WORKING CAPITAL MANAGEMENT AND PROFITABILITY OF COMMERCIAL BANKS IN NEPAL

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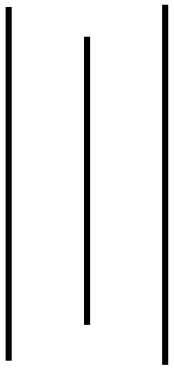

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RECOMMENDATION

This is to certify that the thesis

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has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

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And found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for the degree of

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DECLARATION

I hereby declare that the work reported in this thesis entitled "**Working Capital Management and Profitability of Commercial Banks in Nepal**" submitted to St. Xavier's College, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the degree of Master of Business Studies (MBS) under the supervision of **Mr. Shanker Thapa,** Head of Department of St. Xavier's College, T.U.

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ABBREVIATIONS

BOK	:	Bank of Kathmandu
C.V.	:	Coefficient of Variance
CL	:	Current Liabilities
EBL	:	Everest Bank Limited
Gr.	:	Growth
GWC	:	Gross Working Capital
LTD	:	Long Term Debt
NABIL	:	Nabil Bank Limited
NIBL	:	Nepal Investment Bank Limited
NWC	:	Net Working Capital
NP	:	Net Profit
P.E.	:	Probable Error
r	:	Coefficient of Correlations
ROE	:	Return on Equity
S.D.	:	Standard Deviation
SBL	:	Siddhartha Bank Limited
SE	:	Shareholders' Equity
STD	:	Short Term Debt
TA	:	Total Assets

CHAPTER – I
INTRODUCTION

1.1 Background of the Study

Businesses face ever increasing pressure on costs and growing financing requirements as a result of intensified competition in globalized markets. Many of them are therefore considering ways of making themselves more efficient. In identifying possible options it is important not to focus exclusively on income and expense items, but also to take the balance sheet into account. Improvements to the existing capital structure can free up valuable resources and bring increased efficiency. Active working capital management is an extremely effective way to increase enterprise value. Optimizing working capital results in a rapid release of liquid resources and contributes to an improvement in free cash flow and to a permanent reduction in inventory and capital costs.

Working capital management is an important aspect of organization. Every business organization needs various types of assets to carryout their operation. Some assets are required to meet long term requirement, which are fixed assets, and some are required to meet day to day expenses and to pay the current liabilities, which are termed as current assets. Working capital is related to the management of current assets. Among available option, proper management of working capital is the best possible options to improve their operational viability. Working capital is crucial aspect if financial management practices in banking industry.

Working capital management is concerned with the problems arise in attempting to manage the current assets, the current liabilities and the inter relationship that exist between them. The term current assets refers to those assets which in ordinary course of business can be, or, will be, turned in to cash within one year without undergoing a diminution in value and without

disrupting the operation of the firm. The major current assets are cash, marketable securities, account receivable and inventory. Current liabilities are those liabilities which intended at there inception to be paid in ordinary course of business, within a year, out of the current assets or earnings of the concern. The basic current liabilities are account payable, bill payable, bank over-draft, and outstanding expenses.

The goal of working capital management is to manage the firm's current assets and current liabilities in such way that the satisfactory level of working capital is mentioned. The current assets should be large enough to cover its current liabilities in order to ensure a reasonable margin of the safety.

1.2 Evolution of Banking System

The first banks were the merchants of ancient world that made loans to farmers and traders that carried goods between cities. The first records of such activity dates back to around 2000 BC in Assyria and Babylonia. Later in ancient Greece and during the Roman Empire lenders based in temples would make loans but also added two important innovations; accepted deposits and changing money. During this period there is similar evidence of the independent development of lending of money in ancient China and separately in ancient India.

Banking in the modern sense of the word can be traced to medieval and early Renaissance Italy, to the rich cities in the north like Florence, Venice and Genoa. The Bardi and Peruzzi families dominated banking in 14th century Florence, establishing branches in many other parts of Europe. Perhaps the most famous Italian bank was the Medici bank, set up by Giovanni Medici in 1397. The development of banking spread through Europe and a number of important innovations took place in Amsterdam during the Dutch Republic in the 16th century and in London in the 17th century. During the 20th century developments in telecommunications and computing resulting in major changes

to way banks operated and allowing them dramatically increase in size and geographic spread. The Late-2000s financial crisis saw significant number of bank failures, including some of the world's largest banks and much debate about bank regulation.

1.2.1 Earliest Forms of Banking

The history of banking is closely related to the history of money but banking transactions probably predate the invention of money. Deposits initially consisted of grain and later other goods including cattle, agricultural implements, and eventually precious metals such as gold, in the form of easy-to-carry compressed plates. Temples and palaces were the safest places to store gold as they were constantly attended and well built. As sacred places, temples presented an extra deterrent to would-be thieves.

Mesopotamia

There are records of loans from the 2nd century BC in Babylon that were made by temple priests/monks to merchants. By the time of Hammurabi's Code, dating to ca. 1760 BCE, banking was well enough developed to justify laws governing banking operations.

Egypt

In Egypt, from early times, grain had been used as a form of money in addition to precious metals, and state granaries functioned as banks. When Egypt fell under the rule of a Greek dynasty, the Ptolemies (332-30 BC), the numerous scattered government granaries were transformed into a network of grain banks, centralized in Alexandria where the main accounts from all the state granary banks were recorded. This banking network functioned as a trade credit system in which payments were effected by transfer from one account to another without money passing. In the late 3rd century BC, the barren Aegean island of Delos, known for its magnificent harbor and famous temple of Apollo, became a prominent banking center. As in Egypt, cash transactions

were replaced by real credit receipts and payments were made based on simple instructions with accounts kept for each client. With the defeat of its main rivals, Carthage and Corinth, by the Romans, the importance of Delos increased. Consequently it was natural that the bank of Delos should become the model most closely imitated by the banks of Rome.

India

In ancient India during the Maurya dynasty (321 to 185 BC), an instrument called adesha was in use, which was an order on a banker desiring him to pay the money of the note to a third person, which corresponds to the definition of a bill of exchange as we understand it today. During the Buddhist period, there was considerable use of these instruments. Merchants in large towns gave letters of credit to one another.

China

In ancient China starting in the Qin Dynasty (221 to 206 BC) the Chinese currency developed with the introduction of standardized coins which allowed the much easier trade across China and led to the development of letters of credit. These letters were issued by merchants that acted in ways that today we would understand as banks.

Greece

Ancient Greece holds further evidence of banking. Greek temples, as well as private and civic entities, conducted financial transactions such as loans, deposits, currency exchange, and validation of coinage. There is evidence too of credit, whereby in return for a payment from a client, a moneylender in one Greek port would write a credit note for the client who could "cash" the note in another city, saving the client the danger of carting coinage with him on his journey. Pythius, who operated as a merchant banker throughout Asia Minor at the beginning of the 5th century BC, is the first individual banker of whom we have records. Many of the early bankers in Greek city-states were metics or

foreign residents. Around 371 BC, Pasion, a slave, became the wealthiest and most famous Greek banker, gaining his freedom and Athenian citizenship in the process.

Rome

In Ancient Rome moneylenders would set up their stalls in the middle of enclosed courtyards called macella on a long bench called a bancu, from which the words banco and bank are derived. As a moneychanger, the merchant at the bancu did not so much invest money as merely convert the foreign currency into the only legal tender in Rome that of the Imperial Mint.

The Roman empire formalized the administrative aspect of banking and instituted greater regulation of financial institutions and financial practices. Charging interest on loans and paying interest on deposits became more highly developed and competitive. The development of Roman banks was limited, however, by the Roman preference for cash transactions. During the reign of the Roman emperor Gallienus (260-268 AD), there was a temporary breakdown of the Roman banking system after the banks rejected the flakes of copper produced by his mints. With the ascent of Christianity, banking became subject to additional restrictions, as the charging of interest was seen as immoral. After the fall of Rome banking temporarily ended in Europe and was not revived until the time of the crusades.

1.3 Historical Development of Commercial Banks in Nepal

The initiation of formal banking system in Nepal commenced with the establishment in 1937 of Nepal Bank Limited (NBL), the first Nepalese commercial bank. The country's central bank, Nepal Rastra Bank (NRB) was established in 1956 by Act of 1955, after nearly two decades of NBL having been in existence. A decade after the establishment of NRB, Rastriya Banijya Bank (RBB), a commercial bank under the ownership of Government of Nepal was established. Thereafter, GON adopted open and liberalized policies in the

mid 1980s reflected by the structural adjustment process, which included privatization, tariff adjustments, liberalization of industrial licensing, easing of terms of foreign investment and more liberal trade and foreign exchange regime was initiated. With the adoption of liberalization policy, there has been rapid development of the domestic financial system both in terms of number of financial institutions and as ratio of financial assets to the GDP. As of July 2011, the number of commercial banks has reached 31. A total of 80 finance companies and 81 Development Banks and numerous credit cooperatives have also been established.

In the context of banking development, the 1980s saw a major structural change in financial sector policies, regulations and institutional developments. GON emphasized the role of the private sector for the investment in the financial sector. The financial sector liberalization, started already in the early eighties with the liberalization of the interest rates, encompassed further deregulation of interest rates, relaxation of entry barriers for domestic and foreign banks, restructuring of public sector commercial banks and withdrawal of central bank control over their portfolio management. These policies opened the doors for foreigners to enter into banking sector under joint venture. Consequently, the third commercial bank in Nepal, or the first foreign joint venture bank, was set up as Nepal Arab Bank Ltd (now called as NABIL Bank Ltd) in 1984.

There after, two foreign joint venture banks, Nepal Indosuez Bank Ltd. (now called as Nepal Investment Bank) and Nepal Grindlays Bank Ltd (now called as Standard Chartered Bank Nepal Ltd.) was established in 1986 and 1987 respectively. There after, another 26 commercial banks have been established within the period of 18 years. Nepalese banking system has now a wide geographic reach and institutional diversification. Although, Nepalese financial sector is dynamic, a lot of scope for development of this sector exists. This is because the banking and non-banking sectors have not been able to capture all

the potentialities of business till this time. It is evident from the Rural Credit Survey Report that the majority of rural credit is supplied by the unorganized sector at a very high cost – perhaps being at two or three time of the formal sector - suggesting that the financial sector is still in the path of gradual development. Overdue loans and inefficiency of the older and the larger of commercial banks have aggravated and have been made to compete with the new trim banks with no rural operations. Also, the commercial banks, domestic or joint venture have shown little innovation and positive attitude in identifying new areas of saving and investment opportunities. Following table reflects the present development of commercial banking institutions in Nepal.

