic reason of the w/c management.

d) To evaluate and analyze the w/c with the help of trend analysis.

e) To provide reformative suggestion for further improvement of sample two commercial JVBs.

1.5 Significance of the Study

Nepalese commercial JVBs can play an important role in the upliftment of developing countries like Nepal. It also helps to improve the economic position of the country. The main objective of thesis research is to analyze the w/c management through the use of appropriate financial

tools. W/c is the life- blood of a business. W/c has to support the daily activities of business.

W/c management is critically important because w/c is used to make adjustment w/c is used to make adjustment in- operations to account for changing economic condition. If demand begins to rise or fall, the immediate responses are in the w/c account and the appropriateness of the responses can spell success or failure for the firm.

The shareholders are the real owner who wants fair return on their investment through proper utilization of the fund. Hence, the present study will be important one to help the share holder in adjusting, whether their funds are being properly in ad justified to get a fair of return on their investment.

1.6 Limitation of the Study

This work has done some permanent boundary, beside the boundary the topic concentration isn't diversified these boundaries are called limitation of study. Each and every study has its own limitations. Therefore, the following are the major limitations prevailed in the present study.

a) The study is only confined to two selected commercial JVBs and it covers only five years data.
b) The study is mainly based on the secondary data were which derived from annual reports of the concerned banks, journals, published thesis work.
c) Since the data available in annual reports aren't in organized form, they have been organized according to the need of the analysis.
d) There are many statistical tools but this study will include some statistical tools and financial tools which have been used in the

analysis of w/c management of Nepalese JVBs. Hence the study has a limited significance from the particular view point.

e) Due to the time constraint not all the related areas are possible to cover in depth.

1.7 Organization of the Study

The study has been organized into five chapters, each of these chapters are listed below.

CHAPTER-I [Introduction]

This chapter includes and deals the background and introduction of the study, concept of commercial bank, Introduction of JVBs, brief introduction of Nepal NIBL Bank Ltd., and EB Limited. Similarly, focus of the study, statement of the problems, objectives of the study, needs and significance of the study, assumption and limitation of the study and organization of the study are also highlighted.

CHAPTER – II [Review of Literature]

This chapter is the review of literature and it deals with conceptual frame work of the w/c management. It includes the theoretical analysis and brief review of related and pertinent literature, available. Review of major studies will be also presented.

CHAPTER – III [Research Methodology]

This chapter contains the research methodology, which includes research design, sources of data, population and sample, data collection techniques and data analysis tools.

CHAPTER – IV [Presentation & Analysis of Data]

This part of study includes a presentation and analysis of relevant data and information, various statistical and financial tools and techniques that have been used to analysis and interpret the results of working capital management of selected JVBs.

CHAPTER – V [Summary, Conclusion & Recommendation]

The chapter includes summary, conclusion and recommendations. The bibliography and appendices have also been included in the last part of the study.

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CHAPTER – II

REVIEW OF LITERATURE

Review of literature is an essential part of all studies. It is not only a way to discover what other research in the area of our problem has uncovered, but also helps to avoid investigating problems that have already been definitely answered. It is an integral and mandatory process in research works. It is necessary to show how the problem under investigation relates to previous research within theoretical framework and in such situation the underlying theory needs to be reviewed well.

The research has also reviewed related literatures. Firstly, it has reviewed literature for conceptual framework which helps to develop concept about working capital and terms related with it. Then important finance journals, previous master degree level thesis, articles and newspapers related to the research topics were reviewed on the second part. It helps the researcher not only to find out the research gap but also helps to precede this study in a systematic manner.

2.1 Conceptual Framework

Our study focuses the concept of working capital, but to know the concept of working capital, firstly we have to know the concept of capital only. Capital is the amount of money in terms of cash or kind of invested in a business. That is way capital may be factors of production in the firm of building equipments machinery, raw materials, semi- finished goods for further process and so on.

Long term funds are required to create production facilities through purchase of fixed assets such as plant, machinery, land and building, furniture etc.

In fact, there are two concepts of working capital. They are as

(i) Gross concept of w/c

(ii) Net concept of w/c

(i) Gross concept of working capital:-

Gross concept of working capital means sum of current assets only. Current assets are those assets, which can be converted into cash within short period of normally accounting cycles. Current assets include cash, marketable securities, sundry debtors, bill receivables, inventory etc.

The supporters of gross concepts of w/c are in favors of the given statements:-

Gross working capital is the administration of the firm's current assets and the financing needed to support current assets." *(Van Horne, and Wachowiczh , 2002;104)*

From the view of I.M. Pandey, gross working capital refers to the firm's investment in current assets. Current assets are the assets which can be converted into cash within an accounting year and includes cash, debtors, stock short- term securities and bill receivables.

In a simple term, gross concept of working capital means investment in current assets. In other word, gross concept of w/c is the total amount of available for financing of current assets. Thus the gross concept of w/c is the capital invested in total current assets of the enterprises."

"If all the expenses needed to run the day to- day operation of business such as amount to be invested in the form of cash, finished goods,

receivables etc, are put together, it is called working capital. This w/c and total current assets are synonymous."

"The goods of the merchant yield him to no revenue in profit till he sells them for money and the money yield him a little, it is again exchanged for goods. His capital is continuously going from him in one shape and returning him in another and it's only by means of such circulations or successive exchange that can yield him any profit. Such capital therefore, may properly be called circulating capital. "

C.W. Gutenberg said," circulating capital means current assets of a company that are changed in the ordinary course of business firm one from to another, as for example, from cash to inventories, to cash."

In the other words, "the term cash cycle refers to the length of time necessary to complete the following cycle of events:-

(i) Conversion of cash into inventories.

(ii) Conversion of inventories into receivables.

(iii) Conversion of receivables into cash.

The operating cycle, which is a continuous process, is as shown in fig-1

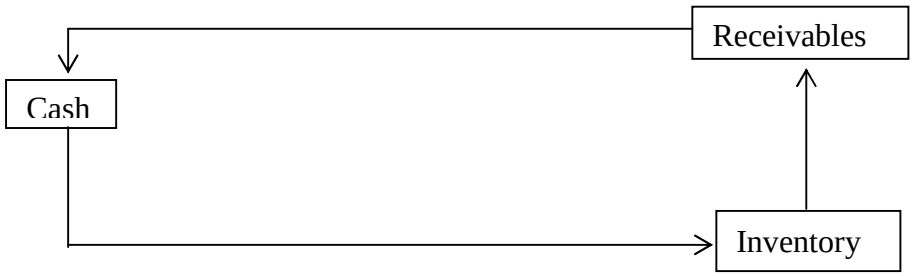


Figure: 2.1 operating cycle

The operating cycle consists of the three phase: In phase 1,

Cash gets converted into inventory. This would include purchase of raw materials, conversion of raw materials into work- in- progress, finished goods and terminate in the transfer of goods to stock at the end of the manufacturing process. In phase 2, the inventory is converted into receivables as credit sales are made to customers. Firms which do not sell on credit will obviously not have phase 2 of the operating cycle. In phase complete operating cycle. Thus, the firm has moved from cash to inventory, to receivable and to cash again."

Current assets includes:-

A. cash in hand and bank balance
B. Bill receivables
C. Sundry debtors
D. Short-term loan and advance
E. Inventories or stock

Raw material, work-in-progress, stores and spares finished stock.

F. Prepaid expenses
G. Accrued income
H. Marketable securities etc.

(ii) Net Concept of Working Capital:-

Net working capital is commonly defined as the difference between current assets and current liabilities or in the other words; net working capital is the current assets minus current liabilities.

As expressed by American Institute of certified public Accountants USA, - "working capital sometimes called net working capital, is represented by the excess of current assets over current liabilities and identifies the relatively liquid position of total enterprise capital, which constitutes a margin of buffer for maturing obligations within the ordinary operation cycle of the business."

"The term net working capital can be defined in two ways: (i) the most common definition of net working capital is the difference between. Current assets and current liabilities and (ii) Alternative definition of net working capital is that portion of firm's current assets, which is financed with long- term fund." *(Gitman, 1996; 150)*

Net working capital can be negative or positive. A positive net working capital will arise when current assets exceed current liabilities. A negative net working capital occurs when current liabilities are in excess of current assets. Current assets should be sufficiently in excess of current liabilities to constitute a margin of buffer for maturing obligation within the ordinary operating cycle of business. In order to protect their business, short- term creditors always like a company to maintain current assets at a higher level than current liabilities. It is a conventional rule to maintain the level of current assets twice of the level of current liabilities. A week liquidity position possesses a threat to the solvency of the company and makes it unsafe and unsound. A negative working capital means a negative liquidity and may prove to be harmful for the company. Excessive liquidity is also bad. It may be due to mismanagement of current assets. Therefore, prompt and timely action should be taken by management to improve and correct the imbalance in the liquidity position of the firm.

We have already discussed about the current assets in gross concepts of w/c. so, here we discuss only about current liabilities, those liabilities which are in tended to be paid in ordinaries course of business within a short period of normally one accounting year.

Current liabilities includes:-

a) Bills payables
b) Sundry creditors or account payable

c) Outstanding expenses
d) Short-term loan
e) Dividend payable
f) Bank Overdraft
g) Provision for taxation

2.1.1 Needs and Objectives of Working Capital

Each and every firm needs sufficient volume of working capital in order to run the business smoothly. We will hardly find a business firm which does not require any amount of w/c. Indeed, firms differ in their requirement of the w/c.

Working capital is used for day to day business operation of a business firm, thus it is required to run the business of firm regularly. Every business firm keeps their objectives either to maximize their wealth or shareholders return on higher profit. To maximize their target goals, they have to invest their capital in different profits to minimize risk and to maximize return, so that working capital is required to be studied. Thus, working capital is refried to be studied. Thus, W/C is fluctuation. It is needed to run the day to day business. The need for w/c arises due to the time gap between production and realization of cash from sales. W/c is needed for the following purposes.

- To maintain day to day expenses and overhead cost such as fuels, power and office expenses.
- To purchase raw material, component and spares.
- To pay wages and salary.
- To provide credit facilities to the customers.
- To keep the business in solvency position.
- To pay the short term debt & bank loan in the time.

- To maintain the inventory of raw material, work in progress, stores, spares and finished stock etc.
- To meet the selling expenses as packing, advertising etc.
- To face for the economic depression and emergencies.
- To get regular return and to make the shareholders intention well towards the organization.

2.1.2 Classification of Working Capital

Working capital can be classified in two ways:

I. On the basis of concept

II. On the basis of time

I. On the basis of concept:

This classification is concerned with gross working capital and net working capital discussed earlier. This classification is important since it categories the various area of financial responsibilities.

II. On the basis of Time:

This classification can be divided into two parts.

a. Permanent or fixed working capital

b. Variable or temporary or fluctuating w/c

a) Permanent or fixed working capital:-

Permanent working capital is that kind of working capital which is required to maintain as current assets for the successful operation of the business activities. It is the amount of fund required for production of goods and services to satisfy the demand. Permanent working capital is the portion of working capital, which remains at the same level of the business forever.

"A firm's permanent working capital is an amount of current assets which is continuously required by the firm to meet long term minimum need."

Permanent working capital represents the current assets required on a continuously basis over the entire year. It includes the amount of cash, receivable and inventories mentioned as a minimum to carry operation at any time.

"Permanent working capital is also known as 'Hard-core' working capital. Hard core working capital is the minimum working capital throughout the year to support the normal operation of the business."

The permanent working capital further is classified as regular working capital and reserve w/c. Regular working capital is the minimum amount of working capital required to ensure circulation of current assets from cash to inventory, from inventory to receivables, from receivables to cash and so on. Reserve working capital is the excess amount over the requirements for regular working capital, which may be arise at unstated periods such as strikes, rise in price, depression etc.

b) Variable or Temporary or Fluctuation Working Capital:-

Any amount of working capital, which is over and above the permanent level of working capital, is variable or temporary or fluctuating working capital. Working capital, which is convertible as per sales volumes of business, is termed as temporary working capital. Variable working capital represents the certain amount of fluctuation in current assets within a short period.

"Variable working capital represents the additional assets require at different time during the operation year. Added inventory must be maintained to support the short period. It needs to meet fluctuations in demand consequent upon changed in one level of sales and operating expenses, policy changes and changes in technology, variable working capital is required for short period to meet some special existence and seasonal demand. It represents the certain amount of fluctuations in

current assets within the short period. Variable working capital changes from cash to inventory, inventory to receivable and then to cash, business, which one of seasonal nature required more temporary w/c. This will increase the turnover of investment resulting in efficient use of capital."

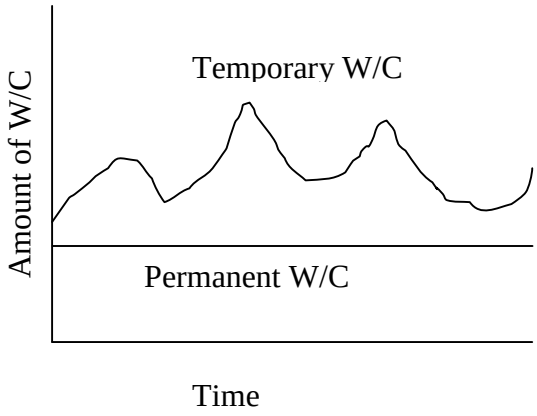
The extra w/c needed to support the changing production and sales activities, is called fluctuating or variable or temporary, is necessary for facilitating production and sale through the operation cycle, but temporary w/c is created by the firm to meet liquidity requirements that will last only temporarily.

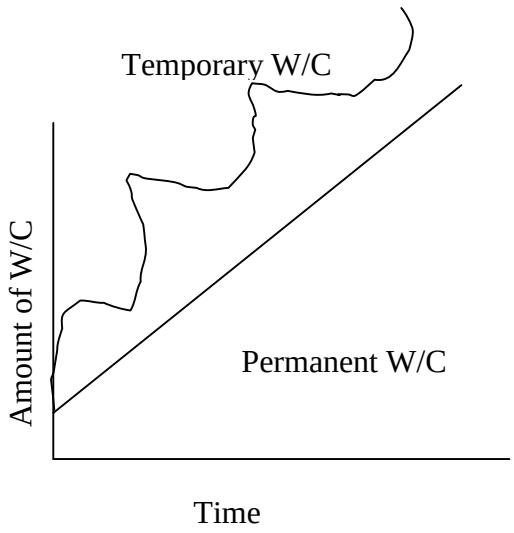
Working capital can be divided as seasonal and special w/c. Seasonal w/c needs the seasonal demands of enterprises and special working capital needs to meet the special existence i.e. conducting research for existence for extensive, marketing campaigns. Thus, two types of working capital are needed to meet the demand of enterprise.

"Temporary and permanent w/c looks like this"

Fig.3

Fig. 2





Permanent working capital is the fairly constant, while temporary w/c fluctuating. Sometimes, it is increasing and some times it is decreasing in accounting with seasonal demand. It may not be horizontal line, this is because the demand for permanent current assets might be increasing or decreasing to support a arising and facing level of activities.

2.1.3 Importance of Working Capital:

To operate all type of business in a manageable manner, business firms always have to maintain adequate amount of working capital together with fixed capital so that purpose of raw materials and management of various day-to-day expenses can easily be managed if needed. An adequate flow of working capital is essential to sound health of the business.

Business sector is very competitive these days marketing sector of business is also very complex. In this condition, working capital is also very complex. In this w/c vital role of sustainable developed of business sector. It is life-blood of the business organization, just as calculation of blood is essential in the human body for maintaining life. Working capital is very essential to maintain the smooth running of a business. No business can run successful without on adequate amount of working capital. It is an important aspect of financial management. It is important. *(Sharma, 2001; 211)*

Adequacy of working capital creates a feeling of securities and confidence.

- Adequacy of w/c is a must to maintain solvency and continuous production.
- Creation of sound good will.
- Utilization of opportunities.

- General rise in management moral.
- Easy availability of cash discount.
- Easy loan from bank.
- Quick and steady return to the investor.

"From the view of P.K. Kulmany about the important of working capital, "working capital" may be regarded as the life-blood of a business. Its effective provision can do much to ensure the success of business while its inefficient management can lead not only loss or profit but also ultimate to fall of what otherwise might be considered as a promising concern much has been rightly made of the long term planning of capital project. Out of the cost of includes try due to inadequate planning in the use of working capital is immeasurable." *(Kulmany, 1983; 385)*

2.1.4 Principle of Working Capital:-

"The following are the general principles of sound working capital management policy." *(Kulmany, 1983; 551)*

- Principle of risk variation.
- Principle of cost of Capital.
- Principle of equity position.
- Principle of maturity position.

The first principle refers to the risk associated with the amount of working capital employed. The second principle is concerned with the problems of determining the ideal level of working capital. The third principle is concerned with the risk directly related to the type capital used for financing w/c requirements and debt equity ratio, and the fourth principles is concerned with maturity dates relatively more importance for risk is insolvency.

2.1.5 Dimension Working Capital Management

We know that every business firm should maintain a sound working capital position and that there should be optimum investment in working capital. Working capital management refers to the administration of all aspects of current assets, namely cash marketable securities, debtors, stock (inventories) and current liabilities. The financial manager must determine level and compulsion of current assets.

There are many aspects for working capital management, which makes it an important function of the financial manager.

a) Working capital management requires much of the financial manager time.
b) Working capital represents a large portion of the total investment in assets.
c) Working capital management has greater significance for small firm.
d) The need for working capital is directly related to sales growth

Investment of current assent and financing of current assets are two major problems of business firm, so that a financial mangers, time will be spend to manage it. Investment in current assets represents a very significance portion of the total investment in assets for example, of the total investment in assets for example, in the case of the large and medium public limited companies in India. Current assets contribute about 60% of the total net total assets or total capital employed.

