

**A Comparative Study of
Working Capital Management
On Nepal Investment Bank and Everest Bank**

By

SAJINA ACHARYA

St. Xavier's College

T.U Registration no: 7-2-421-66-2002

**A Thesis Submitted To
Office of the Dean
Faculty of Management
Tribhuvan University**

**In partial fulfillment of the requirements of the degree of
Master in Business Studies**

Kathmandu

June 2009

DECLARATION

I hereby declare that the data and work reported in this thesis entitled “A Comparative Study of Working Capital Management on Nepal Investment Bank and Everest Bank” submitted to office of the dean, faculty of management, Tribhuvan University as my authentic work done for the partial fulfillment of the Master of Business studies under the guidance and supervision of Mr. Shankar Thapa, HOD of MBS department, St. Xavier’s College.

.....

Date

Sajina Acharya

St. Xavier’s College

TU Registration no. 7-2-421-66-2002

Acknowledgement

As the partial fulfillment of MBS degree, I have prepared this dissertation. This dissertation writing gives me the opportunity to introduce my research on “A Comparative study of Working Capital Management on Nepal Investment Bank and Everest Bank”. Precisely from the beginning of the very idea to work on the subject to its completion stage I have incurred both intellectual and moral debt to many. I would like to express my deep gratitude to all those being helpful to me in completing this research work.

Firstly, I would like to express my cordial gratitude to my thesis **Supervisor, Mr. Shankar Thapa** for his guidance and precious suggestion through out the study. I am obliged to **Fr. Dr. A. Antonysamy S.J, Principal** for the immense support and facilities to prepare this dissertation.

I would like to appreciate for the kind co- operation from all supportive staffs of Central Library of Tribhuvan University and St. Xavier’s College.

Finally, I would like to pay homage to my parents for the incessant support. Last but not least I would like thank my friends Nistha, Rumi, Sucharita and Saila for their complete support.

Thank you,
Sajina Acharya

Table of Contents

Viva – Voce Sheet

Recommendation

Declaration

Acknowledgement

List of Abbreviation

List of Tables

List of Graphs

Page no.

Chapter I

Introduction

1.1 General Background	1
1.1.1 Evolution of Bank and Banking System	2
1.1.2 Origin and Development of Bank in Nepal	4
1.1.3 Synopsis of Everest Bank and Nepal Investment Bank	7
1.2 Preface of Working Capital Management	7
1.3 Statement of Problem	8
1.4 Objectives of the Study	9
1.5 Limitation of the Study	9
1.6 Organization of the Study	9

Chapter II

Review of Literature

2.1 Conceptual Framework	11
2.1.1 Types of Working Capital	13
2.1.2 Working Capital Policy	13
2.1.3 Need for Working Capital	18
2.2 Review of Books	19
2.3 Review of Article	23

2.4 Review of Dissertation	27
----------------------------	----

Chapter III

Research Methodology

3.1 Introduction	32
3.2 Research Design	32
3.3 Population and Sample	32
3.4 Sources of Data	33
3.5 Data Processing Procedure	33
3.6 Tools and Techniques of Analysis	33
3.6 Financial Tools	33
3.6.2 Statistical Tools	38

Chapter IV

Presentation and Data Analysis

4.1 General Background	39
4.2 Composition of Working Capital	39
4.2.1 Cash and Bank Balance Percentage	43
4.2.2 Loan and Advances Percentage	43
4.2.3 Government Securities Percentage	44
4.2.4 Other Current Assets Percentage	44
4.3 Composition of Current Liabilities	45
4.4 Trend Analysis	46
4.4.1 Trend Analysis of Cash and Bank Balance	46
4.4.2 Trend Analysis of Loan and Advances	47
4.4.3 Trend Analysis of Government Securities	47
4.4.4 Trend Analysis of Other Current Assets	48
4.4.5 Trend Analysis of Current Ratio	49
4.4.6 Trend Analysis of Quick Ratio	50
4.5 Correlation Analysis	51

4.5.1	Coefficient Correlation between investments on Government Securities and Total Deposit	52
4.5.2	Coefficient Correlation between Loan and Advances and Total Deposit	53
4.5.3	Coefficient Correlation between Cash and Bank Balance and Current Liabilities	54
4.5.4	Coefficient Correlation between Loan and Advances and Net Profit	54
4.6	Multiple Regressions of cash and Bank Balance on Total Deposit and Loan and Advances	55
4.7	Ratio Analysis	56
4.7.1	Liquidity Ratio	57
4.7.1.1	Current Ratio	57
4.7.1.2	Quick Ratio	58
4.7.1.3	Cash and Bank Balance to Deposit Ratio	59
4.7.1.4	Saving Deposit to Total Deposit Ratio	60
4.7.2	Activity or Turnover Ratio	62
4.7.2.1	Loan and Advances to Total Deposit Ratio	62
4.7.2.2	Loan and Advances to Fixed Deposit Ratio	63
4.7.2.3	Loan and Advances to Saving Deposit Ratio	64
4.7.3	Capital Structure or Leverage Ratio	65
4.7.3.1	Long Term Debt to Net worth Ratio	66
4.7.3.2	Net Fixed Assets to Long Term Debt Ratio	67
4.7.4	Profitability Ratio	68
4.7.4.1	Interest Earned to Total Assets Ratio	68
4.7.4.2	Net Profit to Total Assets Ratio	69
4.7.4.3	Net Profit to Deposit Ratio	70
4.7.4.4	Cost of Service to Total Assets Ratio	71
4.8	Major Findings	72

Chapter V**Summary, Conclusion and Recommendation**

5.1	Summary	75
5.2	Conclusion	76
5.3	Recommendation	77

Bibliography**Appendixes****List of Tables**

Table No.	Title of Table	Page No.
4.1	Current Assets Component of NIBL	39
4.2	Current Assets Component of EBL	40
4.3	Percentage Composition of Current Assets of NIBL	41
4.4	Percentage Composition of Current Assets of EBL	41
4.5	Composition of Current Liabilities of NIBL	45
4.6	Composition of Current Liabilities of EBL	45
4.7	Coefficient Correlation between Government Securities and Total Deposit	52
4.8	Coefficient Correlation between Loan and Advances and Total Deposit	53
4.9	Coefficient Correlation between Loan and Advances and Total Deposit	54
4.10	Coefficient Correlation between Loan and Advances and Net Profit	55
4.11	Multiple Regressions Equation result	56
4.12	Current Ratio	57
4.13	Quick Ratio	58
4.14	Cash and Bank Balance to Deposit ratio	59
4.15	Saving Deposit to Total Deposit Ratio	60
4.16	Loan and Advances to Total Deposit ratio	62
4.17	Loan and Advances to Fixed Deposit ratio	63
4.18	Loan and Advances to Saving Deposit ratio	64
4.19	Long term Debt to Net worth ratio	66
4.20	Net fixed Assets to Long term Debt Ratio	67
4.21	Interest Earned to Total Assets ratio	68
4.22	Net Profit to Total Assets ratio	69
4.23	Net Profit to Total Deposit ratio	70

List of Graphs

Graph No.	Title of Graph	Page No.
1	Bar diagram of Percentage Composition of CA of NIBL	42
2	Bar diagram of Percentage Composition of CA of EBL	42
3	Actual and Trend Line of Cash and Bank Balance Percentage	46
4	Actual and Trend Line of Loan and Advances Percentage	47
5	Actual and Trend Line of Government Securities Percentage	48
6	Actual and Trend Line of Other Current Assets Percentage	49
7	Actual and Trends Line of Current Ratio	50
8	Actual and Trend Line of Quick Ratio	51

List of Abbreviation

NWC = Net Working Capital

CA = Current Assets

CL = Current Liabilities

NIBL = Nepal Investment Bank Ltd

EBL = Everest Bank Ltd

S.E = Standard Error

P.E = Probable Error

Q.A = Quick Assets

S.D = Saving Deposit

T.D = Total Deposit

Chapter I

Introduction

1.1 General background:

Development of country depends upon the economic development of country. And bank plays important role for the economic development of the country. Bank performs many roles for the economic development of the country. Today bank has created competition, technological development, and many other developments. Hence banks are the most important financial institutions in the economy.

Bank can be simply defined as financial departmental store, which deals with accepting deposit from public and lend money to entrepreneurs. Bank collects ideal money or surplus money from general public by providing attractive interest rates in their deposit and disburses the collected deposits as loan to various business organizations, industries, agricultural sectors etc. a bank is a financial intermediary accepting deposits and granting loans. So simply bank is a place where transaction of money takes place. The main role of the bank is to play with money and through it to generate profit.

A bank doesn't only perform the activities of receiving deposits and advancing loan but at the same time it performs payment or remittance and other credit activities as well. That's why bank plays a significant role in economic development of the country. Bank fills the gap between the searcher and provider of the fund. Banks are financial service firms, producing and selling professional management of public's fund and performing many other roles in the economy.

Banks are the supplier of finance for trade and industry and play vital role in the economic and financial progress of the country. By investing the saving in the productive areas, they help in formation of capital. Bank acts as payment agent by conducting checking or current accounts for customer, paying cheques drawn by customer on bank, and collecting cheques, deposited by customer's current account.

According to G.Cowther, “ A bank is an institution which collects money from who have it spare or who are saving it out of their income and lends this out to those who require it.”

Hence, bank is that institution which deals with money and its substitutes and provides other financial services to the needy people and institutes or sectors. It also charges some money for providing the facilities. The bank accepts deposit with the view of lending and investing from the public and that deposit can be withdrawn by using different instruments like cheque, draft, etc. Bank accepts deposit and provide loan to the various sectors by charging some small amount of interest on it.

In Nepal there are many banks such as development banks, joint venture banks, commercial banks, agriculture banks, co- operative banks, etc. are coming into existence with the purpose to collect the scattered saving and put them into productive channels. Till date there are 26 commercial banks, 58 development banks, 79 finance companies, and 16 micro credit development banks. Among these 26 commercial banks only two banks, Everest Bank and Nepal Investment Bank are chosen for the study.

Everest bank was established in 1994 A.D. It is a joint venture partner with Punjab National bank, holding 20% of equity. Everest bank has 27 branches and its head office is in Lazimpath. Capital adequacy ratio of Everest bank is 12.04%.

Where as Nepal Investment Bank was established in the year 1986 as a joint venture between Nepalese and French partners. Capital adequacy ratio of Nepal Investment Bank is 10.06%. Nepal Investment Bank has 26 branches.

1.1.1 Evolution of bank and banking system:

It is quite difficult to say exactly about the origin of bank. But there is an interesting story is suggested by linguistic and etymology about banking origin. Centuries ago, French word “banque” and Italian word “banca” were used which mean “a bench” or “money changer’s table”. This describes quite well what historians have observed concerning the first bankers, who lived more than 2000 years ago. They were money changers, situated usually at a table or in a small shop in the commercial district, aiding travelers who came to town by exchanging foreign coins for local money or discounting commercial notes for a fee in order to supply merchants with working capital.

Different researches conducted in the sectors revealed that banking transactions took place in ancient time were slightly in crude form of banking in compare to today's banking process. When the Roman Empire collapsed, European started commercial and trading activities in 16th and 17th century. The founders of modern banking modern banking are assumed to be goldsmith, merchants, and money lenders.

People used to keep their valuable assets such as gold, silver and metallic coins in the custody of goldsmith with an intention to protect them from being robbed and theft. Goldsmith used to charge commission for safeguarding and used to return the valuables on demand.

In ancient time, Merchants used to go different places for trading. It was possible for them to carry huge amount of coins with them wherever they go. As merchants were regarded as respected person in the society, they started to issue letters which were treated as good as money while executing trading instead of settling the trade with coins or money. These letters gave birth to modern negotiable instruments.

Lending and borrowing are almost as old as money itself. And the moneylenders were the channels through which the activities of lending and borrowing took place. Even in quite primitive communities moneylenders were found. Moneylenders used to give loan to the needy persons out of their own treasury. Later on, savers started depositing their saving with the moneylenders.

The first banking institution was "The Bank of Venice" was established in 1157 A.D. The first modern bank was found in Italy in Genoa in 1406, its name was Banco di San Giorgio (Bank of St.George). The first joint stock bank was Bank of England which was incorporated in 1694 A.D. And this bank became world's first central bank in 1844 A.D. Some milestones of banking history are:

-) Bank of Venice- (1157 A.D)
-) Bank of Amsterdam- (1609)
-) Bank of England- (1694)
-) Bank of Hindustan- (1774)

1.1.2 Origin and Development of bank in Nepal

The growth of banking sector in Nepal is not so long ago as compared with other banks of the world. In comparison with other developing countries, the institutional development in banking system is far behind. Nepal had to wait for the period to enter the present banking position. The origin and growth of the bank in Nepal is controversial. However, the stage wise development of banking in Nepal is discussed as follows:

First phase of banking development in Nepal:

Even though the specific date of the beginning of money and banking deal in Nepal is not obvious, it is speculated that during the reign of Mandev, the coin “Manak” were in use and during the reign of the Gunakamdev, the coin “Gunak” were in use. Historically, we find the evidence of minted coin of Anshuverma in 7th century and later the coin of Jishnu Gupta. In the beginning of 8th century, king Gunakamdev renovated the Kathmandu city by taking loan and at the end of the same century; a merchant named Sankhadhar started the “new year” Nepal Sambat after releasing all people of the Kathmandu from the debt. Sadashiva Dev in 12th century, introduced silver coins, King Jayasthiti Malla, had given responsibility to a caste of society called “Tankadhari” while he had given the name of the caste and their profession for the purpose of transaction of money in the society. In the same century copper coins were used by King Ratna Malla of Kathmandu, silver coin by Mahendra Malla and a Gold coins by the last Malla King of Kathmandu, Jayaprakash Malla.

After the unification of Nepal, Prithvi Narayan Shah the great king had used coin “Mohar” in its name. An institution called “Taksar” was established in 1989 and it started to issue the coin scientifically. In this way, we see that the coins had been in use from the ancient time, and there was practice of taking and giving loan for the purpose of trade and other various purposes. During the regime of Ranodeep Singh, an office name “Tejarath” was established in Kathmandu in 1933 B.S. it used to provide loan to the government officials and the people against deposit of gold and silver. By the time it also extended its branches outside Kathmandu Valley for providing loan. But this office had no right to except deposit to public and it did not have characteristic of modern banks. Nevertheless we can say that the institutional banking system had started from then. After having concluded the treaty with British India in 1980 B.S., Nepal could trade overseas freely for diversification of trade. As a result, in 1993 B.S. (1936A.D.) the draft of company act and banking act were prepared by forming industrial council “A Jute Mill” was established in Biratnagar under this act and both

commercial and industrial development as well as institutional banking system had been started together at a time in Nepal.

Second Phase of Banking Development in Nepal:

After establishment of Nepal Bank Limited on 30th Kartik 1994 B.S. (1938 A.D) modern banking system started in Nepal. Nepal was influenced by the renaissance and the industrial growth brought about by First World War. Nepal established first legation in international level in London in 1934 A.D. for creating international relation with various countries. The first secretary Gunjaman Singh was posted to that legation, in his alertness, and under the international influence and the national necessity. Nepal bank limited, was established under the Nepal Bank Act 1994 B.S. (1938 A.D). Nepal bank limited is the oldest bank of Nepal. Its initial authorized capital was rupees 10 million and issued was rupees 25 Lakhs, paid up capital was rupees 842,000 but now it has increased its capital. Since, Ashwin 1 2002 B.S. the paper notes of five, ten and hundred rupees was brought in use from Sadar Muluki Khana of His Majesty's Government. Economic and industrial development was stopped in Nepal from Second World War. After 2007 B.S. the banking activities of Nepal were not satisfactory due to political instability. At first, though this bank was given the authority and responsibility of central bank, but with the change of time it was the change of time it was necessary to establish a central bank and Nepal Rastra Bank was establish as central bank.

Nepal Rastra Bank (Central Bank)

Under the Nepal Rastra Bank act 2012 B.S. (1965 A.D.), NRB was established in 2013 B.S. (1957 A.D) at Baishak 14th. After its establishment, it issued Nepali notes on 7th Falgun 2016 B.S. for the first time. This bank is the central bank of Nepal. It was established for fulfilling different objectives and among these the key objective was to use the Nepalese currency in the place of Indian currency. In addition to this, its function were to increase uses of Nepalese paper notes, to stop dual monetary system, to apply monetarism in all part of Nepal, to provide for issuance of notes, to bring Nepalese currency in use for the effective management of monetary system, to keep stability in the exchange rate of Nepalese currency, to encourage national industries for development through the mobilization of capital and to develop the banking system in Nepal.

NRB is the bank of banks, after its establishment the first year plan was introduced in the country. To fulfill the necessity of the financial institution and to achieve the fixed goal of

project, Nepal Industrial Development Corporation (2016 B.S.), Agriculture Development Bank (2024 B.S.) and National Insurance Corporation were established under the special consideration of NRB.

Rastriya Banijya Bank

Rastriya Banijya Bank is another bank which was established in 2022 B.S (1966 A.D). It was established under the Banijya act 2021 B.S. according to the recommendation of NRB. After enacting the commercial bank 2031B.S, both banijya Bank Act 2021 B.S were repealed. Intact, commercial banks are prominent bank in the people's point of view. Therefore, there is no doubt and dispute about the significant role and the function of this bank. Its function is to accept the deposits, and provide loan, to carry out works relating to industries. It has rendered the great contribution to the development of the country.

In order to establish and develop other joint venture commercial banks and other financial institution Nepal adopted liberal and free economy policy. Accordingly Nepal allowed establishing different joint ventures banks under collaboration with foreign. This was the great significant event in Nepalese banking history from which the real development of the banking history from which the real development of the banking system started in Nepal. The competition began to grow, and then banks began to offer their valuable services to the people through new technologies. Banks that are opened as joint venture are Nabil Bank, Standard Chartered Bank, Himalayan Bank, Nepal SBI Bank, Nepal Bangladesh Bank Limited, Everest Bank, Bank of Kathmandu, etc.

1.1.3 Synopsis of Everest Bank Limited and Nepal Investment Bank:

Everest Bank started its operation in 1994 as a joint venture. Its joint venture partner is Punjab National bank (holding 20% equity in the bank). It came with a view and objective of extending professionalized efficient banking services to various segments of the society with 27 branches. Authorized capital is 1000 million; issued capital is 729.8 million and paid up capital is 518 million. Capital adequacy ratio of Everest bank is 12.04%. The local Nepalese promoter hold 50% stake in the bank's equity, while 20% equity is contributed by joint venture where as remaining 30% is held by the public.

Nepal Investment was established in 1986 as a joint venture between Nepalese and French partners. It was previously known as Nepal Indosuez Bank Limited. The name of the bank

has been changed to Nepal investment bank limited upon the approval of bank's annual general meeting, Nepal Rastra bank and company registrar's office with following share holder structure: A group of company holding 50% of capital, Rastriya Banijya bank holding 15% of capital, Rastriya Beema Sanstha holding 15% of capital and remaining 20% being hold by general public. It has authorized capital 1000 million. Nepal Investment Bank has 26 branches and its head office is at Durbar Marg.

1.2 Preface of working capital management:

Working capital management is the crucial aspect of the financial management of a firm. Capital required for day to day operation of business is known as working capital. It is concerned with current assets and current liabilities. It deals with matrix of current assets and current liabilities. Asset of an essentially short term nature is known as current asset. Current assets are expected to be converted into cash within a short period. Those assets which are either readily available cash or convertible into cash within a short time relatively during the normal course of business are known as current assets. Examples of current assets are cash in hand, cash at bank, bills receivable, inventory, sundry debtors, etc. Current liability is another part concerned with working capital. Those liabilities which are expected to have been paid within short period, is known as current liability. The examples of current liabilities are bank over draft, sundry creditors, bills payable, outstanding expenses, etc.

Working capital is the excess of current assets over current liabilities according to net concept of working capital. It is the portion of a firm's current assets, which have been financed with long term fund. Working capital management is related to the problems that arise in attempting to manage the current assets, current liabilities and interrelationship that exist between them. The term working capital management is closely related with short term financing and it is concerned with collection and allocation of resources. Working capital is the amount of funds necessary to cover the cost of operating the enterprise.

The goal of working capital management is to ensure that a firm is able to continue its operation and that it has sufficient ability to satisfy both maturing short term debt and upcoming operational expenses. When currents are less than current liabilities, an entity has a working capital deficit.

According to Weston and Brigham, “*working capital refers to firm’s investment in short term assets such as cash, short term securities, account receivable and inventories.*”

1.3 Statement of problem:

These days’ commercial banks, financial institutions are increasing the process of lending, borrowing. But most of the organizations are still facing the problem on working capital management. The management of working capital is synonymous to the management of short term liquidity. It has been regarded as one of the conditioning factor in the decision making issue. It is difficult to analyze how much working capital is needed by particular organization. Hence to overcome the problem on working capital management, it should be studied and analyzed. Therefore the study will further encourage the management of creditability of commercial banks. This study has tried to find out the issues of working capital management of commercial banks. This study has tried to find following issues such as, whether the composition of working capital is appropriate, or not. To find if any current assets are problematic. Study the lending pattern of loan and advances and other investment. To study how working capital is being financed.

1.4. Objectives of the study:

The objectives of the study are as follows:

-) To analyze working capital management of the banks.
-) To analyze composition of working capital, assets utilization and liquidity position of the banks.
-) To provide suggestion for improving working capital management.

1.5 Limitations of the study:

There are some limitations while under going the study, which are as follows:

-) Although there are many commercial banks, the study limits to only two banks
-) This research has been conducted within the valley only
-) Study is focused only on balance sheet, annual report published and prepared by bank, in which, the information is in condensed form.

1.6 Organization of the study:

a. Introduction

The first chapter includes background of the study, evolution of banking system in Nepal, origin and growth of the bank, a brief overview of the bank. This chapter also includes statement of the problem, objectives and limitation of the study.

b. Review of literature:

Second chapter includes conceptual framework, review of related studies, review of thesis, review of books.

c. Research methodologies:

Third chapter include data plan, nature and sources of data, collection of data, data processing and analysis techniques.

d. Presentations and analysis of data:

In fourth chapter analysis of study is included. Analysis is be done as per describe in chapter three. To analysis data, various tables, charts, statistical and financial tools will be used.

e. Summary, conclusion, recommendation:

The fifth chapter summarizes the whole study. Moreover it draws the conclusion and forwards the recommendation of the improvement of working capital management of the bank.