Table 1.1

Commercial Banks in Nepal

S.N.	Commercial Bank	Year (B.S.)	S.N.	Commercial Bank	Year (B.S.)
1	Nepal Bank Ltd.	1994	17	Laxmi Bank Ltd.	2058
2	Rastriya Banijya Bank Ltd.	2022	18	Siddhartha Bank Ltd.	2058
3	Agriculture Development Bank Nepal Ltd.	2024	19	Global Bank Ltd.	2063
4	Nabil Bank Ltd.	2041	20	Citizen Bank International Ltd.	2063
5	Standard Chartered Bank Ltd.	2043	21	Prime Commercial Bank Ltd.	2064
6	Nepal Investment Bank Ltd.	2042	22	Bank of Asia Nepal Ltd.	2064
7	Himalayan Bank Ltd.	2049	23	Sunrise Bank Ltd.	2064
8	Everest Bank Ltd.	2051	24	DCBL Bank Ltd.	2065
9	Nepal Credit and Commercial Bank Ltd.	2053	25	NMB Bank Ltd.	2065
10	Bank of Kathmandu Ltd.	2051	26	Kist Bank Ltd.	2066
11	Nepal SBI Bank Ltd.	2050	27	Janta Bank Ltd.	2066
12	Nepal Bangladesh Bank Ltd.	2051	28	Megha Bank Ltd.	2067
13	Lumbini Bank Ltd.	2055	29	Commerz and Trust Bank Ltd.	2067
14	Nepal Industrial and Commercial Bank Ltd.	2055	30	Civil Bank Ltd.	2067
15	Machhapuchhre Bank Ltd.	2057	31	Century Bank Ltd.	2067
16	Kumari Bank Ltd.	2057			

(Source: www.nrb.org.np)

1.4 Profile of the Selected Banks

a) Nepal Investment Bank Limited

Nepal Investment Bank Ltd. (NIBL), previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was Credit Agricole Indosuez, a subsidiary of one the largest banking group in the world.

The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure.

- A group of companies holding 50% of the capital
- Rashtriya Banijya Bank holding 15% of the Capital.
- Rashtriya Beema Sansthan holding the same percentage.
- The remaining 20% being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange).

b) Nabil Bank Limited

Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, Nabil provides a full range of commercial banking services through its 40 points of representation across the nation and over 170 reputed correspondent banks across the globe.

Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business. Operations of the bank including day-to-day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, credit cards, state-of-art,

world-renowned software from Infosys Technologies System, Banglore, India, Internet banking system and Telebanking system.

c) Everest Bank Limited

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer-friendly services through its Branch Network. All the branches of the bank are connected through Anywhere Branch Banking System (ABBS), which enables customers for operational transactions from any branches. Moreover, EBL was one of the first bank to introduce Any Branch Banking System (ABBS) in Nepal.

In addition, EBL has introduced Mobile Vehicle Banking system to serve the segment deprived of proper banking facilities through its Birtamod Branch, which is the first of its kind. EBL has introduced branchless banking system first time in Nepal to cover unbanked sector of Nepalese society. EBL is first bank that has launched e-ticketing system in Nepal. EBL customer can buy yeti airlines ticket through internet.

d) Bank of Kathmandu Limited

Bank of Kathmandu started its operation in March 1995 with the objective to stimulate the Nepalese economy and take it to newer heights. BOK also aims to facilitate the nation's economy and to become more competitive globally. To achieve these, BOK has been focusing on its set objectives right from the beginning.

The bank targets to contribute to the sustainable development of the nation by mobilizing domestic savings and channeling them to productive area, to use the latest banking technology to provide better, reliable and efficient services at a reasonable cost, to facilitate trade by making financial transactions easier,

faster and more reliable through relationships with foreign banks and money transfer agencies and to contribute to the overall social development of Nepal. Bank of Kathmandu Limited (BOK) has today become a landmark in the Nepalese banking sector by being among the few commercial banks which is entirely managed by Nepalese professionals and owned by the general public.

e) Siddhartha Bank Limited

Siddhartha Bank Limited (SBL) commenced operations in 2002. The Bank is promoted by a group of highly reputed Nepalese dignitaries having wide commercial experience. We provide a full range of commercial banking services through our 39 branches across Nepal. The environment of Nepalese banking sector is undergoing a rapid transformation. With liberalization in financial markets and integration of domestic market with external markets, bank operations have become more complex and dynamic. We are geared to meet the challenges and keep abreast with the changes.

SBL's vision is to be financially sound, operationally efficient and keep abreast with technological developments. The Bank firmly believes customer focus is a core value, shareholder prosperity is a prime priority, employee growth is a commitment and economic welfare is a sincere concern.

1.5 Statement of the Problem

Under and over allocation of working of working capital is harmful to an enterprise to achieve its primary objectives. Therefore, maintaining optimal level of working capital is the crux as it is strongly related to the trade off between risk and return. However, if is difficult to point out as to how much working capital need by a particular business organization. An organization, which is not willing to take more financial risks, can go for more short-term liquidity. The more of short-term liquidity means more of current liabilities imply less short-term financing heading. So it is very essential to analyze and find out problems and its solutions to make efficient use of funds for

minimizing the risk of loss to attain profit objective. Inadequate investment in working capital threatens the solvency of enterprise as well as affects its growth. On the other hand, excessive investment in working capital yields nothing. Therefore, working capital should be determined in such a way that total cost i.e. cost of liquidity and cost of non-liquidity is minimum.

Working capital management of banks is more difficult than that of manufacturing and non-manufacturing business organizations. Commercial banks are great monetary institutions, which are playing important role to general welfare of the economy. The responsibility of commercial banks is more then any other financial institutions. They must be ready to pay on demand without warning or notice, a good share of their liabilities. Banks collected funds from different types of deposits for providing loan and advance to different sector. To get higher return, banks must try to increase funds from deposits as well as their investment. The first motive of banking business is to borrow public saving and lend to needy people. But commercial banks always face the problem for utilizing more deposits as investment of loans increase the cash balance on bank, which require paying its large among of liabilities on its depositors demand without notice. But large amount of idle cash balance also decrease profitability of banks.

Following are the major problems that have been identified for the purpose of this study.

a. To what extent the internal capital and external capital have been used to finance the total assets?
b. To what extent the short the debt and long term debt have been used?
c. What working capital policy is adopted by the bank?
d. Has the bank sufficient liquidity to ensure the security of deposit holders?
e. What is the relationship of net profit with the debt capital and working capital?

1.6 Objective of the Study

The main objective of this study is to examine of the management of working capital in commercial banks. The specific objectives of this study are as follows:

a. To evaluate the working capital financing policy adopted by the bank.
b. To examine the debt and equity financing situation of the selected banks.
c. To analyze the liquidity maintained and the efficiency in equity management to generate profit.
d. To show the relationship of net profit with the working capital, and debt.
e. To provide necessary suggestions for future research.

1.7 Significance of the Study

The study is concerned to the theoretical explanation and practical application of working capital management of commercial banks. The study might be valuable for researcher, scholars, students, in relation to working capital management. Typically, this study will be important for;

a. It can be helpful for financial manager of sample commercial banks to correct and formulate proper working capital policy.
b. It will be also helpful for other same nature commercial banks to determine and manage working capital.
c. It will be useful for Nepal Rastra Bank to formulate appropriate economic policy for the banking sector.
d. This study is helpful to carry out further research in this field.
e. It will be helpful for new financial manager or new executive to take decision on efficient working capital management and its component strategically.
f. This study helps to know concern parties and general interest public.

1.8 Limitations of the Study

The major limitations of the study are as follows;

a. The study is limited to five banks only and thus may not truly reflect the whole population.
b. The study is concentrated to working capital management and thus may not cover the other financial aspects.
c. The validity of the secondary data depends totally on the annual report of the concerned banks and that of primary data relies totally on the responses obtained through questionnaire.
d. The study covers only five year periods, i.e. from the fiscal year 2005/06 to 2009/10.

1.9 Chapter Scheme

The entire study has been organized into five main chapters as:

Chapter – I: Introduction

The first chapter deals with background of the study, a brief review of sample banks, statement of problem, objective of the study, significance of the study and limitations of the study.

Chapter – II: Review of Literature

The second chapter deals with conceptual framework including the fundamental concept of and tools of working capital management. It also includes the brief review of previous research work.

Chapter – III: Research Methodology

The third chapter deals with the research methodology which has been followed to achieve the purposes of the study. It consists of research design, population and sample, nature and sources of data, and tools to be used.

Chapter – IV: Data Presentation and Analysis

The fourth chapter deals with presentation and analysis of data. It gives a clear picture of how the collected data has been presented on the study and how it has been analyzed.

Chapter – V: Summary, Conclusion and Recommendations

And at last, the fifth chapter shows the summary of whole study, conclusion drawn and recommendations given. This ends the study paper.

Besides these chapters, **Bibliography** and **Appendix** are included in the end.

CHAPTER – II

REVIEW OF LITERATURE

This section of the study has been divided mainly in four major sections. The first section reviews the concepts related to the working capital, the second section reviews the journals and articles related to the study, the third second reviews the previous thesis related to the working capital and finally fourth section detects the research gap in the previous studies.

2.1 Review of Books

2.1.1 Working Capital

"Working capital is a financial metric which represents operating liquidity available to a business, organization, or other entity, including governmental

entity. Along with fixed assets such as plant and equipment, working capital is considered a part of operating capital. Net working capital is calculated as current assets minus current liabilities. It is a derivation of working capital that is commonly used in valuation techniques such as DCFs (Discounted cash flows). If current assets are less than current liabilities, an entity has a working capital deficiency, also called a working capital deficit.

> Working Capital = Current Assets
>
> Net Working Capital = Current Assets − Current Liabilities
>
> Equity Working Capital = Current Assets − Current Liabilities − Long-term Debt" *(Arnold; 2008: 32)*

"A company can be endowed with assets and profitability but short of liquidity if its assets cannot readily be converted into cash. Positive working capital is required to ensure that a firm is able to continue its operations and that it has sufficient funds to satisfy both maturing short-term debt and upcoming operational expenses. The management of working capital involves managing inventories, accounts receivable and payable, and cash." *(Larsson & Hammarlund; 2005: 102)*

"Decisions relating to working capital and short term financing are referred to as working capital management. These involve managing the relationship between a firm's short-term assets and its short-term liabilities. The goal of working capital management is to ensure that the firm is able to continue its operations and that it has sufficient cash flow to satisfy both maturing short-term debt and upcoming operational expenses." *(Charlton, Lancaster & Stevens; 2002: 138)*

2.1.2 Decision Criteria for Working Capital

"By definition, working capital management entails short term decisions - generally, relating to the next one year period - which are "reversible". These decisions are therefore not taken on the same basis as Capital Investment

Decisions (NPV or related, as above) rather they will be based on cash flows and / or profitability.

- One measure of cash flow is provided by the cash conversion cycle - the net number of days from the outlay of cash for raw material to receiving payment from the customer. As a management tool, this metric makes explicit the inter-relatedness of decisions relating to inventories, accounts receivable and payable, and cash. Because this number effectively corresponds to the time that the firm's cash is tied up in operations and unavailable for other activities, management generally aims at a low net count.
- In this context, the most useful measure of profitability is Return on capital (ROC). The result is shown as a percentage, determined by dividing relevant income for the 12 months by capital employed; Return on equity (ROE) shows this result for the firm's shareholders. Firm value is enhanced when, and if, the return on capital, which results from working capital management, exceeds the cost of capital, which results from capital investment decisions as above. ROC measures are therefore useful as a management tool, in that they link short-term policy with long-term decision making.
- Credit policy of the firm: Another factor affecting working capital management is credit policy of the firm. It includes buying of raw material and selling of finished goods either in cash or on credit. This affects the cash conversion cycle." *(Gallagher & Joseph; 2000: 82-85)*

2.1.3 Management of Working Capital

Guided by the decision criteria, "management will use a combination of policies and techniques for the management of working capital. These policies aim at managing the current assets (generally cash and cash equivalents, inventories and debtors) and the short term financing, such that cash flows and returns are acceptable.