To decide the level of working capital as:-

a. Ratio of current asset to fixed asset
b. Liquidity versus profitability: Risk return angle
c. The cost trade off

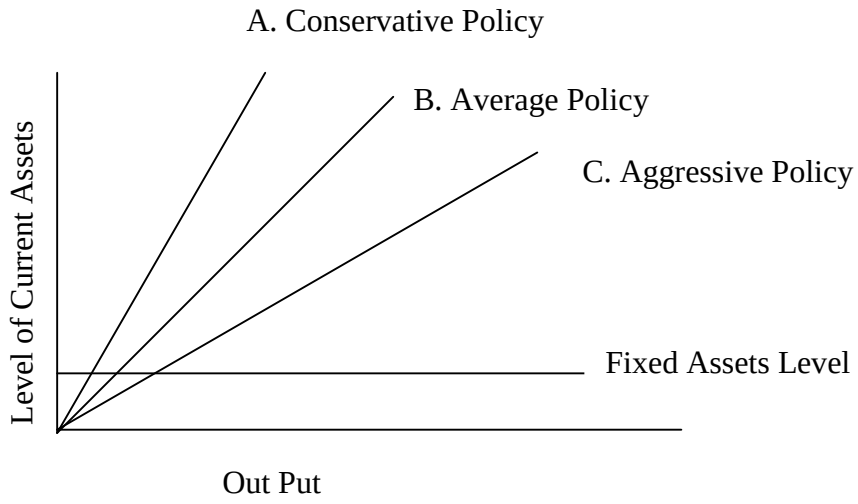
a. Ratio of Current asset to Fixed Assets (CATOFA)

The financial manager should determine the optimum level of current assets; so that the wealth of shareholder to be maximized. A firm needs fixed assets and current assets to support a particular level of output. However, to support the same level of output the firm can have different level of current asset. As the firm output and sales increase the need far current assets increases.

The level of current assets can be measured relating current assets to fixed assets. A higher level of current assets to fixed assets ratio indicates a conservative current assets policy and lower current asset to fixed asset ratio means an aggressive current assets policy assuming other factors constant. A conservative policy implies great liquidity and lower risk and high liquidity. If current assets to fixed assets ratio equal to1, then it is called on average policy of current asset."

Which can be shown the help of figure?

Fig. 4



b. Liquidity Vs Profitability: Risk Return Tangle"

A large investment in current assets under certainty would means a low rate of a return on investments for the firm, as excess investment in

current asset will not earn enough return. Thus every firm has to decide about the investment in current assets, it is depended upon the working capital policy. A conservative policy means lower return and but an aggressive policy produces higher return and risk.

There are two vary important aspects of working capital management as: profitability and solvency, solvency used in the technical sense, refers to the firm's continuous ability to meet maturing obligation. To ensure solvency, the firm should be very liquid, it means high volume of current assets holdings. Thus a liquid firm has less risk of insolvency. That means it has hard expense about cash storage or stock out."

To have higher profitability, the firm may sacrifice solvency and maintains a relatively low level of current assets. When the firm does so, its profitability will improve as less funds are tied up in idle current asset, but its solvency would be threatened and would be to greater risk of cash shortage and stock outs."

The risk return of working capital management future can be illustrated with the help of an example taken from the books of Weston and Brigham.

Suppose a firm has the followings data for same future year.

Sales (100000 units)	Rs. 1500000
Earning before interest and tax (EBIT)	Rs. 150000
Fixed assets	Rs. 500000

The three possible current assets holding of the firm are Rs. 500000. Rs. 400000 and Rs. 3000000 it is assumed that fixed assets level is constant and profit do not very with current assets level. The effect of the three alternative current assets policies are shown in table-2

Thus, we can clear the following this illustration is simple example or risk return trade off.

Table No. 2.1

Effective of Alternative Working Capital Policies

Particular	'A' (Rs)	'B' (Rs)	'C' (Rs)
Sales	150,000	150,0000	150,0000
Earning before interest and tax (EBIT)	150,000	150,000	150,000
Current assets	500,000	400,000	300,000
Fixed assets	500,000	500,000	500,000
Total assets	100,0000	900,000	800,000
Return on total assets(EBIT/ Total	15%	16.67%	18.75%
assets) current assets to fixed	1.00	0.80	0.60
assets(CA/FA)			

The calculation in table-2" indicates that alternative 'A' the most conservative policy provides grate liquidity to the firm but also the lowest return on total assets. On the other hand, alternative 'C' the most aggressive policy yield highest return but provided lowest liquidity and thus, is very risky to the firm."

c. The cost of trade off:

There is different way of looking into risk return trades off in terms of current assets. There are trade off is in terms of current assets. There are mainly two types of cost exist in the firm about current assets. There are as follows:

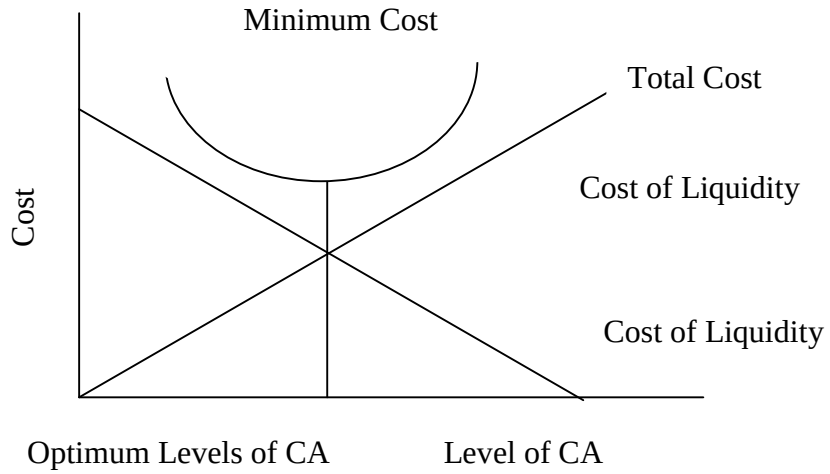
a) Cost of excessive liquidity
b) Cost of aggressive liquidity

If the level of current assets is very high, if has excessive liquidity, it was tied up in the idle cash and stocks, earn nothing and high level of debtors

reduce profitability, thus the cost of liquidity increases with the level of the current assets.

It is clear the help of the following given diagrams:

Fig. 5



Every firm has to determine the level of current assets to balance the profitability solvency angle by minimizing total cost(cost of liquidity), from the help of above diagram, we can say that the level of current assets with cost of liquidity increase while the cost of liquidity decrease

and vice versa. Thus the level of current assets should be maintained at the point where the total cost is minimum, which is optimal level of current assets.

The cost of liquidity is the cost of holding insufficient current assets it may free the firm into insolvency to borrow at high rate of interest. Due

To the causes of it, the firms may go to insolvency. On the other hand, if stocks are low then the customers may go to other competitors."

According to Lawrence J Giftman, there basic assumption must be made for profitability risk trade off, those are as follows:

2.1.6 Effects of Current Assets on Profitability Risk Trade off

The effect of current assets on profitability can be shown by current ratio. The current ratio is a relationship between current assets and total assets. Changes in the ratio with reflect a change in the ratio with reflect a change in the amount of current assets.

Effects of an increase

The increasing ratio shows that the risk of the firm is decreasing and side-by–side. The profitability will also be decreased. Current assets are less profitable than fixed assets by increasing the investment on current assets, the investment on fixed assets decrease. As a, result the profit also decrease.

Effects of decrease

If the ratio decreases, the risk increase and side- by-side investment on fixed assets increases. The returns on fixed assets investment will be more than current assets. So the profitability of the firm increases.

The effects of an increase or decrease current assets on profitability risk trade off is shown below table-3.

Condition	Working Capital	Ratio	Profit of risk

If current assets decrease	Decreases	Decreases	Increases
If current assets increase	Increase	Increases	Decreases

2.1.7 Effect of Current Liabilities on Profitability Risk Trade Off

The effects of current liabilities on profitability risk trade off can be shown by current liability ratio. Current liability ratio is the ratio of -

current liability to total assets. This ratio indicates the percentage of the firm's total assets that have been financed by current liabilities.

Effects of an increase

The increasing ratio shows that the risk of the firm is decreasing and side-by –side. The profitability will also be decreased. Current assets are less profitable than fixed assets by increasing the investment on current assets, the investment on fixed assets decrease. As a, result the profit will also decrease.

Effect of decrease

If the ratio decreases, the risk increase and side-by-side investment on fixed assets increases. The return on fixed assets investment will be more than current assets. So the profitability of the firm increases. The effects of an increase or decrease current assets on profitability risk trade off is shown below table no-4.

Effect of Condition

Condition	Working Capital	Ratio	Profit of risk
If current assets decrease	Decreases	Decreases	Increases
If current assets increase	Increase	Increases	Decreases

2.1.8 Combined Effects of Change in CA & CL on Profitability Risk Trade Off.

The combined effects of changes in current assets and current liabilities can be measured by combining them simultaneously. In combined effects also the profit increasing the risk and profit decrease by decreasing the risky for the business. A risk taken earns too much profit. So the profit is increasing in total.

2.1.9 Operating Cycle

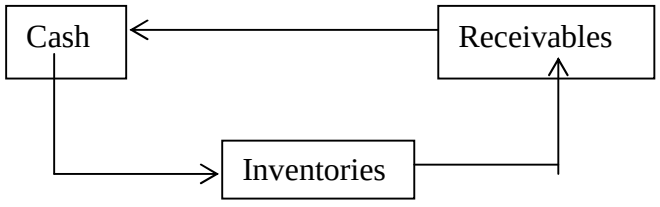
There is a difference between current assets and fixed assets. In terms of their liquidity a firm liquidity a firm requires many years to cover the initial investment in fixed assets, such as plant and machinery or land and building, on the contrary investment in current assets is turned over many times a year, investment in current assets such as inventories and book debts is realized during the firms operating cycle, Which is usually less than a year.

Operating cycle is the firm duration required to converts sales after the conversion of resources into inventory into cash. The operating cycle of a manufacturing company involves three phases.

- Acquisition of resources such as raw material, labor, power and fuel etc.
- Manufacture of the product, which includes conversion of raw materials into work in progress into finished goods.
- Sales of the product either for cash or on credit sales creates book for collection.

Thus, operating cycle is the heart of working capital. The continuing flow from cash to supplier, supplier to inventory, inventory to account receivable and back into cash called operating cycle, which can be presented by help of following diagrams:

Phase: 3



Phase-1 Figure: 6

The length of operating cycle of a manufacturing firm is the sum of inventory conversion period (ICP) and book debts conversion. (BDCP) or receivable conversion period (RCT).The inventory conversion period is the total time needed for production and sell of the product, it generally includes:

a. Raw material conversion period (RMCP)
b. Work in progress period (WIPP)
c. Finished goods conversion period (FGCP)

The book debts conversion period is the times required to collects outstanding amount from customers. Thus the total of ICP and BDCP is called gross operating cycle (GOC). The difference between gross operating cycle and payable deferred period (PDP) is called net operating cycle (NOC). While depreciation is excluded from the expenses of computing operating cycle is called conversion cycle (CCC). Cash conversion cycle is net time interval between cash collection for sale of the product and cash payment for resources and acquired by the firm. The cash conversion period can be calculated by using.

CC C = ICP + RCP – PDP

Where,

ICP, RCP and PDP can be computed by using,

$$ICP = \frac{360}{ITR}$$

$$RCP = \frac{Receivables}{Sales\ per\ day}$$

ITR = Inventory Turnover Ratio

$$PDP = \frac{\text{Payable}}{\text{Daily Purchase}}$$

Payable deferred period is the average length of times between the purchase of raw materials, labor and payment of cash for them.

Sum of above, we can say that CCC should be small to mobilize optimum working capital. Besides it ICP should be less because it measures the conversion of inventory into sales. RCP should be less because it measures the conversion of credit sales into cash and at last, PDP should be higher, peak it measures average time of higher because it measure average time of payment. If payments days are large them amount of funds are mobilized within business firm for a long period.

2.1.10 Financing of Working Capital

Current assets can be financed by raising the funds from currents liabilities or long- term debt. What proportion of current assets shall be financed by current liabilities and what proportion should be by long-term debt is determined by working capital financing policy. "The firm can adopt different financing policies. These types of financing policies can be distinguished as long term financing, short term financing and spontaneous financing. The important sources of long- term financing are shares, debentures, preferences shares, retained earning and debt from financial institutions. Short – term financings refer to those sources include short-term bank loans, commercial papers, factoring receivables and public deposit.

Spontaneous financing refers to the automatic sources of short- term funds. The major sources of such financing are trade credit i. e. creditors, bills payables and outstanding expenses. Spontaneous sources of finances are cost free. So, a firm would like to finance its current assets with

spontaneous sources as much as possible. Every firm is expected to utilize spontaneous to financing sources the fullest extent. Thus, the real choice of financing current assets is in between short term and long- term sources. We shall, therefore, concentrate our attention on the short term versus long- term financing."

There are three basic approaches for determining an appropriate working capital financing mix that are as follow:

a) Matching or hedging approach
b) Conservative approach
c) Aggressive approach

A) Matching or Hedging Approach:

For risk reducing investment strategy the term 'Hedging' is often used. According to this approach the emphasis is given on matching the period of assets to be financed with the period of sources of funds to be used. In simple words, the firm finances its short term needs with short term funds and long- term needs with long-term funds."

Hedging approach is a method of financing where each asset would be off set with a financing instrument of the same appropriate maturity." *(Dangol, 2050; 224)*

According to hedging approach, variables or short –term funds and long funds should be used to finance fixed proportion of current assets.

Hedging approach classifies the financing requirement of a business firm into three categories as:-

a) Variable working capital:
The requirement of funds for seasonally needed, which should be financed with funds from short – term sources.

b) Permanent working capital

The requirement of funds regularly needed, current assets or permanent working capital that should be financed with funds from long-term sources:

B) Conservative approach:

A firm may adopt a conservative approach in financing its current assets and fixed assets. The financing policy of the firm is said to be conservative when it depends more on long-term fund for financing needs. Under a conservative plan, the firm finances from its permanent assets and a part of temporary current assets with long-term financing. Thus in periods, when the firm has no temporary current assets, it stores liquidity by investing surplus fund into marketable securities. The conservative plan relies heavily on long-term financing and therefore is less risk. " *(Pandey, 1979;823)*

According to R.M. Dangol, under the conservative approach, the total funds requirements are financed by long-term fund. The short-term funds in used only in the situation of emergency. The risk is minimized under this approach. The liquidity position of the firm will be relatively greater than in hedging approach. The cost of financing increase because, conservative approach uses long-term sources for current assets." *(Dangol, 2050; 226)*

C. Aggressive Approach

The aggressive approach is in between of hedging approach and conservative approach. Hedging approach mix is riskier than conservative financing mix. High profit, high risk, is the policy of hedging approach. But low profit, low risk is the policy of conservative approach. Aggressive approaches suggest that the financing mix should be in between of two approaches. A major part of the total current assets

should be financed by short-term sources and a part of the long-term investment also should be financed by short-terms sources."

According to Van Horne, "The greater portion of the permanent assets need financed with short-term sources or, debt, the more aggressive the financing is said to be."

Under an aggressive approach the firm finance is a part of its permanent current assets with short-term financing. Some extremely, aggressive firms may even finance a part of their fixed assets with short-term financing.

In aggressive policy, the liquidity position will be low and risk will be high. Therefore, when the policy uses more short-term financing, it is assumed to have followed the aggressive policy.

Comparison of three approaches

Approach	Cost	Working capital	Degree of Risk	Profitability
Hedging	Intermediate	Nil	High	High
Conservative	High	High	Low	Low
Aggressive	Low	Intermediate	Intermediate	Intermediate

According to Lawrence J. Gittman, three basic assumptions must be made for profitability risk trade off. Those are as follows

(i) The kind of firm that we are dealing should be Manufacturing Company.
(ii) Firm can earn more on fixed assets than on current assets. The fixed assets investing are earning more profit than current assets investing.
(iii) Short-term funds are cheaper than long-term funds.

These three approaches are important factors for determining an appropriate working capital financing mix. In hedging approach high profit, high risk, in conservative approach low profit low risk and the aggressive approach is in the between of hedging and conservative approach. These approaches suggest that the financing mix should be in between of two approaches.

Business, firm can adopt anyone policy of current assets financing according to its nature, size, structure, and position of the business.

2.1.11 Transaction Affecting Working Capital

Following are the main points involved in transaction affecting working capital.

- An increase in current assets causes an increase in working capital.
- A decrease in current assets causes a decrease in working capital.
- An increase in current liabilities causes a decrease in working capital.
- A decrease in current liabilities causes an increase in working capital.

2.1.11 Transaction not Affecting Working Capital

Following are the main points that involved in transaction not affecting working capital.

- Similar increase in both current asset and current liabilities.
- A decrease in current assets and decrease in current liabilities by the same amount do not affect the working capital." *(Khan & Jain , 1971; 210)*

2.2 Cash Management

There are various sources of working capital managements. Generally there are three sources of working capital, cash, receivable and inventory.

Cash is the most important current assets for the operation of the business. Cash is the basic input needed to keep the business running on a continuous basis. It is also the ultimate output expected to be realized by selling the service or product manufactured by the firm. The firm should keep appropriate level of cash, neither more or less. It should be managed well, which the firm cash disburse immediately without any restriction. *(Pandey, 1979; 836)*

Cash refers to all the moneys items that are immediately available to help to pay a firm's bill on the balance sheet; a firm will normally list cash assets in two categories-cash and marketable securities. Cash assets are coin and currencies held by the firm to cash register and petty cash where marketable securities include the firm short-term investment on treasury bills, commercial paper, negotiable time certificates and deposit etc. done from excess cash.

Cash is required to meet a firm's transactions and precautionary needs. A firm needs cash to make payment for question of resources and services for the normal conduct of the business. It needs additional funds to meet any emergency situation. Some firm may also maintain cash for taking advantage of speculative change in price of input and output. Management of cash involves three things.

a) Managing cash flows in and out of the firms.
b) Managing cash flows within the firm and
c) Financing deficit or investing surplus cash and thus, controlling cash balance at a point of time. It is an important function in practice because it is difficult to predict cash flows and there is hardly any synchronization between cash inflows and outflows. The main goal of the cash management should be to maintain adequate cash position to keep the firms sufficient liquid and to use excessive cash in same profitable way.