Bibliography

Appendix

Chapter II

Review of Literature

2.1 Conceptual framework

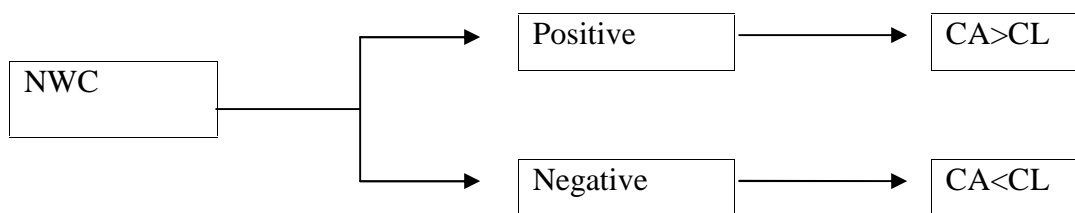
Review of literature means reviewing research studies or other relevant proposition in the related areas of the study so that the past studies, their conclusion and deficiencies may be known and future research can be conducted. So the main purpose of this chapter is to provide an insight into working capital management of given bird eye view of different experts through regarding theory and studies of working capital and its implicates. While making review of related theory and studies of working capital management, the researcher has gone through different books, document, journal, articles, bulletins, reports and previous studies. So far the management of working capital in Nepal investment bank and Everest bank is concerned, different financial expert and students of management, describing the working capital management of various banks, have under taken a number of studies. To conduct this study it is important to go through relevant literature on working capital management.

An enterprise needs not only fixed capital but also working capital. The working capital is the capital that needs to conduct day to day operation of a business firm, for day to day operation of the concern, it finance in some of assets of short term nature like inventories, account receivable, cash and marketable securities etc. when all these short terms are put together, it is called working capital, so we can say that working capital is related with short term financing. The area of working capital management is not only related to the functional area of business but it is related to other discipline like economic and accounting. There are two concept of working capital. They are gross working capital and net working capital. Gross working capital means currents only. It is concerned with the liabilities side of balance sheet. Working capital is the excess of currents assets over current liabilities according to the net concept of working capital. Working capital management is concerned with the problems that rise in attempting to manage the current assets, current liabilities and interrelationship that exist between them. [R.S Pradhan]

Glen V. Henderson and his friends also suggest the gross and net concept of working capital and concluded that both concepts are important to the firm management but special attention

must be given to the net working capital level because of its impact on liquidity. A firm could have a very desirable working capital level but goes bankrupt because of liquidity problem, caused by a low working capital position. An increase in net working capital reduces the risk because liquidity is increased. A decrease in net working capital implies that a greater proportion of funds are invested in fixed assets, which have a higher yield than current assets. Thus profitability should be increased. [Glen .V Henderson]

Working capital can also be explained from negative and positive point of view. If the total current assets are more than total current liabilities then it is said to be positive working capital and vice versa. Working capital is needed in every organization to run day to day business activities, since there is a time lag between the sales of product and realization of cash, every organization requires sufficient amount of working capital to meet the daily requirement and to tackle the problem when arise for the smooth running of the business. [Mathur]



The cash and marketable securities are respectively considered as purely liquid and near liquid assets where all receivable and inventories are not. However, they can be liquidated when necessary within a period of less than one year, so the capital investment on these assets is known as working capital. The objectives of managing working capital are to aid in the value maximization of the firm by minimizing the cost of working capital. In particular, cost of maintaining the working capital depends on the source of finance used. The short term source generally costs less than the long-term source. The job of financial manager is to balance the cost of working and the risk associated with source of capital.

2.1.1 Types of Working Capital

Working capital can be divided into following categories on the basis of necessities.

i. Permanent working capital:

The permanent working capital may be classified into regular working capital and reserve margin.

- a. Regular working capital: regular working capital is the minimum amount of capital needed to keep up the circulation capital from cash to inventories to receivable and back again to cash (Chimuminatte, 1953:6). As business expands the requirements a regular working capital requirements a regular working capital also increases.
- b. Reserve margin: Reserve margin working capital represent the excess amount over the need for regular working capital. This working capital should be provided for unexpected and extraordinary needs.

ii. Temporary or variable working capital:

Working capital which is temporarily or intermittently employed should be called variable working capital (Butcheet and Hicks, 1948:478). Variable working capital is the additional amount of current assets- particularly cash, receivables and inventories which is require during the more active duration of business.

iii. Negative working capital:

If the current liabilities are lager than the current assets the difference will be working capital deficit. “If current liabilities exceed current assets then working capital is clearly a negative quantity” (Batty, nd: 108). Excess of current liabilities over current assets means negative working capital, a negative liquidity, which is disastrous for company.

2.1.2 Working capital Policy

Working capital policy refers to the firm’s basic policies regarding, target level for each category of the current assets and how current assets will be financed (Weston, Besely and Brigham. 1996:333). So first of all in working capital management, the firm has to determine how much funds should be invested in working capital in gross concept. Every firm can adopt different financing policies according to the financial manager’s attitude towards risk-return trade off. One of the important decision o9f finance manager is how much current liabilities should be used to finance current assets. Any firm has to finds out the different source of funds for working capital. Thus working capital policies regarding to the level of category of current assets and their financing are discussed as under:

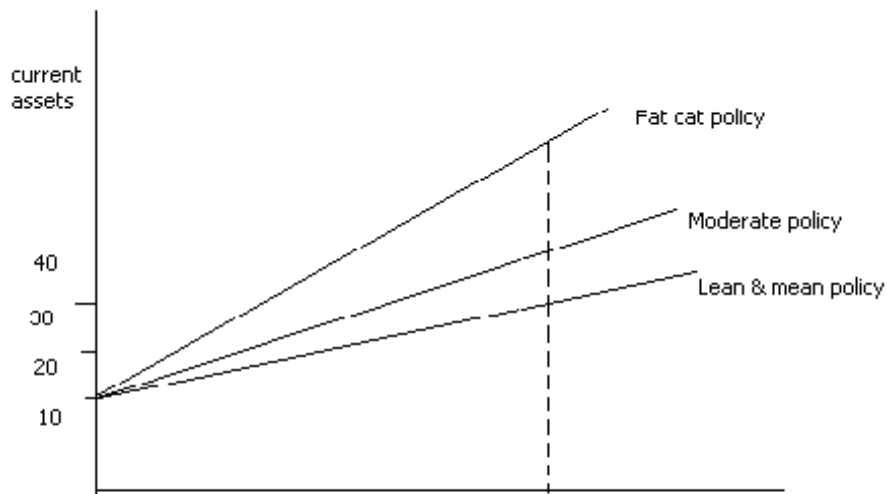
A. Current assets investment policy:

Current assets investment policy refers to the policy regarding the total amount of current assets to be carried to support the given level of sales. There are alternative current assets investment policies, which are as follows: [Weston, Besley and Brigham, 1996:344]

i. Fat Cat Policy: This is known as relaxed current assets investment policy. In this policy, the firm holds relatively large amount of cash, marketable securities, inventory and receivable to support a given level of sales. This policy creates longer inventory and cash conversion cycles. It also creates the longer receivable collection period due to liberal credit policy. Thus, this policy provides the lowest expected return on investment with lower risk.

ii. Lean and Mean Policy: In lean and mean policy, a firm holds minimum amount of cash, marketable securities, inventory and receivable to support a given level of sales. This is the greatest risk. This policy tends to reduce the policy conversion and receivable conversion cycle. Under this policy, firm follows a tight credit policy and bears the risk of losing sales.

iii. Moderate policy: In moderate policy, a firm holds the amount of current assets in between the relaxed and restrictive policies. Both risk and return are moderate in this policy.

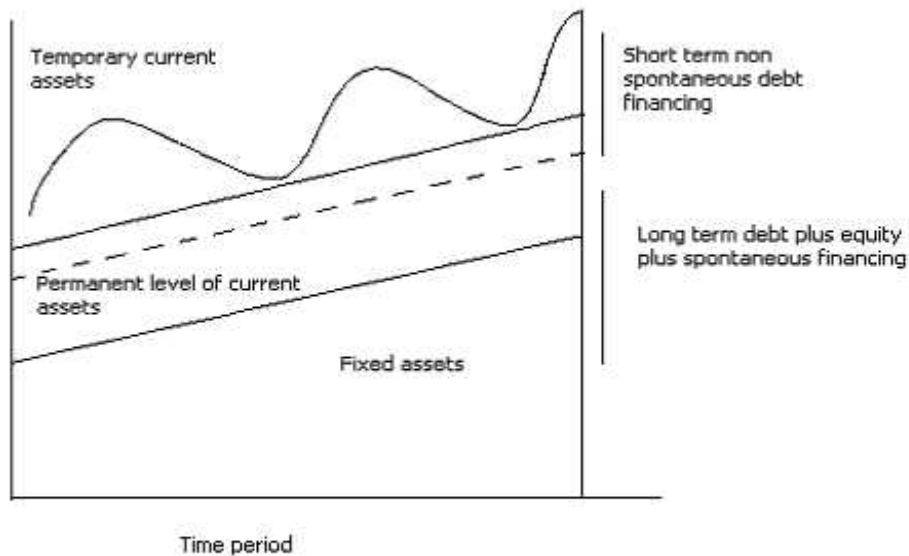


Adopted from: weston, Besely, and Brigham of Essential management of finance

B. Current assets financing policy:

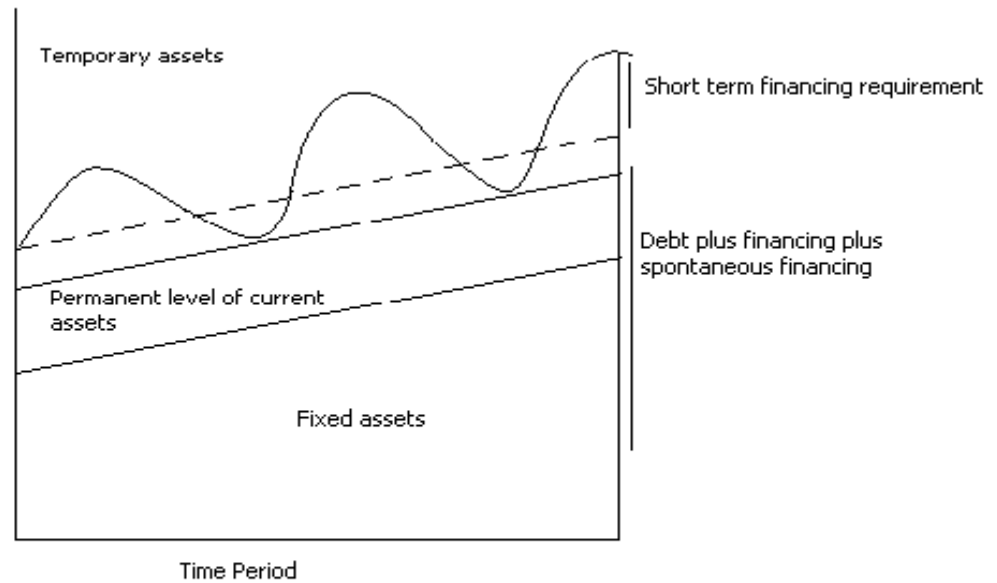
It is the manner in which the permanent and temporary current assets are financed. Current assets are financed with funds raised from different sources. But cost and risk affect the financing of any assets. Thus, current assets financing policy should clearly outline the sources of financing current assets. There are these various policies of current assets financing.

i. Aggressive Approach: The more risky approach is the follow aggressive approach. Here the firm attempts to employ more of the short term fund. Shorter the maturity schedule of a firm’s debt obligation, the greater the risk that it will be unable to meet principal and interest payment and hence it is more risky approach. Cost of short term funds is cheaper than the cost of long term funds so the return or profitability would increase but at the same time risk would also increase because of the greater amount of the short term funds.

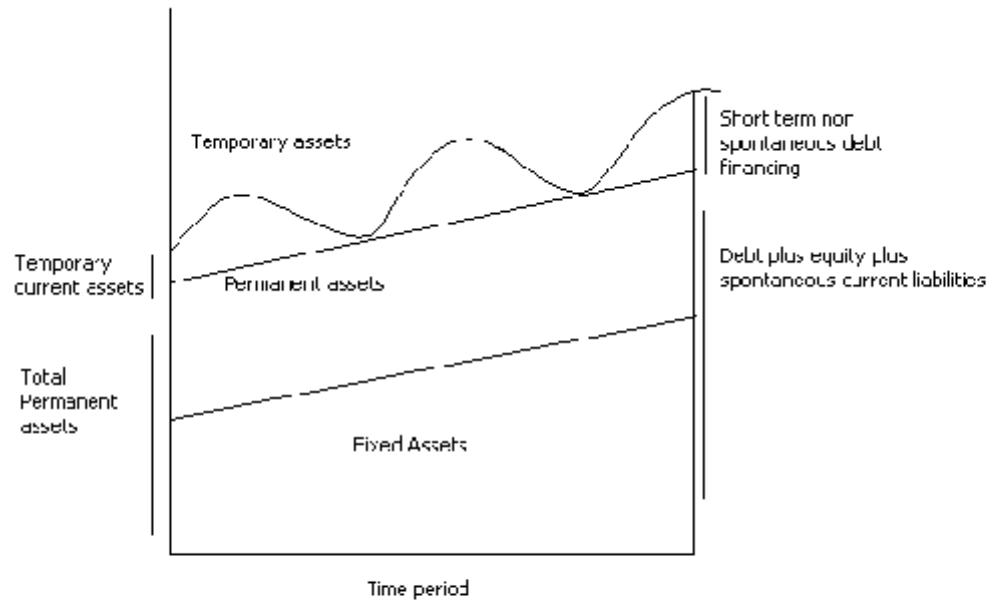


Adapted from: Weston, Besely and Brigham of Essential management of finance

ii. Conservative Approach: The less risky approach refers to financing all the assets by long term funds. Here the short term requirements are financed with long term fund, which would necessitate the payment of interest for the use of funds where they are not needed. Under this policy firm will finance with its permanent assets and also a part of temporary current assets with long term financing. Under this policy firm has less risk of facing the problem of shortage of funds. When the firm has no temporary current assets, the long term funds released can be invested in marketable securities to build up the liquidity position of the firm.



iii. Hedging or Matching Approach: It is moderate approach towards financing which attempts to achieve a trade off between risk and return. The hedging approach to financing suggest that each assets would be offset with a financing instrument of the same approximate maturity i.e. when the firm follow this approach, long term financing will be used to finance fixed assets and permanent current assets and short term financing to finance temporary or variable current assets. Under this policy no short term financing will be used.



2.1.3 Need for working capital

The need for working capital can't be overemphasized. The firm's aim is to maximize wealth of shareholders. The firm should earn sufficient return from its operation. The extent to which profit can be earned naturally depends upon the magnitude of sales among the other things. For constant operation of business, every firm needs to hold the working capital component such as cash, receivable, inventory etc. therefore every firm needs working capital to meet the following motive.

a. The transaction motive: Transaction motive require a firm to hold cash and inventories to facilitate smooth production and sales operation. Thus, the firms need working capital to meet the transaction motive.

b. The precautionary motive: Precautionary motive is the need to hold cash and inventories to guard against the risk of unpredictable change in demand and supply forces and other factors such as strike, failure of important costumer, unexpected slow down in collection of account receivable, cancellation of some order for goods and other unexpected emergency. Thus, the firm needs the working capital to meet any contingency in future.

c. The speculative motive: Speculative motive refers to the desire of firm to take advantage of these opportunities. i) Opportunities of profit making investment. ii) An opportunity of purchase of raw materials at a reduced price on payment of immediate cash. iii) To speculate on interest rate. iv) To make purchase at favorable price etc. thus the firm needs the working capital to meet the speculative motive.

2.2 Review of Books:

For the purpose of the study make easier related review from some books on working capital management are studied.

Working capital management is the effective life blood of any organization. Hence the management of working capital plays a vital role for existing of any enterprise while studying it. It is the center on the routine of day to day administration of current assets and current liabilities. Therefore working capital management in any enterprise is essential mainly for four reasons. Firstly enterprise must need to determine the adequacy of investment in current assets otherwise it could seriously erode liquidity base. Secondly they must select the type of current assets, suitable for investment so as to raise their operational efficiency. Thirdly they are required to ascertain turnover of current assets, which determine the profitability of the concern. Lastly, they must find out the appropriate sources of funds to finance the current assets.

Proper management of working capital must ensure adequate amount of working capital as per need of business firm. It should be in good health and efficiently circulated. To have adequate healthy and efficient circulation of working capital it is necessary that working capital be properly determined and allocated to its various segments, effectively controlled and regularly reviewed. [Agrawal, nd: 8]

The term working capital originated at a time when most industries were closely related to agriculture. Processors purchased crops in the fall, processed them and sold the finished products before the next harvest, keeping minimum inventories. Short term loans were used to finance the purchasing of crops and its processing. These loans were retired with the sale proceed of the finished products. [Weston and Brigham, 1996: 144]

The requirement of finance in business arises mainly due to two factors, acquisition of fixed assets and provision of working capital. Fixed assets such as lands, funds, broadly known as working capital, building, plants and machinery, equipments etc. are essential for carrying on production and sales. The finance required to buy such material and pay for such services is 'working capital'. The working capital is necessary to meet day to day revenue expenses like purchase of raw material, wage payment, meeting overhead expenses etc. From the accounting point of view, working capital is money locked up in inventory debtors and other current assets minus the money locked up with business in the form of sundry creditors, bills payable etc. "Working capital refers to a firms investment in short term assets-cash, short term security, account receivables, and inventories. Gross working capital is defined is defined as firm's total current assets. Net working capital is defined as current assets minus current liabilities. If the term working capital is used with out further qualification, it generally refers to gross working capital." [Weston and Brigham, 1984:297]

Working capital management is usually described as involving the administration of these assets namely cash, marketable securities, receivables and inventories and the administration of current liabilities. It means the working capital management is concerned with the problem that arises in attempting to manage the current assets, current liabilities and the interrelationship that exist between them. [Van Horne, 1994:373]

It is a fact that creditors depend more upon current assets as a source of their repayment. The reason is that fixed assets because of specialization diminish in value while the current assets usually do not. "Working capital is defined as the difference between a company's current assets and current liabilities. The accounts, which belong to this group, are usually the most active in the company. Unlike assets they reflect the company's daily activities." [Norgard, 1985:668]

Working capital is concerned with the problem that arise in attempting to manage the current assets and current liabilities and interrelationship that exits between them. The term current assets refers to those assets which is in ordinary course of business can be, or will be turned into cash within one year without under going a diminution in value and without disrupting the operation of the firm. The major assets are cash, marketable securities, account receivable and inventories. Current liabilities are those liabilities, which are intended at their inception

to be paid in the ordinary course of business within a year, out of the current assets or earnings of the concern. The basic current liabilities are account payable, bills payable, bank overdraft and outstanding expenses. The goal of working management is to manage firm's current assets and current liabilities in such a way that a satisfactory level of working capital is maintained. This is so because firm cannot maintain to satisfactory level of working capital, it is likely to become insolvent and may be forced into bankruptcy. The current assets should be large enough to cover its current liabilities in order to ensure a reasonable margin of safety. Each of current assets must be managed efficiently in order to maintain the liquidity of the firm while not keeping too high level of any one of them. Each of the short term sources of financing must be continuously managed to ensure that they are obtained and used in the best possible way. The interaction between current assets and current liabilities is, therefore the main theme of the theory of working capital management. [Khan and Jain, 1996:603]

There are specially two concept of working capital, gross and net. Gross 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 include cash, short term securities, debtors, bills receivable and stock.

Net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders, which are expected to mature for payment within an accounting year and include creditors, bills payable and outstanding expenses. Net working capital can be positive or negative. A positive net working capital occurs when current liabilities are in excess of current assets. [Pandey, 1999:800]

Net working capital is the difference between assets and current liabilities; where gross working capital is the sum of current assets. The first concept is qualitative while the other one is primarily quantitative in nature. That is to say, the net working capital position indicates current credit soundness and is of major concern to investors and creditors. [Mohasin, nd: 136]

Gross capital is the amount of funds invested in the various components of current assets. It enables the firm to plan and control funds and to maximize the return on investment. [Kulkarni, 1983:388]. Gross working capital refers to the amount of funds invested in current

assets that one employed in the business process. This is a going concern concept; since it is these assets that financial management is concerned with they are to bring about productivity from other assets. The gross concept is used here, since one of the principal functions of the manager is to provide the correct amount of working capital at the right time to enable the firm to realize the greatest return on its investment.

Working capital moves from one process to another, from cash to inventories and back to cash. Working capital had been admirably summed up by comparing it with a river which is there, but the water in it is constantly changing. [Howard and Brown, nd: 55]

According to the net concept, working capital refers to the difference between current assets and current liabilities. In other words, it is that part of current assets financed with long term funds. It focuses the liquidity position of the firm and suggests extending which working capital needs to be financed by permanent sources of funds. It is not very useful for internal control. This concept helps to compare the liquidity of the same firm over the time. [Pradhan, 1986: 19]

The term 'circulating working capital' is used to designate those assets that are changed with relative rapidity from one form to another, i.e. from cash to cash to inventories to receivables to cash. The conversion of all working capital into cash is most important, because conversion into cash reveals profit. If the amount at end of the cycle was less than at the beginning, it means company is running in loss.

The definition described above convey in some way or other, same meaning. They virtually represent the characteristic of the working capital. It seems that there is consensus on the following special characteristic of the working capital. [Mathur, 1979: 96-97]

- i. Short Life:** Working capital is characterized by assets with a life span of less than one year such as cash marketable securities, account receivable, inventories etc. This short life span leads to high volatility in the level of investment required to finance working capital.
- ii. Nearness to cash or liquidity:** This basic characteristic constitutes the first time of defense against technical insolvency. Cash is the most liquid assets holding zero conversion time and hundred percent conversion rate. But for inventory and marketable

securities two factors i.e. (a) nearness to cash or amount of time required converting assets into cash and (b) price realized on conversion must be considered.

- iii. Lack of synchronization:** Since the enterprise can't produce on order only and can't insist on cash payments there is always the problem of synchronization in cash receipt and disbursement. It is also due to the level of investments in working capital that is affected by the sales volume, production policies and collection policies.

2.3 Review of Article:

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

As it is not possible to estimate working capital needs accurately, the firm must decide about levels of current assets to be carried. The current assets holding of the firm will depend upon working capital policy. It may follow a conservative or an aggressive policy. These policies have different risk return implications [van Horne, Oct. 1970:50-58]. The financial manager should determine the optimum level of current assets so that the wealth of share holders will be maximized. In fact, optimum level of each type of current assets should be fixed [walker Jan- Feb, 1964:21-35] to find out corporate bankruptcy, zeta model was developed by Altman and others [Altman, Haldmanand, Narayanan, June 1997:29-54]. The author extended the Z score model to include among other things, the capitalization of leases, and they updated its application. A sample of 53 bankrupt firm and 58 non bankrupt firms were employed. Manufacturing and for the first time in and study retailing companies were included. On the basis of discriminatory ability, 27 original variables were reduced to 7, the return on assets ratio, the stability of earnings, the interest coverage ratio, the retained earning to the total assets ratio, the current ratio, the common equity to total capital ratio, and the size of total assets using the linear discriminate model, the author were successful in predicting bankruptcy up to 5 years prior to failure. Successful classification ranged from 96 percent 1 year before failure to 70 percent 5 years before failure, a better performance than the Z score model. Both quadratic and linear model were tested, with the linear function winning out.