- **Cash Management**: The management should identify the cash balance which allows for the business to meet day to day expenses, but reduces cash holding costs.

- **Inventory Management**: The management should identify the level of inventory which allows for uninterrupted production but reduces the investment in raw materials - and minimizes reordering costs - and hence increases cash flow. Besides this, the lead times in production should be lowered to reduce Work in Progress (WIP) and similarly, the Finished Goods should be kept on as low level as possible to avoid over production - see Supply chain management; Just In Time (JIT); Economic order quantity (EOQ); Economic quantity.

- **Debtors Management:** The management should identify the appropriate credit policy, i.e. credit terms which will attract customers, such that any impact on cash flows and the cash conversion cycle will be offset by increased revenue and hence Return on Capital (or vice versa.

- **Short Term Financing**: In this context, the management should identify the appropriate source of financing, given the cash conversion cycle: the inventory is ideally financed by credit granted by the supplier; however, it may be necessary to utilize a bank loan (or overdraft), or to convert debtors to cash through factoring." *(Maness & Zeitlow; 2005: 206-207)*

2.1.4 Net Working Capital

Working capital, also referred to as net working capital (NWC), is an absolute measure of a company's current operative capital employed and is defined as:

Net Working Capital = Current assets – Current liabilities

"Current assets are assets which are expected to be sold or otherwise used within one fiscal year. Typically, current assets include cash, cash equivalents,

accounts receivable, inventory, prepaid accounts which will be used within a year, and short-term investments. Current liabilities are considered as liabilities of the business that are to be settled in cash within the fiscal year. Current liabilities include accounts payable for goods, services or supplies, short-term loans, long-term loans with maturity within one year, dividends and interest payable, or accrued liabilities such as accrued taxes." *(Dolfe & Koritz; 1999: 42)*

"Net working capital, on the one hand, can be seen as a metric for evaluating a company's operating liquidity. A positive net working capital position indicates that a company can meet its short-term obligations. On the other hand, a company's net working capital position signals its operating efficiency. Comparably high net working capital levels may indicate that too much money is tied up in the business. The most important positions for effective working capital management are inventory, accounts receivable, and accounts payable. Depending on the industry and business, prepayments received from customers and prepayments paid to suppliers may also play an important role in the company's cash flow. Excess cash and nonoperational items may be excluded from the calculation for better comparison." *(Gentry, Vaidyanathan & Wan Lee; 1990: 93)*

"As a measure for effective net working capital management, therefore, another more operational metric definition applies:

(Operative) net working capital = Inventories + Receivables – Payables – Advances received + Advances made

Where;

- inventory is raw materials plus work in progress (WIP) plus finished goods;
- receivables are trade receivables;
- payables are non-interest-bearing trade payables;

- advances received are prepayments received from customers;
- advances made are prepayments paid to suppliers." *(Lazaridis & Tryfonidis; 2006: 28-29)*

"When measuring the effectiveness of net working capital management, relative metrics (for example, coverage) are generally applied. They have the advantage of higher resistance to growth, seasonality, and deviations in (cost of) sales. In addition to better comparison over time, they also allow better benchmarking of operating efficiency with internal or external peers. A frequently used measure for the effectiveness of working capital management is the so-called cash conversion cycle, or cash-to-cash cycle (CCC). It reflects the time (in days) it takes a company to get back one monetary unit spent in operations. The operative NWC positions are translated into "days outstanding"- the number of days during which cash is bound in inventory and receivables or financed by the suppliers in accounts payable. It is defined as follows:" *(García-Teruel & Martínez-Solano; 2007: 170-171)*

CCC = DIO + DSO – DPO

Where;

days inventories outstanding (DIO) = (average inventories ÷ cumulative cost of sales) × 365 = average number of days that inventory is held;

days sales outstanding (DSO) = (average receivables ÷ cumulative sales) × 365 = average number of days until a company is paid by its customers;

days payables outstanding (DPO) = (average payables ÷ cumulative purchasing volume) × 365 = average number of days until a company pays its suppliers.

Optimizing the three components of operative NWC simultaneously not only accelerates the CCC, but also goes hand in hand with further improvements.

However, applying the right measures will not only increase value added by lowering capital employed. Improved processes will also lead to reduced costs and higher earnings before income and taxes (EBIT).

2.1.5 Holistic Approach to Working Capital Management

"By streamlining end-to-end processes, companies can, for example, reduce stock, decrease replenishment times from internal and external suppliers, and optimize cash-collection and payment cycles. The key is to uncover the underlying causes of excess operative working capital. In order to address the often hidden interdependencies among the different components and achieve maximum savings from a working capital program, companies must analyze the entire value chain, from product design to manufacturing, sales and after sales support. They must also look for ways to simplify and streamline processes and eliminate waste, always keeping potential tradeoffs in mind. For instance, cutting inventories of spare parts or reducing product customization could lead to a major reduction in inventory. But how would these measures affect service quality, market positioning, or other aspects of the business?" *(Eljelly; 2004: 53)*

2.1.5.1 Managing the Operational Components of NWC

So, what are the relevant levers of working capital management, and how are they applied? In effect, receivables and payables are just different ways of financing inventories. Companies need to manage all three components simultaneously across the value chain so as to drive fundamental reductions in asset levels. Given the wide range of possible actions, focus is critical. A realistic plan with clear priorities is the best approach. An overly ambitious agenda can overstrain internal capabilities and deliver suboptimal results. Instead, companies should concentrate on the most promising actions that will not impair flexibility and performance. These actions will vary depending on

industry and competitive situation, and have to be adapted to country specifics and regulations. The major levers needed to be accelerated are;

2.1.5.1.1 Reduce Inventories

"Excess inventory is one of the most overlooked sources of cash, typically accounting for almost half of the savings from working capital optimization projects. By streamlining processes within the company, as well as processes involving suppliers and customers, companies can minimize inventory throughout the value chain." *(Nwaeze, Yang & Yin; 2006: 231)*

a) Enhanced Forecast Accuracy and Demand Planning: "Improved forecast accuracy and regular updates of customer demand lead to a much more reliable planning process and help companies not only to reduce their inventory but also to improve the ability to deliver." *(Nwaeze, Yang & Yin; 2006: 233)*

b) Advanced Delivery and Logistics Concepts: "In order to keep inventories at lower levels, top-performing companies establish advanced and demand-driven logistics concepts with their suppliers, such as vendor-managed inventory, just in time (JIT) or just in sequence (JIS), and collaborate with their suppliers in terms of a holistic supply chain management with mutual benefits." *(Nwaeze, Yang & Yin; 2006: 235)*

c) Optimized Production Processes: "An important lever to reduce work-in-progress inventory is the redesign of production processes. The main objectives here are to reduce non-value-adding time (white-space reduction) and excessive inventory between production steps. Promising measures are removing bottlenecks and migrating from push concepts to demand-driven pull systems." *(Samiloglu & Demirgunes; 2008: 46)*

d) Service Level Adjustments: "An increased service level for products which are critical to the customer (and thus allow higher prices) and a decreased service level for products which are uncritical to the customer will not only

lead to optimized stocks. A more sophisticated approach to calculating security stocks based on target availability and deviations in production and demand will also reduce out-of stock situations for critical parts." *(Samiloglu & Demirgunes; 2008: 46)*

e) Variance Management: "Reducing product complexity and carefully tracking demand of product variants in order to identify low-turning products is one way to reorganize and tighten the assortment and concentrate on the most important products. Moreover, where applicable, components should be standardized. Customization of products should take place as late in the process as possible." *(Pass & Pike; 2007: 7)*

2.1.5.1.2 Speed Up Receivables Collection

"Many companies are early payers and late collectors - a formula for squandering working capital. Other companies, particularly project-based businesses and manufacturers of large, costly products with lengthy production cycles, have cash flow problems caused by a mismatch in timing between costs incurred and customer payments. Therefore, efficient management of receivables and prepayments received is crucial. An optimization can yield significant potential." *(Kim, Mauer & Sherman; 1998: 350)*

a) Invoicing Cycle: "The main target in this respect is to get invoices to the customers as quickly as possible. Processes and systems should be aligned to allow invoicing promptly after dispatch or service provision. All disruptions of the process by unnecessary interfaces should be eliminated. Furthermore, companies should reduce invoicing lead times by multiplying their invoicing runs." *(Kim, Mauer & Sherman; 1998: 352)*

b) Early Reminders/Dunning Cycles: "Experience shows that a number of customers seem to postpone their payments to the receipt of the first payment reminder. Early reminders and short dunning cycles thus have a direct impact

on late payments. Best-in-class companies reduce grace periods to a minimum or remind their customers of upcoming payments even before the due date. Establishing direct debiting with main customers is the most effective means to avoid overdue payments." *(Kim, Mauer & Sherman; 1998: 352)*

c) Payment Terms: "Renegotiated payment terms will lead to reduced DSO. The first step is often a harmonization and reduction of available conditions to decrease discretionary application. When preparing negotiations, companies should analyze their customers' bargaining power and specific preferences in order to identify improvement potential in the terms and conditions for payments." *(Jeng-Ren, Li & Han-Wen; 2006: 151)*

d) Payment Schedule: "Companies operating in project business should introduce more advantageous payment schemes that cover costs incurred. Percentage of completion (POC) accounting helps to define relevant payments along milestones. But also for companies with small series productions, the introduction of prepayments and advances can significantly improve liquidity." *(Jeng-Ren, Li & Han-Wen; 2006: 153)*

2.1.5.1.3 Rethink Payment Terms with Suppliers

If fast-paying companies are at one end of the spectrum, then companies that "lean on the trade" and use unpaid payables as a source of financing are at the other. Between these two extremes there is a more effective, integrated approach to payment renegotiation that takes into account all aspects of the customer– supplier relationship, from price and payment terms to delivery time frames, product acceptance conditions, and international trade definitions.

a) Payment Cycle: "Payment runs for payables should be limited to the required frequency. Here, of course, country- and industry-specific business

conventions apply. Moderate adjustments of payment runs just require some changes in the accounting systems, and tend to be a quick hit." *(Boisjoly; 2009: 103)*

b) Avoidance of Early Payments: "Payments before the due date should be strictly avoided. Payments should be accomplished with the next payment run after the due date (ex post). Switching from ex ante to ex post payments is common practice and entails an easily implemented lever for increasing payables." *(Boisjoly; 2009: 104)*

c) Payment Conditions: "A DPO increase can often be achieved by renegotiating payment conditions with suppliers. Best-practice approach here is to first get an overview of all payment terms in use and to define a clear set of payment terms for the future. Renegotiations with suppliers are based on these new standard terms. It is critical to take into account supplier specifics. For those with liquidity constraints the focus should lie on prices, whereas for suppliers with high liquidity the payment term can often be extended." *(Boisjoly; 2009: 1043)*

d) Product Acceptance Conditions: "Connecting the settlement of payables to the fulfillment of all contractual obligations may result in significant postponements of respective payments. Enforcing supplier compliance to stipulated quality, quantity, and delivery dates is also the basis for optimized, demand-oriented supply concepts. Prerequisite is full data transparency on relevant events." *(Boisjoly; 2009: 106)*