The management of cash is also important because it is difficult to predict cash flows. Payment for taxes, dividends, seasonal inventory etc. built up will exceed cash inflow. At other times, cash inflows will more than cash payments because their may large cash leads and debtors may be realized in large sums promptly.

Cash management is on the main area of working capital management. The cash is the most liquid assets. So it should be never under estimated. It should be managed well. The cash management involves formulation

of policies and programmers for cash receipt and cash payment. For meeting day-to-day transaction and unforeseen contingencies, a firm has to hold cash." *(Pandey, 1979; 237)*

In order to solve the problems of cash inflows and outflows, every firm will follow the following steps.

i. Cash Planning

Cash inflow and output should be planned to project cash surplus or deficit for each period of the planning period, whether it is weekly or monthly. Generally a firm prepares it half yearly and yearly.

ii. Managing the Cash Flows:

Every business firm should be properly managed and should manage cash outflows and inflows according to the natures and position of the firm. The cash inflows should be accelerated as for as possible, while the outflow of cash should be decelerated.

iii. Optimum Level of Cash:

In the business organization there may be over cash flows or under cash flows. Thus it should be decided at the appropriate level. The cost to excess cash and danger of cash deficiency should be matched to determine the optimums level of cash balance.

iv. Inventory Surplus Cash:

The ideal cash balance or surplus cash balance should be properly invested to other profitable change into earning the desired profit. The firm should be decided about the division of cash balance bank deposit, marketable securities and inter corporate lending.

2.3. Management of Receivables

In general aspects, amount due from customer is known as receivables. It is raised when goods or service of a firm are sold on credit base. Receivables are current asset representing amount owned to the firm as a result of the sales of goods or service in ordinary course of business.

Receivables are an important component of working capital management. In the conduct of a business, it plays an important role for maximizing the sales, for increasing the profit and to meet the competition also receivables are very important. The receivables are also known by various other names, like "Account receivables, trade receivables, customer receivables, sundry debtors, trade debtors, trade acceptance, book debts, bills receivables etc". The advance to salesman, good transferred to branches, good sent on consignment and advance against suppliers are not included on receivable."

The credit sales are made either securing by legal documents or on open account. Under the former method, the bills are taken from the debtors. Such amounts are classified under 'notes receivables or bills receivables for the collection of debts through the court of law such as instruments meets the legal requirement. Under the latter method, a formal note is not needed to recognize the debt. Such credit sales are called "Sales on open account" the documents that shows such debts are purchase order from customer, invoices and billing statements. The open account reduces the paper work for credit sales.

Receivables management is an important aspect of working capital management. Managing receivables means making decision relating to the investment of fund. These assets are a part of internal short run operation process. The term receivables are the outcomes of credit sales, which is inevitable in today’s business world. The main objective of credit sales is to achieve growth in sales, to increase in profit and to meet competition. But their exist risk and maximize the value of the firm by achieving a trade off between liquidity and profitability. So a firm should manage its credit in such a way that sales are expanded to extent to which risk remains within an acceptable limit. An efficient and effective credit management helps to expand sales and can prove to be an effective tool of marketing it helps to be an effective tool of marketing. It helps to

remain old customers and win customer. All we administered credit means profitable credits account.

Weston and Brigham said to this connection, "Since the typical manufacturing firm as about twenty percentages of its assets invested in receivables, the management of those assets is obviously important. The level of investment, in receivables is depended on the firms' credit policy, which considers four variables.

a) The credit policy, which is the length of time, makes clear buyers have before they must pay for their purchases.
b) Credits standard, when refers to the minimum financial strength of acceptance credit customer.
c) The collection policy, which reflects the firm’s toughness of laxity in following up and slow paying accounts.
d) Discount given for early payments."*(Weston and Brigham, 1975;995)*
e) "Increase in receivables results from the several causes increase in sells, size of cash discount, length of credit terms, volume of delinquent account.*(Murkhrjee, 1988;40)*

2.4 Inventory Management

The various forms of materials held by an enterprise are known as an inventory. It is an essential part of an organization. Every business organization however, big or small has to maintain inventory. It involves raw materials, work in progress, finished goods, and daily consuming good and son on.

The investment on inventories should not be more or less than requirement. Over investment in inventory involves certain cost, which minimizes profitability. On the other hand, under investment in inventory also involves certain risk and cost. So the financial manager should try to maintain optimum size of inventory. So that a proper balance between the cost over investment and under investment can be maintained.

In this modern age the inventory management is out of the important role of financial manager because it covers a large part of current assets. The slightest deviation in inventory management may result increase or decrease in working capital requirement. The basic objective of inventory management is to maintain a large size of inventory for efficient to maintain a minimum investment to maximum profitability in general, words, "inventory means all the materials parts, suppliers expenses, tools and in process or finished products recorded on the book by an organization and kept it stock ware house or plant for some period of time."

In the view of I.M. Pandey "The various forms of material held by an enterprise is known as inventory. It includes raw materials work in progress, finished products, and daily consuming goods and so on. Inventory represents the major elements in the working capital of an enterprise."

So an effective inventory management should be

a) Ensure a continuous supply of materials to facilities uninterrupted production.
b) Production sufficient stocks of raw materials in period of short supply and anticipated price changes.
c) Maintain sufficient finished gods inventory for smooth sales operation and efficient customer services.
d) Minimize the carrying cost and times.
e) Control investment in inventories and keep it as an optimum level.

Following are the mains goals of effective and efficient inventory management.

a) To minimize the direct and indirect costs of holding inventories.
b) To minimize the risk and losses due to stock out.
c) To keep the investment in inventories at a reasonable level.

The following are the main purpose of holding inventories as.'

a) To avoid sales losses by marking available the goods in the market always.

b) To gain quantity discount by purchasing large quantity per order,
c) To minimize the ordering cost by purchasing larger quantity per order.
d) To achieve efficient production run by making available of the raw material and other materials required by the firms.
e) To make advantage of lower costs by purchasing larger quantity.
f) To protect the firm from the risk of stock- out or shortage of stock by provisions of safety stock.
g) To meet specific customer's order.

According to view of Surendra Pradhan "The inventory should be kept in such as well that it should be enough to meet the daily requirement and on the other hand, it should be cost minimize. The inventory must be kept in optimal level. The EOQ considering the behavior of different types of cost involved the model prescribes inventory order size that increase, cost storage cost etc increase related minimization of total costs requires a trade off between the two type of costs."

2.5. Review of Related Literature

2.5.1 Review of Books

In this section an attempt has been made to various some books on financial management, which deals with the management of working capital. We receivable some theoretical concepts of working capital from van Horne. He has categorized the various component of working capital. Liquidity, receivables, inventory and current liabilities are grouping them according to the way that affects valuation. He has also described the different methods for efficient management of cash and marketable securities. For the management of receivable different credit and collection policies have been described and various principles of inventory have been examined for inventory management and control.

The well known professors, Weston and Brigham have given some theoretical insights into working capital management after their various research studies on it. The band conceptual a finding of their studies provides sound knowledgeable and guidance for the future on the field of management of working capital in any enterprises and naturally to this -

study as well. They explain in the beginning. The importance of working capital, financial of working capital, the use of short-term versus long-term debt, relationship current assets to fixed assets. In the chapter they have deal with on cash, marketable securities, receivable and inventory for the efficient management of cash. They have explained the major sources and the firm of short-term financing such trade credit, loan from commercial bank and commercial papers.

Indian professor I.M., Pandey has described some conceptual ingredients, which are bases on his various research. We can learn various lessons, from it and also helpful for this study indeed. He has described various aspects of working capital management into 5 chapters. The first chapter deals with the concept, determinates of working capital, dimension of working capital management, optimum of working capital management, optimum level of current assets and working capital trends in India. In the second chapter he has described the management of cash and marketable securities, where he has dealt with facets of cash management, motives for holding cash, cash planning, managing the cash, determining the optimum cash balance, investment in marketable securities. In the third chapter, he has described the management of receivables in which he has dealt with the goals of credit management, optimum credit policy, aspects of credit policy, credit procedure individual account. In the forth chapter, on investment management, he has described need to hold inventories, objective of inventory management, inventory management techniques, selective inventories control techniques and financial working capital, he has described the commercial recommendation on the fifth chapter."

Further, the inventory in Manufacturing Corporation and cash and receivables in non-manufacture are problematic to management.

With reference to the above problems and findings they recommended the need to control investment in working capital as a whole for Manufacturing Corporation has been trying to control investment in receivables the focus of attentions should be diverted to control of investment in cash and inventory. But Manufacturing Corporation should pay sufficient to control the investment in inventory.

2.5.2. Review of Journals/ Articles

This part is mainly focused on the review of journals/articles published by different management, experts, working capital management, is by Professor Dr. Khagendra Acharya, he has described two major problems, operational problems and organizational Problems regarding the working capital management in Nepalese public enterprises. The operational problems, his findings are listed in the first part which is: increase of current liabilities than current assets, not allowing the current ratio 2:1 and slow turnover of inventory. Similarly, change in working capital in relation to fixed transpiration of capital employed to sales absent of apathetic management information system, break even analysis, funds flow analysis and ratio analysis were either undone or ineffective for performance evaluation. He states that most of enterprises the management has been misunderstanding as the management money rather than its efficient utilization. Thus, existing problems in the finance are mostly directed towards the management of working capital rather than in any area.

Finally, monitoring of the proper functioning of working capital management has never been considered a management job.

In the second part, he has listed the organization problems, in the public enterprises. In most of the public enterprises, there is lack of regular internal and external audit system as well as evaluation of financial result. Similarly very few public enterprises have been able to present their capital requirement, functioning of finance development is not satisfactory and some public enterprises have been facing the under utilization of capacity to make efficient use of funds for minimizing the risk of loss to attain profit objective.

He has suggested that manufacturing concern finance staff must be acquainted with the modern scientific tools used for the presentation and the analysis of data the public enterprises should avoid the system of crisis decision which prevailed frequently in their operation, avoid finite hedge of the assets, and lastly he has suggested optimizing its level of investment at a point time neither over nor under investment in working capital is desired by the management of an enterprises because both of these situation will erode the efficiency of the concern."

This study is descriptive in nature. He has not used any data and research tools. This study has cleared Nepalese public enterprises but not national the name of public enterprises. Each selected enterprises does not represents the enter industry in which its falls.

Pradhan Surendra, in his views at examining the aspects of management of working capital is selected manufacturing public enterprises of Nepal. The objectives undertaken in his study are

- To assets the short-term financial liquidity positions of the manufacturing concern.
- To conduct risk return analysis of liquidity of working capital position.
- To assets the structure and utilization of working capital.
- To estimate the transaction demand function of working capital and its various components.

His study has mentioned the following findings,

1. It is found that of the selected enterprise have been activating or trade off between risk and return and there by following neither an aggressive nor conservative approaches.

2. The economic of scale have been highest for inventories flowed by cash and grow working capital, receivable and net working capital.
3. It has showed a poor liquidity position of most of the enterprises. This poor liquidity position has been noticed as the enterprises have either negative cash flows or negative EBIT or they have excessive net current debts, which can be paid with in the year.
4. The regression result also shows that the level of working capital and its component enterprises desires to hold not only a sales but a holding cost also.
5. The Nepalese manufacturing public enterprises have and average, half of their total assets in the firm of current assets of all the different component of current assets, on the average is large followed by receivable and cash in most of the selected enterprises.

His study is concerned with interrelationships that exist between managing current liabilities. This study is to focus not working capital focus concepts. The study has employed ratio analysis, discriminate analysis and economic models for its analysis.

Above- mentioned studies do not cover all the enterprises as well as private industry in the many factoring sectors. The manufacturing concerns selected for the study differs in working and nature is not similar to all the public and private enterprises. That is way it is necessary to study working capital management. Consequently, keeping in view of fact that, there is not attempt to study of working capital management particularly in private sectors, which is the ground base of

industrialization and our country is looking forward to list up by economic development. In reality it is only success when a study will find out and give special emprise investment in industry. By this true reasons has been faced to study the over all financial position and components of private sectors and study of working capital management.

Dr. Manohar K. Shrestha has conducted and empirical observation of twelve-selected PEs. In these articles he has described the conceptual ingredients concerning the working capital, such as conceptual setting sources of working capital, such as conceptual setting sources of working capital and types of working capital. From analysis, he found that the liquidity poison of the selected PEs showed wide deviation. Based in the sales volume four out of seven PEs are that normal inventory turnover. There was also above normal test ratio. Other three that not been satisfactorily mentioned and some of them inventory had exceeded sales.

The collection period relating to the selected PEs exhibited marked difference varying 32 days to 755 days. The profitability position was analyzed thoughts return on net working capital. The return on net working capital was positive for eight PEs, negative for two PEs, and the rest two had not any return since they were in establishment phase.

"During the analysis, he observed some problems like the lack of farsighted liquidity adjustment strategy in most of the PEs no guiding criteria to ascertain the satisfactory maintenance of acid test ratio and working capital needs, large booking of capital in inventories and low capacity utilization. All these were due to inefficient management of working capital in that PEs."

Another article relating of working capital study is by Dr. Khagendra Acharya, which is based on the findings and conclusion of hid D. Phil thesis. In the study, he has focused his study on the working capital management of Nepal tea development corporation (NTDC) eight years

from 1975/76 to 1982/83 A.D. he has also made the comparison of the findings with the other five selected PEs. In the study, he found that the net working capital of NTDC has negative due to increase in current liabilities than current assets, inventory had the largest period and it was accumulating in the corporation. It has inventory had the largest period and it was accumulating in the corporation. It has inventories twenty-six month's sales. The size of aggregate receivables of NTDC had also been increasing and it's exceeded by 16 times during the study period. Cash balance held by the corporation was insufficient to meet the routing work of the corporation. At the same time, the liquidity position of the NTDC was very poor since current assets were less than the current liabilities. While comparing to other selected PEs, he found that the turnover of inventory, receivable and current asses in NTDC were below the average thereby relating high investment in each of them irrespective of the sales achieve. The break even analysis relievable that the NTDC had been selling mostly below the breakeven and had been incurred variable cost sometimes even higher than sales price. The suggestion he made on his articles is proper planning of production and sales, new credit policy, action against the delinquent loans for any individual or financial institution."

In this regard or Manohar K. Shrestha, in an article has considered ten selected PEs and studies the working capital management in that PEs. He has focused on the liquidity, turnover and profitability position of those enterprises. In this analysis, he found that four PEs had maintained adequate liquidity poison, two had excessive and the remaining four has failed to maintain, desirable liquidity position, the turnover side, two PEs had negative working capital turnover, four had adequate turnover, one had high turnover and the remaining had not satisfactory turnover on net working capital. He had also found that out of the PEs six public

enterprises were operating at losses which only four were getting some percentage of a profits, with reference to those findings, he had brought certain, policy issues such as lack of suitable financial planning, negligence or working capital management, deviation betweens liquidity and turnover of assets and inability to show positive relationship between turnover and return on net working capital. To end had made some suggestive measures to overcome from the above policy issues VI.

Identification of needed funds, regular checks of accounts, development of management information system is positive attitude towards risk and profit and determination of right combination of short-term and long-term sources of funds to finance working capital needs."

2.5.3 Review of Related Research Work:

In the proceeding topic discussion had been made on the introduction and conceptual setting of the study. An attempted has been made to review the literature on working capital management. A no. of studies has been made by students of students of MBA and MBS relating to working capital management in different PEs and private sector in Nepal. This section, hence will review some of those dissertations.

Dr. Khagendra Acharya had studied the working capital management of manufacturing public enterprises some major outcomes of this study are.

i. Nepal Tea development corporation (NTDC) is expected to improve its prevalent system of inventory management regarding the planning and purchasing of spares parts, manures, incidents, fuels etc.
ii. The break- even analysis of NTDC reveals that due to insufficient working capital. The corporation has been selling its product at a far below rate than its break-even.
iii. Receivable is growing rapidly than the corresponding growth on sales volume.

iv. The credit policy, which is not clear vision between the production, units of different states and the central materials management department.

v. There should be a close vision between the production, units of different states and the central materials management department.

vi. Inventory constitutes the most important and largest element of working capital NTDC. The overall adequacies of inventory in NTDC disclose. That the growth of working capital and inventory in the corporation is negatively correlated."

In the study of working capital management of Bansbari leather and shoe factory, Mr. Sindhu Lal Shrestha considered their financial statements of the factory for four years. (1986/87-1989/90) and the provision data for 1990/91, and focused his study on working capital management with respect to cash, credit and inventory management and relationship between sales and different variables of working capital on the study. He found that the major components of BLSE's current assets were inventories, sundry debtors, cash and bank balance, among which inventories had held the largest proportion followed by sundry debtors. On the other hand, there was no Consistency in case balance, the level of receivable was also high which caused unnecessary tie up of funds. The average collection period not satisfactory, but it has good cash turnover position. In the study he full suggested the factory to operate with setting certain, sales target and utilize full production capacity, make regular inspection to find out excess and deficit of current assets and to adopt scientific purchase method, quality control, adopt suitable credit policy with reasonable discount and should have appropriate cash balance and working capital."

The above review of literatures from various books, Journals and articles and dissertation related to the working capital management shows that the one of the chief problems in Nepalese corporation behind unhealthy and unsound situation is improper management of working capital since the

success and failure of any enterprises is heavily dependent upon the efficient management of working capital and being a manufacturing company established in Nepal. In many study report's and journals it is showed that the proper management of working capital is neglected factors in most of the industries. In numbers manufacturing industries, there are dazzling instance of inefficient cash management, defective inventory policy and account receivables of the industries are taken of appropriate working capital policy to determine liquidity needs and sources of financing them.