Dr. R.S. Pradhan and K.D Koirala (Pradhan & Koirala, 1982) jointly prepared a research study on the “Aspect of working management in Nepalese Corporations” during 031/32 to 035/36.

Among the eleven public corporations, five manufacturing and six non-manufacturing corporations, the problem dealt in this study were size of investment in current assets management and it also dealt with the motive for holding cash and inventory and the major factors affecting the size of investment. In this study report, they concluded that investment of current assets had declined over the period of time in both type of corporations. However, the Nepalese (public enterprises) PEs had consistently more investment in cash and receivables as compared to non-manufacturing corporations due to more liberal and less consistent credit policies. Inventory management is greatly significant to manufacturing corporations and the management of cash and receivables is of great significance to non manufacturing corporations. The major motive for holding cash in Nepalese corporation was to provide a reserve for routine net outflows of cash and for holding inventories was to facilitate smooth operation of production and sales. They also found that the working capital was more difficult to manage than fixed capital. Further more, the inventory in manufacturing corporations and cash and receivables in non-manufacturing ones were more problematic to manage.

With reference to the above problems and findings they recommended the need to control investment in working capital as a whole for manufacturing corporation as the average proportion of working capital to sales increased over time. Since manufacturing and non-manufacturing corporations had been trying to control investment in receivables, the focus of the attention should be derived to control of investment in cash and inventory. But manufacturing corporations should pay attention to control the investment in inventory.

M.K. Shrestha has studied the working capital management of ten selected public enterprises focused on the liquidity, turnover and profitability position of those selected public enterprises. The studies found that majority of PEs were unable to maintain adequate liquidity position. The turnover and profitability aspects of the PEs were also unsatisfactory. In his study he has brought certain issues and problems faced by PEs such as, lack of appropriate financing planning, negligence on working capital management and deviation between liquidity and turnover to assets. At last, he had made some suggestive measures to overcome for the above issue i.e. identification of required funds. Regular check of accounts, positive

attitude towards risk and return, development of management information system and determination of right combination of source of funds (i.e. short term and long term funds to finance and choose appropriate working capital policy.)

Working capital research was conducted in public manufacturing enterprise, at 1984. This study does not cover all the PEs in manufacturing sectors. Study has been based on sample of nine manufacturing PEs. The manufacturing PEs selected for the study differs in their nature of work. The study covers ten years period from fiscal year 1973 to 1982. the major objectives of this study were to examine the behavior and management of working capital in Nepalese manufacturing PEs and the specific objectives undertaken in his study are: to conduct risk return analysis of working capital position, to assess the financial liquidity position of the enterprise, to determine the structure and utilization of working capital and estimate transaction demand function of working capital and its various companies.

This study used a variety of financial ratios to accomplish the objectives. It employed discriminates analysis to examine the short term liquidity position and multiple regression analysis to estimate the transaction demand functions of working capital and its various components. The major findings of the study are described in the following paragraph.

Most of the selected enterprise had been achieving a trade off between risk and return. There by following neither and aggressive nor a conservative approach of working capital. The study of risk return trade off over a period of time indicates that most of the enterprises have been moving slowly towards the conservative approach while some of them towards an aggressive approach of working capital. He found that almost all the selected enterprises had positive working capital. The negative net working capital has been observed in some cases. The enterprises have an average, half of their total assets in the form of current assets. The study showed that share of cash as well as receivable have decline slowly and steadily, where as the share of inventories has increased in the majority of selected enterprises. He concluded that Nepalese public manufacturing enterprises should pay more attention to management of inventories. The regression result also show that the level of working capital and its component of an enterprises desired to hold depend not only on sales but on holding cost also. The study showed that working capital management is the weakest and neglected part of financial management in almost all of the manufacturing PEs in Nepal.

The article related to working capital management by R.S. Pradhan has studied on “The Demand for Working Capital by Nepalese Corporation.” He has selected nine manufacturing public corporation with 12 years dates for 1973 to 1984. those nine corporations has represented about 80 percent of Nepalese manufacturing public corporation established before 1973 regression analysis has been used or adopted as the tools of analysis. The earlier studies concerning the demand for cash and inventories by business firms did not report unanimous finding. A lot of controversies exist with respect to the presence of economies of scale, role of capital cost, and utilization rates and the speed with which actual cash and inventory are adjusted to desired cash and inventories respectively. That study paper had investigated these various issued in the context of manufacturing public corporation of Nepal. The pooled regression result showed the presence of scale with respect to the demand of working capital and various components. The regression result suggested strongly that the demand for working capital and its component is a function of both sales and their capital costs.

The article to working capital management by the Sushila Shrestha has conducted a research study on financial management of public enterprise in Nepal at 1978, concluded that working capital was not properly managed. Most of the public enterprises are suffering from high liquidity ratio because of undesirable inventory, accumulation amount of debt and high cost balance. Similarly, she found that the management did not see seriously about inventory and receivable management. Capital utilization of enterprises was very poor. In short working capital management had not taken as major part of financial management in Nepal PEs.

2.4 Review of Dissertation:

Different management students in working capital management mainly focus this part on the review of unpublished thesis.

Student of management, Dendra Raj Sharma has conducted a research on “working capital management of Nepal Battery Company Ltd (NBCL)” In this study basically he analyzed financial statement for five years. He found in course of study that NBCL was able to maintain profitability but its working capital management was very poor. He stated that the company’s inventory management and receivable management were poor managed. The excess inventory and idle investment in receivable blocked its capital in them. This was also

the reason for poor turnover, which reduce the profit of the company. Similarly, higher operation expenses also caused to lessen its profit. He recommended that the company should be attentive to formula efficient inventory management policy, production policy, credit policy, receivable policy and better utilization of other assets.

Basudev Giri has studied on working management in “ Birgunj Sugar Factory Ltd, Nepal (BSLF)” had taken the data out of financial viz. profit and loss account and balance sheet for 10years. In his research study he applied ratio analysis as the major tools for analyzing the available secondary data. On the study, he found that BSLF has followed neither conservative nor aggressive working capital management policy.

In BSLF inventories hold the major portion of current assets. The turnover position of the company was very poor. Return on current assets and bet worth were not satisfactory. Profitability of the factory was also not satisfactory. The research pointed out some constraints of BSLF, these are management inability lack of definite government policy, interference of the government, absence of forecast of plan and lack of skill manpower etc. the management of working capital is not satisfactory and it was also found there was lack of knowledge about working capital and its importance for manufacturing company, due to ineffective human resource management system of the company.

Om Bikram Gurung has done the research on the title of ‘A study on working capital management of Nepal Lever Ltd’ (NLL). Main objective of the study is to analyze the working management of NLL. The specific objectives of that study are to analyze the liquidity composition of working capital, assets utilization and profitability of working capital. And to analyze financing pattern, examine the relation between liquidity and profitability of NLL.

The study covered five years period and analyze secondary data by using financial and statistical models. He has found that major components of current assets are inventories, receivables and prepaid expenses. Among them the inventories holds major portion of current assets. He has mentioned that all the components of current assets were fluctuating during study period. It indicates that company didn’t have any clear vision about the investment of working capital. Current assets investment policy of NLL has been sifting towards the moderate policy. The current ratio of the company was satisfactory. The current assets

contain more inventory and receivables and there was insignificance relationship between current assets and current liabilities. This management had not proper policy of maintaining the liquidity position so liquidity position was not that sound.

A study on working capital management of pharmaceutical industry of Nepal with special reference to Royal Drugs Ltd. (RDL) was conducted by Bishwa Raj Aryal, a student of management. The main objective of the study was to find out working capital management system and its effect on profitability of the company by using nine year data. The major findings of the study are described in the next paragraph.

Working capital is more difficult to manage than that of fixed capital. 65% of respondents of RDL said that fixed of that capital management is more difficult to manage than working capital. So far as the importance of current assets management, 82% of respondent of RDL opine that a lot of time has taken to it. With respect to receivable management the major factors affecting the large investment in receivable is found to be liberal credit policy. The reason for holding inventories is to facilitate smooth operation of production and sales, majority of respondent of RDL performs for it not for to take advantage of price increase. [Aryal]

Pradeep Kumar Pathak has carried out another study to working capital management. He has tried to make an evaluation of working capital management of Nepal Lube Oil Ltd. For five years. He focused on the working capital management with respect to cash and inventory management, and relationship between sales and different variable of working capital. He has used ratio analysis, Karl Pearson's co-efficient 'r' and t-test.

Major finding of this study were high portion of current assets, unfavorable liquidity position and very low level of cash. Inventories have occupied the major portion of current assets, but the share of finished goods stock is very low. Receivable has the second place in current assets and it is continuously growing. Finally he concluded that this company had adopted the moderate financing policy.

Basudev Giri carried out the study on working capital management in Birgunj Sugar Factory Ltd. He analyzed the financial statement of the factory for nine years. The objectives of the study were to analyze the net working capital and relationship between current assets and

liabilities, effect of working capital on profitability and other operation. He has used financial ratio as the major tool of his study. He found that inventories, receivable, cash, and bank balance were the major share of current assets. Inventory had held the major portion of current assets. He found the fluctuating trend in current assets, and their improper use. Moreover, he found the unsatisfactory profitability position of the factory.

Rajendra Giri in his study has attempted to evaluate working capital management of Balaju Textile Industry Ltd. The major finding of his study is no significant improvement in working capital during study period. Increased working capital was financed by sales of fixed assets or sources of share capital. current assets was financed by long term financing and high level of sluggish inventories amount to unnecessary tied up of funds, impairment of profit and increased costs.

He has suggested for efficient working capital management of BTIL. It is better to fix a minimum target rate of return, make regular check to identify both excess and deficient current assets to avoid risk in management of working capital, financing current assets from the appropriate combination of short term and long term sources to preserve liquidity and maintain stability. Take necessary action for disposing a huge inventory with tied up working capital, involved huge carrying cost risk of losses; sick position and working inefficiency of corporation should improve.

He has set only three research question to analyze working capital management of BTIL, which is sufficient. He has used ratio analysis as a research tools. But he has done analysis to evaluate the relationship of current asset component with total current assets. Similarly, he has set null hypothesis but has not tested it through appropriate tools to find out whether null hypothesis is accepted or rejected. So we can say it is not fully analytical type of research.

Arjun Lal Joshi in his study seeks to have true insight into the working capital management in Biratnagar Jute Mill. The study is concerned with of current assets and cover five years period. The study has embodied various financial ratios for measuring Biratnagar jute mill's financial viability. The study is based on secondary data with opinion survey method and limited to gross concept of working capital. The study has indicated mismanagement of inventory, no proper of cash holding and heavy dependence on short term credit. He has recommended for effective working capital management of the mill by planning realistic

turnover target specimen, designing effective inventory management program following productive investment approach preparing investment approach preparing effective sales plan and exhaustive market research program, using short term bank credit up to certain reasonable limit, maintaining optimum cash balance and making proper utilization of accumulation collection debts.

The thesis entitled “comparative study of working capital management of NBL and Nabil Ltd” by Niraj K.C aims to examine the management of working capital in NBL and Nabil. The specific objectives under taken in his study are:

- a) To study the current assets and liabilities and their impact and relationship to each other NBL and Nabil.
- b) To analyze the comparative study of working capital management of NBL and Nabil
- c) Recommendation and suggestion for the improvement of working capital management NBL and Nabil in the future.

Study has mentioned following findings:

- a) The average cash and bank balance and loan and advance are higher on Nabil than NBL. Management of loan and advances is more problematic in NBL than Nabil.
- b) Interest income of NBL is better than Nabil.
- c) Liquidity management policy of these two banks is significantly different.
- d) Nabil has the better utilization of deposit in income generating activity than NBL. It also shows that Nabil has better investment efficiency in loan and advances.
- e) Due to more conservative working capital policy risk of insolvency is lesser but cost of fund is higher on NBL than Nabil.
- f) Profitability position of Nabil is far better although NBL earned higher interest than Nabil.

Hari Prasad Lamsal, in his thesis entitled “A comparative of study working capital management of Nabil and Standard chartered Banks has drawn some major findings. He found that average cash and balance and government and securities percentage are higher in Standard chartered than Nabil but loan and advances percentage is higher in Nabil Bank. Standard chartered has less costly source of fund. So Nabil has higher interest income. Liquidity position of standard chartered (except in current ratio) is better than Nabil Bank. Due to conservative working capital policy risk of insolvency is lesser but cost of fund is

higher in Nabil than in standard chartered. Profitability position of standard chartered is better although Nabil earns higher interest than standard chartered.

Chapter III

Research Methodology

3.1 Introduction:

Research methodology is the way to solve the research problem systematically. The research methodology is the way to solve the research problem systematically. The research problem considers the logic behind the methods used in the context of the research study and explains why particular method or technique is used. It also highlights about how the research problem has been defined, what data have been collected, what particular method has been adopted, why the hypothesis has been formulated etc.

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

3.2 Research design:

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

3.3 Population and Sample:

Population is the universe about which the study has aimed to enquire and sample is the representative of the population.

Since the study is concerned with the working capital of the banks and all 27 commercial banks in Nepal are the population of the study. Since the population is huge, it is not practicable to study the whole population so a sample from the population has been selected for this study. Financial statements of latest six years from 2059/60 to

2064/65 have been taken as sample data for the comparative study of working capital management. And also these banks are chosen as they account for considerable market share of the banking sector.

3.4 Sources of Data:

The study mainly based upon the secondary data; the relating to financial performance is directly obtained from concerned banks. The supplementary data and performance obtained from annual financial report of the banks, unpublished official records of concerned banks, booklets.

3.5 Data Processing Procedure:

Methods of analysis are applied as simple as possible. The obtained data are presented in various tables, diagrams and charts with supporting interpretation. Those detail calculation that cannot be shown in body part so they are presented in appendices at the end.

3.6 Tools and techniques of Analysis:

On the basis of historical data both financial and statistical tools are used for analysis.

3.6.1 Financial Tools:

In this study various financial tools are employed for the analysis. For analysis there are various ratios but in this study selected ratios among them are used.

a. Liquidity Ratio:

Liquidity ratio is employed to measure the company's ability to meet short term obligations. These ratios provide insight into the present cash solvency in the event of adverse financial condition. This ratio is used to measure the company the company's short term obligation with short term resources available at a given point of time.

i. Current Ratio:

This ratio shows the relationship between current assets and current liabilities. The current ratio is calculated by dividing current assets by current liabilities. The objective of this study is to measure the ability of the firm to meet its short term obligation. In other words this ratio measure short term solvency. As a measure of creditors versus

current assets, it indicates each rupee of current assets available by dividing current assets by current liabilities.

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

ii. Quick Ratio:

A relation between liquid assets and current liability is termed as quick ratio. Liquid asset is that asset which can be converted into cash immediately or reasonably soon without a loss of value. Liquid assets include all current assets other than stock and prepaid. This ratio measures the ability of firm to pay current liabilities immediately.

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

iii. Cash and Bank Balance to Current, Margin and other Deposit Ratio:

This ratio is employed to measure whether bank and cash balance is sufficient to cover its current calls margin including deposits. It is calculated by dividing cash and bank balance by saving margin and current deposit, excluding fixed deposits. This ratio is calculated as:

$$\begin{aligned} &\text{Cash and Bank Balance to Current, Margin and Other deposit} \\ &= \frac{\text{Cash and Bank Balance}}{\text{Deposit (except fixed deposit)}} \end{aligned}$$

iv. Saving Deposit to Total Deposit Ratio:

Saving deposit is interest bearing short term deposit. The ratio is developed in order to find out the proportion of saving deposit, which is interest bearing and short term in nature. It is find out by dividing the total amount of saving deposits by the amount deposit, which is given as follows:

$$\text{Saving deposit to total deposit ratio} = \frac{\text{saving deposit}}{\text{total deposit}}$$

b. Activity Ratio or Turnover Ratio:

Activity ratios are intended to measure effectiveness of employment of the resources in a business concern. These ratios help to know whether the funds employed have been

used effectively in the business activities or not. The following are the ratio employed to analyze the activeness of the concerned joint venture.

i. Loan and Advances to Total deposit Ratio:

This ratio examines to what extent the banks are able to utilize the depositor's fund to earn profit by providing loans and advances. It is computed dividing the total amount of loans and advances by total deposited funds. This ratio is computed as follows:

$$\text{Loan and advances to total deposit} = \frac{\text{loan and advances}}{\text{total deposits}}$$

Higher ratio refers to proper utilization of funds and lower ratio refers to balance remain unutilized.

ii. Loan and Advances to Fixed Deposit Ratio:

This ratio helps to know that how many times the funds is used in loans and advances against fixed deposits. For commercial banks fixed deposits are long term interest bearing obligation, where as investment in loans and advances are the main sources of earning. This ratio is computed dividing loans and advances by fixed deposit as under. A low ratio indicates idle cash balance. It means total funds not properly utilized. This ratio is computed as:

$$\text{Loan and advances to fixed deposit} = \frac{\text{Loan and Advances}}{\text{Fixed Deposits}}$$

This ratio examines to what extent the fixed deposits are utilized for income earning purpose.

iii. Loan and Advances to Saving Deposit Ratio:

This ratio assesses how many times the fund is used to loans and advances against saving deposits. Saving deposits are interests bearing short term obligation and the major sources of investment in loan and advances for income generation. This ratio indicates how many times the short term interest bearing deposits are utilized for income generating. This ratio is computed as:

$$\text{Loan and advances to saving deposit ratio} = \frac{\text{Loan and Advances}}{\text{Saving Deposits}}$$

c. Leverage or Capital Structure Ratio:

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

i. Long Term Debt to Net Worth Ratio:

Long term debt refers to the amount of fixed deposits and loans of the bank. The ratio measures the proposition of outsider and owner's fund employed in the capitalization of the bank. It is calculated by dividing the fixed obligation of the banks by owners claim. It is computed as:

$$\text{Long term debt to net worth ratio} = \frac{\text{Long Term Debt}}{\text{Net Worth}}$$

ii. Net Fixed Assets to Long Term Debt Ratio:

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

$$\text{Net fixed assets to long term debt ratio} = \frac{\text{Net Fixed Assets}}{\text{Long Term Debt}}$$

d. Profitability Ratio:

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

i. Interest Earned to Total Assets Ratio:

It is the ratio which formed to find out the percentage of the interest earned to total assets. This is computed as:

$$\text{Interest earned to total assets ratio} = \frac{\text{Interest earned}}{\text{Total assets}}$$

ii. Net Profit to Total Assets Ratio:

This is another ratio which is important for measuring the profitability of funds invested in the bank's assets. It measures the return on assets. It is computed dividing the net profit after tax by total assets. The formula used for computing this ratio is:

$$\text{Net profit to total assets ratio} = \frac{\text{Net profit after tax}}{\text{Total assets}}$$

iii. Net Profit to Total Deposit Ratio:

This ratio is used for measuring the internal rate of return from deposits. It is computed as:

$$\text{Net profit to total deposit ratio} = \frac{\text{Net profit}}{\text{Total deposit}}$$

iv. Cost Service to Total Assets Ratio:

A sound management always tries to utilize its larger amount of assets with minimum cost. This ratio is useful in measuring the assets utilization with cost of services. The ratio can be expressed as:

$$\text{Cost services to total assets ratio} = \frac{\text{cost of services}}{\text{Total assets}}$$

e. Composition of working capital:

Cash and Bank Balance

Loan and Advance

Government and Securities

Other current assets

3.6.2 Statistical Tools:

Some statistical tools are used for analysis of the data in this research. The tools are as follows:

a. Trend Analysis:

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

b. Correlation Analysis:

Correlation is the statistical tool that we can use to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship between two sets of figures. If two quantities vary in a related manner so that a movement; an increases or decreases in one tend to accompanied by movement in the same or opposite direction in the other, they are called correlated. If the relationship is direct they are called uncorrected. The correlation may be perfect, imperfect or zero. Among the various methods of finding out coefficient of correlation, Karl Person's method is applied in the study. The result of coefficient of correlation is always between +1 and -1 when r is +1 it means there is perfect relationship between two variables and vice versa. When r is zero, it means there is no relationship between two variables.

c. Multiple Regression Analysis:

Regression is the estimation of unknown value or prediction of one variable from known values of other variables. Multiple regression analysis is a logical extension of the simple linear regression analysis. In multiple regression analysis, instead of single independent variable, two or more independent variables are used to estimate the unknown values of a dependent variable.

Chapter IV

Presentation and Data Analysis

4.1 General Background:

The major objective of this study is a comparative study of the management of working capital of Nepal Investment Bank and Everest Bank. The major variables of the study are cash and bank balance, loan and advances and investment in government securities. In this chapter relevant data and information of working capital as well as financial performance of Nepal Investment and Everest Banks are presented, compared analyzed accordingly. To reach towards accurate interpretation, this study analyses composition of current assets, different ratios such as liquidity, leverage and profitability, trend analysis as well as correlation analysis.

4.2 Composition of Working Capital:

Business needs different types of assets to operate its activities. Few needed assets are for long term fulfillment of the business activities and few assets are needed to carry out the day to day operation of the business. The assets that are used to carry out day to day operation of the business are known as current assets. The composition of current assets of the Nepal Investment Bank and Everest Bank are:

Table no. 4.1
Current Assets Component of Nepal Investment Bank

Rs. In million

Fiscal year	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Cash and Bank Balance	966.534	1536.922	1480.48	2406.521	2804.44	3754.94
Loan and Advances	5772.14	7130.12	10126.05	12776.2	17286.42	26996.652
Government securities	400	2001.1	1948.5	2522.3	3256.4	3155
Other current assets	379.21	476.17	412.74	201.08	233.67	276.846
Total Current Assets	7517.884	11144.31	13967.77	17906.1	23580.93	34183.438

Sources: Annual report (Appendix 1, 3, 5)

The above table shows the current assets components of Nepal Investment Bank. Cash and Bank balance of the bank is in increasing trend where as it decreases in 2061/62 but it increases after. Loan and advances and Government securities are also in increasing trend during the study period but government securities decreases in the year 2064/65. And the Other Current Assets component is increasing up to second year and from third it starts decreasing. However Total Current Assets of the bank is in increasing trend during study period.

Table no. 4.2
Current Assets Component of Everest Bank

Rs. In million

Fiscal Year	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Cash and Bank Balance	1139.56	819.24	1620	1619.92	2391.41	3013.97
Loan & Advances	4908.46	5884.12	7618.67	9801.30	13664.08	18339.08
Government Securities	1599.35	2466.42	1873.7	3322.44	3614.54	3237.97
Other Current Assets	240.612	251.16	206.28	178	222.6	376.21
Total Current Assets	7887.99	9420.96	11318.65	14921.67	19892.64	24967.24

Source: Annual report (Appendix 2, 4, 6)

The above table demonstrates the components of Current Assets of the Everest Bank. Cash and Bank Balance component of the bank is fluctuating during the study period, it increases and decreases alternately. Loan and Advances and Government Securities are in increasing trend but government securities decreases in the year 2064/65. And Other Current Assets component is decreasing up to fourth year and it increases in the fifth and sixth year of the study period. Here the Total Assets is in increasing order during the study period.