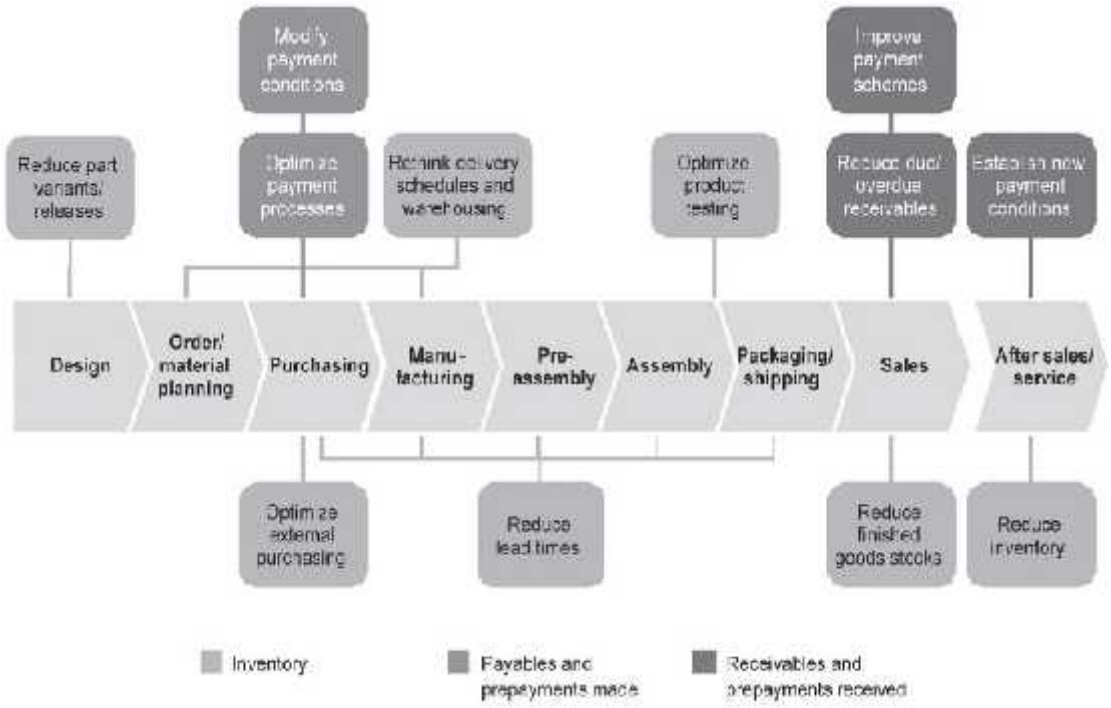
e) Back-to-back Agreements: "Balancing the due dates of receivables and payables helps to avoid excessive pre-financing of suppliers and can even lead to a positive cash balance." *(Boisjoly; 2009: 107)*

2.1.5.1.4 Mind the Tradeoffs

“Applying best practices of working capital management also means applying value-oriented management of tradeoffs between NWC and fixed assets, and between NWC and costs. The isolated treatment of individual levers has its boundaries and, therefore, all elements of tied-up capital across the balance sheet (fixed assets, inventories, receivables, payables, and cash) have to be considered as a whole. For example, it may be advantageous to acquire a new and more flexible machine (fixed asset) in order to reduce inventories. As another example, negotiations in purchasing cannot only focus on payment targets. The company also has to consider the resulting prices and discount conditions. Therefore, a best-practice NWC optimization is not just a pure reduction of NWC; it is rather a holistic optimization with value creation as the overarching target.” *(Hyun-Han & Soenen; 1998: 42)*

Figure 2.1

Value Creation and Free Cash Flow are Overarching Targets



Note: Value chain and relevance of levers may vary with industry and business model
Source: BCG

2.1.6 What Affects Working Capital Management?

"Organizations are generally focused on cash, accounts payable, and supply chain issues. However, external issues like the legal and business environment, or internal mechanisms like organization structure and information systems, can significantly impact working capital.

Owing to market pressures, companies are led to paying a lot of attention to producing good quarterly results quarter after quarter. Undue focus on this may sometimes produce a flattering but inaccurate snapshot of working capital performance. This also happens in companies that have a marked seasonality of operations with working capital requirements varying widely from quarter to quarter." *(Moss & Stine; 1993: 27)*

2.1.7 Measures to Improve Working Capital Management

“To improve the working capital management, the company should consider the following measures;

a) The essence of effective working capital management is proper cash flow forecasting. This should take into account the impact of unforeseen events, market cycles, loss of a prime customer, and actions by competitors. The effect of unforeseen demands on working capital should be factored in.

b) It pays to have contingency plans to tide over unexpected events. While market leaders can manage uncertainty better, other companies must have risk management procedures. These must be based on an objective and realistic view of the role of working capital.

c) Addressing the issue of working capital on a corporate-wide basis has certain advantages. Cash generated at one location can well be utilized at another. For this to happen, information access, efficient banking channels, good linkages between production and billing, internal systems to move cash and good treasury practices should be in place.

d) An innovative approach, combining operational and financial skills and an all encompassing view of the company's operations will help in identifying and implementing strategies that generate short term cash. This can be achieved by having the right set of executives who are responsible for setting targets and performance levels. They are then held accountable for delivering. They are also encouraged to be enterprising and to act as change agents.

e) Effective dispute management procedures in relation to customers will go along way in freeing up cash otherwise locked in due to disputes. It will also improve customer service and free up time for legitimate activities like sales, order entry, and cash collection. Overall, efficiency will increase due to reduced operating costs.

f) Collaborating with the customers instead of being focused only on own operations will also yield good results. If feasible, helping them to plan their inventory requirements efficiently to match the production with their consumption will help reduce inventory levels. This can be done with suppliers also.

Working capital management is an important yardstick to measure a company's operational and financial efficiency. This aspect must form part of the company's strategic and operational thinking. Efforts should constantly be made to improve the working capital position. This will yield greater efficiency and improve customer satisfaction." *(Theodore & Hutchison; 2003: 87-90)*

2.1.8 Determinants of Working Capital

Working capital requirements of a concern depends on a number of factors, each of which should be considered carefully for determining the proper amount of working capital. It may be however be added that these factors affect differently to the different units and these keeps varying from time to time. In general, the determinants of working capital which are as under:

a. Nature of Business

"Need for working capital is highly depends on what type of business, the firm in. there are trading firms, which needs to invest a lot in stocks, ills receivables, liquid cash etc. public utilities like railways, electricity, etc., need much less inventories and cash. Manufacturing concerns stands in between these two extends. Working capital requirement for manufacturing concerns depends on various factors like the products, technologies, marketing policies." *(Petersen; 2006: 41)*

b. Production Policies

"Production policies of the organizations effects working capital requirements very highly. Seasonal industries, which produces only in specific season requires more working capital. Some industries which produces round the year but sale mainly done in some special seasons are also need to keep more working capital." *(Petersen; 2006: 42)*

c. Size of Business

Size of business is another factor to determines the need for working capital

d. Length of Operating Cycle

"Operating cycle of the firm also influence the working capital. Longer the orating cycle, the higher will be the working capital requirement of the organization." *(Pinkowitz and Williamson; 2005: 62)*

e. Credit Policy

"Companies follow liberal credit policy needs to keep more working capital with them. Efficiency of debt collecting machinery is also relevant in this matter. Credit availability form suppliers also effects the company's working capital requirements. A company doesn't enjoy a liberal credit from its suppliers will have to keep more working capital." *(Pinkowitz and Williamson; 2005: 63)*

f. Business Fluctuation

"Cyclical changes in the economy also influence the level of working capital. During boom period, the tendency of management is to pile up inventories of raw materials and finished goods to avail the advantage of rising prove. This creates demand for more capital. Similarly during depression when the prices and demand for manufactured goods. Constantly reduce the industrial and trading activities show a downward termed. Hence the demand for working capital is low." *(Nunn; 1981: 113)*

g. Current Asset Policies

"The quantum of working capital of a company is significantly determined by its current assets policies. A company with conservative assets policy may operate with relatively high level of working capital than its sales volume. A company pursuing an aggressive amount assets policy operates with a relatively lower level of working capital." *(Nunn; 1981: 115)*

h. Fluctuations of Supply and Seasonal Variations

"Some companies need to keep large amount of working capital due to their irregular sales and intermittent supply. Similarly companies using bulky materials also maintain large reserves' of raw material inventories. This increases the need of working capital. Some companies manufacture and sell goods only during certain seasons. Working capital requirements of such industries will be higher during certain season of such industries period." *(Morck, Shleifer, and Vishny; 1988: 52)*

i. Other Factors

Effective co-ordination between production and distribution can reduce the need for working capital. Transportation and communication means. If developed helps to reduce the working capital requirement.

2.1.9 Sources of Working Capital

The company should meet its working capital needs through both long term and short term funds. It will be appropriate to meet at least 2/3 of the permanent working capital equipments form long term sources, whereas the variables working capital should be financed from short term sources. The working capital financing mix should be designed in such a way that the overall cost of working capital is the lowest, and the funds are available on time and for the period they are really required. The company can choose to finance its current assets by:

A) Long Term Sources of Permanent Working Capital

It includes equity and preference shares, retained earning, debentures and other long term debts from public deposits and financial institution. The long term working capital needs should meet through long term means of financing. Financing through long term means provides stability, reduces risk or payment and increases liquidity of the business concern. Various types of long term sources of working capital are summarized as follow:

a. Issue of Shares

"It is the primary and most important sources of regular or permanent working capital. Issuing equity shares as it does not create and burden on the income of the concern. Nor the concern is obliged to refund capital should preferably raise permanent working capital. Issue of preference shares is also a source of creating working capital." *(Masulis, Wang and Xie; 2006: 72)*

b. Retained Earnings

"Retain earning accumulated profits are a permanent sources of regular working capital. It is regular and cheapest. It creates not charge on future profits of the enterprises." *(Masulis, Wang and Xie; 2006: 72)*

c. Issue of Debentures

"It crates a fixed charge on future earnings of the company. Company is obliged to pay interest. Management should make wise choice in procuring funds by issue of debentures." *(Masulis, Wang and Xie; 2006: 74)*

d. Long Term Debt

"Company can raise fund from accepting public deposits, debts from Financial Institution like banks, corporations etc. the cost is higher than the other financial tools." *(Masulis, Wang and Xie; 2006: 74)*

B) Short Term Sources of Temporary Working Capital

Temporary working capital is required to meet the day to day business expenditures. The variable working capital would finance from short term sources of funds. And only the period needed. It has the benefits of, low cost and establishes closer relationships with banker. Some sources of temporary working capital are given below

a. Commercial Bank

"A commercial bank constitutes a significant source for short term or temporary working capital. This will be in the form of short term loans, cash credit, and overdraft and though discounting the bills of exchanges." *(Kim & Chung; 1990: 41)*

b. Public Deposits

"Most of the companies in recent years depend on these sources to meet their short term working capital requirements ranging for six month to three years." *(Kim & Chung; 1990: 41)*

c. Various Credits

"Trade credit, business credit papers and customer credit are other sources of short term working capital. Credit from suppliers, advances from customers, bills of exchanges, promissory notes, etc. helps to raise temporary working capital." *(Kim & Chung; 1990: 42)*

d. Reserves and Other Funds

"Various funds of the company like depreciation fund. Provision for tax and other provisions kept with the company can be used as temporary working capital." *(Kim & Chung; 1990: 42)*

C) Sources of Additional Working Capital

"Sources of additional working capital include the following;

- Existing cash reserves

- Profits (when you secure it as cash)
- Payables (credit from suppliers)
- New equity or loans from shareholder
- Bank overdrafts line of credit
- Long term loans

If you have insufficient working capital and try to increase sales, you can easily over stretch the financial resources of the business, this is called overtrading." *(Harford, Mansi & Maxwell; 2004: 201)*

2.1.10 Technique for Assessment of Working Capital Requirement

a. Estimation of Component of Working Capital Method

"Since working capital is the excess of current assets over current liabilities, an assessment of the working capital requirements can be made by estimating the amounts of different constituents of working capital e.g., inventories, accounts receivable, cash, accounts payable, etc." *(Harford, Mansi & Maxwell; 2004: 210)*

b. Percent of Sales Approach

"This is a traditional and simple method of estimating working capital requirements. According to this method, on the basis of past experience between sales and working capital requirements, a ratio can be determined for estimating the working capital requirements in future." *(Deloof; 2003: 63)*

c. Operating Cycle Approach

"According to this approach, the requirements of working capital depend upon the operating cycle of the business. The operating cycle begins with the acquisition of raw materials and ends with the collection of receivables

It may be broadly classified into the following four stages viz.