In dealing with management of working capital, the problems common to all manufacturing industries, convey the message not only these industries are experiencing inefficient cash management but at time extend to existence of defective inventory policy and text account receivables management. Many of enterprises do not maintain yearly cash budget properly. Due to the operational in efficiency in respect of cash management failure to control cash brought both shortages and excess of cash in different time.

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CHAPTER – III

RESEARCH METHODOLOGY

Research methodology is other important aspect of the thesis writing. Research methodology is a systematic and scientific method or technique that is used in handling a problem by the researcher. In other words, research methodology provides the various tools and techniques as regard to the problem and also provides the various instructions as regard to the methods and process associate with over all study. Research methodology is very helpful in identifying the research problems. In fact, research is a scientific investigation.

In Nepal, there are different kinds of companies are established to earn profit in our society. Some companies have been working efficiently, since establishment and some companies have been closed due to poor management performance. In this context, this study attempts to analyze the " Working capital management" in Nepalese joint venture banks, in order to fulfills this objective, every study needs an appropriate research methodology to discover the better result of the investigation. In other words, an appropriate research methodology has to be followed to achieve ultimate goals.

3.1 Research Design

The research design generally asks the following questions. I.e. what approach to the problems should be taken? What method will be used in the study? What strategy will be most preferable? Therefore, here, the main task of the researcher is to select the most suitable research design for the study. In this way, research design is the conceptual structure and frame of the study that is adopted by a research in analyzing the problems.

In this context, this present study adopts those research designs, which is

analytical as well as exploratory in nature. Similarly the present study also follows the both descriptive and inferential analysis of working capital management various historical secondary data analysis of Nepalese joint venture banks with a view of achieve better result from the analysis. This study seeks to analyze working capital management of Nepalese selected different joint venture banks, the research design of the study is therefore, analytical and statistical type, attempts has been made to describe and explore the composition of working capital of the selected joint venture banks for the period of five years ranging from 2002/03 to 2006/07 A.D. In conclusion it can be said that research is more quantitative rather than qualitative.

3.2 Populations and Sample

This study is directly concerned in the population and treated in the population and sampling data. Population data which are not originally collected but rather obtained from the NSE website, we address being www.nepalstock .com in Nepal to data 302 companies are listed in Nepal stock exchange limited whose shares are traded in stock market. Out of 302 listed companies the selected 2 samples have been taken for the study of Nepalese non manufacturing companies or joint venture bank., The financial statement of the total no. of commercial bank in Nepal from the

date of their establishment till today constitute the population for the present study. At present, there various 302 listed companies operating in Nepal, including both manufacturing and non-manufacturing companies. In order to select the companies for the purpose of this study, first of all, it is necessary to a list of different companies, after listing different companies. The selected companies appear for the study. These are as follow:

1. Nepal Investment Bank Limited, Durbar Marga, Kathmandu
2. Everest Bank Limited, Lazimpat, Kathmandu

3.3 Sources of Data

Generally, there are two types of data collection. The first are primary data collection and second are secondary data collection. According to C.R. Kothari, "The primary data collection are those which are collected a fresh and for the first time and happen to be original in character". Likewise, "The secondary data are those which have already been collected by someone else and which have already been passed through the statistical tools process."

But here this study is based on secondary data. From the secondary data, sources appropriate, data has been extracted for the analysis and interpretation purpose and per as the relevant books, magazines, journals, articles, newspaper the other additional required data have been collected from financial statement of listed companies which have been derived from NSE websites (www.nepalstock.com) Nepal stock limited. The published balance sheet and profit and loss account of the selected concerned companies are as the major sources of secondary data.

3.4 Data Collected Techniques

In course of preparation of the research work, after the identification of sources of data, the required data for the study have been gathered though the procedure.

First of all financial statement.(B/S and P/LA/c) of all the enlisted companies, to Nepal stock exchange were down loaded to a computer disk. Secondly, all the down loaded financial statement was transcribed into computer print out. Thirdly, the required financial statement of sample companies were randomly taken from each of stratified industries for analysis.

After the collection of data, the required data have been processed and presented, using descriptive and inferential tools as per the requirement of the study.

3.5 Data Analysis Tools

The data obtained from different sources have been processed and recast in condensed forms. Thereafter they have been tabulated and presented as per the requirement of the study. In order to achieve the purpose of the study, two types of analysis have been made descriptive and inferential analysis. In the descriptive analysis, techniques of time series analysis and inter joint venture banks, companies of the selected financial ratio and their trend percentage have been used. To make the analysis conclusive, the study has also used such statistical tools as mean values standard deviation, coefficient of correlation, probable error and f-test.

In this way, there are various analytical tools and techniques have been used in this research study. Their tools and techniques used as follows:

3.5.1 Ratio Analysis

Ratio analysis is the expression of the relationship between two items either from balance sheet or from incomes statement of or from both statements. Ratio is useful techniques to interpret the financial statement.

So that the strength and weakness of a firm as well as its historical performance and current financial condition can be determined,

"Ratio is the numerical or an individual relationship between two figures. It is expressing one on. In terms of another i.e. one figure divided by another no. in order to calculate the ratio" *(Jain S.P. and Narang K.L. 1988; 416)*

A ratio is a yardstick that provides a measure of relationship between two accounting figures. It is defined as the indicated quotient of two mathematical expressions and as the relationship between two or more things." *(I.M. Pandey, 1988; 501).*

A ratio may be defined as a fixed relationship in degree and number. Between two numbers in finance, ratios are used to point out relationships that are not obvious from the raw data." *(John J. Hamton, 1986; 122).*

Composition of working capital

The composition of working capital has been studied by analyzing the following ratio:

- **Current Assets to Current Liabilities (CACL):** This ratio represents the relationship between the current assets and current liabilities. The ratio obtained by dividing the total of current assets by total of current liabilities.

$$\text{CACL } X \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

  The ratio indicates higher the ratio is the better is the liquidity position. Lower the ratio shows the solvency position of the firm is not good.

- **Current Assets to Fixed Assets (CAFA):** The ratio indicates represents the relationship between the current assets and fixed

assets. The ratio is obtained by dividing the current assets by fixed assets.

$$\text{CAFA } X\frac{\text{Current Assets}}{\text{Fixed Assets}}$$

If the ratio is large, it indicates the sound working capital position.

- **Current Assets to Total Assets (CATA):** The ratio of current assets to total assets indicates what percentage of company's total assets are investment in the firm of current assets, which is calculated as:

$$\text{CATA } X\frac{\text{Current Assets}}{\text{Total Assets}}$$

As the ratio increases risk and profitability of the company would decrease likewise. The low ratios indicate the small amount of working capital.

- **Cash and Bank Balance to Current Asset (CBCA):** The immediate solvency of the cash is measured with this ratio, as cash and bank balance is the most liquid form of current assets. It shows the relationship between cash and bank balance and the total current assets. This ratio represents the portion of cash and bank balance in current assets. It is calculated as:

$$\text{CBCA } X\frac{\text{Cash and bank Balance}}{\text{Current Assets}}$$

The ratio should not be large, because higher ratio indicates the poor cash management.

- **Receivable to current assets (RCA):** This ratio indicates the share of receivable on current assets which is calculated by dividing the receivable by current assets.

$$\text{RCA } X\frac{\text{Receivable}}{\text{Current Assets}}$$

The percentage ratio indicates the greater working capital and vice-versa. If the percentage is greater the company is unable to collect receivable promptly.

- **Receivable to Total Assets (RTA)** : This ratio is representing the percentage of total assets invested in the from of receivable, which is calculated as:

$$\text{RTA } X\frac{\text{Receivable}}{\text{Total Assets}}$$

Increase in the ratio indicates the liberal credit policy followed by the company.

3.5.2. Average

The most popular and widely used measure of representing the entire data by the one value is known as average. Its value is obtained by adding together all items and the summation of items is divided by the number of sample periods. If the past items of the sample periods are x, number of periods are then ($\bar{x}$) is defined by

$$\bar{x} = \frac{^{n} x_1/n}{t\ X1}$$

Higher the value of mean $\bar{x}$ the profitability position is regarded as sound. The calculation of average is necessary due to following reasons.

To get a single value which is represents of the characteristics of the entire mass of data. They set a side the necessary details of the data and put forward a concise picture of the complex phenomena under investigations.

Since average reduce the mass of data to a single picture, they are very helpful for the purpose of making comparative study

3.5.3 Trend Percentage Method (Index Number)

In working capital analysis the direction of change over a period of there years is of crucial importance. For trend analysis, the use of index number

is generally advocated. The procedure followed is to assign the number of 100 items of the base year and to calculate % change in each item of other years in relation to the base year. This procedure may be called as trend of other years in relation to the base year. This procedure may be called as trend percentage method.

There are various phenomena, which change with the passes of time. Index no. is statistical device assigned to measure the relative change in the level of phenomena (Variable or group of variable) with respect to time, geographical location or other characteristic. So index no. is a device for measuring change in the magnitude of the phenomena from time to time or event from place to place. The careful study of relative changes that has taken to place in the help of forecast the future trends and tendencies.

Index no. or trend percentage method is used to in the study to evaluate trends of relative items of working capital. Trend percentage of each study year can be calculated the following formula

$$\text{Trend\% } X \frac{\text{Current year price}}{\text{Fixed base last year price}} \text{ x } 100$$

3.5.4 Correlation Analysis

The correlation coefficient analysis refers to the tools used in measuring the closeness of the relationship between two variables. The term correlation (co-variation) indicates the relationship between two such variables in which with change in the value of one variable, the value of the other variables also change. If two or more quantities vary in sympathy so that the movement in other, they are said to be correlated.

The correlation is a defined as the relationship between (among) the dependent variables (or factor) and one or more than one independent variable or factors. In other words, correlation is the relationship between

(or among two or more variables (S) (i. e. only one variables depended or more variables (s) independent.

The Karl person's coefficient of correlation is denoted by symbol (r); it is measured the relationship between two variables. In the present context, the coefficient of correlation is calculated in order to examine the relationship between two variables of four commercial Joint Venture banks. The Karl person's coefficient of correlation (r) is calculated by using following formula.

$$r = \frac{xy}{\sqrt{x^2 \times \sqrt{y^2}}}$$

Also $r = \frac{xy}{\delta_x \times \delta_y}$

δ_x and δ_y are standard deviation of x and y series respectively.

Where, $x = x - \bar{x}$

$y = y - \bar{y}$

r = correlation coefficient

x and y = two variables

x = independent variables

y = dependent variables

Interpretation of correlation coefficient (r)

a) The coefficients of correlation as obtained by the above formula always lies between +1 and –1,
b) When r is + 1, there is positively perfect correlation between the variables.
c) When r is –1, there if negatively perfect correlation between the variables.
d) When r is between 0.7 to .999, there is high degree of correlation between the variables.
e) When r is between 0.5 to 0.699, there is moderate degree of correlation between the variables.
f) When r it less than 0.5, there is low degrees of correlation between the variable.

g) When r is o (zero), there is no correlation between the variables or the variables are uncorrelated.

Probable error (P.E) of correlation coefficient

The probable error of the correlation coefficient is applicable for the measurement of reliability of the computed value of the correlation coefficient; 'r' the probable error (P. E) is defined by

$$P.E\ X0.6745\ x\ \frac{1-r^2}{\sqrt{N}} \text{.....(a)}$$

When

r = correlation coefficient

N = No. of pairs of observation

Again,

$$\frac{1-r^2}{\sqrt{N}}\ XS.E.\ X \text{standard error of correlation coefficient}$$

$$P.E.\ X0.6745\ x\ S.E. \text{.....(b).}$$

Conclusion or interpretation

1. If r< P.E., the value 'r' is not significant no matter, how high r value is i.e. there is no evidence of correlation between the variables.
2. If r > P.E., the value of 'r' is significant i.e. correlation is significant

3.5.5 Variance Ratio Test and Analysis Test (F- statistic):

Analysis of variance (ANOVA) when we need to test the significance of the difference among more than two sample means, f- distribution is suitable technique called the " Analysis of variance using ANOVA techniques we will be able to make inferences about whether our samples are drawn from population having the same mean the basic concept of ANOVA is to test whether the sample have same mean. One way analysis of variance is the one if we study the effect of factor at a time and hypothesis is to test the difference in difference in average value due to

the factor is insignificant. We have to calculated for ANOVA, the following way,

$$\text{Total (T)} = x_1 + x_2 + x_3 + \ldots\ldots + x_n$$

Correlation factor (C.F) = T^2/N

Total sum of squares (TSS)

$$TSS = x_1^2 + x_2^2 + x_3^2 + x_4^2 - C.F.$$

Sum of squares between sample banks (SSB)

$$SSB = \frac{(\sum X_1)^2}{N_1} + \frac{(\sum X_2)^2}{N_2} + \frac{(\sum X_3)^2}{N_3} + \ldots\ldots + \frac{(\sum X_n)^2}{N} - C.F.$$

Sum of squares within samples banks (SSW)

SSW = TSS – SSB

The whole analysis of ANOVA is finally presented in the ANOVA table:

ANOVA

Sources of variation	d.f.	Sum of squares	Mean sum of squares, ss/df	F- ratio
Between sample within sample	K-1 N-K	SSB SSW	MSB= SSB/K –1 MSW = SSW/N-K	$\frac{MSB}{MSW} = F_{cal}$

Decision rule

If the calculated value of't', is less than tabulated value of't' null hypothesis (H_0) is accepted.

If the calculated value of't', is greater than tabulated of't' alternatively hypothesis (H_1) is accepted.

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CHAPTER – IV

PRESENTATION AND ANALYSIS OF DATA

This chapter of study presents the data and facts, which is related to different aspects of Nepal Investment Bank Ltd and Everest Bank. The included data is collected from various sources. These available data are tabulated analyzed and interpreted so that financial forecast of bank can be done easily. The main objective of analyzing the working capital management and interpretation is to highlight the strength and weakness of the business. The collected data are analyzed and interpret by using the financial & statistical tools.

Therefore, in this chapter, data collected from various secondary sources, are presented and analyzed. For the purpose, two types of analysis have been carried out through descriptive analysis and inferential analysis. Therefore, this chapter has been divided into two sections.

4.1 Descriptive Analysis

This section attempts to analyze and compare some variable as relevant ratios of working capital, during the period 2002/03 to 2006/07. The above analysis and interpretation have been presented with the help of table and figures where necessary.

4.1.1 Nepal Investment Bank Ltd.

- **Current Assets to Total assets and Fixed assets**

Table No. 4.1

Current Assets to Total Assets and FA

(Rs. In million)

Year	CA	TA	FA	Ratio of CA to TA (%)	CA to FA(Times)
2002/03	1306	9164	191	14.25	6.84
2003/04	1703	13464	250	12.65	6.81
2004/05	1543	16390	321	9.41	4.81
2005/06	2537	21732	343	11.67	7.4
2006/07	2676	28073	760	9.53	3.52
Total	9765	88823	1865	57.51	29.38
Ave. (mean)	1953	17764.6	373	11.50	5.88
S.D				2.07	1.64
CV				18	27.91

Sources: *website www.nepalstock.com.*

The above table clearly shows the proportions of CA to TA are 14.25 12.65, 9.41, 11.67 and 9.53% in the respective year 2002 to 2006. The proportion is fluctuating trend. The overall average proportion of the study 5-year period is 11.50%, which is satisfactory position of the company. The highest and lowest proportion of CA to TA is 14.25% and 9.41% in the year 2002/03 and 2004/05 respectively. On the other land, the highest and lowest proportion of CA to FA is 6.84 times and 3.52 times in the year 2002/03 and 2006/07 respectively. (Similarly, the total average proportion of the CA to FA is 5.88 times. It is said to be satisfactory position.

- **Cash Balance to CA and TA**

Table No. 4.2

Cash Balance to CA and TA

(Rs. In million)

Year	Cash Balance	CA	TA	Ratio of CB to CA (%)	Ratio of CB to TA (%)
2002/03	927	1306	9164	70.98	10.12
2003/04	1227	1703	13464	72.05	9.11
2004/05	1340	1543	16390	86.84	8.18
2005/06	2335	2537	21732	92.04	10.74
2006/07	2442	2676	28073	91.26	8.70
Total	8271	9765	88823	413.17	46.85
Ave.(mean)	1654.2	1953	17764.6	82.63	9.37
S.D				10.35	1.05
CV				12.53	11.21

Sources: *website www.nepalstock.com.*

From the above table the proportion of cash balance to current assets is fluctuating trend. The average proportion of the whole study period is 82.63%, which is satisfactory level of the company. In the year 2004/05, 2005/06 and 2006/07, it can be seen the Investment bank is unable to collect cash promptly due to the greater proportion of Cash to CA than the overall average.

Similarly, proportions of cash balance to total assets are 10.12, 9.11, 8.18, 10.74 and 8.70% in respective year 2002/03 to 2006/07 with overall average is 9.37%. In fiscal year 2005/06, the higher proportion ratio of

CA to TA shows the liberal credit policy followed by the company because it is greater than average position.

- **Net Profit After Tax to CA and TA**

Table No. 4.3

Net Profit after Tax to CA and TA

(Rs. In million)

Year	NPAT	CA	TA	NPAT to CA (%)	NPAT to TA (%)
2002/03	117	1306	9164	8.96	1.28
2003/04	153	1703	13464	8.98	1.24
2004/05	232	1543	16390	15.04	1.42
2005/06	351	2537	21732	13.84	1.62
2006/07	501	2676	28073	18.72	1.78
Total	1354	9765	88823	65.54	7.23
Ave. (mean)	270.8	1953	17764.6	13.11	1.47
S.D				4.18	0.23
CV				31.89	15.67

Sources: *website www.nepalstock.com.*

The proportion of NPAT to CA of the NIBL bank is fluctuating trend in respective years 2002/03 to 2006/07. The average proportion percentage of return on CA is 13.11% that are good condition of the company. In the fiscal year 2002/03 and 2003/04, the return on CA proportion is not good because the proportion is below than average proportion.