From above table the total amount of current assets of Nepal Investment Bank and Everest Bank are getting higher year by year. To be clear about the proportion of each item of current assets, percentage of each item of current assets to total current assets has been taken and shown in the following table:

Table no. 4.3

Percentage composition of Current Assets of Nepal Investment Bank

Fiscal year	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65	Average
Cash and Bank Balance	12.856	13.791	10.599	13.439	11.892	10.984	12.260
Loan and Advances	76.778	63.979	72.495	71.351	73.306	78.975	72.814
Government securities	5.320	17.956	13.949	14.086	13.809	9.229	12.392
Other current assets	5.044	4.272	2.954	1.122	0.990	0.809	2.532
Total Current Assets	100	100	100	100	100	100	

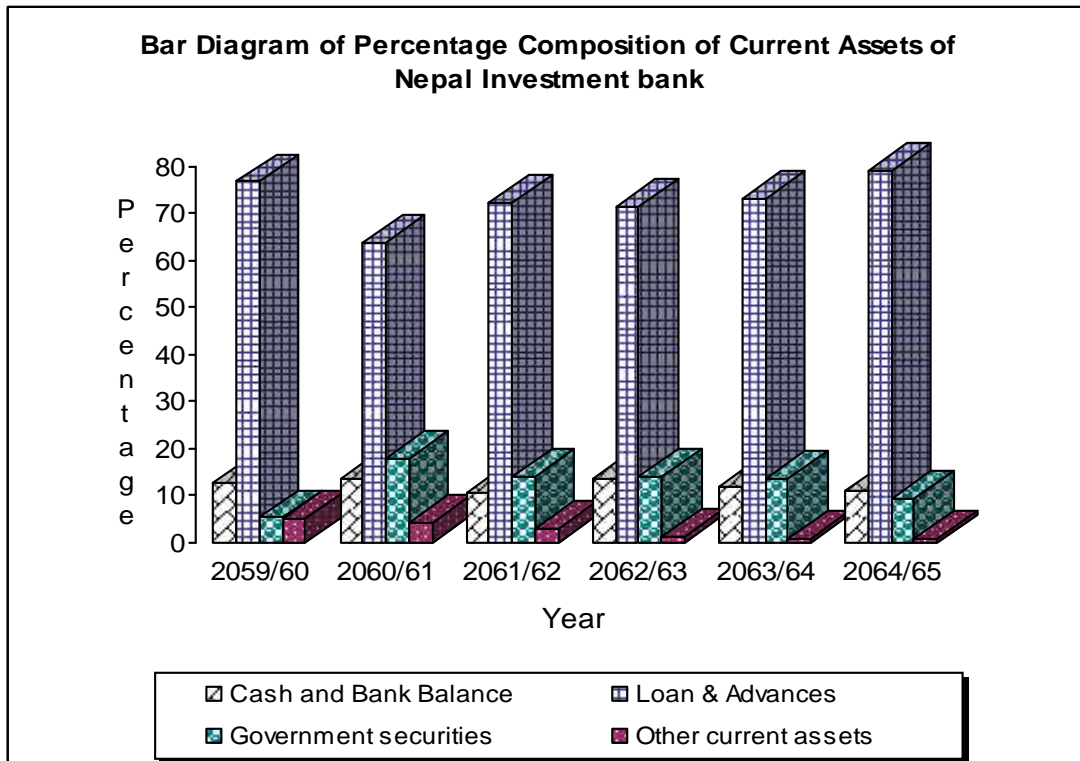
Table no. 4.4

Percentage composition of Current Assets of Everest Bank

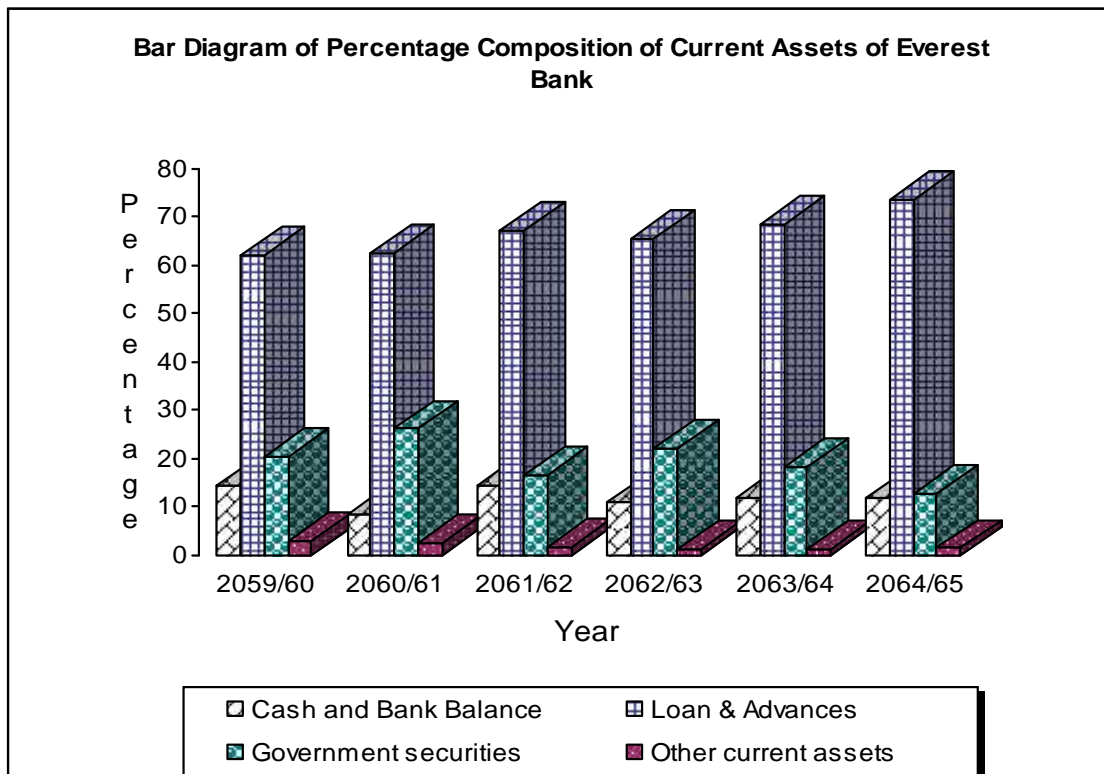
Fiscal year	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65	Average
Cash and Bank Balance	14.446	8.696	14.312	10.856	12.021	12.071	12.067
Loan & Advances	62.227	62.457	67.310	65.685	68.689	73.452	66.637
Government securities	20.275	26.180	16.554	22.265	18.170	12.968	19.402
Other current assets	3.050	2.666	1.822	1.192	1.119	1.506	1.892
Total Current Assets	100	100	100	100	100	100	

The above Percentage composition of current assets to total assets has also been plotted in graph in Bar Diagram to make data comprehensible.

Graph no. 1



Graph no. 2



4.2.1 Cash and Bank Balance Percentage:

Cash and Bank balance percentage of Nepal Investment Bank is slightly fluctuating over the study period. The average cash and bank balance percentage of the bank is 12.260%. It increases in the second year i.e.13.7910% and it decreases in third year up to 10.6% again it increases in the year 2062/63 and it decreases in the year 2063/64 and 2064/65. In this way the percentage of cash and bank balance increases and decreases alternately during study period.

The percentage of cash and bank balance of Everest Bank is fluctuating. It is higher in 1st year which is 14.446%. The average cash and bank balance percentage of the bank is 12.067%. Here also the percentage of cash and bank balance increases and decreases alternately.

The average percentage of cash and bank balance of Nepal Investment Bank is slightly lower than Everest Bank. It seems that Nepal Investment Bank is maintaining good percentage of Cash and Bank Balance than Everest Bank.

4.2.2 Loan and Advance Percentage:

Loan and Advance percentage of Nepal Investment Bank are slightly fluctuating. But first and second year of the study period have much difference in compare to other years loan and advance percentage i.e. 76.77% in year 2059/60 and year 2060/61 has 63.97%. The range of loan and advances percentage is 71.35% to 73.30% up to 2063/64 and it is 78.97%in the year 2064/65. The average loan and advances percentage is 72.814%.

Loan and advances percentage of Everest Bank is not that fluctuating. The percentage increases up to year 2061/62 and it decreases in the year 2062/63 and after that it starts increasing in the remaining year of the study period. It is highest in the year 2064/65 i.e. 73.452%. The average percentage is 66.63%.

The average percentage of Nepal Investment Bank is higher than Everest Bank. This represent that Nepal Investment Bank manages good percentage of loan and advances than Everest Bank.

4.2.3 Government Securities Percentage:

Nepal Investment Bank has fluctuating government securities percentage. The minimum government securities percentage is in the year 2059/60 i.e. 5.32%. But it increases to 17.95% in the year 2060/61 which is the highest percentage. The percentage increase and decrease in alternate way during study period. The average investment in government securities is 12.392%

In the case of Everest Bank, in the year 2060/61 it has higher government securities percentage i.e. 26.18%. And in the year 2064/65 it has lowest percentage i.e. 12.96%. In other years the range of government securities percentage is 16.55% to 22.265%. The average investment in government securities is 19.402%.

The average percentage of Nepal Investment Bank is lower than Everest Bank. This represents Everest Bank has maintained good percentage of government securities than Nepal Investment Bank.

4.2.4 Other Current Assets Percentage:

Other Current Assets percentage of Nepal Investment Bank is lower than other items of current assets of the study period. Highest percentage is 5.044% of the year 2059/60 and lowest is 0.809% of the year 2064/65. And average percentage is 2.532%

Everest bank has also low Other Current Assets percentage than other item of current assets. Highest percentage is 3.05% of the year 2059/60 and lowest is 1.19% of the 2062/63. Average Percentage of Everest Bank is 1.892%.

There is only slight difference between two banks in average percentage of Other Current Assets i.e. 1.892% and 2.532%.

From the above analysis, in both of the banks, loan and advances covers the highest proportion in the total current assets then come government securities cash and bank balance comes at third place and at last comes other current assets.

4.3 Composition of Current Liabilities:

Current Liabilities are equally important as current assets. Current Liabilities are those claims of outsiders, which are expected to mature for payment within an accounting year and include creditors, bills payable and outstanding expenses. In case of commercial banks their current liabilities are slightly than manufacturing company. The components of current liabilities are as follows:

Table no. 4.5
Components of Current Liabilities of Nepal Investment Bank

Rs. In million

Particulars	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Current and other Deposits	6249.93	9230.00	11042.30	13514.33	16972.16	26507.49
Bills Payable	31.63	57.836	15.00	18.82	32.40	78.838
Other Liabilities	414.47	582.432	474.30	287.62	347.51	488.404
Total Current Liabilities	6696.04	9870.268	11531.60	13820.78	17352.08	27074.73

Source: Annual report (Appendix 5)

Table no. 4.6
Component of Current Liabilities of Everest Bank

Rs. In million

Particulars	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Current and other Deposits	3472.13	4600.36	5989.31	8266.79	10986.09	14749.46
Bills Payable	22.10	22.02	17.77	15.80	26.77	49.43
Other Liabilities	722.32	842.32	457.59	763.55	1634.60	720.44
Total Current Liabilities	4216.55	5464.71	6464.68	9046.15	12647.47	21771.28

Source: Annual Report (Appendix 6)

The above table shows current and other deposits, bills payable and other current liabilities. These are the components of current liabilities. Total current Liabilities of both the banks Nepal Investment Bank and Everest Bank are in increasing tendency.

4.4 Trend Analysis:

The tools that are applied to show increase and decrease of variables over a period of time are known as Trend Analysis. With the help of trend analysis the variable over can be seen clearly.

4.4.1 Trend Analysis of Cash and Bank Balance:

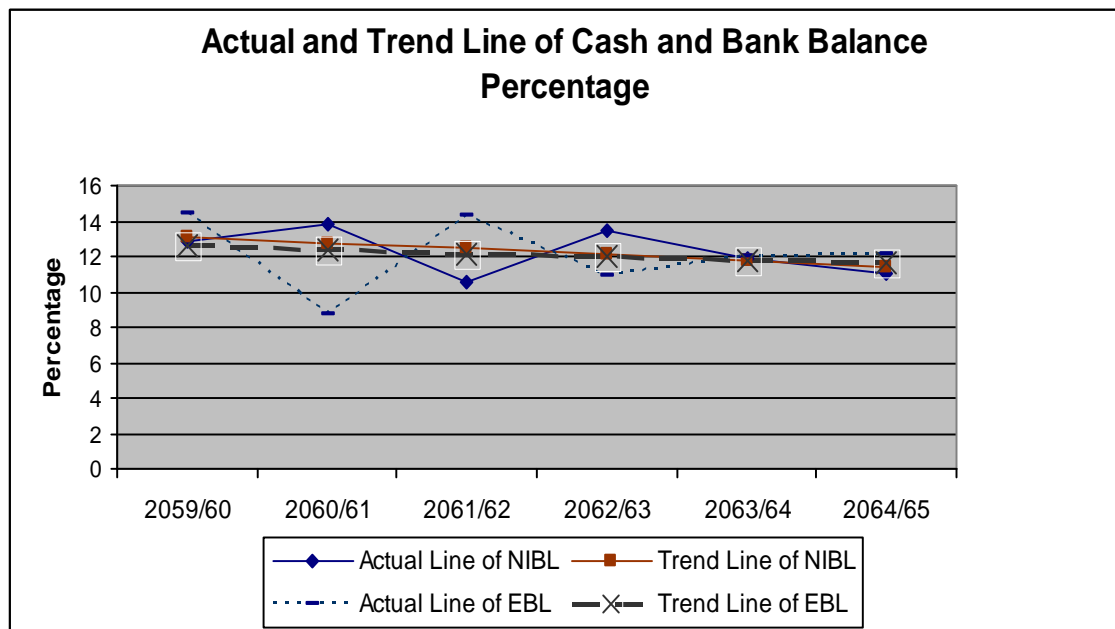
From the above calculation of cash and bank balance percentage trend as per appendix 9 and 10, the value of the constant 'a' and 'b' are as follows:

Nepal Investment Bank	a = 13.480	b = -0.349
Everest Bank	a = 12.748	b = -0.194

Sources: Appendix 9, 10

The trend rate of cash and bank balance percentage 'b' is -0.349 of Nepal Investment Bank and -0.194 of Everest Bank. It indicates the percentage of cash and bank balance Nepal Investment Bank and Everest Bank is decreasing due to negative value.

Graph no. 3



The above graph depicts that the actual line of EBL is high in the first year and trend line of EBL is at lowest point than NIBL. In 2060/61 actual line of EBL is at the lowest point. It seems that the lines of NIBL are less fluctuating than EBL.

4.4.2 Trend Analysis of Loan and Advances:

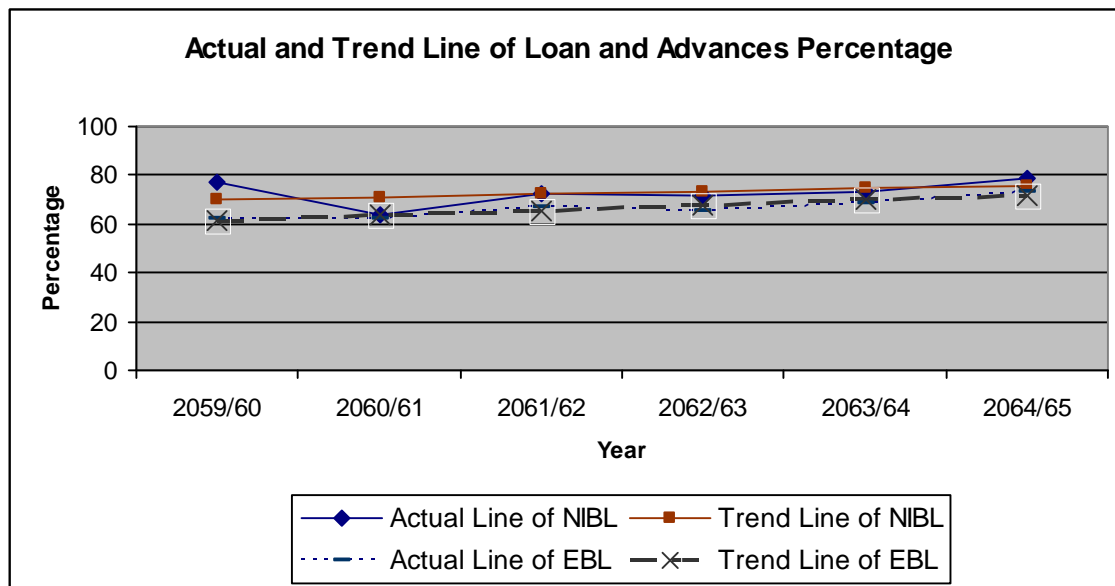
From the above calculation of loan and advances percentage trend as per appendix 11 and 12, the value of the constant ‘a’ and ‘b’ are as follows:

Nepal Investment Bank	a = 69.049	b = 1.076
Everest Bank	a =59.317	b = 2.091

Sources: Appendix 11, 12

The rate of change on Loan and Advances percentage ‘b’ of Nepal Investment Bank is 1.076 and ‘b’ of Everest Bank is 2.091. This symbolizes that the percentage of Loan and advances of Everest Bank is rapidly increasing than of Nepal Investment Bank.

Graph no. 4



The above graph depicts that actual line and trend line of NIBL is higher than EBL. But the trend line of EBL is rapidly increasing. Actual line of NIBL is high in the first year of the study period but it decreases in the second year and it starts increasing in residual years. There is not much variation in the trend line of NIBL.

4.4.3 Trend Analysis of Government Securities:

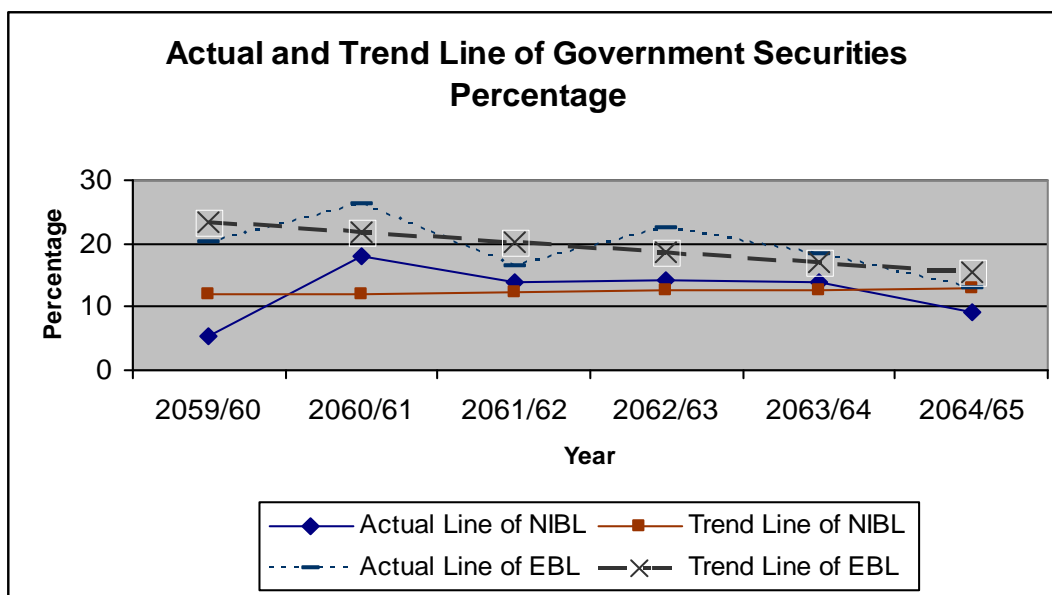
From the calculation of government securities percentage trend as per appendix 13 and 14, the value of constant ‘a’ and ‘b’ are as follows:

Nepal Investment Bank	$a = 11.667$	$b = 0.207$
Everest Bank	$a = 24.88$	$b = -1.567$

Sources: Appendix 13, 14

Here the rate of change on Government Securities percentage ‘b’ in Nepal Investment Bank is positive where as it is negative in Everest Bank. This indicates that the percentage is in increasing trend in Nepal Investment Bank and decreasing trend in Everest Bank. Though the trend rate of Nepal Investment Bank is positive it is increasing slowly.

Graph no. 5



The above graph represents that actual and trend line of EBL is higher than NIBL. Though the actual and trend line of EBL is high in the first year it is gradually decreasing where as the lines of NIBL is slightly increasing. It seems that there is not much fluctuation in the trend line of NIBL and EBL as well.

4.4.4 Trend Analysis of Other Current Assets:

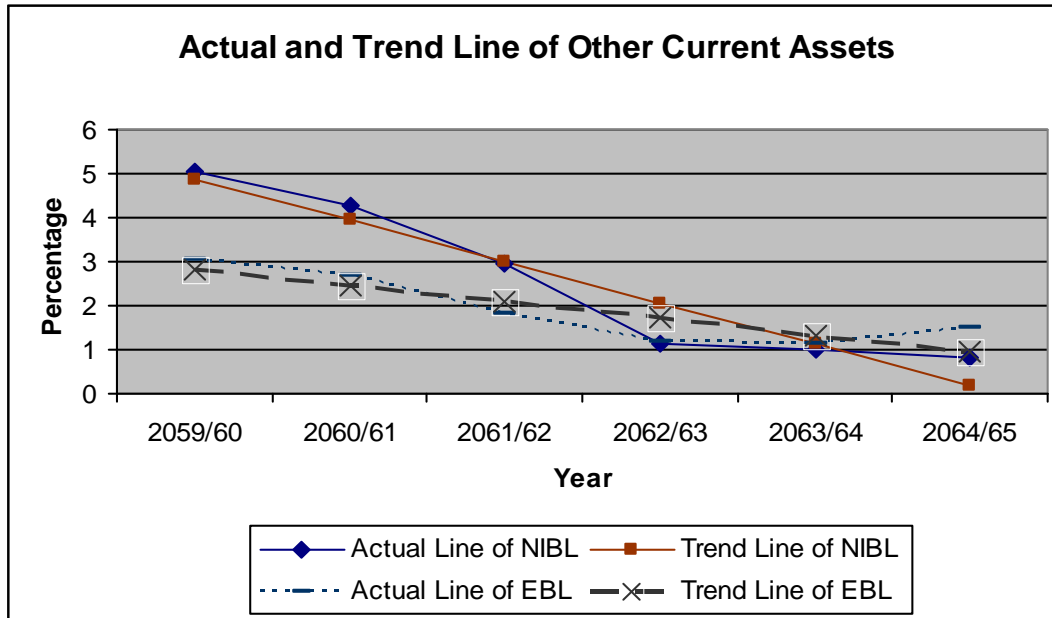
From the calculation of other current assets percentage trend as per appendix 15 and 16, the value of constant ‘a’ and ‘b’ are as follows:

Nepal Investment Bank	$a = 5.817$	$b = -0.9385$
Everest Bank	$a = 3.1919$	$b = -0.3712$

Sources: Appendix 15, 16

In other current assets trend analysis, the trend rate of Nepal Investment Bank and Everest Bank 'b' is negative which indicates the percentage is in a decreasing rate. And trend rate of Nepal Investment Bank is rapidly decreasing than the rate of Everest Bank.