- Raw materials and stores storage stage.
- Work-in-progress stage.

- Finished goods inventory stage.
- Receivables collection stage.

The duration of the operating cycle for the purpose of estimating working capital requirements is equivalent to the sum of the durations of each of these stages less the credit period allowed by the suppliers of the firm.

Symbolically the duration of the working capital cycle can be put as follows: -

O = R + W + F + D - C

Where,

O = Duration of operating cycle;

R = Raw materials and stores storage period;

W = Work-in-progress period;

F = Finished stock storage period;

D = Debtors collection period;

C = Creditors payment period.

After computing the period of one operating cycle, the total number of operating cycles that can be computed during a year can be computed by dividing 365 days with number of operating days in a cycle. The total expenditure in the year when year when divided by the number of operating cycles in a year will give the average amount of the working capital requirement." *(Deloof; 2003: 65-67)*

2.1.11 Importance of Working Capital Management

"Working capital has two components current assets and current liabilities. A proper management of working capital is required because if a company has too little investment in the working capital then it means that company doesn't have sufficient quantity of materials and account receivables which might lead to loss in production and consequently sales will decrease, furthermore in case of a high demand in the market it will be difficult for the company to react

immediately and fulfill the demand. On the other hand if the investment in working capital is too big then a company has to bear the cost of storage of inventory, handling cost and opportunity cost." *(Opler, Pinkowitz, Stulz, & Williamson; 1999: 21)*

"In order to control risk and cost of the company the decision about the financing and level of working capital is really important. The level of working capital fluctuates with any fluctuation in its component e.g. if the production of firm is higher but the sale is relatively lower than level of inventory will increase, on the other hand if sale exceeds the level of production then inventory will decrease. Similarly, the level of cash will increase when companies collect the receivables and its level reduces when it pays its account payables. Moreover companies have three options to choose between to finance working capital i.e. short term debt, long term debt and equity finance. Equity financing is the most expensive way of financing followed by long term debt and short term debt. Although short term debt is the cheapest way to finance but it carries risk with it because any discarded fluctuation in cash might push the company towards default. Long term debts have more risk then short term debts and it carries high interest rate (because of a higher risk premium) which will reduce profitability. So in order to maintain cash inflow, cash outflow and to create the breakeven between risk, return and liquidity it is really important to manage working capital." *(Opler, Pinkowitz, Stulz, & Williamson; 1999: 23-25)*

2.1.12 Working Capital Policy

"Working capital policy can be best described as a strategy which provides the guideline to manage the current assets and current liabilities in such a way that it reduces the risk of default. Working capital policy is mainly focusing on the liquidity of current assets to meet current liabilities. Liquidity is very important because if the level of liquidity is too high than a company has lot of idle resources and it has to bear the cost of these idle resources but if the liquidity is

too low than it will face lack of resources to meet its current financial liabilities. Current assets are key component of working capital and the WCP also depends on the level of current assets against the level of current liabilities. On this base the literature of finance classifies working capital policy into three categories.

- Aggressive policy
- Defensive policy
- Conservative policy" *(Uyar; 2009: 190-191)*

"A company follows defensive policy by using long term debt and equity to finance its fixed assets and major portion of current assets. Resultantly the level of working capital is quite high which means that a company has more liquid or current assets then the current liabilities. This approach reduces the risk by reducing the current liabilities but it also affects profitability because long term debt offers high interest rate which will increase the cost of financing. It means a company is not willing to take risk and feel it appropriate to keep cash or near cash balances, higher inventories and generous credit terms. Mostly the companies that are operating in an uncertain environment prefer to adopt such a policy because they are not sure about the future prices, demand and short term interest rate. In such a situation it is better to have a high level of current assets e.g. to keep the higher level of inventory in the stock to meet the sudden rise in demand and to avoid the risk of stoppage in the production. This policy gives a longer cash conversion cycle for the company. Defensive policy provides the shield against the financial distress created by the lack of funds to meet the short term liability but as we discussed earlier long term debt have high interest rate which will increase the cost of financing. Similarly funds tie up in a business because of generous credit policy of the company also have its opportunity cost. Hence this policy might reduce the profitability and the cost of following this policy might exceed the benefits of the policy." *(William & McAfee; 2009: 24-25)*

"A company can follow aggressive policy by financing its current assets with short term debt because it gives the low interest rate but the risk associated with short term debt is higher then the long term debt. This approach is very risky because the difference between short term or liquid assets and short term liabilities turns very little. Furthermore few finance managers take even more risk by financing long term asset with short term debts and this approach push the working capital on the negative side. Managers try to enhance the profitability by paying lesser interest rate but this approach can be proved very risky if the short term interest rate fluctuates or the cash inflow is not enough to fulfill the current liabilities. Such a policy is adopted by the company which is operating in a stable economy and is quite certain about future cash flows. A company with aggressive working capital policy offers short credit period to customers, holds minimal inventory and has a small amount of cash in hand. This policy increases the risk of default because a company might face a lack of resources to meet the short term liabilities but it also gives a high return as the high return is associated with high risk. Some companies want neither to be aggressive by reducing the level of current assets as compared to current liabilities nor to be defensive by increasing the level of current assets as compared to current liabilities. So, in order to balance the risk and return these firms are following the moderate or conservative approach. This approach is a mixture of defensive WCP and aggressive WCP. In this approach, temporary current assets, assets which appear on the balance sheet for short period, will be financed by the short term borrowings and long term debts are used to finance fixed assets and permanent current assets. Thus the follower of this approach finds the moderate level of working capital with moderate risk and return. Moreover this policy not only reduces the risk of default but it also reduces the opportunity cost of additional investment in the current assets." *(Raheman & Nasr; 2007: 281-283)*

The level of working capital also depends on the level of sales because sales are the source of revenue for any company. Sales can influence working capital in three possible ways:

- As sales increase working capital will also increase with the same proportion so, the length of cash conversion cycle remains the same.
- As the sales increase working capital increase in a slower rate.
- As the sales increase the level of working capital rises in misappropriate manner i.e. the working capital might raise in a rate more than the rate of increased in the sale.

"A company with stable sale or growing sale can adopt the aggressive policy because it has a confidence on its future cash inflows and is confident to pay its short term liabilities at maturity. On the other hand a company with unstable sale or with fluctuation in the sale can't think of adopting the aggressive policy because it is not sure about its future cash inflows. In such a situation adoption of aggressive policy is similar to committing a suicide." *(Uyar; 2009: 196)*

2.2 Review of Journals and Articles

Padachi (2006), in his article, *"Trends in Working Capital Management and its Impact on Firms' Performance: An Analysis of Mauritian Small Manufacturing Firms",* has stated that the working capital needs of an organization change over time as does its internal cash generation rate. As such, the small firms should ensure a good synchronization of its assets and liabilities. This study has shown that the paper and printing industry has been able to achieve high scores on the various components of working capital and this has positively impact on its profitability. On this premise this industry may be referred as the 'hidden champions' and could thus be used as best practice among the SMEs.

Further, this study concludes that there is a pressing need for further empirical studies to be undertaken on small business financial management, in particular their working capital practices by extending the sample size so that an industry-wise analysis can help to uncover the factors that explain the better performance for some industries and how these best practices could be

extended to the other industries. This would also assist policy-makers and educators to identify the requirements of, and specific problems faced by small firms in Mauritius, especially as more emphasis is placed on the sector by the government. This study has come at an opportune time where the Mauritian government is deploying resources to help the SME sector so that the latter can positively contribute to the Mauritian economy. This analysis has been constrained by the sample size and the nature of the data, which could have well affected the results. Further studies will aim at increasing the sample size for still better and consistent panel estimates.

Nobanee & AlHajjar (2007), in their article, *"Optimizing Working Capital Management",* have stated that one of comprehensive measures of working capital management efficiency is the cash conversion cycle that conceders all financial flows associated with inventory, receivable and payables. The traditional link between the cash conversion cycle and firm's profitability and market value is that reducing the cash conversion cycle by reducing the time that cash are tied up in working capital improves firm's profitability and market value. This could happen by shortening the inventory conversion period via processing and selling goods to customers more quickly, by shortening the receivable collection period by speeding up collections, or by lengthening the payable deferral period via slowing down payments to suppliers.

On the other hand, shortening the cash conversion cycle could harm the firm's profitability; reducing the inventory conversion period could increase the shortage cost, reducing the receivable collection periods could makes the company's to louse it's good credit customers, and lengthening the payable period could damage the firm's credit reputation. However, achieving the optimal levels of inventory, receivable, and payable will minimizes the carrying cost and opportunity cost of holding inventory, receivable, and payable and leads to an optimal length of the cash conversion cycle. Hence, the study suggests an optimal cash conversion cycle as more accurate and

comprehensive measure of working capital management that maximizes sales, profitability and market value of firms.

Kaur (2009), in her article, *"Working Capital Management in Indian Tyre Industry"*, has examined the firm-specific and market-wide factors explaining the implied volatility skew (smile) in LIFFE equity options, and use Gram-Charlier series expansion to approximate the distribution of the logarithm of the stock price, incorporating non-normal skewness and kurtosis terms in the adjusted option price to expand the option price formula of Merton as a theoretical model and estimate the risk-neutral moments by numerically solving the nonlinear least-squares problem. This study uses the Gram-Charlier model to price American equity options, this method providing another theoretical formula with which to model option price. The empirical results may help to understand the influence of firm-specific and market-wide factors on the slope of the smile in LIFFE equity options.

First, the study shows that firms with a larger volatility of stock return tend to have an implied volatility curve of less negative slope, and find that firm-specific variables such as leverage ratio, firm size, beta, and traded volume provide useful explanations for the slope of the smile. On average, firms using higher financial leverage, larger firms, higher market risk firms, and larger traded volume firms tend to have an implied volatility curve of more negative slope. The results indicate that the higher the volatility of the FTSE 100 index, the more negative the slope of the smile of individual stocks, meaning that a higher volatility market is accompanied by greater volatility of stocks. In the analysis of robustness, the results indicate that the variable put-to-call open interest ratio can best represent the sentiment of investors, even though we use the most liquid data to test the robustness; the study cannot show that investors wish to attain a larger position in put options to hedge the downside risk. The category of maturity does not on average influence the empirical results.