Likewise, the proportions of return on total assets are fluctuating in trend for the study periods. The greater return on total assets is satisfactory level than the overall return. In the year 2005/06 and 2006/07 the return on total assets is good due to higher proportion return than overall return of the company, i.e. 1.62>1.47 and 1.78>1.47 where the average percentage return on total assets is 1.47% at good position.

- **Net Working Capital to Current Assets:-**

Table No. 4.4

Net Working Capital to Current Assets

(Rs. In million)

Year	TCA	TCL	NWC = TCA-TCL	NWC to TCA (%)
2002/03	1306	446	860	65.85
2003/04	1703	640	1063	62.42
2004/05	1543	279	1264	81.92
2005/06	2537	437	2100	82.77
2006/07	2676	424	2252	84.16
Total	9765	2226	7539	377.12
Ave. (mean)	1953	445.20	1507.80	75.42
S.D				10.41
CV				13.80

Sources: *website www.nepalstock.com.*

The above table clearly shows that the proportions of net working capital to current assets are 65.85, 62.42, 81.92, 82.77 and 84.16% in respective year from 2002/03 to 2006/07. The overall relation of net working capital to CA is 75.42%, which is satisfactory level. The whole study period the proportions are positive relation. Thus, the net working capital to CA position is good of the company.

- **Receivable to CA and TA.**

Table No. 4.5

Receivable to CA and TA

(Rs. In million)

Year	Receivable & Investment	CA	TA	Ratio of R to CA (%)	Ratio of R to TA (%)
2002/03	1745	1306	9164	133.61	19.04
2003/04	1227	1703	13464	72.05	9.11
2004/05	1340	1543	16390	86.84	8.18
2005/06	2335	2537	21732	92.04	10.74
2006/07	2441	2676	28073	91.22	8.70
Total	9088	9765	88823	475.76	55.77
Ave. (mean)	1817.6	1953	17764.6	95.15	11.15
S.D				22.95	4.51
CV				24.12	40.43

Sources: *website www.nepalstock.com.*

The above table shows the proportion of receivable and Investment to CA of the study period 2002/03 to 2006/07 are 133.61, 72.05, 86.84, 92.04 and 91.22% respectively where the highest and lowest proportions are 133.61% and 72.05% in the year 2002/03 and 2003/04.

The overall average proportion is 95.15%. It is said to be satisfactory. In 2002/03 the proportion of the receivable to current assets is not good due to greater proportion than the average proportion on the other hand; the maximum and minimum proportion of receivable to total assets is 19.04% and 8.18% in the respective year 2002/03 and 2004/05. It is fluctuating trend during the study period for 2002/03 to 2006/07. In the year 2002/03 and 2005/06, the proportion indicates the liberal credit policy followed by the company because the proportions of the receivable to total assets are greater than the average ratio.

» **Current Assets to Current Liabilities**

Table No. 4.6

Current Assets to Current Liabilities

(Rs. In million)

Year	CA	CL	Ratio of CA to CL (times)
2002/03	1306	446	292.83
2003/04	1703	640	266.09
2004/05	1543	279	553.05
2005/06	2537	437	580.55
2006/07	2676	424	631.13
Total	9765	2226	2323.65
Ave. (mean)	1953	445.20	464.73
S.D			171.69
CV			36.94

Sources: *website www.nepalstock.com.*

From the above table it is clear that the proportion of the current assets to current liabilities shows strong liquidity position. Because according to conventional rules, it should at least in the position 2:1 is greater to be shown. The cash may be able to pay current liabilities during the study period 2002/03 to 2006/07.

- **Cash to Current Liabilities:-**

Table No. 4.7

Cash to Current Liabilities

(Rs. In million)

Year	Cash balance	CL	Ratio of CB to CL
2002/03	927	446	2.08
2003/04	1227	640	1.92
2004/05	1340	279	4.80
2005/06	2335	437	5.34
2006/07	2442	424	5.76
Total	8271	2226	19.90
Ave. (mean)	1654.2	445.20	3.98
S.D			1.84
CV			46.23

Sources: *website www.nepalstock.com.*

During the study period the cash balance to current liabilities proportion in the year 2002/03, 2003/04 are not good in position, because CA to CL are less than average.

Total liabilities = Total debt

Net worth = share holder equity

- **Debt to Equity Ratio.**

Table No. 4.8

Debt to Equity Ratio

(Rs. In million)

Year	Total debt	Shareholder equity	Ratio (in times)
2002/03	8525	639	13.34
2003/04	12735	729	17.47
2004/05	15210	1180	12.89
2005/06	20317	1415	14.36
2006/07	26195	1878	13.95
Total	82982	5841	72.01
Ave. (mean)	16596.4	1168.2	14.40
S.D			1.81
CV			12.57

Sources: *website www.nepalstock.com.*

The debts to equity ratios of the study period 2002/03 to 2006/07 are shown 13.34, 17.47, 12.89, 14.36 and 13.95 times respectively. In the comparison, the fiscal year 2002/03, 2004/05 and 2006/07 are good in respect in debt to equity ratio due to less figure i.e. 13.34, 12.89 and 13.95 times. But in the year 2003/04 and 2005/06, ratios of total debt to equity are not preferable due to higher ratio than the overall proportion ratio.

- **Return on owner's Equity**

Table No. 4.9

Return on owner's Equity

(Rs. In million)

Year	NPAT	owner Equity	Ratio (%)
2002/03	117	639	18.31
2003/04	153	729	20.99
2004/05	232	1180	19.66
2005/06	351	1415	24.81
2006/07	501	1878	26.68
Total	1354	5841	110.44
Ave. (mean)	270.8	1168.2	22.09
S.D			3.53
CV			15.98

Sources: *website www.nepalstock.com.*

Return on owner's equity ratio during five year study period 2002/03 to 2006/07 shows the increasing trend except the fiscal year 2002/03 and 2004/05. The maximum and minimum ratio return on owner equity of NIBL bank is 26.68% and 18.31% in the respective year 2006/07 and 2002/03. Higher ratio is the more efficient the management and utilization of shareholder funds and vice-versa. The overall average return on shareholder equity is 22.09%, which is satisfactory level. In the fiscal year 2006/07, the proportion of return on equity is high i.e. 22.35% show the more efficient the mgmt of NIBL bank and utilization of sharer holders' equity.

- **Earning per share (EPS)**

Table No. 4.10

Earning per share (EPS)

(Rs. In million)

Year	Earning available to shareholder	No. of shores	Ratio (%)
2002/03	39560	2952930	1.34
2003/04	51700	2952930	1.75
2004/05	39500	5877385	0.67
2005/06	59350	5905860	1.00
2006/07	62570	8013526	0.78
Total	252680		5.54
Ave. (mean)	50536		1.11
S.D			0.44
CV			39.71

Sources: *website www.nepalstock.com.*

During the five year 2002/03 to 2006/07 study period, the proportions of earning per share are 1.34, 1.75, 0.67, 1.00 and 0.78% in respective year. In the year 2003/04, the financial condition is good due to highest EPS i.e. 1.75% in comparison a whole study period. The worst financial condition is in the year 2004/05 due to lowest EPS ratio i.e. 0.78% per share. The average proportion of during the 5-year of EPS is 1.11% per share which is satisfactory position of the NIBL bank.

4.1.2 Everest Bank Ltd.

- **Current Assets to Total Assets and FA.**

Table No. 4.11

Current Assets to FA and TA

(Rs. In million)

Year	CA	TA	FA	Ratio of CA to TA (%)	Ratio of CA to FA (Times)
2002/03	3334.59	3411.70	49.05	97.74	67.98
2003/04	5049.85	5202.58	50.37	97.06	100.26
2004/05	6359.66	6607.17	93.39	96.25	68.09
2005/06	7836.89	8052.20	109.59	97.83	71.51
2006/07	9399.95	9608.56	118.37	97.83	79.41
Total	31980.94	32882.21	420.77	486.71	387.25
Ave. (mean)	6396.188	6576.442	84.154	97.34	77.45
S.D				0.69	13.57
CV				0.71	17.52

Sources: *website www.nepalstock.com.*

During the study period, the proportions of CA to TA are in fluctuating trend. To highest and lowest proportion is 97.83% and 96.25% with the overall average is 97.34% and which is good position of the Everest bank.

On the other hand, the position of CA to FA is first two years, the proportion is increasing third year decrease and again last two years it is increasing trend.

The maximum and minimum level of CA to FA is 100.26 and 67.98 times in the respective year 2003/04 and 2002/03. Except the fiscal year 2003/04 and 2004/05 other whole year of CA to FA position is not

satisfactory level because ratio of CA to FA is lower than the average ratio.

- **Cash Balance to CA and TA**

Table No. 4.12

Cash Balance to CA and TA

(Rs. In million)

Year	Cash Balance	CA	TA	Ratio of CB to CA (%)	Ratio of CB to TA (%)
2002/03	278.60	3334.59	3411.70	8.35	8.17
2003/04	834.99	5049.85	5202.58	16.53	16.04
2004/05	592.76	6359.66	6607.18	9.32	8.97
2005/06	1139.57	7836.89	8052.20	14.54	14.45
2006/07	631.81	9399.95	9608.56	6.72	6.57
Total	3477.73	31980.94	32882.21	55.46	54.20
Ave. (mean)	695.546	6396.188	6576.448	11.092	10.84
S.D				4.22	4.15
CV				38.05	38.30

Sources: *website www.nepalstock.com.*

Cash balance to current assets of the Everest bank Ltd is fluctuating trend during the study period for 2002/03 to 2006/07 respectively. In the fiscal year 2003/04 and 2005/06, the cash mgmt of Everest bank is poor due to greater proportion of cash balance to current assets as a comparison during the whole study period.

On the other hand, the proportion of cash balance to total assets is fluctuating trend. The maximum and minimum cash balance to total assets is 16.04% and 6.57% in respective year 2003/04 and 2006/07 with overall ratio is 10.84%.

- **Receivable to Current Assets and Total Assets**

Table No. 4.13
Receivable to Current Assets and Total Assets

(Rs. In million)

Year	Receivable	CA	TA	Ratio of R to CA (%)	Ratio of R to TA (%)
2002/03	76.16	3334.59	3411.70	2.28	2.23
2003/04	94.28	5049.85	5202.58	1.87	1.81
2004/05	105.29	6359.66	6607.17	1.66	1.59
2005/06	122.74	7836.89	8053.20	1.57	1.52
2006/07	145.26	9399.95	9608.56	1.55	1.51
Total	543.73	31980.94	32882.21	8.93	8.66
Ave. (mean)	108.746	6396.188	6576.448	1.786	1.732
S.D				0.30	0.30
CV				17.01	17.52

Sources: *website www.nepalstock.com.*

From above table, it is clear shows that under the five year study period receivable to current assets is decreasing trend every year. The overall average proportion is 1.786%, which is satisfactory level. The highest and lowest proportion of receivable to current assts is 2.28% and 1.55% in the respective year 2002/03 and 2006/07. first year 2002/03, the proportion of receivable to current assets position is not good due to greater proportion than the overall position i.e. 2.28%>1.786%. And other whole years, proportion of R to CA position is good due to lower proportion than the overall average position.

Likewise the above table shows that proportion of receivable to total assets is decreasing trend is the study period

- **Return on Current Assets and Total Assets**

Table No. 4.14

Return on Current Assets and Total Assets (Rs. In million)

Year	NPAT	CA	TA	Ratio of NPAT to CA (%)	Ratio of NPAT to TA (%)
2002/03	41.27	3334.59	3411.70	1.23	1.20
2003/04	69.70	5049.85	5202.58	1.38	1.28
2004/05	85.33	6359.66	6607.17	1.34	1.29
2005/06	94.17	7836.89	8052.20	1.20	1.16
2006/07	143.57	9399.95	9608.56	1.53	1.49
Total	434.04	31980.94	32882.21	6.68	6.42
Ave. (mean)	86.808	6396.188	6576.448	1.336	1.28
S.D				0.13	0.13
CV				9.85	9.92

Sources: *website www.nepalstock.com.*

From the above table, in the first two years the trend of return on current assets is increasing trend. In the final year, the trend of return on current assets is increasing base. In the year 2003/04, 2004/05 and 2006/07, return on current assets is good condition because higher returns than the satisfactory return i.e. 1.336%.

On the other hand, proportion on return on total assets is increasing trend under study period 2002/03 to 2006/07. The average return on total assets is 1.28%. It is said to be satisfactory level of the Everest bank.

- **Net Working Capital to Current Assets**

Table No. 4.15

Net Working Capital to Current Assets (Rs. In million)

Year	**TCA**	**TCL**	**NWC**	**Proportion of NWC to TCA (%)**
2002/03	3334.59	3204.27	130.32	3.91
2003/04	5049.85	4874.79	175.06	4.47
2004/05	6359.66	6063.27	295.79	4.65
2005/06	7836.89	7420.73	416.16	5.31
2006/07	9399.95	8928.24	471.71	5.02
Total	31980.94	30491.9	1489.04	23.36
Ave. (mean)	6396.188	6098.38	297.81	4.672
S.D				0.54
CV				11.48

Sources: *website www.nepalstock.com.*

From the above table, it is clear shows, the net working capital to current assets position is increasing trend. The highest and lowest proportion of net working capital to current assets is 5.31% and 3.91% in the respective year 2005/06 and 2002/03. The overall average proportion is 4.672%, which is good condition of the Everest bank.

- **Current Assets to Current Liabilities**

Table No. 4.16

Current Assets to Current Liabilities

(Rs. In million)

Year	Current assets	C. Liabilities	Ratio of CA to CL (%)
2002/03	3334.59	3204.27	104.07
2003/04	5049.85	4874.79	103.59
2004/05	6359.66	6063.27	104.88
2005/06	7836.89	7420.73	105.61
2006/07	9399.95	8928.24	105.28
Total	31980.94	30491.9	523.43
Ave. (mean)	6396.188	6098.38	104.69
S.D			0.84
CV			0.80

Sources: *website www.nepalstock.com.*

From the above table, it is clear shows that during the whole study period, the relation of current asset to current liabilities does not touch according to conventional standard rules 2:1 than the posting of current assets is not good. The cash may be not cover current liabilities. They become due it is hitting the day-to-day operation of the company by effect of negative working capital.

- **Cash to Current Liabilities**

Table No. 4.17

Cash to Current Liabilities (Rs. In million)

Year	Cash	C. Liabilities	Ratio of CB to CL (%)
2002/03	278.60	3204.27	8.69
2003/04	834.99	4874.79	17.13
2004/05	592.76	6063.27	9.78
2005/06	1139.57	7420.73	15.36
2006/07	631.81	8928.24	7.08
Total	3477.73	30491.9	58.04
Ave. (mean)	395.546	6098.38	11.608
S.D			4.39
CV			37.78

Sources: *website www.nepalstock.com.*

From the above table, it is can seen that the cash balance to current liabilities is fluctuating trend under the study period. In the year, 2002/03, 2004/05 and 2005/06, the cash balance to current liabilities is not satisfactory position due to lower ratio than the average ratio. Other years i.e. 2003/04 and 2005/06, the position of cash to current liabilities is satisfactory level due to greater proportion than that the average position.

- **Debt to Working Capital**

Table No. 4.18

Debt to Equity Capital (Rs. In million)

Year	Total Debt	Shareholder Equity	Ratio (in times)
2002/03	3208.86	202.85	15.81
2003/04	4883.18	319.40	15.28
2004/05	6216.27	390.91	15.90
2005/06	7579.37	472.83	16.02
2006/07	9068.24	540.33	16.78
Total	30955.92	1926.32	79.79
Ave. (mean)	6191.184	385.264	15.96
S.D			0.54
CV			3.38

Sources: *website www.nepalstock.com.*

From the above table, it is clear that the total debt to equity ratio is increasing trend in whole study period. In the first three year, total debt to equity position is good due to below ratio than the overall ratio. But in the last two years, it is not preferable due to higher than overall average ratio.

- **Return on Owner Equity**

Table No. 4.19

Return on Owner Equity

(Rs. In million)

Year	NPAT	Owner equity	Ratio (%)
2002/03	41.27	202.85	20.35
2003/04	69.70	319.40	21.82
2004/05	85.33	390.90	21.82
2005/06	94.17	472.83	19.91
2006/07	143.57	540.33	26.57
Total	434.04	1926.32	110.47
Ave. (mean)	86.808	385.264	22.09
S.D			2.65
CV			11.97

Sources: *website www.nepalstock.com.*

The average return on equity under study period is 22.09%, which is satisfactory level. In the year 2006/07 the proportion of return on equity shows the more efficient management of Everest bank and utilization of shareholder funds. The proportion range of return on equity is 19.91% to 26.57% during the study year 2002/03 to 2006/07.

- **Earning Per Share (EPS)**

Table No. 4.20

Earning Per Share (EPS) (Rs. In million)

Year	Earning available to shareholder	No. of shares	Ratio (%)
2002/03	0.00	24222	0
2003/04	3.96	24222	1.63
2004/05	0.43	24222	1.77
2005/06	75.60	24222	3.12
2006/07	76.07	24222	3.14
Total	156.06		9.66
Ave. (mean)	31.212		1.932
S.D			1.30
CV			67.09

Sources: *website www.nepalstock.com.*

During the study period, in the year 2005/06 and 2006/07, the financial position of the Everest bank is satisfactory due to highest EPS i.e. 3.12% and 3.14% in comparison. The worst financial position in the year 2002/03 is 0 per share. The average ratio of EPS is 1.93%, which is not satisfactory level.