Graph no. 6



Above graph demonstrates that actual and trend line of NIBL which is higher in first year of the study period is decreasing rapidly and the lines of EBL which is also decreasing slowly. At the beginning year of the study period, the actual and trend line of NIBL is higher than the actual and trend line of EBL but in the last year the line of NIBL is lower than lines of EBL. This denotes the percentage of other current assets of EBL is effectively maintained than NIBL.

4.4.5 Trend Analysis of Current Ratio:

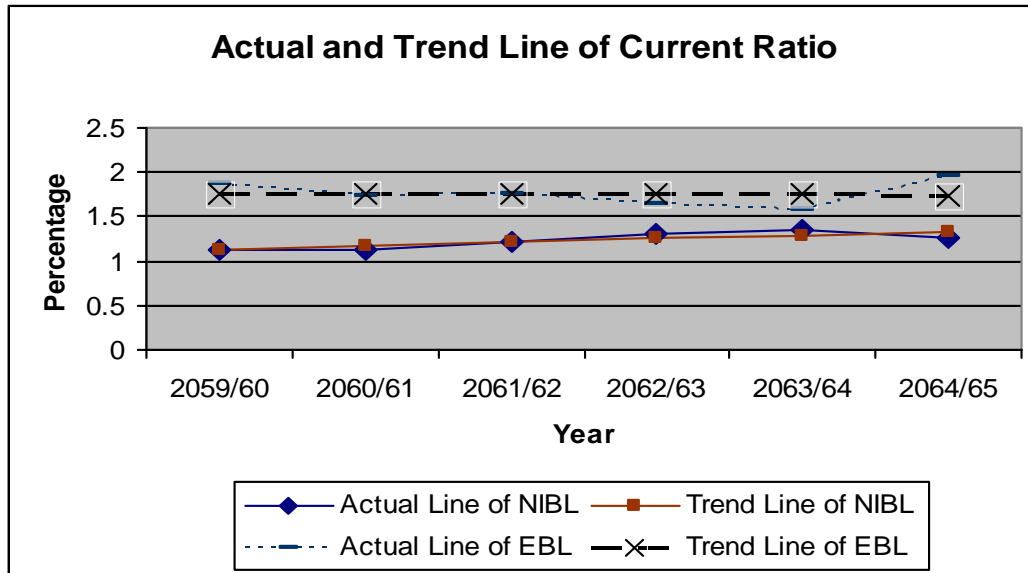
From the calculation of current ratio trend as per appendix 17 and 18, the value of constant 'a' and 'b' are as follows:

Nepal Investment Bank	a = 1.083	b = 0.0420
Everest Bank	a = 1.7662	b = -0.0036

Sources: Appendix 17, 18

The trend analysis of current ratio of Nepal Investment Bank ‘b’ is positive i.e. 0.0420 which indicates that the current ratio is in increasing rate. But the Everest Bank has negative value of ‘b’ so this represents current ratio is in decreasing rate.

Graph no. 7



Above graph represents that though the actual and trend line of NIBL is low in the first year of the study period, it increases gradually. And actual and trend lines of EBL are slightly decreasing.

4.4.6 Trend Analysis of Quick Ratio:

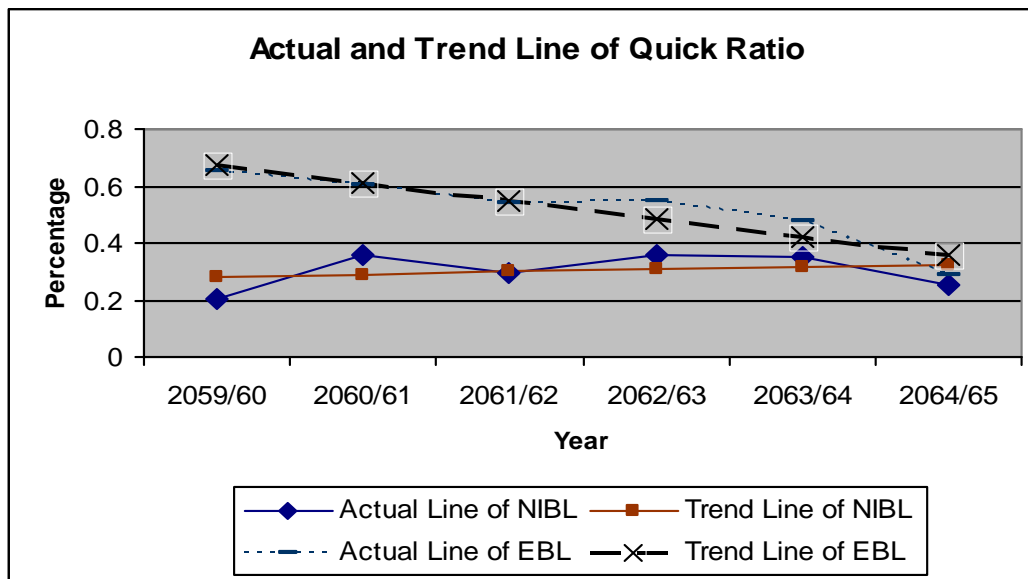
From the calculation of Quick Ratio trend as per appendix 19 and 20, the value of constant ‘a’ and ‘b’ are as follows:

Nepal Investment Bank	a = 0.2748	b = 0.0082
Everest Bank	a = 0.7364	b = -0.0628

Sources: Appendix 19, 20

The trend rate on Quick Ratio ‘b’ of Nepal Investment Bank is positive so its quick ratio is in increasing trend. Here in Everest Bank, trend rate of quick ratio is negative so its quick ratio is decreasing. This indicates that Everest Bank is slowly reducing its liquidity.

Graph no. 8



The figure depicts that the trend line and actual line of quick ratio of NIBL is fluctuating. Where as, the trend line of EBL is slightly decreasing. In the last year of the study period trend line of NIBL is higher than EBL.

4.5 Correlation Analysis:

Correlation is the statistical tool, which measures the relationship between two or more characteristics of a population or a sample. In other words, coefficient correlation measures the degree of relationship between two sets of figure i.e. independent and dependent. Under this chapter, Karl Person’s method is used for the study. The correlation coefficient is calculated directly using the Microsoft Excel. It is calculated by inputting the data directly in two arrays of the command.

Using Standard Error (S.E. r) where,

$$S.E (r) = \frac{(1 - Zr^2)}{\sqrt{n}}$$

$$P.E. (r) = 0.6745 \times S.E I$$

The Probable error is used to test whether the calculated value of sample correlation coefficient is significant or not. A few rules for the interpretation of the significance of correlation coefficient are as follows:

- i. If $r < P.E. (r)$, then the value of r is not significant
- ii. If $r > 6 P.E. (r)$, then r is significant.
- iii. In other situation nothing can be calculated with certainty.

4.5.1 Coefficient of Correlation between investment on Government Securities and Total Deposit:

The Coefficient of correlation between investment on government securities and total deposit is to measure the degree of relationship between government securities and total deposit. Bank utilizes its collected deposit on loan and advances as well as in government securities. But commercial bank uses larger amount of deposit on loan and advances and only idle deposits are invested on government securities. The purpose of equating correlation coefficient is to justify whether there is any relationship between these two variables. The ensuing table shows the coefficient of correlation between Total deposit and Government securities.

Table no. 4.7

Banks	Correlation (r)	P.E.r	6 P.E.r	Implication
Nepal Investment Bank	0.8523	0.0153	0.0922	Significant
Everest Bank	0.7943	0.1016	0.6097	Significant

Sources: Appendix 21, 22

From the above table we can find that the coefficient of correlation between government securities and total deposit value 'r' is 0.8523 of Nepal Investment Bank. It shows highly positive relationship between these two variables. By considering the probable error, as we know the value of 'r' is 0.8523 which is more than six times of P.E. r i.e. 0.0922, so we can conclude that there is significant relationship.

On the other hand, we find that the coefficient of correlation between government securities and total deposit value 'r' is 0.7943 of Everest Bank. In this bank also there is positive relationship between two variables. By considering probable error, 'r' is 0.7943

which is more than six times of P.E. r i.e. 0.6097, so we can conclude that there is significant relationship.

4.5.2 Coefficient correlation between Loan and Advances and Total Deposits:

The coefficient correlation between Loan and advances and Total deposits is to measure the degree of relationship between loan and advances which is the major component of current assets and total deposit which is the major source of fund on bank. In correlation analysis, Total deposit is independent variable and Loan and advance is dependent variable. The main intention of computing coefficient of correlation is to justify whether the deposits are significantly used in loan and advances or not and whether there is any relationship between these two variables or not. The ensuing table shows coefficient of correlation between Loan and advance and Total deposit.

Table no. 4.8

Banks	Correlation (r)	P.E. r	6 P.E. r	Implication
Nepal Investment Bank	0.994	0.0031	0.0188	Significant
Everest Bank	0.998	0.0009	0.0057	Significant

Sources: Appendix 23, 24

The above table illustrates that the correlation coefficient between loan and advances and total deposit of Nepal Investment Bank ' r ' is 0.994. This shows that there is positive relationship between two variables. Taking into consideration of probable error, we find that ' r ' is more than six times of P.E. r which is 0.0188. Hence this shows that there is significant relationship.

In the case of Everest Bank the coefficient correlation between loan and advances and total deposit value ' r ' is 0.998. This shows relationship between these two variables is positive. By considering the probable error, we can conclude that ' r ' is more than six times of P.E. r which is 0.0057. Hence this shows that there is significant relationship.

4.5.3 Coefficient of correlation between Cash and bank balance and Current liabilities:

Cash and bank balance are liquid component of current assets. This is required to meet the unexpected short term obligation i.e. current liabilities. The coefficient of correlation between cash and bank and current liabilities is to measure the degree of relationship between these two items. Here, current liabilities is independent variable(Y) and cash and bank balance is dependent variable(X). The ensuing table shows coefficient of correlation between cash and bank balance and current liabilities.

Table no. 4.9

Banks	Correlation (r)	P.E. r	6 P.E. r	Implication
Nepal Investment Bank	0.9728	0.0147	0.0884	Significant
Everest Bank	0.9428	0.0305	0.1835	Significant

Sources: Appendix 25, 26

From the above table we can find that coefficient of correlation between cash and bank balance and current liabilities in Nepal Investment Bank 'r' is 0.9728. This shows that there is positive relationship between two variables. In context to probable error the value of 'r' is more than six times of P.E.r which is 0.0884. Thus this results significant relationship between cash and bank balance and current liabilities.

In the case of Everest Bank, coefficient correlation 'r' between cash and bank balance and current liabilities is 0.9428. This shows that there is positive relationship between two variables. By considering probable error, as we know the value of 'r' is 0.9428 which is more than six time of P.E.r i.e. 0.1835. This concludes that there is significant relationship between cash and bank balance and current liabilities.

4.5.4 Coefficient of correlation between Loan and advances and Net profit:

The fundamental function commercial bank is to collect deposit and invest these funds on loan and advances to generate higher profit. The coefficient of correlation of loan and advances and net profit is equated to measure the degree of relationship connecting these two. In correlation analysis, loan and advances is independent variable(Y) and net profit is dependent variable(X). The purpose of equating the correlation of the coefficient is to justify whether loan and advances significantly generate profit or not.

The ensuing table shows coefficient of correlation between Loan and advances and Net profit.

Table no. 4.10

Banks	Correlation (r)	P.E. r	6 P.E. r	Implication
Nepal Investment Bank	0.990 or 1	0.0051	0.0308	Significant
Everest Bank	0.992 or 1	0.0042	0.0255	Significant

Sources: Appendix 27, 28

The above table shows that in Nepal Investment Bank the coefficient of correlation between Loan and advance and Net profit value ‘r’ is 0.990 or 1. This shows that there is positive relationship between two variables. By considering the probable error, as we know the value of ‘r’ is 0.990 which is more than six times of P.E.r i.e. 0.0308. This concludes that there is significant relationship between Loan and advances and Net profit.

In context to Everest Bank, the coefficient of correlation between Loan and advance and Net profit value ‘r’ is 0.992 or 1. This shows that there is positive relation between Loan and advances and net profit. By considering probable error, since the value of ‘r’ is 0.992 which is more than six time of P.E.r i.e. 0.0255. This concludes that there is significant relationship between loan and advances and net profit.

4.6 Multiple Regressions of Cash and Bank Balance on Total Deposit and Loan and Advances:

Regression is the estimation of unknown values or prediction of one variable from known values of other variables. Multiple regression analysis is a logical extension of the simple linear regression analysis. In multiple regression analysis, instead of single independent variable, two or more independent variables are used to estimate the unknown values of a dependent variable.

The multiple regression equation of dependent variable X_1 on two independent variables X_2 and X_3 is given by

$$X_1 = a_1 + b_1 X_2 + b_2 X_3 \text{ ----- (i)}$$

The value of constant a_1 , b_1 and b_2 can be obtained by solving following three normal equations simultaneously obtained by the least squares.

$$X_1 = na_1 + b_1 X_2 + b_2 X_3$$

$$X_1X_2 = a_1 X_2 + b_1 X_2^2 + b_2 X_2X_3$$

$$X_1X_3 = a_1 X_3 + b_1 X_2X_3 + b_2 X_3^2$$

X_1 = Cash and Bank Balance (Dependent Variable)

X_2 = Total deposit (Independent Variable)

X_3 = Loan and Advances (Independent Variable)

The result of regression equations is shown as follows:

Table no. 4.11

Value of the Constants	Nepal Investment Bank	Everest Bank
a₁	0.1038	0.354
b₁	0.154	-0.125
b₂	-0.061	0.293

Sources: Appendix 29, 30

Now substituting these values in equation (i), we get estimated regression equation of X_1 on X_2 and X_3

$$X_1 = 0.1038 + 0.154X_2 - 0.061X_3 \text{ (of Nepal Investment Bank)}$$

$$X_1 = 0.354 - 0.125X_2 + 0.293X_3 \text{ (of Everest Bank)}$$

The standard error of estimate measures the variability of the observed values around the multiple regression line. The reliability of the estimates obtained through regression equation is studied through the calculation of the standard error of the estimate. The standard error of the estimate of the dependent variable X_1 on two independent variables X_2 and X_3 are 0.1737 of Nepal Investment Bank and 0.2655 of Everest Bank.

4.7 Ratio Analysis:

As mentioned in research methodology; liquidity, turnover, capital structure and profitability ratios are calculated. Ratio analysis is one of the important tools to measure financial performance. To find the overall performance as well as general movement of important ratios trend analysis is used.

4.7.1 Liquidity Ratios:

Liquidity of any business organization is directly related with working capital. In other words, one of the main objectives of working capital management is keeping sound liquidity position. Liquidity ratio is employed to measure the company's ability to meet short term obligation. These ratios provide insight into the present cash solvency in the event of adverse financial condition. To measure the bank's liquidity position, various liquidity ratios are calculated and to know the trend of liquidity, trend analysis has been considered.

4.7.1.1 Current Ratio:

This ratio indicates the current short term solvency position of the bank. Higher current ratio indicates better liquidity position. In other words, current ratio represents the margin of safety for creditors. It is calculated as:

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

The following table displays the current ratio to compare working capital management of Nepal Investment Bank and Everest Bank.

Table no. 4.12
Current Ratio

Rs. In million

Fiscal Year	Nepal Investment Bank			Everest Bank		
	C.A	C.L	Ratio	C.A	C.L	Ratio
2059/60	7517.88	6696.04	1.1227	7887.99	4216.55	1.8707
2060/61	11144.31	9870.26	1.1290	9420.96	5464.71	1.7239
2061/62	13967.77	11531.61	1.2112	11318.66	6464.68	1.7508
2062/63	17906.10	13820.78	1.2955	14921.67	9046.15	1.6495
2063/64	23580.93	17352.08	1.3589	19892.641	12647.47	1.5728
2064/65	34183.43	27074.73	1.262	24967.247	12771.28	1.9549
Average			1.230			1.7538

Sources: Annual Report (Appendix 5, 6)

From the above table it seems that current ratio of Nepal Investment Bank is gradually increasing it is highest in the year 2063/64 of the study period with 1.3589 times. In the year 2064/65 current ratio falls to 1.262 times. The average ratio is 1.230

In the case Everest Bank, during study period current ratio is decreasing and lowest ratio is 1.5728 in the year 2063/64 but in the year 2064/65 it again increases to 1.9549. The average ratio is 1.7538. There is a decreasing trend of current ratio, which implies that the bank is trying to utilize its idle money in income generating sector to increase its profitability.

4.7.1.2 Quick Ratio:

Quick Ratio establishes a relationship between quick or liquid assets and current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without loss of original value. Cash is most important liquid assets. Other assets which are considered to be relatively liquid and included in quick assets are book debt and marketable securities. For this study, Cash and Bank Balance and Government Securities are included in quick assets. Quick ratio is calculated as:

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

Following table display the quick ratio of Nepal Investment Bank and Everest Bank.

Table no. 4.13
Quick Ratio

Fiscal Year	Nepal Investment Bank			Everest Bank		
	Q.A	C.L	Ratio	Q.A	C.L	Ratio
2059/60	1366.53	6696.04	0.2040	2738.91	4216.55	0.6495
2060/61	3538.02	9870.26	0.3584	3285.66	5464.71	0.6012
2061/62	3428.98	11531.61	0.2973	3493.70	6464.68	0.5404
2062/63	4928.82	13820.78	0.3566	4942.36	9046.15	0.5463
2063/64	6060.84	17352.08	0.3492	6005.95	12647.47	0.4748
2064/65	6909.94	27074.73	0.2552	6251.94	21771.29	0.2871
Average			0.7395			0.5166

Source: Annual report (appendix 5, 6)

The above table shows that, quick ratio of Nepal Investment Bank is fluctuating over the study period. The year 2060/61 has highest quick ratio which is 0.3584 and lowest in the year 2059/60 i.e. 0.204. The average ratio is 0.7395.

And in Everest bank ratio is not that fluctuating during the study period. In 2060/61 ratio has slightly decreased from 0.6495 to 0.6012. In the year 2061/62 again ratio decreased to 0.5404 and in 2062/63 it has slightly increased to 0.5463 and in 2063/64 ratio has again decreased to 0.4748 and again decrease in the year 2064/65. The average ratio is 0.5166.

Here the average quick ratio of the Nepal Investment Bank is higher than average quick ratio of Everest Bank.

4.7.1.3 Cash and Bank Balance to Deposit Ratio (Excluding Fixed Deposit)

The ratio shows the ability of banks immediate funds to cover their (current, margin, other and saving) deposits. It can be calculated by dividing cash and bank balance by deposits (excluding fixed deposit). The ratio can be expressed as:

$$\text{Cash and bank balance to Deposit Ratio} = \frac{\text{Cash and bank balance}}{\text{Total deposit(excluding fixed deposit)}}$$

Table no. 4.14

Cash and Bank Balance to Deposit Ratio (excluding fixed deposit)

Rs. In million

Fiscal year	Nepal Investment Bank			Everest Bank		
	Cash and Bank Balance	Deposit	Ratio	Cash and Bank Balance	Deposit	Ratio
2059/60	966.53	6249.93	0.1546	1139.56	3472.13	0.3282
2060/61	1536.92	9230.00	0.1665	819.24	4600.36	0.1780
2061/62	1480.48	11042.30	0.1340	1620.00	5989.31	0.2704
2062/63	2406.52	13514.33	0.1780	1619.92	8266.79	0.1959
2063/64	2804.44	16972.16	0.1652	2391.41	10986.09	0.2176
2064/65	3754.94	26507.49	0.1416	3013.97	14749.46	0.2043
Average			0.1567			0.2324

Source: Annual report (Appendix 5, 6)

Above table indicates that during study period cash and bank balance to deposit ratio of Nepal Investment Bank increase in the year 2060/61 from 0.1546 to 0.1665. In next year it decreases and in the year 2062/63 the bank has highest ratio i.e. 0.1780. Again in next year it decreases to 0.1652. In the year 2064/65 it again decreases to 0.1416. The average ratio of the bank is 0.1567

In context to Everest Bank, the table indicates that the ratio is fluctuating during study period. In the year 2059/60 the ratio is 0.3282 but next year it decreases to 0.1780. In the year 2061/62 it increases to 0.2704 and in year 2062/63 the ratio decreases to 0.1959. In this way it increases and decreases alternatively. The average ratio is 0.2324

This concludes that Everest Bank holds more cash balance than Nepal Investment Bank. The higher ratio of Everest Bank shows that the ability of banks immediate funds to cover its current, margin, call and saving deposit better than Nepal Investment Bank. In other words, the liquidity position of Everest Bank is better than Nepal Investment Bank. But the large amount of idle cash and bank balance badly affect the profitability of bank. From the view point of utilizing cash, Nepal Investment Bank has better position than Everest Bank.

4.7.1.4 Saving Deposit to Total Deposit Ratio:

Saving deposit is interest bearing short term deposit. The ratio is developed in order to find out proportion of saving deposit, which is interest bearing and short term in nature. It is calculated by dividing total amount of saving deposit by amount of total deposit, which is given as follows:

$$\text{Saving Deposit to Total Deposit ratio} = \frac{\text{Saving Deposit}}{\text{Total deposit}}$$

The following table shows the bank's saving deposit to total deposit ratio.

Table no. 4.15
Saving Deposit to Total Deposit Ratio

Rs. in million

Fiscal Year	Nepal Investment Bank			Everest Bank		
	S.D	T.D	Ratio	S.D	T.D	Ratio
2059/60	2434.05	7922.754	0.3072	2757.952	6266.87	0.4400
2060/61	4886.10	11524.68	0.4239	3730.614	7498.32	0.4975
2061/62	6703.51	14254.57	0.4702	4806.832	9393.27	0.5117
2062/63	8081.98	18927.30	0.4270	6929.216	12509.14	0.5539
2063/64	10742.33	24488.85	0.4386	9029.255	16612.76	0.5435
2064/65	13688.76	34451.72	0.3973	11883.857	21195.65	0.5606
Average			0.4107			0.5179

Source: Annual report (Appendix 5, 6)

Above table shows that the amount of saving deposits are gradually increasing in both of the banks during the study period. The saving deposit to total deposit ratio of Nepal Investment Bank is increasing in first three years. In the year 2061/62 it has highest ratio i.e. 0.4702 and after decreases to 0.4270 in the year 2062/63. Again it increases in the year 2063/64 to 0.43866 and it decreases in the year 2064/65 to 0.3973. The average ratio of the bank is 0.4107.