Gill, Biger & Mathur (2010), in their article, "*The Relationship Between Working Capital Management And Profitability: Evidence From The United States*", have investigated the relationship between the working capital management and the firms' profitability for a sample of 88 American manufacturing companies listed on the New York Stock Exchange for the period of 3 years from. The study states that management of working capital is an important component of corporate financial management because it directly affects the profitability of the firms. Management of working capital refers to management of current assets and of current liabilities.

A popular measure of working capital management is the cash conversion cycle, that is, the time span between the expenditure for the purchases of raw materials and the collection of sales of finished goods. The study found that the longer the time lag, the larger the investment in working capital. A long cash conversion cycle might increase profitability because it leads to higher sales. However, corporate profitability might decrease with the cash conversion cycle, if the costs of higher investment in working capital rise faster than the benefits of holding more inventories and/or granting more trade credit to customers. For many manufacturing firms the current assets account for over half of their total assets. The management of working capital may have both negative and positive impact of the firm's profitability, which in turn, has negative and positive impact on the shareholders' wealth.

2.3 Review of Thesis

Jha (2006), in his thesis, "*Working Capital Management in Hotel Industry (With Reference To Hotel Radisson, Hotel Soaltee and Hotel Hyatt)*", has the main objective to examine the working capital management in hotel. The other specific objectives are;

a. To analyze the composition of working capital , liquidity position, and profitability position of Hotel Radisson, Hotel Soaltee and Hotel Hyatt.

b. To evaluate the relationship between sales and different variables of working capital.
c. To examine the working capital cash flow cycle and cash conversion cycle of the said hotels.

The major findings of the study are;

a. All three companies have been following aggressive financing policy, they have negative working capital during the study period.
b. None of the hotels seems to have solid view of the management of working capital.
c. Hotel Hyatt has very poor liquidity position as compared to other hotels, turnover of the entire hotels is decreasing due to unstable political situation for more than a decade.
d. Sales revenue of hotel is decreasing but operating expenses is in increasing trend accounting for the loss to the hotels, Hotel Radisson and Hotel Hyatt have been paying high amount of interest expenses than Hotel Soaltee.

Subedi (2007), in his thesis, *"A Study of Working Capital Management with Respect to National Trading Limited and Salt Trading Corporation Limited"*, has the main objective to present overall picture of National Trading Limited and Salt Trading Limited in terms of working capital management. The other specific objectives are;

a. To evaluate the efficiency of the companies in managing working capital.
b. To measure the promptness of the companies in converting sales into cash.
c. To analyze the liquidity of STCL and NTL.

The major findings of the study are;

a. There is operating inefficiency in both the companies and overall return position of the companies is also not in favorable condition because of

inefficient utilization of current assets, total assets and shareholders' wealth.

b. The outcome of cash conversion cycle of sample companies are not in satisfactory condition.
c. Liquidity position of Salt Trading Corporation Ltd shows satisfactory and favorable position by being successful in maintaining the standers but NTL been unable to meet standard. Both are following aggressive financing policy.

Kharel (2008), in his study, *"An Analysis of Working Capital Management of Nepal Insurance Company"*, has the main objective of analyzing the working capital management of Nepal Insurance Company. The specific objectives of the study are;

a. To analyze the size and structure of working capital and relation between in non-life insurance company with reference to NIC.
b. To analyze the relationship between operating income and different variables of working capital, to check the efficiency of working capital of NIC.
c. To analyze the working capital cash flow cycle or cash conversion cycle of NIC.

The major findings of the study are;

a. The higher percentage of current assets in total assets of Nepal Insurance Company denotes liquidity position of the company and lower risk of technical insolvency.
b. The company has adopted the conservative current assets policy. The size of net working capital is also in increasing trend.
c. The ratio of net working capital to operating income indicates less utilization of working capital where operating income is incomparably smaller than the net working capital.

d. The company has eliminated its external financing using internal fund. Nepal insurance company kept excess amount of working capital in comparison to net sales, which can not be considered as the sign of efficient management of working capital in the organization.
e. The profitability position is being unsatisfactory every year. The corporation has so far greater current assets than current liabilities in all years of observation that clarifies the better liquidity position. Cash is pilling up lying unproductively.

Devkota (2009), in his theis, *"Working Capital Management of Manufacturing Companies Listed in NEPSE"*, has the main objective to find out the working capital financing policy adopted by listed Nepalese manufacturing companies. The specific objectives of the study are;

a. To analyze the current assets and current liabilities policies.
b. To examine the effects of working capital on profitability.
c. To trace out the problems faced by the companies in having sound working capital management.

The major findings of the study are;

a. The listed manufacturing companies have not truly considered the working capital management pragmatically in their operations.
b. There is procrastinating in cash conversion cycle. Further, the companies have extensively used long term debt to meet the cash requirement, which indicates the adoption of conservative policy.
c. The relationship between working capital and net profit is not statistically significant. The gross working capital of the companies is highly dominated by the inventory.
d. The return on equity is in irregular trend. It indicates that the companies are not efficient to increase the profit in same proportion in the increment in shareholders' equity.

e. The companies are accompanied with various hindrances like lower turnover, lower return, lower net working capital or poor liquidity position, lack of proper working capital policy, deteriorating financing situation, lack of appropriate credit and collection policy, improper inventory management, high operating cost of production etc.

Upreti (2010), in his thesis, *"Working Capital Management in Joint Venture Banks"*, has the main objective to examine the management of working capital of NABIL, HBL, SBI and EBL. The specific objectives of the study are;

a. To study the current assets and current liabilities and their impact on liquidity and profitability
b. To analyze the liquidity, assets utilization, long term solvency and profitability position of NABIL, HBL, SBI and EBL.
c. To predict the working capital ratios of NABIL, HBL, SBI and EBL in future.

The major findings of the study are;

a. The current asset covers 98.38%, 98.68%, 98.90% and 99.30% of the total assets of NABIL, HBL, EBL and SBI bank respectively in average. SBI bank has the highest ratio (99.30%) and NABIL bank has the lowest ratio (98.38%) compared with other banks.
b. Current assets of NABIL, HBL, EBL and SBI are 64.56 times, 80.01 times, 93.62 times and 151.55 times greater than the corresponding fixed assets respectively. SBI has the highest current assets to fixed assets ratio (151.55 times) and NABIL has the lowest ratio (64.56 times) in average.
c. The prediction of current assets total assets ratio of NABIL, EBL and SBI indicated that the ratio continues to increase in the future years. Whereas, the prediction shows that ratio in HBL decreases in each forthcoming year. Similarly, the current assets to total assets of NABIL, EBL and SBI increases and that of HBL decreases in the coming years. However, the cash and bank balance to currents assets decreases in all the banks in each

coming year. In contrast, the ROE of each bank will increase in the forthcoming years.

d. There exists highly positive relationship between loan and advances and total deposit, between loan and advances and net profit of each bank. However, the relationship between cash and bank balance and current liabilities of NABIL and HBL is negative and that of EBL and SBI is positive.

2.4 Research Gap

All of the aforementioned studies have mainly concentrated on liquidity and profitability management, and thus have slightly gone astray from the working capital management. The present study recognizes this loophole, and specifies on the working capital management of the banks and thus ignores aught that is not related to working capital. Further, the previous studies reviewed do not accumulates the opinions regarding working capital, thus, the present study also embraces opinions of the personnel of the banks as well.

CHAPTER – III
RESEARCH METHODOLOGY

3.1 Research Design

Selection of appropriate research design is necessary to meet the study objectives of any research. Research design is a plan structure and strategy of investigation conceived so as to obtain answer to research questions and to control variances.

The study aims to portraying accurately on the working capital (or current assets and current liabilities) and its impact on overall financial position of sample banks. It is based on recent 5 years data from F/Y 2005/06 to F/Y 2009/10. The study has been conducted to assess the existing situation of working capital management of commercial banks and describe the situation and events occurring at present. The research design followed for this study is basically a historical, empirical and descriptive-cum-analytical.

3.2 Population and Sample

At present there are 31 commercial banks operating in Nepal. Among them Nabil Bank Limited, Nepal Investment Bank Limited, Everest Bank Limited, Bank of Kathmandu Limited and Siddhartha Bank Limited have been taken as a sample for the study. This sample banks are the pioneer leading banks in the country. Financial statements of last five fiscal years from F/Y 2005/06 to F/Y 2009/10 have been taken as sample data for evaluating working capital management.

3.3 Data Collection Technique

This study is conducted on the basis of both primary and secondary data relating to working capital. The secondary data have been extracted mainly through the annual reports of NABIL, NIBL, EBL, BOK and SBL. Beside it,

the annual reports of Nepal Rastra Bank and the Supervision made by NRB have been also equally reviewed. Further, the directives issued by NRB have also been taken as the secondary source of data. Similarly, various data and information are collected from the periodicals, economic journals, managerial magazine and other published and unpublished reports and documents from various sources. Likewise, the primary data have been collected by distributing questionnaire to the employees and the shareholders of EBL.

3.4 Data Analysis Tools

Under this study, financial as well as statistical tools have been used to analyze the gathered data and information.

3.4.1 Financial Tools

In this research study various financial tools are employed for the analysis. The main focus will be on Ratio Analysis. Ratio analysis is the most important tools of the financial analysis, which help to ascertain the financial conditions of the organizations. Various ratios are employed and grouped for the analysis of composition of working capital, liquidity position, activity or turnover position, profitability position and capital structure or leverage position.

A) Total Assets Financing

The total asset of the bank is financed through outside and inside financing. The inside financing involves shareholder's equity whereas the outside financing involves both long term debt and short term debt. Higher the debt financing signals adoption of aggressive working capital policy and vice versa.

$$\text{Total Assets Financing (\%)} = \text{Equity Financing (\%)} + \text{Debt Financing (\%)}$$

B) Total Debt Composition

The total debt of the bank is composed of long term debt and short term debt. The short term debt is easy to obtain in comparison to long term debt. But,

short term debt carries higher risk. Thus, higher use of short term debt to financing the working capital means the adoption of aggressive policy.

$$\text{Total Debt Composition (\%)} = \text{Long Term Debt (\%)} + \text{Short Term Debt (\%)}$$

C) Gross Working Capital

Generally gross working capital means current assets. Thus, higher the current assets indicates higher gross working capital and eventually higher net working capital as well. Under this, the growth rate of gross working capital within the five year period is analyzed.

$$\text{Growth Rate of GWC} = \frac{\text{Difference in GWC}}{\text{Last Year GWC}} \text{ x } 100$$

D) Composition of Gross Working Capital

The gross working capital in bank is mainly composed with the cash and bank balance, money at short call and notice, short term investment, loan and advances, and other current assets. The composition of gross working capital presents the representation of each component in GWC, and thus measures the liquidity.

$$\text{GWC} = \text{CBB} + \text{MSCN} + \text{Inv.} + \text{Loan and Advances} + \text{Other}$$

E) Net Working Capital Growth

The net working capital is the difference between the current assets and the current liabilities. Lower the net working capital implies higher amount of short term financing and thus having aggressive policy and so on. The growth rate of net working capital is given by;

$$\text{Growth Rate of NWC} = \frac{\text{Difference in NWC}}{\text{Last Year NWC}} \text{ x } 100$$