4.2 Trend Analysis

Trend analyses of joint venture bank are facts in very significance from the view of forecasting. The changes in the financial and operating data between specific periods make possible for the analysis from opinion as they are reflected by the accounting data. Trend analysis enables whether the working capital of the company is improving or deteriorating in the coming year. To analyzed the trend of data shows in the financial statements, it is necessary to have statement for at least five years or more years and it involves the calculation of percentage relationship are calculated for other remaining years on the base of base years. Trend percentage discloses change in financial operating data between specific, period and on this basis forecast for future can be made. For this purpose

base year should be made normal year. So the trend analysis of the significance item of the company's financial year with tabulation and presentation of them by charts and graphs research is going analyze some of the following significance items contained in the financial statement

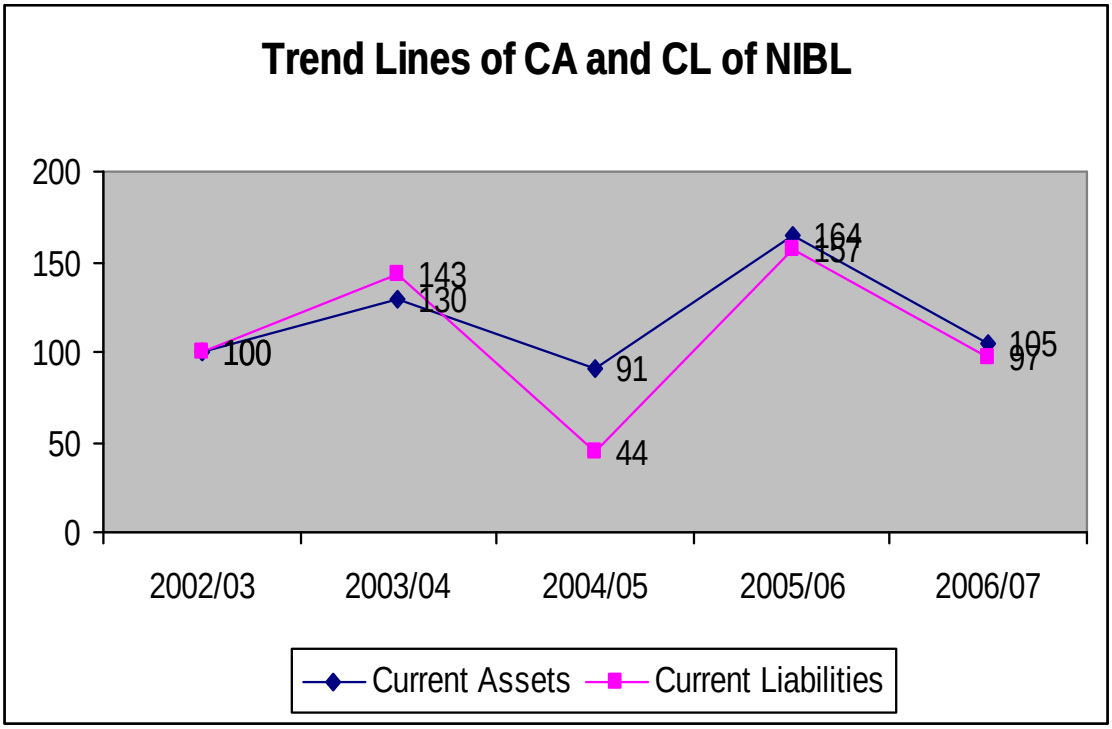
- Trend of current assets and current liabilities
- Trend of current assets and cash balance
- Trend of current assets and receivable
- Trend of cash and current liabilities
- Return on current assets
- Trend of net profit and current assets

For the purpose of the trend analysis, the first year of the study period (F/Y 2002/03) is selected subsequent year change in relative percentage of the first year (2002/03) base. A statement of trend percentage of some relevant working capital items of selected joint venture banks limited for the study period is presented in the appendix table respectively.

a) Nepal Investment Bank Ltd.

- **Trend line of CA and CL of Nepal NIBL Bank Ltd.**

F.G 4.1

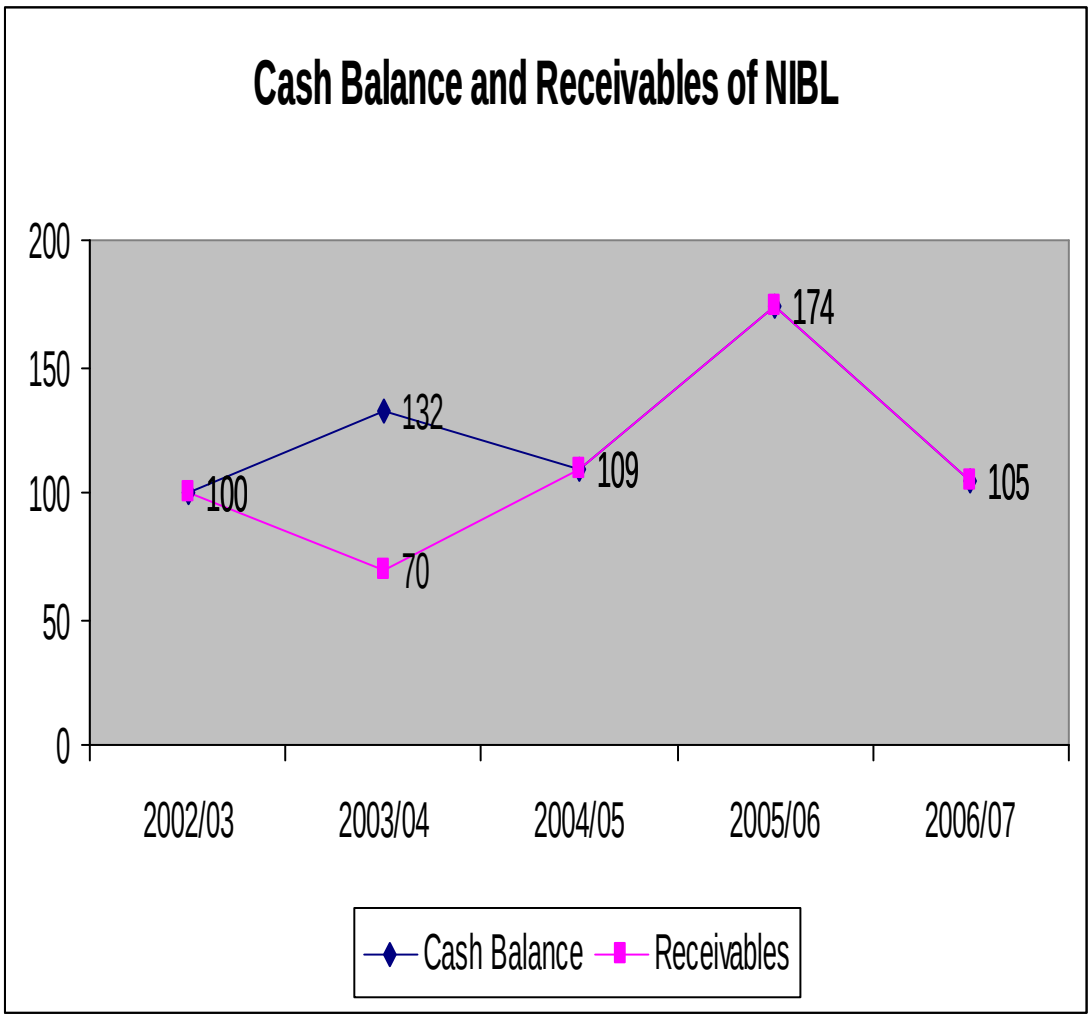


Source- *Appendix*

The Relationship between CA and CL of NIBL bank Ltd. both the trend lines are increasing all the year except trend lines of CL in the f/y 2004/05. Increasing trend lines of CA is greater than the trend lines of CL is not sufficient for the year. The trend of graph shows the poor solvency position of NIBL bank Ltd. during the study period, which is unfavorable to NIBL bank Ltd.

- **Trend of Cash Balance and Receivable of NIBL Bank Ltd**

F.G 4.2

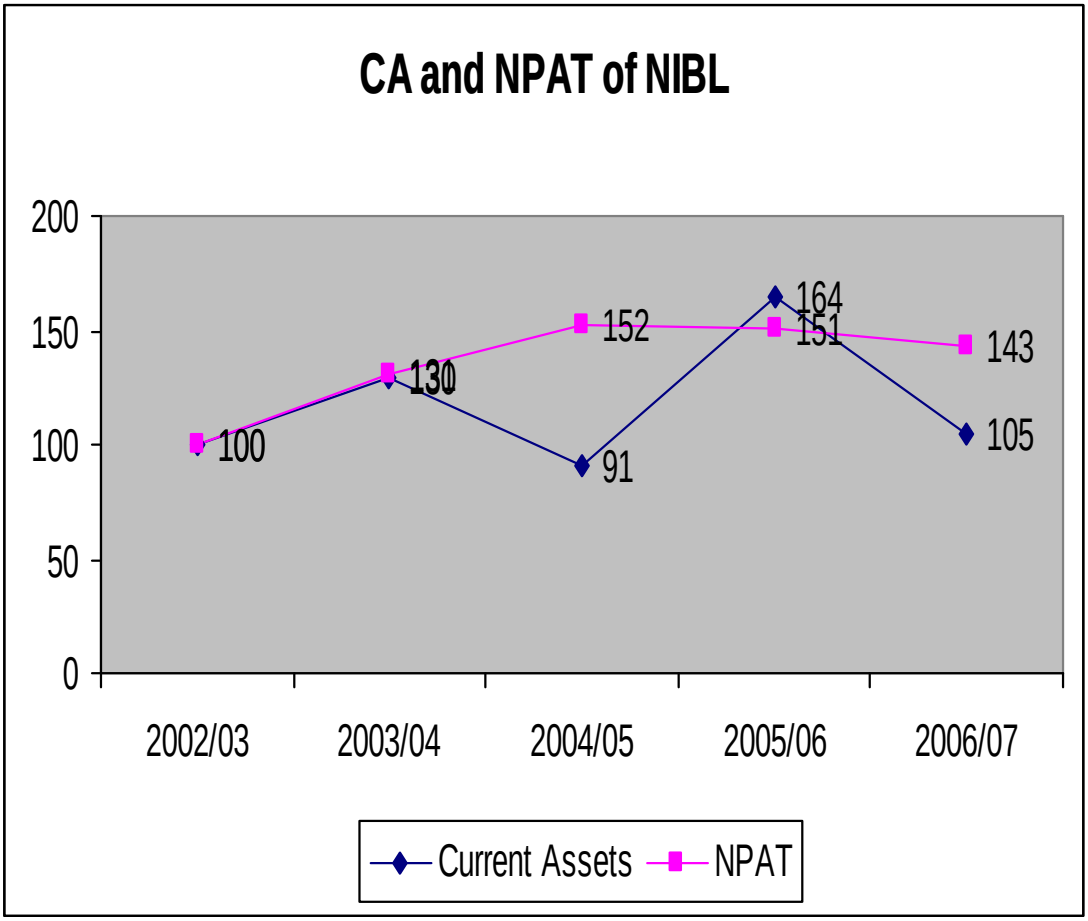


Source: *Appendix*

The trend line of cash balance and receivable are widely fluctuating beginning. Trend line of receivables slightly decrease to in 2003/04 and increasing from the f/y 2004/05 to 2006/07. As a result, the trend line of cash balance show favorable position of NIBL bank Ltd except the F/y 2003/04. The trend lines of receivables show preferable from 2002/03 to F/y 2006/07 except f/y 2003/04 are in satisfactory level.

- **Trend of CA and Net Profit after Tax of NIBL Bank Limited**

F.G 4.3



Source- *Appendix*

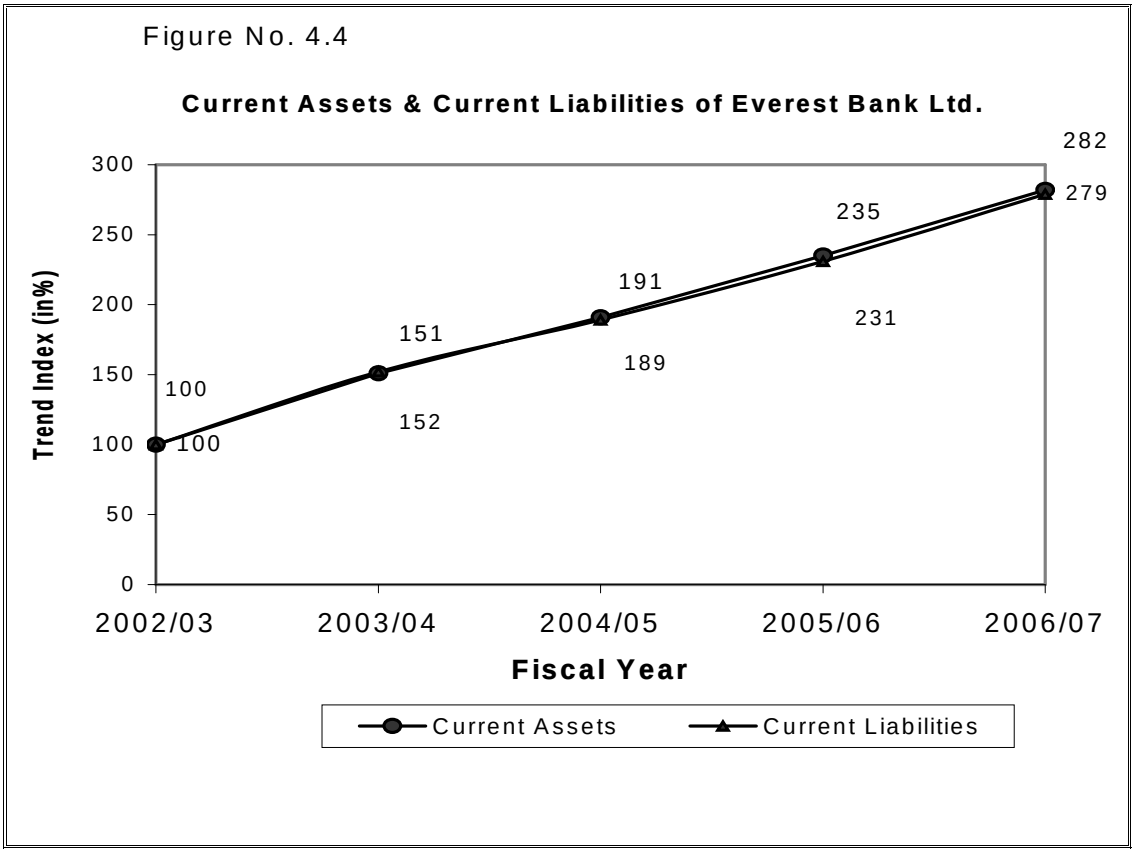
The trend of CA and NPAT is shown in above Figure no. 4.3. The trend of CA and NPAT are fluctuating trend. The trends of CA of NIBL bank Ltd are satisfactory in the all F/y 2002/03 to 2006/07. It indicated favorable in position. Then the trend of CA is lower than base year in the

F/y 2004/05 and 2006/07 of the study period. The main cause of decreasing trend of NPAT is absence of modern technology and operating expenses. And a result the net profit of NIBL bank Ltd is not appropriate from the view point of trend line of net profit.

c) Everest Bank Ltd.

- **Trend of CA and CL of Everest Bank Ltd**

Figure No. 4.4



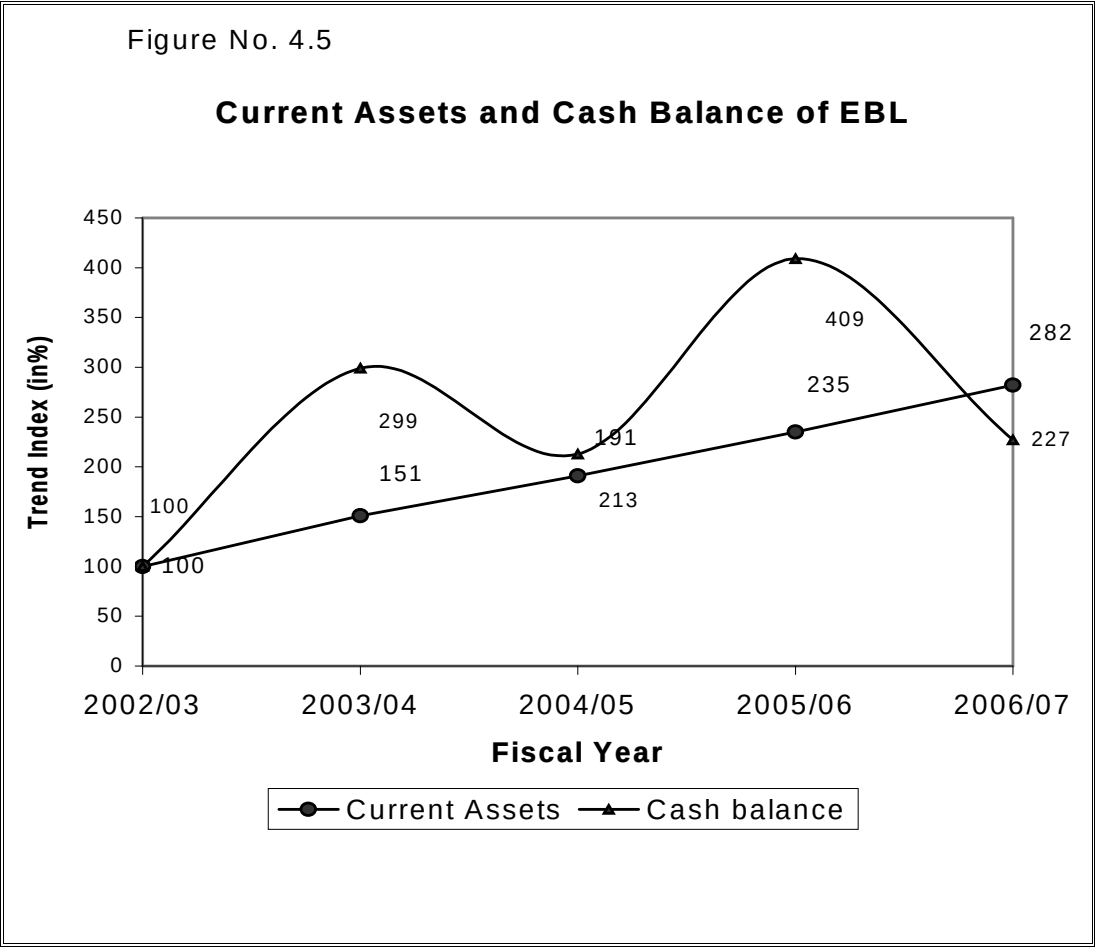
Source- *Appendix*

The above figure no. 4.4 shows that the relationship between current assets and current liabilities. The trend lines of CA to CL of Everest bank Ltd from 2002/03 to 2006/07 are all exactly upward during the study period. From the above table trend line of graph no. 4 it is concluded that EBL is worthiness. Both the current assets and current

liabilities trend lines are increasing trend of EBL and EBL is favorable in the view point of CA and CL trend line.