In the case of Everest bank saving deposit to total deposit ratio is increasing to first four years during the study period. And after it decreases and again increases in the last year of the study period. The highest ratio is 0.5606 in the year 2064/65. The average ratio of the bank is 0.5179.

Here average ratio of Everest Bank is higher than average ratio of Nepal Investment Bank. Although saving deposit is short term liability but its nature is long term than current, margin and other deposits. So the large portion of saving deposit in total deposit shows the liquidity of the bank. Bank also pays interest on saving deposit but current, margin and other deposits are nominal cost fund.

From the above analysis, saving deposit to total deposit ratio of Everest bank is better than Nepal Investment bank. It indicates that Everest Bank is more liquid than Nepal

Investment Bank. It also implies that Everest bank pays higher amount of interest on deposit which reduce the profitability of Everest Bank.

4.7.2 Activity or Turnover Ratio:

Activity ratios are used to evaluate the efficiency with which the firm manages and utilizes its assets. These ratios are also employed to evaluate the speed with which assets are being converted and turnover. These ratios moreover, help in measuring the banks ability to utilize their available resources.

4.7.2.1 Loan and Advances to Total Deposit Ratio:

This ratio measures the extent to which banks are successful in utilizing funds for the profit generating purpose. In other words how quickly collected deposits total are converted into loan and advances given to the client to earn income. It is calculated as follows:

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

Following table shows the effectiveness in utilization of total deposits of Nepal Investment and Everest bank.

Table no. 4.16
Loan and Advances to Total Deposit Ratio

Rs. in million

Fiscal Year	Nepal Investment Bank			Everest Bank		
	Loan and Advances	Total Deposit	Ratio	Loan and Advances	Total Deposit	Ratio
2059/60	5772.14	7922.75	0.728	4908.46	6266.87	0.783
2060/61	7130.12	11524.68	0.618	5884.12	7498.32	0.784
2061/62	10126.05	14254.57	0.710	7618.67	9393.27	0.811
2062/63	12776.2	18927.3	0.675	9801.307	12509.14	0.783
2063/64	17286.42	24488.85	0.705	13664.081	16612.75	0.822
2064/65	26996.65	34451.72	0.783	18339.085	21195.65	0.865
Average			0.703			0.808

Source: Annual Report (Appendix 5, 6)

Here the table shows that the ratio of loan and advances to total deposit of Nepal Investment Bank during study period is fluctuating. In first year 2059/60 it is 0.7285. In second year it decreases to 0.6186. Increase and decrease in ratio occurs alternatively up

to year 2063/64. It increases in the year 2064/65 which is maximum ratio i.e. 0.783. The average ratio is 0.703.

In Everest Bank here the ratio of Loan and Advances to Total Deposit is increasing up to third of study period i.e. 0.7832 in 2059/60, 0.7847 in 2060/61 and 0.811 in 2061/62. But it decreases in the year 2062/63 i.e. 0.7835. In the year 2063/64 and 2064/65 ratio increases to 0.822 and 0.865 respectively. The average ratio is 0.808.

This concludes that loan and advances to total deposit ratio of Everest Bank is better than Nepal Investment Bank. This indicates that Everest Bank has better performance than Nepal Investment Bank. Hence Everest Bank is employing the funds more efficiently for the profit generating purpose on loan and advances than Nepal Investment Bank.

4.7.2.2 Loan and Advances to Fixed Deposit Ratio:

This ratio examines that how many times the funds is used in loan and advances against fixed deposit. Fixed deposits are interest bearing long term obligation where as loan and advances are the major sources of investment in generating income for commercial banks. It is calculated as follows:

$$\text{Loan and Advances to Fixed Deposit Ratio} = \frac{\text{Loan and Advances}}{\text{Fixed deposit}}$$

The following table shows the effective loan and advances to fixed deposit ratio:

Table no. 4.17
Loan and Advances to Fixed Deposit Ratio

Rs. In million

Fiscal year	Nepal Investment Bank			Everest Bank		
	Loan and Advances	Fixed Deposit	Ratio	Loan and Advances	Fixed Deposit	Ratio
2059/60	5772.14	1672.82	3.450	4908.46	2794.74	1.756
2060/61	7130.12	2294.68	3.107	5884.12	2897.96	2.030
2061/62	10126.05	3212.26	3.152	7618.67	3403.95	2.238
2062/63	12776.20	5412.96	2.360	9801.30	4242.35	2.310
2063/64	17286.42	7516.68	2.299	13664.08	5626.66	2.428
2064/65	26996.65	7944.23	3.398	18339.09	6446.18	2.844
Average			2.961			2.268

Sources: Annual report (Appendix 5, 6)

The above table shows that Loan and Advances to Fixed Assets Ratio of Nepal Investment Bank decreases in second year of study period. It is highest in first year, 2059/60 i.e. 3.4505. It again increases in the year 2061/60 to 3.1523 and after that it begins to decline. The lowest ratio is in the year 2063/64 i.e.2.299. And again increases in the last year of the study period. The average ratio is 2.961.

In the case of Everest Bank, Loan and advances to fixed deposit ratio is increasing in each year of the study period. The highest ratio is 2.844 in the year 2064/65. The average ratio is 2.268.

This concludes that Nepal Investment Bank has higher ratio than Everest Bank thus, Loan and Advances to Fixed Deposit Ratio of Nepal Investment Bank is better than Everest Bank. The ratio implies that Nepal Investment Bank is utilizing its fixed deposits in loan and advances more efficiently.

4.7.2.3 Loan and Advances to Saving Deposits Ratio:

The ratio is employed for the purpose of measuring the utilization of saving deposits in generating revenue by giving loan and advances to the client i.e. to what extent collected saving deposit amount is deploying in providing loan and advances to generate income. Saving deposits are interest bearing obligation for short term purpose whereas loan and advances are the short term investment for revenue income. This ratio indicates how many times short term interest bearing deposits are utilized for income generating purpose. It is calculated as follows.

$$\text{Loan and Advances to Saving Deposit} = \frac{\text{Loan and Advances}}{\text{Saving deposit}}$$

The following table shows the loan and advances to saving deposits ratio of Nepal Investment Bank and Everest Bank.

Table no. 4.18
Loan and Advances to Saving Deposit Ratio

Rs. in million

Fiscal Year	Nepal Investment Bank			Everest Bank		
	Loan and Advances	Saving Deposit	Ratio	Loan and Advances	Saving Deposit	Ratio
2059/60	5772.14	2434.05	2.371	4908.46	2757.95	1.779
2060/61	7130.12	4886.10	1.459	5884.12	3730.61	1.577
2061/62	10126.05	6703.51	1.510	7618.67	4806.83	1.584
2062/63	12776.20	8081.98	1.580	9801.307	6929.21	1.414
2063/64	17286.420	10742.33	1.609	13664.08	9029.25	1.513
2064/65	26996.65	13688.76	1.972	18339.09	11883.86	1.543
Average			1.750			1.568

Sources: Annual Report (Appendix 5, 6)

Above table shows that the ratio of loan and advances to saving deposit of Nepal Investment Bank decreases in the second year of study period. It is 2.371 in the year 21059/60 and 1.459 in 2060/61. From the year 2061/62 ratio is gradually increasing. The highest ratio is 2.371 in the year 2059/60 and lowest is in the year 2060/61 i.e. 1.459. And the average ratio is 1.750.

In the case of Everest Bank, the highest ratio is in the year 2059/60 which is 1.779. But ratio decreases in the year 2060/61 to 1.577. And again ratio increases to 1.584 in the year 2061/62 and it is lowest in the 2062/63 i.e. 1.414. And after this it again increases. The average ratio is 1.568

This concludes that loan and advances of Nepal Investment Bank is better than Everest Bank. It implies that Nepal Investment Bank is utilizing short term fund of outsider more effectively than Everest Bank.

4.7.3 Capital Structure or Leverage Ratio:

Leverage refers to the ratio of debt to equity in the capital structure of the firm. Debt and equity are long term obligations and remaining parts in the liability side of the balance sheet are termed as short term obligations. Both types of obligations are required in forming the capital structure of the firm. The long term financial position of the firm is determined by the leverage or capital structure. The appropriation mix of all types of securities in capital structure results sound position of the firm. Therefore a firm has a

strong short term liquidity as well as long term financial position. The long term financial position of the firm is determined by the leverage or capital structure. The difference leverage ratios are mentioned to measure the financial risk or proportion of outsiders' fund and owners' capital used by the firm.

4.7.3.1 Long term Debt to Net Worth Ratio:

This ratio measures the proportion of outsiders and owners' in the capitalization of the bank. In this study amount of fixed deposit of the bank is considered as long term debt. It is calculated by dividing the fixed obligation of the banks owners' claim. It is calculated as under:

$$\text{Long Term Debt to Net worth Ratio} = \frac{\text{Long term Debt}}{\text{Net worth}}$$

The following table shows long term debt to net worth ratio:

Table no. 4.19
Long Term Debt to Net worth Ratio

Rs. In million

Fiscal Year	Nepal Investment Bank			Everest Bank		
	Long term Debt	Net worth	Ratio	Long term Debt	Net worth	Ratio
2059/60	1672.82	904.30	1.849	2794.74	1062.00	2.631
2060/61	2294.68	965.28	2.377	2897.96	1130.06	2.564
2061/62	3212.26	1652.92	1.943	3403.95	1291.76	2.635
2062/63	5412.96	1796.61	3.012	4242.35	1485.38	2.856
2063/64	7516.68	2479.13	3.031	5626.66	1804.68	3.117
2064/65	7944.23	3499.39	2.270	6446.18	2528.34	2.549
Average			2.414			2.725

Sources: Annual Report (Appendix 5, 6)

Above table shows that, the long term debt to net worth ratio of Nepal Investment Bank is fluctuating during the study period. In the first year ratio is 1.8498 and in the year 2060/61 it increases to 2.3772. But in the third year 2061/62 the ratio decreases to 1.9433 and in remaining year it increases. And again decreases in the last year of the study period. The average ratio is 2.414.

In the case of Everest Bank ratio slightly decreases in the 2060/61 than the year 2059/60 i.e. 2.6315 in the year 2059/60 and 2.5644 in the year 2060/61. But after from the year 2061/62 onward the ratio increases. But in 2064/65 it again decreases to 2.549. The average ratio is 2.725.

Form the above analysis we can conclude that long term debt to net worth ratio of Everest Bank is greater than Nepal Investment Bank. This implies that the proportion of outsiders claim in total capitalization is higher in Everest Bank. The large amount of fixed deposits which is long term liabilities makes ratio very much higher in case of Everest Bank.

4.7.3.2 Net Fixed Assets to Long Term Debt Ratio:

This ratio is calculated to find out how many times net fixed assets are, in comparison to the fixed liabilities. Here a net fixed asset consists of both physical and financial assets and long term debt consist of fixed deposit. It is calculated as follows:

$$\text{Net Fixed Assets to Long Term Debt} = \frac{\text{Net Fixed Assets}}{\text{Long Term Debt}}$$

The following table shows the net assets to long term debt ratio:

Table no. 4.20
Net Fixed Assets to Long Term Debt Ratio

Rs. in million

Fiscal Year	Nepal Investment Bank			Everest Bank		
	Net Fixed Assets	Long Term Debt	Ratio	Net Fixed Assets	Long term Debt	Ratio
2059/60	191.16	1672.82	0.114	106.59	2794.74	0.038
2060/61	249.78	2294.68	0.108	110.43	2897.96	0.038
2061/62	320.59	3212.26	0.099	100.03	3403.95	0.029
2062/63	274.88	5412.96	0.050	111.47	4242.65	0.026
2063/64	427.93	7516.68	0.056	126.65	5626.66	0.022
2064/65	556.60	7944.23	0.070	106.93	6446.18	0.016
Average			0.083			0.028

Sources: Annual Report (Appendix)

Above table shows that the ratio of Nepal Investment Bank during study period is decreasing but it slightly increase in the year 2063/64 to 0.0569. Highest ratio is 0.1142 in the year 2059/60 and lowest is in the year 2062/63 i.e. 0.05. The average ratio is 0.083.

In the case of Everest Bank ratio during the study period the ratio is constant up to year 2060/61 i.e. 0.0381 but after ratio decreases. The highest ratio is 0.0381 and the lowest is 0.016 in the year 2064/65. The average ratio is 0.028.

This conclude that ratio of Nepal Investment Bank is higher than ratio of Everest Bank. In Everest Bank, net fixed assets cover very low portion of long term debt than in Nepal Investment Bank.

4.7.4 Profitability Ratio:

Profitability ratio indicates the degree of success in achieving desired profit. Various profitability ratios are calculated to measure the operating efficiency of business enterprises. Through profitability ratios, the lender and investors can decide whether to invest in particular business or not. The important profitability ratios used are under-mentioned:

4.7.4.1 Interest Earned to Total Assets Ratio:

This ratio is important to find out the percentage of the investment earned to total assets. This is derived by dividing amount of interest earned to total assets of the firm.

$$\text{Interest Earned to Total Assets Ratio} = \frac{\text{Interest Earned}}{\text{Total Assets}}$$

The following table demonstrates the interest earned to total assets ratio of Nepal Investment Bank and Everest Bank.

Table no. 4.21
Interest earned to Total Assets Ratio (%)

Fiscal Year	Investment Bank			Everest Bank		
	Interest Earned	Total assets	Ratio	Interest Earned	Total assets	Ratio
2059/60	577.931	9014.24	6.411	635.33	8049.206	7.893
2060/61	913.713	13255.48	6.893	785.057	9600.622	8.177
2061/62	1145.628	16274.05	7.039	858.957	11447.33	7.503
2062/63	1450.723	21261.55	6.823	1066.508	15685.84	6.799
2063/64	1932.986	27258.14	7.091	1359.812	20299.78	6.698
2034/65	2194.275	38464.463	5.704	1847.026	25313.74	7.296
Average			6.660			7.394

Sources: Annual report (Appendix 7, 8)

Here the above table shows that interest earned and total assets of Nepal Investment Bank is increasing during the study period. Hence the ratio is also increasing but in the year 2062/63 it decreases to 6.8232% from 7.039% in the 2061/62. The average ratio of Nepal Investment Bank is 6.660%.

Here in Everest Bank, interest earned and total assets are increasing. The ratio of interest earned to total assets of Everest Bank is fluctuating during the study period. The highest ratio is 7.893% in the year 2059/60 and lowest is 6.698% in the year 2063/64. The average ratio of Everest Bank is 7.394%

Hence the above analysis concludes that the interest earned to total assets ratio of Everest Bank is better than Nepal Investment Bank because the ratio of Everest Bank is higher than Nepal Investment Bank. This implies that Everest Bank is efficiently using funds to earn interest income.

4.7.4.2 Net Profit to Total Assets Ratio:

This ratio helps to measure profitability of all financial resources invested in the firm's assets. The net profit to total assets ratio is calculated by dividing net profit by total assets. The ratio can be expressed as:

$$\text{Net Profit to Total Assets Ratio} = \frac{\text{Net profit}}{\text{Total Assets}}$$

The following table demonstrates the Net profit to Total Assets Ratio of Nepal Investment Bank and Everest Bank.

Table no. 4.22
Net Profit to Total Assets Ratio

Fiscal Year	Nepal Investment Bank			Everest Bank		
	Net Profit	Total Assets	Ratio	Net Profit	Total Assets	Ratio
2059/60	116.817	9014.24	0.012	94.18	8049.20	0.011
2060/61	152.67	13255.48	0.011	143.56	9600.62	0.014
2061/62	232.14	16274.05	0.014	170.81	11447.33	0.014
2062/63	350.53	21261.55	0.016	237.38	15685.84	0.015
2063/64	232.14	27258.14	0.008	296.41	20299.78	0.014
2064/65	694.67	38464.46	0.018	451.21	25313.74	0.017
Average			0.013			0.014

Sources: Annual Report (Appendix 5, 6, 7, 8)

The above table depicts that ratio of net profit to total assets of Nepal Investment Bank is slightly fluctuating. The ratio decreases in the year 2060/61 and increases up to year 2062/63 and it is lowest 2063/64 i.e. 0.008. The average ratio is 0.013.

In context to Everest Bank the net profit to total assets ratio is increasing during the study period. The average ratio is 0.014.

This concludes that the overall profitability of Everest Bank is better than Nepal Investment Bank. Everest Bank is more efficiently using its working fund of assets to earn higher rate of profit.

4.7.4.3 Net Profit to Deposit Ratio

This ratio helps to measure the percentage of profit earned from the utilization of the total deposits. Deposits are mobilized for investment, loan and advances to the public in generating revenue. And ratio of profit to deposit is calculated as follows:

$$\text{Net Profit to Total Deposit} = \frac{\text{Net profit}}{\text{Total Deposit}}$$

The following table shows net profit to total deposit ratio of Nepal Investment Bank and Everest Bank.

Table no. 4.23
Net Profit to Total Deposit Ratio

Fiscal Year	Nepal Investment Bank			Everest Bank		
	Net Profit	Total Deposit	Ratio	Net Profit	Total Deposit	Ratio
2059/60	116.817	7922.75	0.014	94.18	6266.87	0.015
2060/61	152.67	11524.68	0.013	143.56	7498.32	0.019
2061/62	232.14	14254.57	0.016	170.81	9393.27	0.018
2062/63	350.53	18927.30	0.018	237.38	12509.14	0.018
2063/64	232.14	24488.85	0.009	296.41	16612.76	0.017
2064/65	694.67	34451.72	0.020	451.21	21195.65	0.021
Average			0.015			0.018

Sources: Annual Report (Appendix 5, 6, 7, 8)

The above table shows that the yearly ratio of net profit to total deposit of Nepal Investment Bank is increasing up to fourth year of the study period. But in the fifth year 2063/64, the ratio increases to 0.020. The average ratio is 0.015.

In case of Everest Bank, up to second year of the research period ratio is increasing but in third year 2061/62 ratio decreases to 0.018 and in the year 2063/64 it again decreases and in the last year of the study period again increases to 0.021. The average ratio is 0.018.

The above analysis concludes that the net profit to total deposit ratio is better of Everest Bank than Nepal Investment Bank. Everest Bank has mobilized its total deposit effectively than Nepal Investment Bank. Mobilization of deposit is important for commercial bank to earn profit.

4.7.4.4 Cost of service to Total Assets

The bank should always try to utilize its larger amount of assets with minimum cost so that it will be able to increase profit and growth of the firm. This ratio is beneficial in measuring the assets utilization with cost of services. The ratio can be expressed as:

$$\text{Cost of Service to Total Assets} = \frac{\text{Cost of Services}}{\text{Total Assets}}$$

Following table shows the Cost of Service to Total Assets ratio of Nepal Investment Bank and Everest Bank.

Table no. 4.24
Cost of Service to Total Assets Ratio (%)

Rs. In million

Fiscal Year	Nepal Investment Bank			Everest Bank		
	Cost of Service	Total Assets	Ratio	Cost of service	Total assets	Ratio
2059/60	250.50	9014.24	2.778	345.005	8049.20	4.286
2060/61	415.95	13255.48	3.137	364.896	9600.62	3.800
2061/62	451.55	16274.05	2.774	360.162	11447.33	3.146
2062/63	611.60	21261.55	2.876	775.52	15685.84	4.944
2063/64	830.90	27258.14	3.048	603.284	20299.77	2.971
2064/65	1179.30	38464.46	3.065	790.566	25313.735	3.123
Average			2.947			3.712

Source: Annual report (Appendix 5, 6, 7, 8)

The above table shows that Cost of service and Total Assets of Nepal Investment Bank is increasing during the study period. Where as the ratio is fluctuating, the highest ratio is 3.1379% in the year 2060/61 and the lowest ratio is 2.7746% in the year 2061/62. The average ratio is 2.947%.

In the case of Everest Bank, Cost of service is slightly fluctuating where as total assets is increasing during the study period. The ratio is also fluctuating. The highest ratio is 4.944% in the year 2062/63 and the lowest ratio is 3.123% in the year 2064/65. The average ratio is 3.712%.

From above analysis we can conclude that the cost of services to total assets ratio of Everest Bank is better than Nepal Investment Bank as average ratio of Everest Bank is 3.712% which is higher than Nepal Investment Bank i.e. 2.947%. This also shows that the profitability position of Everest bank is quite high than Nepal Investment Bank.

4.8 Major Findings:

The major findings of the study during the period of five years in Nepal Investment Bank and Everest Bank are:

1. The major components of current assets in Nepal investment Bank are Cash and Bank balance, Loan and Advances, and Government Securities and Other current assets. During the study period the average percentage covered by these components are 12.26%, 72.814%, 12.392%, 2.53% respectively on NIBL and 12.06%, 66.63%, 19.40%, 1.89% respectively on EBL. It shows that average percentage of Cash and Bank Balance, Loan and Advances, Other Current Assets of NIBL is higher than EBL and the average percentage of Government Securities are higher in EBL than in NIBL. The trend value of Cash and Bank Balance and Other Current Assets proportion are negative and Loan and Advances and Government Securities proportion are positive in NIBL. It shows that NIBL increases its fund on income generating current assets. Where as in EBL Loan and Advances proportion is positive and Cash and Bank Balance, Government Securities and Other Current Assets are negative. EBL also increases its fund on income generating current assets.

2. The ratios such as Current Ratio, Quick Ratio and Cash and Bank Balance to Deposit Ratio help to analyze liquidity position of banks. The average current ratio of

NIBL and EBL is 1.230 and 1.753 respectively. The current ratio trend value of NIBL is 0.0420 which is positive. Where as current ratio trend value of EBL is -0.0036 which is negative. The average quick ratio of NIBL and EBL is 0.739 and 0.516 respectively. Cash and Bank Balance to Deposit Ratio (excluding Fixed Deposit) of NIBL and EBL is 0.156 and 0.232 respectively. Because of the higher ratio of Cash and Bank Balance to Deposit of EBL than of NIBL it implies that EBL has better liquidity position than of NIBL. The Quick Ratio trend value of NIBL and EBL is 0.008 and -0.062 respectively.

3. Saving Deposit to Total Deposit Ratio of EBL is always higher than the ratio of NIBL. The average ratio of EBL is 0.517 and the average ratio of NIBL is 0.410. It shows that out of total deposit EBL has more saving deposit than NIBL.

4. The average value of Loan and Advances to Total Deposit ratio, Loan and Advances to Fixed Deposit ratio and Loan and Advances to Saving Deposit Ratio are 0.703, 2.961, and 1.750, on NIBL respectively and 0.808, 2.268, 1.568 on EBL respectively. The trends of the ratios on both the banks are slightly fluctuating. While analyzing turnover of these two banks it seems NIBL has better than EBL. This shows NIBL has better investment efficiency on loan and advances. It also implicate that NIBL has better utilization of deposits in income generating activity than EBL.

5. The average value of long term debt to net worth ratio and net fixed assets to long term debt ratio are 2.414, 0.083 on NIBL and 2.725, 0.028 on EBL. Long term debt to net worth ratio of EBL is higher than NIBL and net fixed assets to long term debt ratio of NIBL is slightly higher than EBL. It shows that larger portion of long term debt is used in current assets on both of the banks. Net fixed assets cover very low portion of long term debt on both the banks. It shows both the banks follow conservative working capital policy.