F) Working Capital Financing Policy

This ratio measures the relationship between the short term debt capital and the current assets of the bank. In other word, this ratio evaluates what percentage

of the working capital has been financed through the short term debt, and thus enlightens on the working capital policy adopted.

$$\text{Working Capital Financing Policy} = \frac{\text{Short Term Debt Capital}}{\text{Working Capital}} \text{ x } 100$$

G) Working Capital to Total Assets

This ratio measures the relationship between the working capital and total assets of the bank. This ratio is germane to the management for making policy in the types of finance to be adopted. This ratio also shows the representation of working capital in total assets of the bank.

$$\text{Working Capital to Total Assets} = \frac{\text{Working Capital}}{\text{Total Assets}} \text{ x } 100$$

H) Cash Reserve Ratio

To ensure the security of the deposit holders, each bank has to keep certain percentage of the total local deposit collection as cash balance in NRB, as per the provision of NRB. Currently such requirement is 5%. Thus, this ratio measures the liquidity to be maintained by the bank.

$$\text{Cash Reserve Ratio} = \frac{\text{Cash Balance at NRB}}{\text{Total Local Deposit}} \text{ x } 100$$

I) Return on Equity

This ratio measures the efficiency of the bank in optimally utilizing the shareholders' equity in generating profit. Higher the return on equity indicates that the bank has adopted aggressive working capital policy, and thus the bank is risk taker.

$$\text{Return on Equity} = \frac{\text{Net Profit after Tax}}{\text{Total Shareholder's Equity}} \text{ x } 100$$

3.4.2 Statistical Tools

The major statistical tools used for analyzing the data are as follows;

A) Arithmetic Mean or Average (}X)

An average is a single value that represents a group of values. It depicts the characteristic of the whole group. It is a representative of the entire mass of homogeneous data, its value lies somewhere in between the two extremes, i.e. the largest and the smallest items. It is obtained by dividing the sum of the quantities by the number of items. Thus,

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

Where,

X = sum of the sizes of the items

N= number of items

B) Standard Deviation (S.D.)

It is the most usual measure of dispersion and it represents the square root of the variance of a group of numbers, i.e., the square root of the sum of the squared differences between a group of numbers and their arithmetic mean. Generally, it is denoted by small Greek letter ∃ (read as sigma) and is obtained as follows.

$$\text{S.D.}\,(\sigma) = \sqrt{\frac{\sum(X - \bar{X})^2}{N}}$$

Where,

N = Number of items in the series.

€X = mean

X = Variable

The standard deviation measures the absolute dispersion or variability of a distribution; the greater the amount of dispersion or variability the greater the

standard derivation, for the greater will be the magnitude of the deviations of the values from their mean.

C) Coefficient of Variation

Karl Pearson developed this measurement to measure the relative dispersion. It is used in such problems where we want to compare the variability of two or more series. It is denoted by C.V. and is obtained by dividing the arithmetic mean to standard deviation. Thus,

$$C.V. = \frac{\sigma}{\bar{X}} \times 100$$

D) Coefficient of Correlation

The correlation analysis refers to the techniques used in measuring the closeness of the relationship between the variables. It helps us in determining the degree of relationship between to or more variables. It doesn't tell us anything about cause and effect relationship. It describes not only the magnitude of correlation but also its direction. The coefficient of correlation is a number, which indicates to what extent two things (variables) are related to what extent variations in one go with the variations in the other.

The value of coefficient of correlation as obtained shall always lie between ± 1, a value of –1 indicating a perfect negative relationship between the variables, of +1 a perfect positive relationship, and of no relationship when correlation coefficient is zero. The zero correlation coefficient means the variables are uncorrected. It is defined by Karl Pearson as:

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

E) Probable Error

The probable error denoted by P.E. is used to measure the reliability and test of significance of correlation coefficient. Significance of relationship has been

tested by using the probable error (P.E.) and it is denoted by the following model:

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

Where, r = the value of correlation coefficient

n = number of pairs of observations

if r < P.E., it is insignificant, i.e. there is no evidence of correlation

if r > 6 P.E., it is significant

if P.E. < r < 6 P.E., nothing can be concluded

F) Regression Analysis

Regression is a statistical method for investing relationships between the variables by the establishment of an approximate functional relationship between them. It is considered as a useful tool for determining the strength of relationship between two or more variables. In this study, only simple regression analysis has been done. The regression line of Y on X is given by;

$$Y = a + bx$$

G) Trend Analysis

A widely and most commonly used method to describe the trend is the method of least square. Let the trend line between the dependent variable y and the independent variable x (i.e. time) be represented by;

Y_c = a + bx …… (i)

Where,

a = y intercept or value of y when x = 0

b = Slope of the trend line or amount of change that comes in y of a unit change in x.

CHAPTER – IV

DATA PRESENTATION AND ANALYSIS

4.1 Secondary Data Analysis

This section of the study analyzes the secondary data, mainly related to the working capital management, collected from the sampled banks by utilizing both financial and statistical tools.

4.1.1 Total Assets Financing

The total asset of the bank is financed through the outside funding and internal funding. The internal funding involves shareholders' equity whereas outside funding involves both long term debt and short term debt. A good combination between these two funding is necessary for the optimal profit achievement. The financing of total assets of the selected banks is presented in the Table 4.1.

Table 4.1

Total Assets Financing

(Unit in %)

FY	EBL		NIBL		BOK		NABIL		SBL	
	Eq.	Debt	Eq.	Debt	Eq.	Debt	Eq.	Debt	Eq.	Debt
2005/06	6.03	93.97	6.64	93.36	6.84	93.16	8.40	91.60	12.68	87.32
2006/07	5.61	94.39	6.81	93.19	6.81	93.19	7.55	92.45	9.98	90.02
2007/08	7.08	92.92	6.91	93.09	7.57	92.43	6.56	93.44	9.16	90.84
2008/09	5.97	94.03	7.37	92.63	8.50	91.50	7.14	92.86	7.15	92.85

2009/10	6.67	93.33	8.00	92.00	8.86	91.14	7.36	92.64	7.03	92.97
Mean	**6.27**	**93.73**	**7.15**	**92.85**	**7.72**	**92.28**	**7.40**	**92.60**	**9.20**	**90.80**
S.D.	**0.53**	**0.53**	**0.49**	**0.49**	**0.84**	**0.84**	**0.60**	**0.60**	**2.08**	**2.08**
C.V.%	**8.43**	**0.56**	**6.89**	**0.53**	**10.89**	**0.91**	**8.08**	**0.65**	**22.60**	**2.29**

(Source: Appendix II)

The table 4.1 shows the method adopted by the banks to finance the total assets. The table reveals that each bank has given preference to debt capital than equity capital, while financing the total assets. Thus, the total assets of each bank can be considered risky. Looking individually, the equity capital of EBL has followed fluctuating trend except, and thus has ranged from 5.61% in the fiscal year 2006/07 to 7.08% in the fiscal year 2007/08. Similarly, the debt financing of the bank has ranged from 92.92% in the fiscal year 2007/08 to 94.39% in the fiscal year 2006/07. In average, EBL has financed the total assets by 6.27% internal fund and 93.73% outside fund. Also, the coefficient of variation in inside funding is 8.43% and that in outside funding is 0.56%.

However, NIBL has practiced to deduct the outside fund and increase the internal fund, while financing the total assets. The equity financing in NIBL has ranged from 6.64% in the fiscal year 2005/06 to 8.00% in the fiscal year 2009/10 and debt financing has ranged from 92.00% in the fiscal year 2009/10 to 93.36% in the fiscal year 2005/06. In average, NIBL financed 7.15% of the total assets through equity capital and 92.85% of the total assets through debt capital. The coefficient of variation on equity financing is 6.89%, indicating quite uniformity, and debt financing is 0.53%, indicating high uniformity.

Similarly, the percentage of debt financing in total assets of BOK has decreased gradually during the observed periods and the percentage of equity financing has increased simultaneously. The equity financing to total assets of BOK has ranged from 6.81% in the fiscal year 2006/07 to 8.86% in the fiscal year 2009/10. Likewise, the debt financing to total assets has gradually decreased from 93.19% in the fiscal year 2006/07 to 91.14% in the fiscal year

2009/10. In average, BOK financed 7.72% of the total assets through equity capital and 92.28% of the total assets with debt capital.

Unlike in BOK, the percentage of equity financing in NABIL has decreased for the first three fiscal years and consequently the percentage of debt financing has increased in these three years, and the trend of the two variables was opposite in the last two years. The equity capital has ranged from 6.56% in the fiscal year 2007/08 to 8.40% in the fiscal year 2005/06, and debt capital has ranged from 91.60% to 93.44% in the same fiscal year. In average, the equity capital and debt capital have represented 7.40% and 92.60% of the total assets respectively.

However, it has been ascertained that SBL has focused more on debt financing to meet the capital requirement, as a result the percentage of debt capital on total capital and liabilities is in increasing trend, and consequently the percentage of equity capital is in decreasing trend. The debt capital percentage has ranged from 87.32% in the fiscal year 2005/06 to 92.97% in the fiscal year 2009/10, while the equity capital percentage has ranged from 7.03% in the fiscal year 2009/10 to 12.68% in the fiscal year 2005/06. In average, the bank has met 9.20% of the fund requirement through debt capital, and 90.80% of the fund requirement through debt capital.

Finally, it can be stated that the debt capital representation is extensively higher than the equity capital in all the selected banks, and thus represents much risk in total assets of the banks. In addition it can be considered that the total assets of EBL is most risky than that of NIBL, NABIL, SBL and BOK, since the debt capital representation in EBL is highest.

4.1.2 Total Debt Composition

The total debt composition shows the attitude of the bank in taking the risk. Higher amount of short term debt than long term debt states that the bank is

risk taker, while the opposite states that the bank is risk averter. This ratio indicates on which debt capital is the bank focusing in financing the working capital.

Table 4.2

Total Debt Composition

(Unit in %)

FY	EBL		NIBL		BOK		NABIL		SBL	
	LTD	**STD**	**LTD**	**STD**	**LTD**	**STD**	**LTD**	**STD**	**LTD**	**STD**
2005/06	2.00	98.00	2.76	97.24	6.58	93.42	0.85	99.15	4.36	95.64
2006/07	1.48	98.52	3.11	96.89	6.84	93.16	3.50	96.50	6.00	94.00
2007/08	1.19	98.81	2.90	97.10	1.83	98.17	4.61	95.39	1.94	98.06
2008/09	1.76	98.24	2.22	97.78	1.60	98.40	4.86	95.14	3.34	96.66
2009/10	1.82	98.18	2.06	97.94	2.34	97.66	0.78	99.22	2.70	97.30
Mean	**1.65**	**98.35**	**2.61**	**97.39**	**3.84**	**96.16**	**2.92**	**97.08**	**3.67**	**96.33**
S.D.	**0.29**	**0.29**	**0.40**	**0.40**	**2.36**	**2.36**	**1.78**	**1.78**	**1.41**	**1.41**
C.V.%	**17.26**	**0.29**	**15.45**	**0.41**	**61.44**	**2.45**	**61.00**	**1.84**	**38.50**	**1.47**

(Source: Appendix II)

The table 4.2 shows the financing policy of the banks through debt. The table depicts that all the banks have extensively used short term debt than long term debt. The use of long term debt has not crossed 11% of the total debt capital. Looking each bank, EBL has adopted to decrease the representation of long term debt in total debt in first three fiscal years, however, such representation has gradually increased in the last two fiscal years. Thus, long term debt represents 1.19% in lowest in the fiscal year 2007/08 to 2.00% in highest in the fiscal year 2005/06. In average the long term covers only 1.65% of the total debt capital, and the variation in such representation is 17.26%.