- **Trend of CA and cash balance of EBL**

Figure No. 4.5

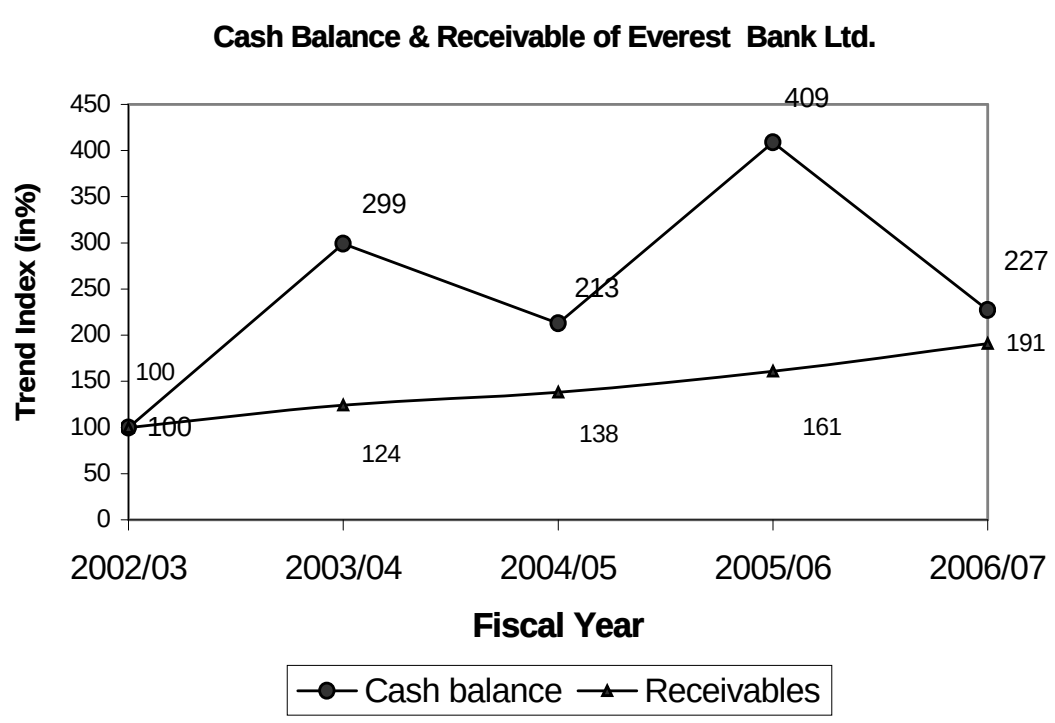


Source- *Appendix*

The above Figure no. 4.5 shows that the relationship between current assets and current liabilities. The increasing slope of CA shows the favorable position of EBL; where as the trend of cash balance is fluctuating trend. The cash balance of EBL is not favorable condition because the slope of cash balance is upward trend from the viewpoint of CA and CB trend line.

- **Trend of CA and receivable of EBL**

Figure No. 4.6

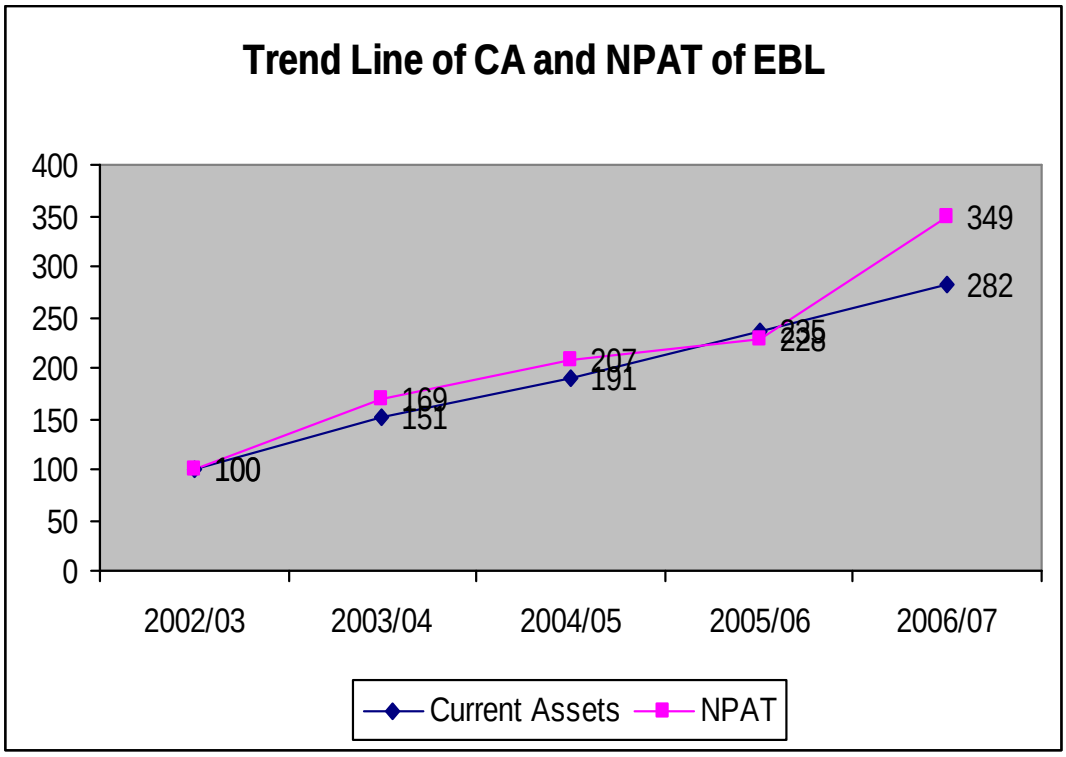


Source- *Appendix*

Figure no. 4.6 shows the relationship between CA to receivable of EBL. The trend line shows the current assets slope is increasing year by year as compared to base year continuously. And the trend of receivable slopping is increasing trend lines. Selected all years upward up to 2006/07 each year continuously which indicates the receivable mgmt of EBL is poor.

- **Trend line of CA and NPAT of EBL**

FG- 4.7



Source- *Appendix*

The above Figure no. 4.7 shows the trend line of current and net profit after tax. Both the trend line of current assets and net profit after tax are highly upward sloping during the 5 Year study period. The NPAT of EBL is very high in the F/y 2006/07 is positive or appropriate position of EBL during the study period.

4.3 Inferential Analysis

Inferential analysis is based on the sampling and statistic. For the inferential analysis, null (H_o) and alternatives (H_1) hypothesis were formulated and tested with the help of student's t-test. If the calculated t value were less than the table values at 5% significant for n-2 degree of free dome a null (H_o) hypothesis would be accepted and alternative hypothesis would be rejected or vice-versa. Inferential analysis helps to -

estimate a good estimator of population parameter. Attempts are therefore made to estimate the population parameters to predict the future outcome. i.e. to established relationship correlation between current assets and current liabilities, current assets and cash receivables net working capital, total fixed assets, return on current and total assets, cash and current liabilities, quick assets, return on equity NPAT study for the purpose of the four companies for the sampled study different items. In addition student t-values have calculated to test the statistical significance correlation of all the correlate coefficient are probable error calculates again, in addition analysis of a variation using ANOVA techniques we find out established hypothesis statement used to show the relationship between variables. Analysis variation F-values have been calculated to test the statistical significance in concerned four banks at 5% level.

The following tables from 4.1 to 4.20 show the analysis of working capital management with the help of different ratio and their correlation coefficient probable error and t-values and testing hypothesis.

The following table from 4.1 to 4.20 shows the S.D and Variation analysis as well as concerned banks also analysis of working capital management with help of different items of concern banks calculation and F values and testing hypothesis.

4.3.1 Bank Wise Correlation Analysis

- **Karl Person's correlation coefficient and Probable error of CA & CL of Selected samples Banks**

Table No. 4.21

Correlation Coefficient and Probable error between C.A. and C.L

Banks	Correlation (r)	P.E.	6 x P.E.	Correlation
NIBL	0.995	0.030	0.18	r>6P.E significant
EBL	0.111	0.301	1.806	r>6P.E not significant

Source: - *Computed from previous table*

From the above table, it can be seen that the computed correlation coefficient between current assets and current liabilities of two samples banks have positive relationship order to measure the degree of change on dependent variable current liabilities due to change in independent variable current assets value of coefficient is calculated. We can also find out that there is highest degree of correlation in NIBL is 0.995 among the concerned two banks. It denotes there is positive prefect correlation between current assets and current liabilities in 1 banks out of 2(two) banks. On the contrary, least degree of correlation (0.11) in EBL which was positive value of correlation.

Similarly, from the viewpoint of probable error, the value of correlation 'r' is greater than the value of 6 P.E. (i.e. 0.995>0.18) in NIBL Bank. Since 'r' is the much greater than 6 P.E, there is evidence of correlation. In other words the correlation between current assets and current liabilities is highly significance. But in banks EBL, the value of correlation 'r' is lower than the calculated value of probable error 6 P.E. i.e. 0.111<1.806. Thus there is no evidence of correlation between two variables (i.e. CA and CL). In the other words, the relationship between CA and CL is not considered for significance.

- **Karl Person's Correlation Coefficient and Probable Error of CB and CA of concerned Selected samples Banks**

Table No. 4.22

Correlation Coefficient and probable Error of Cash and Current Assets

Banks	Correlation (r)	P.E.	6 x P.E.	Correlation
SBI	0.636	0.1218	0.077	r>6P.E significant
EBL	0.805	0.105	0.63	r>6P.E significant

Source: - *Computed from previous table*

In the above table, we can find that the correlation coefficients between cash balance and current assets and probable error (P.E) of two sample banks have been presented. We can say that, there is the highest degree of correlation in EBL i.e. 0.805 among the concerned selected banks. it denotes, there is moderate degree of correlation between cash and current assets of EBL bank in order to measure the degree of change dependent variable current assets due to change value of coefficient is calculated; On the contrary, the lowest degree of correlation (0.636) in NIBL which weakly positive value of correlation.

Like wise the value of 'r' is greater than the value of 6 P.E (i. e. 0.636>0.077 and 0.805>0.63) in NIBL and EBL banks respectively. Since 'r' is much greater than 6 P.E. There is evidence of correlation. In the other words, the Karl person's coefficient between cash balance and current assets are of relevant banks is significant. In other words, the relationship between cash balance and current assets is considered for significance.

- **Karl Person's Correlation Coefficient and Probable Error of Receivable and C.A. of Concerned Selected samples Banks**

Table No. 4.23

Correlation Coefficient and Probable error between Receivable &C.A.

Banks	Correlation (r)	P.E.	6 x P.E.	Correlation
NIBL	0.676	0.163	0.97	r>6P.E not significant
EBL	0.985	0.089	0.53	r>6P.E significant

Source: - *Computed from previous table*

The above table no 4.23 shows the coefficient of correlation between receivable and current assets and probable error (P.E) of two Joint venture banks during the study period. We can find that the highest degree of correlation between receivable and current assets in EBL i.e. 0.985 among the concerned banks. This correlation indicates that there is high degree of (positively perfect) correlation between the receivable and current assets of EBL in order to measure the degree of change on dependent variable receivable value of coefficient are calculated. On the contrary, the lowest degree of correlation in NIBL i.e. 0.676 among the both banks which weakly positive value of correlation.

As a result, the value of 'r' is greater than the value of 6P.E. (i.e. 0.985>0.53) in EBL bank. Since 'r' is much greater than 6 P.E., there is evidence of correlation. Thus, Karl person's correlation coefficient between two variables receivable and current assets is significant. On the contrary, the correlation value of 'r' is lower than the calculated value of probable error in NIBL, SBI, SBL and NBBL during the study period. Since there is no evidence of correlation between receivable and current assets; in the other words the relationship between receivable and current assets is not considered for significance.

- **Karl Person's Correlation & Probable error of NPAT and CA of Concerned Selected samples banks**

Table No. 4.24

Correlation Coefficient and probable error between Net profit and CA

Banks	Correlation (r)	P.E.	6 x P.E.	Correlation
NIBL	0.076	0.2993	1.79	r<6P.E not significant
EBL	0.99	0.059	0.354	r>6P.E significant

Source: - *Computed from previous table*

The coefficient of correlation between Net profit and current liabilities and probable error (P.E) of both Joint venture banks are shown in above table during the study period, we can find that the highest degree of correlation between Net profit after tax and current assets is 0.99 in EBL among the concerned 2 banks in respective banks. EBL, the correlation indicates that there is positively perfect high degree correlation between the NPAT and current assets in order to measure the degree of change on dependent variables net profit after tax of coefficient is calculated. However, it can be noted that table both banks have positive correlation between their NPAT and CA.

As result, the value of correlation 'r' is greater than the calculated value of 6 P.E. (i.e. 0.99) in EBL, since 'r' is much greater than 6P.E. There is evidence of correlation. In other words correlation coefficient between two variables NPAT and current assets is significance.

4.3.2 Testing of Hypothesis with the help of ANOVA table (F-test)

- **Testing of Hypothesis on the basis of Current Assets**

  The following null hypothesis has been tested by the help of applying the f-test on the basis of current assets of different commercial joint venture banks.

Null hypothesis (H_0): There is no significant difference between current assets of concerned two banks.

Alternative hypothesis (H_1): There is significant difference between current assets of concerned two banks.

Table No. 4.25

Current Assets of two banks *(Rs in million)*

Banks / Year	NIBL	EBL
2002/2003	1306	3334.59
2003/2004	1703	5049.85
2004/2005	1543	6359.66
2005/2006	2537	7836.89
2006/2007	2676	9399.95
Total	9765	31980.94

Source: - *Computed from previous table*

ANOVA

Source of variation	D. f	Sum of square (s s)	Mean sum of square = $\frac{ss}{df}$	F- ratio
Between samples	c-1=2-1 = 1	49354799.01	49354799.01	0.06
Within samples	N-c = 10-2 = 8	894508598.6	111813574.8	
Total	10-1 = 9			

Source: - *Appendix*

Table value of f at 5% level of significance with $\nu_1 = 1$ and $\nu_2 = 8$ is 5.32

Decision:-

Since, the calculated value of f is less than its tabulated value (i.e.) 0.06< 5.32 at 5% level of significance.

:. $F_{cal} < f_{tab}$, null hypothesis (H_0) is accepted and alternative hypothesis (H_1) is rejected.

Hence, we concluded that there is no significance difference in current assets of sample commercial joint venture banks.

- **Testing of hypothesis on the basis of CL**

The following null hypothesis has been tested by applying the f- test on the basis of current liabilities of the different joint venture banks.

Null hypothesis (H_0): There is no significant difference between current liabilities of concerned sample banks.

Alternative hypothesis (H_1): There is significant difference between current liabilities of concerned sample banks.

Table No. 4.26

Current Liabilities of two Sample Banks

(Rs in million)

Year	NIBL	EBL
2002/2003	446	3204.27
2003/2004	640	4874.79
2004/2005	279	6063.87
2005/2006	437	7420.73
2006/2007	424	8928.24
Total	2226	30491.90

Source: - *Computed from previous table*

ANOVA

Source of variation	D. f	Sum of square (ss)	Mean sum of square = $\frac{ss}{df}$	F- ratio
Between samples	c-1= 2-1 = 1	186942208.3	186942208.3	F=2.33
Within samples	N-c = 10-2 = 8	640722735.2	80090341.91	
Total	10-1 = 9			

Source: - *Appendix*

Critical tabulated of at 5% level of significance with $\nu_1 = 1$ and $\nu_2 = 8$ is 5.32

Decision:-

Since the tabulated values greater then its calculated values (i.e.2.33<5.32)at 5% level of significance.

:. $F_{cal} < F_{tab}$, null hypothesis is accepted.

Hence, we concluded that there is no significance difference in current liabilities of sample commercial four joint venture banks.

- **Testing of Hypothesis on the basis of Net Working Capital**

The following null hypothesis has been tested by applying the f-test on the basis of Net Working Capital of the different joint venture banks.

Null hypothesis (H_0) : There is no significance difference between Net working Capital of two samples banks

Alternative hypothesis (H_1): There is significance difference between Net working Capital of two samples banks

Table No. 4.27

Net working capital of two sample banks *(Rs in million)*

Year	NIBL	EBL
2002/2003	860	130.32
2003/2004	1063	175.06
2004/2005	1264	295.79
2005/2006	2100	416.16
2006/2007	2252	471.71
Total	7539	1489.04

Source: - *Computed from previous table*

ANOVA

Source of variation	D. f	Sum of square (ss)	Mean sum of square = $\frac{ss}{df}$	F- ratio
Between samples	c-1= 2-1 = 1	3660201.60	3660201.60	0.62
Within samples	N-c = 10-2 = 8	47243008.90	5905376.11	
Total	10-1 = 9			

Source: - *Appendix*

Critical tabulated value of F at 5% level of significance with $\nu_1 = 1$ and $\nu_2 = 8$ is 5.32.

Decision:-

The calculated value is less than its tabulated value (i.e. 0.62<5.32) at 5% level of significance. H_0 is accepted and H_1 is rejected.

Hence, we concluded that there is no significance difference between net working capital of commercial banks.

- **Testing of Hypothesis on the basis of Cash Balance:-**

The following null hypothesis has been tested by applying the f-test on the basis of cash balance of the different joint venture banks.