6. Efficiency of any bank can be measured by profitability. The profitability position of NIBL and EBL is analyzed from various perspectives. The average value of interest earned to total assets ratio is higher in EBL than in NIBL. On EBL it is 7.394 and 6.66 on NIBL. The trend value of interest earned to total assets ratio is fluctuating in both the banks. While comparing, EBL has always higher ratio than NIBL. The average value of net profit to total assets ratio of EBL is 0.014 and of NIBL is 0.013. EBL has slightly

higher average value of net profit to total assets ratio than NIBL. The average value of net profit to total deposit ratio is also higher in EBL than in NIBL i.e. 0.018 and 0.015 respectively. Here the value of cost of service to total assets ratio of EBL is higher in every year than of NIBL during the study period. The average value of EBL and NIBL are 3.712 and 2.947 respectively. So it implies that NIBL has better profitability position than EBL though it has higher interest than NIBL.

7. Correlation between investment on government securities and total deposit is significant in both the banks with the coefficient value $r = 0.8523$ of NIBL and $r = 0.7943$ of EBL. In both the banks correlation between investment on government securities and total deposit is positive. This shows that there is close relationship between investment on government securities and total deposit. Coefficient correlation between loan and advances and total deposit is also significant in both the bank with the coefficient value $r = 0.99$ or 1 in both the banks. This illustrates both the banks utilizes its total deposit on loan and advances effectively.

8. Coefficient correlation between cash and bank balance and current liabilities is significant in NIBL and EBL. The value of 'r' is 0.972 of NIBL. And in case of EBL correlation between cash and bank balance and current liabilities is positive and significant. The value of 'r' is 0.942 which is greater than six times of P.E.r i.e. 0.183.

9. Coefficient correlation between loan and advances and net profit is significant in both the banks. This shows that there is close relationship between loan and advances and net profit in both the banks. The value of coefficient in NIBL and EBL is 0.99 or 1 in both the banks which are more than six times of P.E.r.

10. The standard error of the estimate measure the closeness of estimates derived from the regression equation to actual observed values. From the regression analysis, standard error of dependent variable cash and bank balance on two independent variable total deposit and loan and advances are 0.1737 and 0.2655 of NIBL and EBL respectively.

Chapter V

Summary, Conclusion and Recommendation

5.1 Summary:

Banks are the supplier of finance for trade and industry and play vital role in the economic and financial progress of the country. For many developing countries, banking sector has become the medium of developing economic situation as bank help in capital formation of the country. In financial sector, there are various commercial banks established as joint venture. After implementation of the open market policy, joint venture commercial banks are opened as private banks. Joint venture banks have been helpful in transferring foreign investment and advanced technology from one country to other.

The main objective of the study is to perform comparative analysis of the working capital of Nepal Investment Bank and Everest Bank. To fulfill this objective and other objectives as mentioned in chapter one, an appropriate research has been opted which include trend analysis, coefficient correlation and multiple regressions as a statistical tool and ratio analysis as financial tool. Main ratios and their trend position are studied in the chapter four. The major ratio analysis consists of composition of working capital position, liquidity position, turnover position, and profitability position. In order to test the relationship between the various components of working capital, coefficient correlation has been used.

To carry out thesis work secondary data have been used. The necessary data are derived from the balance sheet and profit and loss of Nepal Investment Bank and Everest Bank for the period of six years from fiscal year 2059/60 to 2064/65

A suitable research methodology has been developed to accomplish the objectives mentioned in the chapter one. The methodology includes, trend analysis, correlation and multiple regression as statistical tool and ratio analysis as financial tool. The major ratio

analysis consists of the composition of working capital position, liquidity position, turnover position, capital structure position and profitability position. Under these, main ratios and their trend position are studied in the chapter four. In order to test relationship between the various components of working capital, Karl Pearson's correlation coefficient 'r' is equated and analyzed. And now in this chapter an attempt has been made to present some suggestion and recommendations. But before dealing with suggestion and recommendation, here conclusions are made.

5.2 Conclusion:

As we know deposit is the main element of the all the banks to survive in the industry. Bank should have optimal effective policy to collect the deposit in various accounts. Higher the deposit higher will be the chance to operate day to day operation and make profit there on. Banks should not invest their fund haphazardly. Bank should invest their fund in various portfolios after the deep study of the project. If a bank does not apply sound working capital management it may have problem in the future to operate day to day transaction and there would be the possibility of bankruptcy. And if bank only concentrates on their working capital only there is high chance of default risk. Hence there is positive and negative impact of working capital management.

The conclusions of analysis are as follows:

) The liquidity position of Nepal Investment Bank and Everest Bank is not meeting the standard ratio i.e. 2:1. But also it can be considered good, as its current assets is excess than current liabilities in both of the banks. While examining trend analysis, it shows that current ratio trend of Nepal Investment Bank is increasing order which implies that the bank is not properly utilizing its idle money. Where as in the case of Everest Bank trend of current ratio is decreasing so this implies that the bank is trying to utilize its idle money in income generating sector to increase its profitability.

) The profitability position of Everest Bank is quite good than the profitability position of Nepal Investment Bank. The bank should use its working fund efficiently to earn

higher rate of profit. Both of the banks have fluctuating net profit to total deposit. Both of the banks have decreased its net profit to total deposit ratio than previous year of the study period. But in the last year of the study period it has again increased.

) The activity position of Nepal Investment Bank is better than Everest Bank. Nepal Investment Bank has efficiently utilized its fixed deposit in loan and advances so that it could reduce its idle balances than in Everest Bank.

) The capital structure position of Everest Bank is high in fixed deposit, as net fixed assets cover the low portion of long term debt than in Nepal Investment Bank.

) There is decreasing trend line of Cash and Bank Balance on both the banks and Government Securities is also in decreasing trend in Everest Bank where as in Nepal Investment Bank Government Securities is slightly increasing. The trend line of loan and advances slightly increasing in the case of Nepal Investment Bank where as in the case of Everest Bank the trend line of loan and advances is rapidly increasing. In context to trend line of other current assets, is decreasing in both the banks.

) The coefficient correlation between government securities and total deposit is significant in both of the banks. And coefficient correlation between loan and advances and total deposit .cash and bank balance and current liabilities, loan and advances and net profit all are significant in both the bank

) The multiple regression in between cash and bank balance, loan and advances and total deposit is satisfactory because of low standard error in both the banks it denotes there is consistency.

5.3 Recommendation:

Subsequent recommendations are made on the basis of the above study:

i. The proportion of Loan and advances is more than 50% in average out of the total current asset in both of the banks, which can be considered as good but this proportion is fluctuating over the study period. Bank should give first priority to invest its fund on loan and advances to get higher return. So the bank should not decrease its investment in loan and advances below 50% of total current assets.

ii. Total deposit turnover position of both banks is less than one. Fixed deposit and saving deposits turnover position of are also not that satisfactory because fixed deposit turnover position is too fluctuating in NIBL and though it is increasing in EBL it increases with the minimum percentage. And saving deposit turnover ratio is fluctuating and in decreasing trend. Because of the poor turnover position the chance of bad debts and non- earning idle fund will be high. So the bank should give proper attention on collection of over dated loan and advances and utilization of idle fund in more productive sector.

iii. In Nepal Investment Bank, saving deposit to total deposit is less than 50%. Hence, Nepal Investment Bank should try to increase its saving deposit accounts balance than in other accounts. In Everest Bank, saving deposit to total deposit ratio is up to 50%. So it seems better in Everest Bank.

iv. Net profit ratio is higher in Everest Bank than in Nepal Investment Bank. But the cost of service to total assets ratio is higher in Everest Bank than in Nepal Investment Bank this implies that Nepal Investment Bank has better profitability position.

v. By implementing the matching working capital management policy both banks can improve its profitability in the short run as well as in long run.

Bibliography

Dahal Sarita and Dahal Bhuvan 1999 “*A Hand Book of banking*”, Kathmandu Times Graphics Printer P Ltd.

Gupta S.C 1990 “*Fundamental of Statistics Bombay*”, Himalayan Publishing House.

Hampton, J. John, 1998 “*Financing Decision Making*” Prentice Hall of India Pvt. Ltd. New Delhi.

Kubr, Milan, 2002 “*Management consulting*” International Labor Office, Geneva.

Mathur, B.L 1994 “*Financial Management*” Arihant publishing House India.

Pant, Y.P 1971 “*Banking Development*”.

Pradhan R.S, 1986 “*Management of Working Capital*” National Book Organization. New Delhi.

Pradhan Surendra 2000 “*Basic in Financial Management*”.

Pradhan, Surendra, 2000 “*Basic in Financial Management*” Educational Enterprise Pvt. Ltd. Kathmandu.

Shrestha Dr. Suniti and Silwal Dhruva Prasad, “*Statistical Methods in Management*” Taleju Prakashan.

Shrestha Dr. Suniti, 1995 “*Portfolio Behavior of Commercial Bank in Nepal*”

Shrestha M.K, 1982/83 “*A study on Financial Result and Constraints*”. A Quarterly ISDOC bulletin Kathmandu.

Smith, K.V (1974) "*Management of Working Capital*", New York: West Publishing Co.

Vaidya, S, 1999. "*Banking Management*", Kathmandu Monitor Nepal.

Weston, J.F and Brigham E.F, 1984 "*Management Finance*" The Dryden Press.

Wolf H.K and Pant P.R, 2000 "*Social Science Research and Thesis Writing*". Kathmandu Buddha Academic Enterprise Ltd.

Dissertations

Aryal B.R, 2003 "*Study on Working Capital Management of Pharmaceutical industry of Nepal with Reference to Royal Drugs Limited*".

Amatya Nagendra Bahadur, 1993 "*An Appraisal of Financial Position of Nepal Bank Limited*".

Basundhara Khadka, 2006 "*Analysis of Working Capital Management of Nepal Insurance Company*".

Bhandari, Amir Raj, 1990 "*Working Capital Management (A case study of Nepal Bank Ltd)*".

Giri Bashudev, 1996 "*A Study of Working Capital Management in Birgunj Sugar Factory Ltd*".

Giri Rajendra, 1986 "*A Study of Working Capital Management of Balaju Textile Industry Limited*".

Gurung Om Bikram, 2002 “*A Study of Working Capital Management of Nepal Lever Limited*”.

Joshi Arjun Lal, 1986, “*A Study of Working Capital Management in Biratnagar Jute Mill*”.

K.C, Niraj, 2000 “*Comparative Study of Working Capital Management of NBL and Nabil Bank Limited.*”

Lamsal, Hari Prasad, 2002 “*A Comparative Study of Working Capital Management of Nabil and Standard Chartered Bank.*”

Pathak Pradeep Kumar, 1994, “*Working Capital Management of the Nepal Lube Oil Limited*”.

Poudel Ramji, 1997 “*A Study on Working Capital Management Performance NBL and NGBL*”.

Sapkota Jivan Nath, 1994 “*A Study on Working Capital Management of Himal Cement Company Limited*”.

Sharma Dependra Raj, 1999 “*A Case Study on Working Capital Management of Nepal Lever Battery Company Ltd.*”

Shrestha Sona, 2007 “*A Study of Working Capital Management on Nabil Bank Limited*”.

Shrestha Subhas, 1992 “*Comparative Study of Working Capital Management in Bhaktapur Bricks and Harishidhi Bricks Factory*”.

Articles

Commercial Bank Act 2031

Henderson, V. Glenn, Jame E.Wert *“An Introduction of Financial Management”*
Addison Westery Publishing Company.

NRB Economic Review

NRB Samachar

Pradhan, R.S, 1973-84 *“The Demand for Working Capital by Nepalese Corporation”*

Sherstha M.K, *“Working Capital Management in Public Enterprises”*.

Shrestha Sushila, 1978 *“A Study on Financial Management of Public Enterprises”*

Website

www.nibl.com.np

www.everestbankltd.com

www.nrb.org.np

www.sebonp.com

Appendix

Component of Cash and Bank Balance of NIBL

Appendix 1

Particulars	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Cash balance	200.970	315.382	374.265	2336.521	2441.514	1464.482
Bank Balance	725.564	911.540	966.215	70.000	362.97	1820.006
Money to call	40.000	310.000	140.000	0	0	470.452
Total	966.534	1536.922	1480.48	2406.521	2804.484	3754.94

Components of Cash and Bank Balance of EBL

Appendix 2

Particulars	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Cash balance	136.658	128.757	192.600	259.347	534.996	822.989
Bank Balance	1002.910	503.047	857.398	1293.618	1856.423	1844.981
Money to call	0	187.445	570.000	66.96	0	346.00
Total	1139.568	819.249	1620	1619.925	2391.419	3013.97

Components of Loan and Advances of NIBL

Appendix 3

Particulars	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Loan &Advances and Bills Purchase	5772.140	7130.12	10126.05	12776.208	17286.427	26996.652
Total	5772.140	7130.12	10126.05	12776.208	17286.427	26996.652

Components of Loan and Advances of EBL

Appendix 4

Particulars	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Loan &Advances and Bills Purchase	4908.460	5884.12	7618.67	9801.307	13664.081	18339.085
Total	4908.460	5884.12	7618.67	9801.307	13664.081	18339.085

Appendix 5
Nepal Investment Bank
Five Years Balance Sheet

Rs. In Million

Particulars	2059/60	2060/61	2061/62	2062/63	2063/64	2034/65
Current assets						
Cash and Bank balance	966.534	1536.922	1480.48	2406.521	2804.484	3754.94
Loan and advances	5772.14	7130.12	10126.05	12776.208	17286.427	26996.65
Government Securities	400	2001.1	1948.5	2522.3	3256.4	3155.0
Misc. Current Assets	379.21	476.17	412.74	201.08	233.67	276.84
Total Current Assets	7517.884	11144.312	13967.77	17906.109	23580.981	34183.43
Fixed Assets	245.552	326.879	427.142	416.671	610.726	800.713
Less: Depreciation	54.436	77.091	106.55	141.786	182.794	244.11
Net Fixed Assets	191.116	249.788	320.592	274.88	427.93	556.60
Investment	1305.24	1861.383	1985.688	3080.568	3249.276	3724.423
Total Assets	9014.24	13255.483	16274.05	21261.557	27258.187	38464.46
Liabilities						
Current Liabilities						
Saving deposit	2434.054	4886.1	6703.512	8081.98	10742.33	13688.76
Current deposit	979.01	1500.105	1583.031	1705.668	2175.029	3138.66
Margin deposit	226.463	286.986	286.028	278.475	371.662	607.06
Call and short deposit	2610.412	2556.81	2469.73	3448.211	3683.145	9073
Bills payable	31.633	57.836	15	18.82	32.4	78.83
Other liabilities	414.477	582.432	474.308	287.626	347.518	488.40
Total Current Liabilities	6696.049	9870.269	11531.609	13820.78	17352.084	27074.71
Fixed Deposit	1672.824	2294.68	3212.265	5412.969	7516.686	34451.72
Net worth	904.305	965.281	1652.924	1796.61	2479.135	3499.39
Total Liabilities	9273.178	13130.23	16396.798	21030.359	27347.905	65025.82

Sources: Annual Financial Report of Nepal Investment Bank

Appendix 6
Everest Bank Ltd
Five years Balance Sheet

Rs. In Million

Particulars	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Current Assets						
Cash and Bank balance	1139.568	819.249	1620	1619.925	2391.419	3013.97
Loan and Advances	4908.46	5884.12	7618.671	9801.307	13664.081	18339.08
Government securities	1599.35	2466.428	1873.7	3322.44	3614.541	3237.97
Misc. Current Assets	240.612	251.165	206.285	178	222.6	376.21
Total Current Assets	7887.99	9420.962	11318.656	14921.672	19892.641	24967.24
Fixed Assets	156.78	178.07	187.012	220.642	259.717	406.62
Less: Depreciation	50.19	67.64	86.97	109.166	133.06	299.685
Net Fixed Assets	106.59	110.43	100.042	111.476	126.657	106.93
Investment	54.626	69.23	28.642	652.696	280.48	239.55
Total Assets	8049.206	9600.622	11447.34	15685.844	20299.778	25313.73
Liabilities						
Current Liabilities						
Saving deposit	2757.952	3730.614	4806.832	6929.216	9029.255	11883.85
Current deposit	562.364	719.755	1025.025	1145.794	1673.983	2492.34
Margin deposit	143.123	132.427	116.77	126.515	222.067	221.43
Other deposit	8.668	17.564	40.734	65.268	60.789	151.82
Bills payable	22.101	22.027	17.777	15.8	26.77	49.43
Other liabilities	722.32	842.323	457.59	763.558	1634.604	720.44
Total Current Liabilities	4216.528	5464.71	6464.728	9046.151	12647.468	15519.31
Fixed Deposit	2794.741	2897.961	3403.958	4242.351	5626.661	6446.181
Net Worth	1062.008	1130.067	1291.763	1485.381	1804.688	2528.34
Total liabilities	8073.277	9492.738	11160.449	14773.883	20078.817	24493.83

Sources: Annual Financial Report of Everest Bank Ltd

Appendix 7
Nepal Investment Bank
Five Years Profit and Loss Statement

Particulars	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Operating Income						
Interest Earned	459.509	731.402	886.8	1172.742	1584.987	2194.275
Commission and discounts	40.811	55.747	93.55	115.942	163.9	215.29
Exchange income	50.834	87.98	102.517	125.747	135.355	135.838
Non operating income	0.487	1.767	6.192	0.39	1.426	7.047
Other income	26.288	36.815	56.567	35.902	47.318	66.376
Total	577.929	913.711	1145.626	1450.723	1932.986	2618.826
Expenses						
Interest expenses	189.214	326.202	354.549	490.946	685.53	992.158
Personnel expenses	61.287	89.748	97.004	120.663	145.37	187.15
Cost of service	250.501	415.95	451.553	611.609	830.9	1179.308
Office overhead expenses	93.628	120.712	145.426	154.421	182.53	230.59
Exchange loss	0	0	0	0	0	0
Non operating expenses	0	0	0	0	0	0
Book write off bad debt	0	0	0	0	0	0
Provision of possible losses	30.335	91.091	140.409	103.807	129.718	136.00
Staff bonus	18.905	25.719	37.075	50.491	72.337	102.00
Income tax	53.332	78.801	101.528	154.377	221.976	323.22
Net profit carried down	116.817	152.67	232.147	350.536	501.4	696.73

Sources: Annual financial report of Nepal Investment Bank

Appendix 8
Everest Bank Ltd
Five Years Profit and Loss Statement

Particulars	2059/60	2060/61	2061/62	2062/63	2063/64	2064/65
Operating Income						
Interest Earned	520.173	657.249	719.297	903.411	1144.408	1548.657
commission and discounts	61.503	74.331	78.13	88.163	117.718	150.264
Exchange income	32.207	27.793	27.077	23.073	28.404	64.452
Non operating income	1.249	1.867	2.974	2.959	1.315	4.519
Other income	20.198	23.817	31.479	48.902	67.967	79.133
Total	635.33	785.057	858.957	1066.508	1359.812	1847.025
Expenses						
Interest expenses	307.638	316.366	299.565	401.397	517.166	632.6
Personnel expenses	37.367	48.53	60.597	70.924	86.118	157.95
Cost of service	345.005	364.896	360.162	472.321	603.284	790.566
Office overhead expenses	66.168	78.955	105.22	115.09	146.568	177.576
Exchange loss	0	0	0	0	0	0
non operating expenses	0	0	0	0	0	0
book write off bad debt	0	0	0	0	0	0
Provision of possible losses	45.748	81.78	88.926	70.465	89.695	99.340
Staff bonus	15.1	23.457	28.08	34.56	45.47	65.868
Income tax	41.714	67.55	81.914	108.3	158.3	216.91
Net profit carried down	94.18	143.566	170.81	237.38	296.41	451.21

Sources: Annual Financial Report of Everest Bank Ltd

Appendix 9

Calculation of Trend Value of Cash and Bank Balance of Nepal Investment Bank:

Year	(X)	X ²	Cash and Bank balance (Y)	XY	a	b	Trend (Y = a+ bX)
2059/60	1	1	12.856	12.856	13.48	-0.349	13.131
2060/61	2	4	13.791	27.582	13.48	-0.349	12.782
2061/62	3	9	10.6	31.8	13.48	-0.349	12.433
2062/63	4	16	13.43	53.72	13.48	-0.349	12.084
2063/64	5	25	11.892	59.46	13.48	-0.349	11.735
2064/65	6	36	10.984	65.904	13.48	-0.349	11.386
Total ()	21	91	73.553	251.322			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + b \sum X$$

$$\sum XY = a \sum X + b \sum X^2$$

Putting the value normal equation from the above table

$$73.553 = 6a + 21b \text{----- (i)}$$

$$251.322 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$1544.613 = 126a + 441b$$

$$1507.932 = 126a + 546b$$

- - -

$$36.681 = -105b$$

$$b = -0.349$$

Substituting the value of b in equation (i) we get,

$$73.553 = 6a + (-0.349) 21$$

$$\text{or, } 73.553 = 6a - 7.329$$

Therefore, $a = 13.480$

Appendix 10

Calculation of Trend Value of Cash and Bank Balance of Everest Bank Ltd:

Year	(X)	X ²	Cash and Balance (Y)	XY	a	b	Trend (Y = a+ bX)
2059/60	1	1	14.446	14.4468	12.748	-0.1948	12.553
2060/61	2	4	8.696	17.392	12.748	-0.1948	12.358
2061/62	3	9	14.312	42.9378	12.748	-0.1948	12.163
2062/63	4	16	10.856	43.4244	12.748	-0.1948	11.968
2063/64	5	25	12.021	60.105	12.748	-0.1948	11.774
2064/65	6	36	12.071	72.426	12.748	-0.1948	11.579
Total ()	21	91	72.403	250.732			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + b \sum X$$

$$\sum XY = a \sum X + b \sum X^2$$

Putting the value normal equation from the above table

$$72.403 = 6a + 21b \text{----- (i)}$$

$$250.732 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$1520.463 = 126a + 441b$$

$$1500 = 126a + 546b$$

- - -

$$-20.463 = -105b$$

$$b = -0.1948$$

Substituting the value of b in equation (i) we get,

$$72.403 = 6a + 21(-0.1948)$$

$$\text{or, } 72.403 = 6a - 4.0908$$

$$\text{Therefore, } a = 12.748$$

Appendix 11

Calculation of Trend Value of Loan and Advances of Nepal Investment Bank:

Year	(X)	X ²	Loan and Advances (Y)	XY	a	b	Trend (Y = a+ bX)
2059/60	1	1	76.7787	76.7787	69.049	1.076	69.09172
2060/61	2	4	63.9799	127.9598	69.049	1.076	69.13444
2061/62	3	9	72.4958	217.4874	69.049	1.076	69.17716
2062/63	4	16	71.3511	285.4044	69.049	1.076	69.21988
2063/64	5	25	73.3067	366.5335	69.049	1.076	69.2626
2064/65	6	36	78.9758	473.8548	69.049	1.076	69.30532
Total()	21	91	436.888	1548.0186			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + b \sum X$$

$$\sum XY = a \sum X + b \sum X^2$$

Putting the value normal equation from the above table

$$436.89 = 6a + 21b \text{----- (i)}$$

$$1548.018 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$9174.69 = 126a + 441b$$

$$9288.108 = 126a + 546b$$

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

$$-113 = -105b$$

$$b = 1.076$$

Substituting the value of b in equation (i) we get,

$$436.89 = 6a + 21(1.076)$$

$$\text{or, } 436.89 = 6a + 22.596$$

$$\text{Therefore, } a = 69.049$$

Appendix 12

Calculation of Trend Value of Loan and Advances of Everest Bank Ltd:

Year	(X)	X ²	Loan and Advances (Y)	XY	a	b	Trend (Y = a + bX)
2059/60	1	1	62.227	62.227	59.317	2.0913	61.4083
2060/61	2	4	62.457	124.915	59.317	2.0913	63.4996
2061/62	3	9	67.310	201.932	59.317	2.0913	65.5909
2062/63	4	16	65.685	262.74	59.317	2.0913	67.6822
2063/64	5	25	68.689	343.445	59.317	2.0913	69.7735
2064/65	6	36	73.452	440.712	59.317	2.0913	71.8648
Total ()	21	91	399.821	1435.972			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + bX$$

$$XY = aX + bX^2$$

Putting the value normal equation from the above table

$$399.821 = 6a + 21b \text{----- (i)}$$

$$1435.972 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$8396.241 = 126a + 441b$$

$$8615.832 = 126a + 546b$$

- - -

$$-219.591 = -105b$$

$$b = 2.0913$$

Substituting the value of b in equation (i) we get,

$$339.821 = 6a + 21(2.0913)$$

$$\text{or, } 399.821 = 6a + 43.9173$$

$$\text{Therefore, } a = 59.317$$

Appendix 13

Calculation of Trend Value of Government Securities of Nepal Investment Bank:

Year	(X)	X ²	Government securities (Y)	XY	a	b	Trend (Y = a+bX)
2059/60	1	1	5.3206	5.320	11.667	0.207	11.874
2060/61	2	4	17.9562	35.912	11.667	0.207	12.081
2061/62	3	9	13.9499	41.849	11.667	0.207	12.288
2062/63	4	16	14.08626	56.345	11.667	0.207	12.495
2063/64	5	25	13.8094	69.047	11.667	0.207	12.702
2064/65	6	36	9.229	55.374	11.667	0.207	12.909
Total ()	21	91	74.35136	263.848			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + b \sum X$$

$$XY = a \sum X + b \sum X^2$$

Putting the value normal equation from the above table

$$74.351 = 6a + 21b \text{----- (i)}$$

$$263.852 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$1561.39 = 126a + 441b$$

$$1583.113 = 126a + 546b$$

- - -

$$-21.723 = -105b$$

$$b = 0.207$$

Substituting the value of b in equation (i) we get,

$$74.351 = 6a + 21(0.207)$$

$$\text{or, } 74.3519 = 6a + 4.347$$

Therefore, $a = 11.667$

Appendix 14

Calculation of Trend Value of Government Securities of Everest Bank:

Year	(X)	X ²	Government securities (Y)	XY	a	b	Trend (Y=a+bX)
2059/60	1	1	20.275	20.275	24.88	-1.567	23.313
2060/61	2	4	26.180	52.360	24.88	-1.567	21.746
2061/62	3	9	16.554	49.662	24.88	-1.567	20.179
2062/63	4	16	22.265	89.063	24.88	-1.567	18.612
2063/64	5	25	18.17	90.85	24.88	-1.567	17.045
2064/65	6	36	12.968	77.808	24.88	-1.567	15.478
Total ()	21	91	116.413	380.019			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + b \sum X$$

$$\sum XY = a \sum X + b \sum X^2$$

Putting the value normal equation from the above table

$$116.413 = 6a + 21b \text{----- (i)}$$

$$380.02 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$2444.692 = 126a + 441b$$

$$2280.12 = 126a + 546b$$

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

$$164.57 = -105b$$

$$b = -1.567$$

Substituting the value of b in equation (i) we get,

$$116.413 = 6a + 21(-1.56)$$

$$\text{or, } 74.3519 = 6a - 32.907$$

Therefore, $a = 24.88$

Appendix 15

Calculation of Trend Value of Other Current Assets of Nepal Investment Bank:

Year	(X)	X ²	Other current assets (Y)	XY	a	b	Trend (Y = a+ bX)
2059/60	1	1	5.044	5.044	5.817	-0.938	4.878
2060/61	2	4	4.272	8.545	5.817	-0.938	3.94
2061/62	3	9	2.954	8.864	5.817	-0.938	3.001
2062/63	4	16	1.122	4.491	5.817	-0.938	2.063
2063/64	5	25	0.990	4.954	5.817	-0.938	1.124
2064/65	6	36	0.81	4.86	5.817	-0.938	0.186
Total ()	21	91	15.195	36.760			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + b \sum X$$

$$XY = a \sum X + b \sum X^2$$

Putting the value normal equation from the above table

$$15.195 = 6a + 21b \text{----- (i)}$$

$$36.759 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$319.103 = 126a + 441b$$

$$220.554 = 126a + 546b$$

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

$$98.549 = -105b$$

$$b = -0.9385$$

Substituting the value of b in equation (i) we get,

$$15.1954 = 6a + 21(-0.9385)$$

$$\text{or, } 15.1954 = 6a - 19.7085$$

Therefore, $a = 5.817$

Appendix 16

Calculation of Trend Value of Other Current Assets of Everest Bank:

Year	(X)	X ²	Other current assets(Y)	XY	a	b	Trend (Y=a+bX)
2059/60	1	1	3.050	3.050	3.191	-0.371	2.820
2060/61	2	4	2.666	5.332	3.191	-0.371	2.449
2061/62	3	9	1.822	5.467	3.191	-0.371	2.078
2062/63	4	16	1.192	4.771	3.191	-0.371	1.707
2063/64	5	25	1.119	5.595	3.191	-0.371	1.335
2064/65	6	36	1.506	9.036	3.191	-0.371	0.964
Total ()	21	91	11.356	33.252			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + bX$$

$$XY = a \sum X + b \sum X^2$$

Putting the value normal equation from the above table

$$11.356 = 6a + 21b \text{----- (i)}$$

$$33.252 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$238.488 = 126a + 441b$$

$$199.512 = 126a + 546b$$

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

$$38.976 = -105b$$

$$b = -0.3712$$

Substituting the value of b in equation (i) we get,

$$11.356 = 6a + 21(-0.3712)$$

$$\text{or, } 11.356 = 6a - 7.795$$

Therefore, $a = 3.191$

Appendix 17

Calculation of Trend Value of Current Ratio of Nepal Investment Bank:

Year	(X)	X ²	Current Ratio (Y)	XY	a	b	Trend (Y= a+ bX)
2059/60	1	1	1.12273583	1.122	1.083	0.042	1.125
2060/61	2	4	1.12907876	2.258	1.083	0.042	1.167
2061/62	3	9	1.21125952	3.633	1.083	0.042	1.209
2062/63	4	16	1.2955	5.182	1.083	0.042	1.251
2063/64	5	25	1.35896849	6.794	1.083	0.042	1.293
2064/65	6	36	1.2625	7.575	1.083	0.042	1.335
Total ()	21	91	7.38004261	26.566			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + bX$$

$$XY = aX + bX^2$$

Putting the value normal equation from the above table

$$7.380 = 6a + 21b \text{----- (i)}$$

$$26.566 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$154.98 = 126a + 441b$$

$$159.39 = 126a + 546b$$

- - -

$$-4.416 = -105b$$

$$b = 0.042$$

Substituting the value of b in equation (i) we get,

$$7.380 = 6a + 21(0.042)$$

$$\text{or, } 7.380 = 6a + 0.882$$

$$\text{Therefore, } a = 1.083$$

Appendix 18

Calculation of Trend Value of Current Ratio of Everest Bank:

Year	(X)	X ²	Current Ratio (Y)	XY	a	b	Trend (Y = a+ bX)
2059/60	1	1	1.870	1.870	1.766	-0.0036	1.762
2060/61	2	4	1.723	3.447	1.766	-0.0036	1.759
2061/62	3	9	1.750	5.252	1.766	-0.0036	1.755
2062/63	4	16	1.649	6.598	1.766	-0.0036	1.751
2063/64	5	25	1.572	7.864	1.766	-0.0036	1.748
2064/65	6	36	1.954	11.729	1.766	-0.0036	1.744
Total ()	21	91	10.522	36.763			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + b \sum X$$

$$\sum XY = a \sum X + b \sum X^2$$

Putting the value normal equation from the above table

$$10.522 = 6a + 21b \text{----- (i)}$$

$$36.763 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$220.962 = 126a + 441b$$

$$220.578 = 126a + 546b$$

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

$$0.384 = -105b$$

$$b = -0.0036$$

Substituting the value of b in equation (i) we get,

$$10.522 = 6a + 21(-0.0036)$$

$$\text{or, } 10.522 = 6a - 0.0756$$

Therefore, $a = 1.766$

Appendix 19

Calculation of Trend Value of Quick Ratio of Nepal Investment Bank:

Year	(X)	X ²	Quick Ratio (Y)	XY	a	b	Trend (Y = a + bX)
2059/60	1	1	0.204	0.204	0.274	0.0082	0.283
2060/61	2	4	0.358	0.716	0.274	0.0082	0.291
2061/62	3	9	0.297	0.892	0.274	0.0082	0.299
2062/63	4	16	0.356	1.426	0.274	0.0082	0.307
2063/64	5	25	0.349	1.746	0.274	0.0082	0.315
2064/65	6	36	0.255	1.531	0.274	0.0082	0.324
Total ()	21	91	1.821	6.517			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + b \sum X$$

$$XY = a \sum X + b \sum X^2$$

Putting the value normal equation from the above table

$$1.821 = 6a + 21b \text{----- (i)}$$

$$6.517 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$38.241 = 126a + 441b$$

$$39.102 = 126a + 546b$$

- - -

$$0.384 = -105b$$

$$b = -0.0036$$

Substituting the value of b in equation (i) we get,

$$10.522 = 6a + 21(-0.0036)$$

$$\text{or, } 10.522 = 6a - 0.0756$$

Therefore, $a = 1.766$

Appendix 20

Calculation of Trend Value of Quick Ratio of Everest Bank:

Year	(X)	X ²	Quick Ratio (Y)	XY	a	b	Trend (Y= a+bX)
2059/60	1	1	0.649	0.649	0.7364	-0.0628	0.673
2060/61	2	4	0.601	1.202	0.7364	-0.0628	0.610
2061/62	3	9	0.540	1.621	0.7364	-0.0628	0.548
2062/63	4	16	0.546	2.185	0.7364	-0.0628	0.485
2063/64	5	25	0.474	2.374	0.7364	-0.0628	0.422
2064/65	6	36	0.287	1.722	0.7364	-0.0628	0.359
Total ()	21	91	3.1	9.756			

Here, actual equation of the linear trend is $Y = a + bX$

Two normal equations are

$$Y = na + b \sum X$$

$$\sum XY = a \sum X + b \sum X^2$$

Putting the value normal equation from the above table

$$3.1 = 6a + 21b \text{----- (i)}$$

$$9.756 = 21a + 91b \text{----- (ii)}$$

To solve the above equation we multiply equation (i) by 21 and equation (ii) by 6 and subtract

$$65.1 = 126a + 441b$$

$$58.5 = 126a + 546b$$

$$- \quad - \quad -$$

$$6.6 = -105b$$

$$b = -0.0628$$

Substituting the value of b in equation (i) we get,

$$3.1 = 6a + 21(-0.0628)$$

$$\text{or, } 3.1 = 6a - 1.3188$$

Therefore, $a = 0.7364$

Appendix 21

Coefficient Correlation between Government Securities and Total Deposit of Nepal Investment Bank:

$$\begin{aligned} \text{S.E} &= \frac{(1Zr^2)}{\sqrt{n}} \\ &= \frac{(1Z0.8523^2)}{\sqrt{6}} \\ &= 0.0227 \\ \text{P.E r} &= 0.6745 \quad 0.0227 \\ &= 0.0153 \end{aligned}$$

Appendix 22

Coefficient Correlation between Government Securities and Total Deposit of Everest Bank:

$$\begin{aligned} \text{S.E} &= \frac{(1Zr^2)}{\sqrt{n}} \\ &= \frac{(1Z0.794^2)}{\sqrt{6}} \\ &= 0.1506 \\ \text{P.E r} &= 0.6745 \quad 0.1506 \\ &= 0.101 \end{aligned}$$

Appendix 23

**Coefficient Correlation between Loan and Advances and Total Deposit of Nepal
Investment Bank:**

$$\begin{aligned} \text{S.E} &= \frac{(1Zr^2)}{\sqrt{n}} \\ &= \frac{(1Z0.994^2)}{\sqrt{6}} \end{aligned}$$

$$= 0.0046$$

$$\text{P.E r} = 0.6745 \quad 0.0046$$

$$= 0.0031$$

Appendix 24

**Coefficient Correlation between Loan and Advances and Total Deposit of Everest
Bank:**

$$\begin{aligned} \text{S.E} &= \frac{(1Zr^2)}{\sqrt{n}} \\ &= \frac{(1Z0.998^2)}{\sqrt{6}} \end{aligned}$$

$$= 0.0014$$

$$\text{P.E r} = 0.6745 \quad 0.0014$$

$$= 0.0009$$

Appendix 25

**Coefficient Correlation between Cash and Bank Balance and Current Liabilities of
Nepal Investment Bank:**

$$\begin{aligned} \text{S.E} &= \frac{(1Zr^2)}{\sqrt{n}} \\ &= \frac{(1Z0.972^2)}{\sqrt{6}} \\ &= 0.0218 \end{aligned}$$

$$\begin{aligned} \text{P.E r} &= 0.6745 \quad 0.0218 \\ &= 0.0147 \end{aligned}$$

Appendix 26

**Coefficient Correlation between Cash and Bank Balance and Current Liabilities of
Everest Bank:**

$$\begin{aligned} \text{S.E} &= \frac{(1Zr^2)}{\sqrt{n}} \\ &= \frac{(1Z0.942^2)}{\sqrt{6}} \\ &= 0.045 \end{aligned}$$

$$\begin{aligned} \text{P.E r} &= 0.6745 \quad 0.045 \\ &= 0.0305 \end{aligned}$$

Appendix 27

**Coefficient Correlation between Loan and Advances and Net Profit of Nepal
Investment Bank:**

$$\begin{aligned} \text{S.E} &= \frac{(1Zr^2)}{\sqrt{n}} \\ &= \frac{(1Z0.99^2)}{\sqrt{6}} \\ &= 0.0076 \end{aligned}$$

$$\begin{aligned} \text{P.E r} &= 0.6745 \quad 0.0076 \\ &= 0.0051 \end{aligned}$$

Appendix 28

**Coefficient Correlation between Loan and Advances and Net Profit of Everest
Bank:**

$$\begin{aligned} \text{S.E} &= \frac{(1Zr^2)}{\sqrt{n}} \\ &= \frac{(1Z0.992^2)}{\sqrt{6}} \\ &= 0.0063 \end{aligned}$$

$$\begin{aligned} \text{P.E r} &= 0.6745 \quad 0.0063 \\ &= 0.0042 \end{aligned}$$

Appendix 29

Multiple Regressions of Cash and Bank Balance on Total Deposit and Loan and Advances of NIBL:

Year	X ₁	X ₂	X ₃	X ₁ X ₂	X ₁ X ₃	X ₂ X ₃	X ₁ ²	X ₂ ²	X ₃ ²
2059/60	0.966	7.922	5.772	7.6572	5.578	45.730	0.934	62.769	33.317
2060/61	1.536	11.524	7.130	17.7017	10.951	82.171	2.359	132.816	50.838
2061/62	1.480	14.254	10.126	21.1023	14.990	144.341	2.191	203.190	102.535
2062/63	2.406	18.927	12.776	45.5485	30.745	241.818	5.791	358.242	163.231
2063/64	2.804	24.488	17.286	68.6763	48.477	423.323	7.864	599.701	298.819
2064/65	3.75	34.451	27	129.191	101.25	930.177	14.062	1186.871	729
Total	12.943	111.568	80.090	289.877	211.995	1867.562	33.203	2543.592	1377.742

Here we have,

$$\begin{array}{lll}
 X_1 = 12.943 & X_1X_2 = 289.877 & X_1^2 = 33.203 \\
 X_2 = 111.568 & X_1X_3 = 212 & X_2^2 = 2543.592 \\
 X_3 = 80.090 & X_2X_3 = 1867.562 & X_3^2 = 1377.742
 \end{array}$$

Substituting the values into normal equations

$$12.943 = 6a_1 + b_1(111.568) + 80.090b_2 \text{ ----- (i)}$$

$$289.87 = 111.568a_1 + 2543.592b_1 + 1867.5624b_2 \text{ ----- (ii)}$$

$$212 = 80.090a_1 + 1867.5624b_1 + 1377.74b_2 \text{ ----- (iii)}$$

To solve the equation we multiply equation (i) by 111.568 and equation (ii) by 6 and subtract

$$1444.02 = 669.408a_1 + 12447.41b_1 + 8935.48b_2$$

$$1739.22 = 669.408a_1 + 15261.552b_1 + 11205.37b_2$$

$$\begin{array}{r}
 - \\
 - \\
 - \\
 - \\
 \hline
 -295.2 = -2814.142b_1 - 2269.89b_2 \text{ ----- (iv)}
 \end{array}$$

Again,

Multiplying equation (ii) by 80.090 and equation (iii) by 111.568 and subtract

$$23189.6 = 8935.48a_1 + 203716.28b_1 + 149573.07b_2$$

$$23652.41 = 8935.48a_1 + 208360.20b_1 + 153711.69b_2$$

$$\begin{array}{r} - \quad - \quad - \quad - \\ \hline -462.81 = -4643.92b_1 - 4138.62b_2 \quad \text{----- (v)} \end{array}$$

Again,

Multiply equation (iv) by 4138.62 and equation (v) by 2269.89 and subtract

$$-1221720.624 = -11646664.36b_1 - 9394212.152b_2$$

$$-1050527.791 = -10541187.57b_1 - 9394212.152b_2$$

$$\begin{array}{r} + \quad + \quad + \\ \hline -171192.833 = -1105476.79b_1 \end{array}$$

Therefore, $b_1 = 0.1548$

Now putting value on equation (iv)

$$-295.2 = -2814.142 (0.1548) - 2269.89b_2$$

$$\text{or, } 140.429 = -2269.89b_2$$

Therefore $b_2 = -0.0618$

Again, substituting value of b_1 and b_2 in equation (i)

$$12.943 = 6a_1 + 0.1548 (111.568) + 80.090 (-0.0618)$$

$$\text{or, } 12.943 = 6a_1 + 17.270 - 4.95$$

$$\text{or, } 0.623 = 6a_1$$

Therefore, $a_1 = 0.1038$

Appendix 30

Multiple Regressions of Cash and Bank Balance on Total Deposit and Loan and Advances of EBL:

Year	X ₁	X ₂	X ₃	X ₁ X ₂	X ₁ X ₃	X ₂ X ₃	X ₁ ²	X ₂ ²	X ₃ ²
2059/60	1.139	6.266	4.908	7.140	5.592	30.753	1.298	39.262	24.088
2060/61	0.819	7.498	5.884	6.142	4.820	44.120	0.671	56.224	34.622
2061/62	1.62	9.393	7.618	15.216	12.342	71.563	2.624	88.232	58.043
2062/63	1.612	12.509	9.801	20.164	15.799	122.601	2.598	156.477	96.059
2063/64	2.391	16.612	13.664	39.727	32.676	226.995	5.718	275.981	186.704
2064/65	3.013	21.195	18.339	63.860	55.255	388.695	9.078	449.228	336.318
Total	10.595	73.474	60.214	152.252	126.485	884.730	21.989	1065.407	735.837

Here we have,

$$\begin{array}{lll}
 X_1 = 10.595 & X_1X_2 = 152.252 & X_1^2 = 21.989 \\
 X_2 = 73.474 & X_1X_3 = 126.485 & X_2^2 = 1065.407 \\
 X_3 = 60.214 & X_2X_3 = 884.730 & X_3^2 = 735.837
 \end{array}$$

Substituting the values into normal equations

$$10.595 = 6a_1 + b_1(73.474) + 60.214b_2 \text{ ----- (i)}$$

$$152.252 = 73.474a_1 + 1065.407b_1 + 884.730b_2 \text{ ----- (ii)}$$

$$126.485 = 60.214a_1 + 884.730b_1 + 735.837b_2 \text{ ----- (iii)}$$

To solve the equation we multiply equation (i) by 73.474 and equation (ii) by 6 and subtract

$$778.467 = 440.844a_1 + 5398.472b_1 + 4424.1634b_2$$

$$913.512 = 440.844a_1 + 6392.442b_1 + 5308.38b_2$$

$$\begin{array}{r}
 - \quad - \quad - \quad - \\
 \hline
 -135.045 = -993.97b_1 - 884.2166b_2 \text{ ----- (iv)}
 \end{array}$$

Again,

Multiplying equation (ii) by 60.214 and equation (iii) by 73.474 and subtract

$$9167.701 = 4424.163a_1 + 64152.417b_1 + 53273.132b_2$$

$$9293.35 = 4424.163a_1 + 65004.652b_1 + 54064.887b_2$$

$$- \quad - \quad - \quad -$$

$$\frac{-125.649 = -852.2352b_1 - 791.757b_2}{\text{-----}} \text{----- (v)}$$

Again,

Multiply equation (iv) by 791.757 and equation (v) by 884.2166 and subtract

$$-106922.8241 = -786982.70b_1 - 700084.68b_2$$

$$-111100.931 = -753560.334b_1 - 700084.68b_2$$

$$+ \quad \quad \quad + \quad \quad \quad +$$

$$\frac{4178.1069 = -33422.366b_1}{\text{-----}}$$

Therefore, $b_1 = -0.125$

Now putting value on equation (iv)

$$-135.045 = -993.97(-0.125) - 884.2166b_2$$

$$\text{or, } -135.045 = -884.2166b_2$$

Therefore $b_2 = 0.2932$

Again, substituting value of b_1 and b_2 in equation (i)

$$10.5951 = 6a_1 + 73.474(-0.125) + 60.214(0.2932)$$

$$\text{or, } 10.5951 = 6a_1 - 9.1842 + 17.6547$$

$$\text{or, } 2.1246 = 6a_1$$

Therefore, $a_1 = 0.3541$