Null hypothesis (H_0): there is no significant difference between cash balance of two samples banks

Alternative hypothesis (H_1): there is significant difference between cash balance of two samples banks

Table No. 4.28

Cash Balance of two banks *(Rs in million)*

Year	NIBL	EBL
2002/2003	927	278.60
2003/2004	1227	834.99
2004/2005	1340	592.76
2005/2006	2335	1139.57
2006/2007	2442	631.81
Total	8271	3477.73

Source: - *Computed from previous table*

ANOVA

Source of variation	D. f	Sum of square (ss)	Mean sum of square = $\frac{ss}{df}$	F- ratio
Between samples	c-1= 2-1 = 1	16100809.39	16100809.39	2.55
Within samples	N-c = 10-2 = 8	50599971.90	6324996.49	
Total	10-1 = 9			

Source: - *Appendix*

Critical tabulated value of f at 5% level of significance with $^{3}{}_{1}$ = 1 and $^{3}{}_{2}$ = 8 is 5.32.

Decision:-

Since the calculated value is greater than its tabulated value is greater than its tabulated value (2.55<5.32) at 5% level of significance, H_0 is accepted and H_1 is rejected this level.

Hence, we concluded that there is no significance difference between cash balance of sample commercial banks.

- **Testing of Hypothesis on the basis of Net Profit**

The following null hypothesis has been tested by applying the f-test on the basis of net profit of the different joint venture banks.

Null hypothesis (H_0) : There is no significance difference between net profits of samples banks

Alternative hypothesis (H_1) : There is significance difference between net profits of samples banks

Table No. 4.29

Net Profit of concerned Banks *(Rs in million)*

Year	NIBL	EBL
2002/2003	117	41.27
2003/2004	153	69.70
2004/2005	232	85.33
2005/2006	351	94.17
2006/2007	501	143.57
Total	1354	434.04

Source: - *Computed from previous table*

ANOVA

Source of variation	D. f	Sum of square (SS)	Mean sum of square = $\frac{ss}{df}$	F- ratio
Between samples	c-1= 2-1 = 1	84595.85	84595.85	0.42
Within samples	N-c = 10-2 = 8	1617504.30	202188.04	
Total	10-1 = 9			

Source: - Appendix

Critical tabulated value of f at 5% level of significance with $\nu_1 = 1$ and $\nu_2 = 8$ is 5.32.

Decision:-

The tabulated value is greater than its calculated value (i.e.0.42<5.32) at 5% level of significance, H_0 is accepted and H_1 is rejected.

Hence, we concluded that there is no significance difference between Net profits of sample commercial banks.

4.4 Findings of the Study

The Major findings if the study derived from descriptive analysis are as follows:

a) EBL Bank has the highest mean current assets to total assets and NIBL has the lowest mean current assets to total assets during the study period 2002/03 to 2006/07.

b) EBL Bank has the highest mean current assets to fixed assets and NIBL has the lowest mean current assets to fixed assets during the study period.

c) NIBL Bank has the highest mean Cash Balance to Current Assets and EBL has the lowest mean CB to CA during the study period.

d) EBL has the highest mean Cash Balance to Total Assets and NIBL has the lowest mean CB to TA during the period under the study.

e) NIBL has the highest mean receivable to current assets and EBL has the lowest mean receivable to current assets during the study period.

f) NIBL has the highest mean receivable to total assets and EBL has the lowest mean receivable to total assets during the study period.

g) NIBL has the highest mean NPAT to current assets and EBL has the lowest mean NPAT to current assets during the study period.

h) NIBL has the highest mean return on total assets and EBL has the lowest mean return on total assets during the study period.

i) NIBL has the highest mean net working capital to current assets and EBL has the lowest mean net working capital to current assets during the study period.

j) NIBL has the highest mean current assets to current liabilities and EBL has the lowest mean current assets to current liabilities during the study period.

k) EBL has the highest mean cash balance to current liabilities and NIBL has the lowest mean CB to CL.

l) EBL has the highest mean debt to equity and NIBL has the lowest mean debt to equity under the study period.

m) EBL and NIBL have equal mean return on owner's equity during the period under the study.

n) EBL has the highest mean EPS and NIBL has the lowest mean EPS during the study period.

Inferential Analysis

a) There is positive correlation coefficient between current assets and current liabilities of concerned bank. NIBL has the highest degree positively perfect correlation between current assets and current liabilities and EBL has the lowest degree or positive correlation under the study period.

b) EBL has the highest degree positively correlation between cash balance and current assets and NIBL has the lowest degree of correlations.

c) EBL has the highest degree positively perfect correlation between receivable and current assets and NIBL has the lowest degree of correlation.

d) EBL has the highest degree positively perfect correlation between net profit and current assets and NBIL has the lowest degree correlation.

e) F- Test suggests that current assets of the concerned banks are not significantly differing at 5% level of significance.

f) F-test suggests that current liability of the concerned two banks do not significantly differ at 5% level of significant.

g) F-test suggest that networking capital of the concerned two banks don't significant differ at 5% level of significance.

h) F-test suggests that the net profit after tax of the concerned both banks do not significantly differ at 5% level of significance.

i) F-test suggests that the cash balances of the concerned 2 banks don't significantly differ at 5% level of significance.

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CHAPTER – V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

A business firm needs not only fixed capital but also the working capital. It is one of the major factors of the company. Working capital is very strong and important aspect of financial management. It is the life-blood of a business. No any business can run successfully without adequate working capital. The study aims at examining the impact of current assets and current liabilities, total debt to equity, return, Eps, receivable etc by using secondary data. The study mainly aims to analyze and assess working capital management of four joint venture commercial banks listed in Nepal stock exchange (NEPSE) Ltd. covering the five years study periods 2002/003 to 2006/007. The research work is divided in five chapters consisting, a brief introduction, about this study which has been already presented in chapter I, in chapter II, review of literature which includes various related books, and journals other related banking news and other published as well as unpublished master level thesis have been recovered. Research methodology has been described in chapter in III. While all the available data has been presented and analyzed. Finally, the major findings are shown in chapter IV.

In this chapter, the effort has been made first to present summary and conclusion drawn from the study. At last step, it proceeds with recommendation to the organization.

The objectives of this thesis were:

- To find the basis reason working capital mgmt good or bad.
- To analyze the current assets and current liabilities of the selected JVBS under study period during the five years period of 2002/003 to 2006/2007.
- To analyze and evaluate the net profit to current assets, debt to equity and Eps
- To analyze and evaluate the working capital with the help of trend analysis
- To provide reformative suggestion for further improvement of sample commercial JVBS

The study has used both accounting and statistical tools for the analysis. In accounting tools different items as related working capital were computed to represent different ratio. In statistical tools, arithmetic mean, standard deviation, probable error, co-efficient of correlation, trend analysis of the sample banks are studied which were obtained from Nepal stock exchange Ltd. through internet website www.Nepalstock.com. This study observes 2002/003 to 2006/007 period only.

This study is based upon the descriptive and inferential analysis. Descriptive analysis involves relationship, analysis and comparison among the item related to working capital. Inferential analysis involved the coefficient of correlation, probable error, and testing of null hypothesis, alternative hypothesis with the help of Karl person's correlation co-efficient, similarly, F-test with the ANOVA financial tool is also used.

5.2 Conclusion:-

After studying above findings we can draw the following conclusion. This study is basically related to various aspect of working capital. We took data of two commercial banks and analyzed the data as our requirement and finally fund and drew conclusion. The researcher wants to draw the conclusion the basis of the forward objective.

The major conclusions derived from descriptive analysis are as follows.

i. The mean value of CA to TA of EBL bank Ltd has the highest and CV is the highest of NIBL. That means EBL banks is higher risky than EBL. The mean value of CA to TA of EBL is the highest and the CV is the lowest of EBL. That means EBL bank is less risky than EBL.

ii. The mean value of CA to FA of EBL has the highest among two banks for the study period and it's Standard Deviation (SD)/CV is the highest. That means it is risky to invest in this bank than the NIBL. The means value of CA to FA of NIBL is lowest and Standard Deviation/CV is the highest of EBL. That means EBL is riskier than other selected bank.

iii. The mean value of cash balance to current asset of NIBL Ltd. is the highest and the CV is the highest of NIBL, so NIBL is risky than EBL.

iv. The mean value of receivable to total assets of NIBL bank Ltd. has the highest and CV is the highest of NIBL. So EBL is less risky than selected sample banks.

v. The mean value of return on current assets of NIBL highest, so it is favorable; but on the other hand the CV is the lowest of EBL, that means EBL is less risky than NIBL bank.

vi. The mean value of return on total assets of NIBL has the highest and the CV is the lowest of EBL. That means EBL is less risky than NIBL bank.

vii. The mean value of net working capital to current assets of NIBL has the highest and the CV is also highest of NIBL. That means EBL is less risky then NIBL.

viii. The mean value of debt to equity of EBL has the highest and standard deviation (SD)/CV is the highest of NIBL. That means less They both risky than other selected banks.

ix. The EPS mean value of EBL has the highest than NIBL but CV is also highest of EBL. That means NIBL is less risky in the view point of EPS.

Major conclusions derived from inferential analysis are as follows:-

a) NIBL bank has the highest degree of positively perfect correlation coefficient between current assets and current and EBL has the lowest weakly positive correlation coefficient under the study period than other banks.

b) EBL has the highest degree positively perfect correlation coefficient between cash balance current assets and NIBL has the lowest degree of correlation coefficient between CB and CA under the study period than other bank.

c) EBL has the highest degree positively perfect correlation between receivable and current assets and NIBL has the lowest degree of correlation coefficient than other banks.

d) EBL has the highest degree positively perfect correlation between net profit and current assets and NIBL has the lowest degree negative correlation coefficient as compared to other bank.

e) There is not significantly different at 5%level of significant in CA, CL

NPAT, NWC, CB and receivable (f-test, ANOVA).

The last we can say that none of the sample banks followed by any working capital management techniques and not maintain the any aspect of W/C policy.

5.3 Recommendation

Concerned banks (i.e. NIBL and EBL) are foreign joint venture commercial banks. Both banks have been passing through a very tough phase. For the viewpoint of ratio to an investor or depositor or shareholder or any stakeholders, the proper identification of the extent of bank ability are satisfaction to some extent to meet their operational as well as the working capital goals. But there are still following major recommendations which are notices about of the study.

- This study has included only two commercial joint venture banks and their five-year data, so covering all joint venture commercial banks may be other avenue.
- All the banks should be made regular check to identify both excess and shortage current assets. This avoids risk in management of working capital. Many financial tools and techniques (i.e. ratio analysis, trend analysis and hypothesis test) help to identify the deviation.
- The banks should have proper cash planning to estimate the cash receipt and payment. This helps to minimize the problems if excess or defect cash balance. As a result there were neither excess nor the shortage of cash balance in the banks and the liquidity and profitability position of the banks can be also be improved.
- Receivable with reference to current assets is fluctuating trend, which implies not liberal credit policy of bank. To avoid the problems of higher level of investment in receivable the banks should have

maximum cash sales. For this the customer should be provided discounts on cash purchase and it also has to the tight the credit policy. The customer should be acquainted with period of credit. To accelerate the collection the customers should be provided the discount.

- The study took a few variables in studying working capital management, covering more than the financial variable may be other avenues.
- The investment portfolio of both banks is risk free, low earning, consisting almost government securities. To improve the profitability of their investment portfolio, they have to search other safety investment opportunities apart from the government securities.
- Both banks are highly levered because the use of debt in their capital structure is maximum. That results higher financial risks. They have to make the attempt to curtail the financial risk increasing their shareholder's equity.
- Return on assets of these banks is lower. The reason may be that they have deposits at higher costs compared to revenues. They are generating on funds deployed. Thus, they should try to improve the ROA by lowering the cost of funds, at the same times they should try to enhance their operating incomes and to reduce the operating as well as the non operating expenses.
- The trend on net profit, earning per share is fluctuating. Thus those banks have to make attempts to increase these volumes.
- Finally, the banks should apply the comprehensive concept of working capital management considering the basis fundamentals of financial tools and techniques in all the Nepalese Commercial joint Venture banks.

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APPENDIX

Trend

Working capital index bank wise statement of trend percentage of working capital items of two Joint Venture Banks from fiscal year 2002/03 to 2006/07 in percentage

Nepal Investment Bank Ltd.

Year / Items	2002/03	2003/04	2004/05	2005/06	2006/07
Current Assets	100	130	91	164	105
Current Liabilities	100	143	44	157	97
Cash balance	100	132	109	174	105
Receivables (Near)	100	70	109	174	105
Net profit after-tax	100	131	152	151	143

Everest Bank Ltd.

Year / Items	2002/03	2003/04	2004/05	2005/06	2006/07
Current Assets	100	151	191	235	282
Current Liabilities	100	152	189	231	279
Cash balance	100	299	213	409	227
Receivables	100	124	138	161	191
Net profit after-tax	100	169	207	228	349

Current Assets of concerned Banks

(Rs in million)

Banks / Year	X_1	X_2
2002/2003	1306	3334.59
2003/2004	1703	5049.85
2004/2005	1543	6359.66
2005/2006	2537	7836.89
2006/2007	2676	9399.95
Total	9765	31980.94

Source: - ***Previous Tables***

Where X_1 = NIBL Bank Ltd.
X_2 = Everest Bank Ltd.

Sum of squares of current assets

x^2_1 X 95355225

x^2_2 X 1022780523

T X x_1 Γ x_2

= 9765 +31980.94

= 41745.94

$C.F$ X$\frac{T^2}{N}$ X$\frac{1742723506}{10}$ = 174272350.6

Total sum of squares (TSS)

TSS X x_1^2 Γ x_2^2 - C.F.

X943863397.6

Sum of squares between sample banks (SSB)

SSB X$\frac{(X_1)^2}{N_1}$ Γ$\frac{(X_2)^2}{N_2}$ Z$C.F.$

X49354799.01

Sum of squares between sample banks (SSW)

SSW = TSS – SSB
= 943863397.6 – 49354799.01
= 894508598.60

Current Liabilities of two Sample Banks

(Rs in million)

Year	x_1	x_2
2002/2003	446	3204.27
2003/2004	640	4874.79
2004/2005	279	6063.87
2005/2006	437	7420.73
2006/2007	424	8928.24
Total	2226	30491.90

Source: - ***Previous Tables***

Sum Squares of Current Liabilities

x^2_2 X4955076

x^2_2 X 929755965.6

T X x_1 Γ x_2

= 32717.9

$C.F$ X$\frac{T^2}{N}$X $\frac{32717.9}{10}^2$ = 107046098

Total sum of squares (TSS)

TSS X x_1^2 Γ x_2^2 Z C.F.

X827664943.60

Sum of squares between sample banks (SSB)

SSB X$\frac{(X_1)^2}{N_1}$Γ$\frac{(X_2)^2}{N_2}$Z$C.F.$

X186942208.3

Sum of squares between sample banks (SSW)

SSW = TSS – SSB

= 827664943.6-186942208.3

= 640722735.3

Net Working Capital of two Sample Bank

(Rs in million)

Year	x_1	x_2
2002/2003	860	130.32
2003/2004	1063	175.06
2004/2005	1264	295.79
2005/2006	2100	416.16
2006/2007	2252	471.71
Total	7539	1489.04

Source: - ***Previous Tables***

Sum of squares of Net working capital

x^2_1 X 56836521

x^2_2 X 2217240.12

T X x_1 Γ x_2

= 7539 + 1489.04

= 9028.04

$C.F$ X$\frac{T^2}{N}$ X $\frac{9028.04}{10}^2$ = 8150550.62

Total sum of squares (TSS)

TSS X x_1^2 Γ x_2^2 - C.F.

X50903210.50

Sum of squares between sample banks (SSB)

SSB X$\frac{(X_1)^2}{N_1}$ Γ$\frac{(X_2)^2}{N_2}$ Z$C.F.$

X3660201.60

Sum of squares within samples banks (SSW)

SSW = TSS – SSB

= 50903210.50 – 3660201.60

= 47243008.90

Cash balance of two sample banks

(Rs in million)

Year	x_1	x_2
2002/2003	927	278.60
2003/2004	1227	834.99
2004/2005	1340	592.76
2005/2006	2335	1139.57
2006/2007	2442	631.81
Total	8271	3477.73

Source: - - *Previous Tables*

Sum of squares of Cash balance

x^2_1 X 68409441

x^2_2 X12094605.95

T X x_1 Γ x_2

= 11748.73

$C.F$ X$\frac{T^2}{N}$ X $\frac{11748.73}{10}^2$ = 13803265.66

Total sum of squares (TSS)

TSS X x_1^2 Γ x_2^2 - C.F.

X66700781.29

Sum of squares between sample banks (SSB)

SSB X$\frac{(X_1)^2}{N_1}$ Γ$\frac{(X_2)^2}{N_2}$ Z$C.F.$

X16100809.39

Sum of squares within samples banks (SSW)

SSW = TSS – SSB

= 13803265.66 – 16100809.39

= 50599971.90

Net Profit of two Sample Banks

(Rs in million)

Year	x_1	x_2
2002/2003	117	41.27
2003/2004	153	69.70
2004/2005	232	85.33
2005/2006	351	94.17
2006/2007	501	143.57
Total	1354	434.04

Source: - - ***Previous Tables***

Sum of squares of Net profit

x^2_1 X 1833316

x^2_2 X 188564.4

T X x_1 Γ x_2

= 1788.24

$C.F$ X$\frac{T^2}{N}$ X $\frac{1788.24}{10}^2$ = 319780.23

Total sum of squares (TSS)

TSS X x_1^2 Γ x_2^2 - C.F.

X1702100.15

Sum of squares between sample banks (SSB)

SSB X$\frac{(X_1)^2}{N_1}$ Γ$\frac{(X_2)^2}{N_2}$ Z$C.F.$

X84595.85

Sum of squares within samples banks (SSW)

SSW = TSS – SSB

= 1702100.15 – 84595.85

= 1617504.30