Similarly, the mobilization of long term debt in NIBL is quite higher than that of EBL and thus has ranged from 2.06% in the fiscal year 2009/10 to 3.11% in the fiscal year 2006/07. It reveals that the use of long term debt percentage in NIBL has been in fluctuating trend. Simultaneously, the short term debt percentage has ranged from 96.89% in the fiscal year 2006/07 to 97.94% in the fiscal year 2009/10. In average, the short term debt and long term debt represent 2.61% and 97.39% of the total debt. Also, the variation in long term debt financing percentage is extensively higher than that of short term debt financing.

The long term debt financing percentage and short term debt financing percentage in BOK are in fluctuating trend and thus the long term debt financing percentage has ranged from 1.60% in the fiscal year 2008/09 to 6.84% in the fiscal year 2006/07. The short term debt financing percentage has ranged from 93.16% in the fiscal year 2006/07 to 98.40% in the fiscal year 2008/09. In average, the long term debt financing and short term debt financing have represented 3.84% and 96.16% of the total debt capital.

In contrast, the long term debt capital percentage has followed increasing trend and the short term debt capital percentage has followed decreasing trend for the first four fiscal years in NABIL. The short term debt capital and long term debt capital have represented 97.08% and 2.92% of the total debt capital in average. However, the representation of short term debt capital and long term debt capital in total debt capital has varied in case of SBL. In average, the short term debt capital has represented 96.33% and long term debt capital has covered just 3.67% of the total debt capital.

Analyzing the data, it can be said that the working capital of the banks is much riskier, since uses of higher short term debt demands repayment in every few month, which ultimately desires higher liquidity and thus can cause bankruptcy in case of low current assets. Further, the interest rates on short term debt

fluctuate widely than in long term debt. Among the five banks, the working capital of EBL is much risky than that of other banks, on the basis of high use of short term debt capital percentage.

4.1.3 Gross Working Capital Status

Gross working capital means the current assets. The below table shows the gross working capital in different fiscal years, and growth percentage of gross working capital. Higher the gross working capital indicates higher liquidity.

Table 4.3

Gross Working Capital Status

FY	EBL		NIBL		BOK		NABIL		SBL	
	GWC	Gr.	GWC	Gr.	GWC	Gr.	GWC	Gr.	GWC	Gr.
2005/06	15807.20	36.29	20986.69	33.31	12167.60	24.64	22010.88	31.78	4717.24	54.11
2006/07	21262.47	34.51	26831.38	27.85	14260.50	17.20	26966.50	22.51	7907.99	67.64
2007/08	26788.84	25.99	37903.22	41.26	17334.70	21.56	36534.72	35.48	11595.96	46.64
2008/09	36489.68	36.21	51950.05	37.06	20079.00	15.83	43206.40	18.26	17709.59	52.72
2009/10	40919.67	12.14	56169.16	8.12	22904.90	14.07	51298.24	18.73	22442.00	26.72
Mean	**28253.57**	**29.03**	**38768.10**	**29.52**	**17349.33**	**18.66**	**36003.35**	**25.35**	**12874.56**	**49.57**
S.D.	**9318.76**	**9.26**	**13681.90**	**11.57**	**3865.40**	**3.88**	**10616.53**	**7.02**	**6446.04**	**13.32**
C.V.%	**32.98**	**31.90**	**35.29**	**39.21**	**22.28**	**20.80**	**29.49**	**27.67**	**50.07**	**26.88**

(Source: Appendix II)

The table 4.3 presents the gross working capital, i.e. current assets, of the bank. Clearly, the gross working capital of the banks has gradually increased during the periods. The gross working capital of EBL has increased from Rs. 15807.20 millions in the fiscal year 2005/06 to Rs. 40919.67 millions in the fiscal year 2009/10. In average, the bank has maintained Rs. 28253.57 millions working capital. And the coefficient of variation in the working capital is 32.98%, indicating inconsistency. Further the growth rate of working capital has varied

from 12.14% in the fiscal year 2009/10 to 36.29% in the fiscal year 2005/06. In average, the growth rate of working capital is 29.03%.

Likewise, the working capital of NIBL is lowest, Rs. 20986.69 millions, in the fiscal year 2005/06 and by the end of the fiscal year 2009/10, it has been raised to Rs. 56169.16 millions. In average, the working capital in NIBL is Rs. 38768.10 millions and the coefficient of variation is 35.29%, indicating high inconsistency. Similarly, the working capital of the bank has grown up by 8.12% in lowest in the fiscal year 2009/10 and by 41.26% in highest in the fiscal year 2007/08.

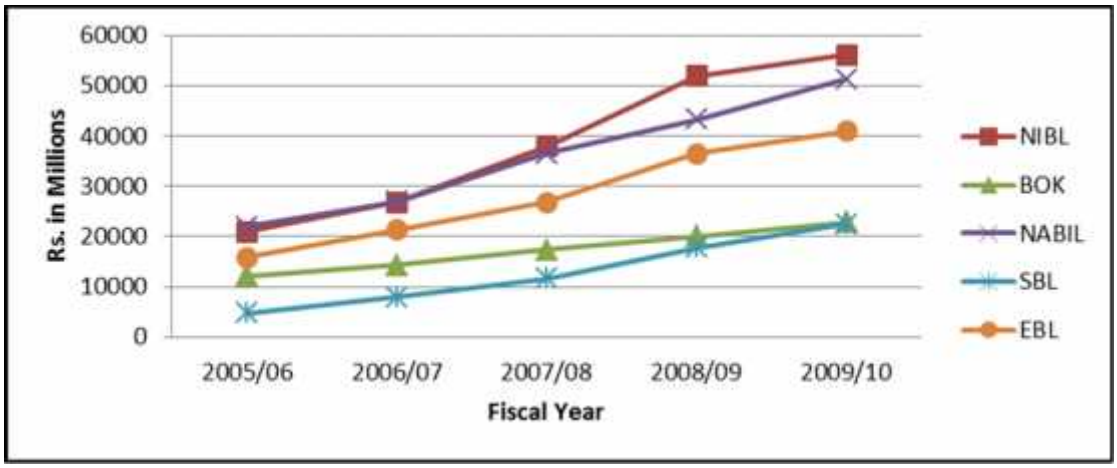
Similarly, the working capital of BOK has been increased from Rs. 12167.60 millions in the fiscal year 2005/06 to Rs. 22904.90 millions in the fiscal year 2009/10. In average the working capital of BOK is Rs. 17349.33 millions. Also, the growth rate of working capital has ranged from 14.07% in the fiscal year 2009/10 to 24.64% in the fiscal year 2005/06. The average growth rate in gross working capital of bank is 18.66%, however, the inconsistency in growth rate is high, i.e. 20.80%.

Alike in other banks, the gross working capital of NABIL has increased from Rs. 22010.88 millions in the fiscal year 2005/06 to Rs. 51298.24 millions. Consequently the growth rate in gross working capital of NABIL has ranged from 18.26% in the fiscal year 2008/09 to 35.48% in the fiscal year 2007/08. In average, the gross working capital of NABIL is Rs. 36003.35 millions and the growth rate is 25.35%. Also, the gross working capital in SBL has increased from Rs. 4717.24 millions in the fiscal year 2005/06 to Rs. 22442 millions in the fiscal year 2009/10, and the growth rate is highest, 67.64%, in the fiscal year 2006/07, and is lowest, 26.72%, in the fiscal year 2009/10. In average, the gross working capital is Rs. 12874.56 millions and the growth rate in such capital is 49.57%.

Paraphrasing the analysis, it can be concluded that the banks have given predilection to increase the gross working capital to have sound liquidity management. Among the five banks, NIBL has highest gross working capital. Thus, it can be inferred that the liquidity of NIBL is superior to that of other banks.

Figure 4.1

Gross Working Capital Status



4.1.4 Net Working Capital Growth

Net working capital means the excess of current assets to current liabilities. Higher the current asset than short term debt demands higher amount of other capital, either long term debt capital or equity capital. The net working capital of the banks for the five fiscal year periods and the growth has been shown in the table below.

Table 4.4

Net Working Capital Growth

FY	EBL		NIBL		BOK		NABIL		SBL	
	NWC	Gr.	NWC	Gr.	NWC	Gr.	NWC	Gr.	NWC	Gr.
2005/06	1110.73	11.23	1621.99	34.10	1482.17	134.70	1729.1	31.65	744.6	35.96
2006/07	1331.42	19.87	1918.66	18.29	1602.42	8.11	2652.73	53.42	1177.03	58.08

2007/08	1860.74	39.76	2766.70	44.20	1254.80	-21.69	3439.16	29.65	1201.09	2.04
2008/09	2388.47	28.36	3935.89	42.26	1624.55	29.47	4450.56	29.41	1661.95	38.37
2009/10	3000.65	25.63	4536.46	15.26	2082.23	28.17	3427.64	-22.98	1815.89	9.26
Mean	**1938.40**	**24.97**	**2955.94**	**30.82**	**1609.23**	**35.75**	**3139.84**	**24.23**	**1320.11**	**28.74**
S.D.	**691.44**	**9.44**	**1126.90**	**12.00**	**270.47**	**52.82**	**907.51**	**25.27**	**381.71**	**20.48**
C.V.%	**35.67**	**37.79**	**38.12**	**38.93**	**16.81**	**147.75**	**28.90**	**104.30**	**28.91**	**71.26**

(Source: Appendix II)

The table 4.4 shows the net working capital of the bank. It is clear that the net working capital of EBL is in increasing trend within the five year periods. The net working capital of such bank is lowest, i.e. Rs. 1110.73 millions, in the fiscal year 2005/06 and highest, i.e. Rs. 3000.65 millions, in the fiscal year 2009/10. In average, the net working capital of the bank is Rs. 1938.40 millions with 35.67% fluctuation, and has grown up by 11.23% in lowest in the fiscal year 2005/06 and by 39.76% in highest in the fiscal year 2007/08. In average the net working capital of the bank has been raised by 24.97%, and the fluctuation rate in such growth rate is 37.79%.

Alike in EBL, the net working capital in NIBL is also in increasing trend and thus has increased from Rs. 1621.99 millions in the base year 2005/06 to Rs. 4536.46 millions in the final year 2009/10. Also, the growth rate of NWC has ranged from 15.26% in the fiscal year 2009/10 to 34.10% in the fiscal year 2005/06. In average, the NWC is Rs. 2955.94 millions and growth rate is 30.82% and the coefficient of variation in NWC is 38.12% and in growth rate is 38.93%, indicating inconsistency.

Although the current assets, gross working capital, and current liabilities of the BOK have increased during the periods, the net working capital has fluctuated during the periods. This indicates that increment in the gross working capital and the increment in short term debt have differed. The net working capital is lowest, Rs. 1254.80 millions, in the fiscal year 2007/08 and highest, Rs.

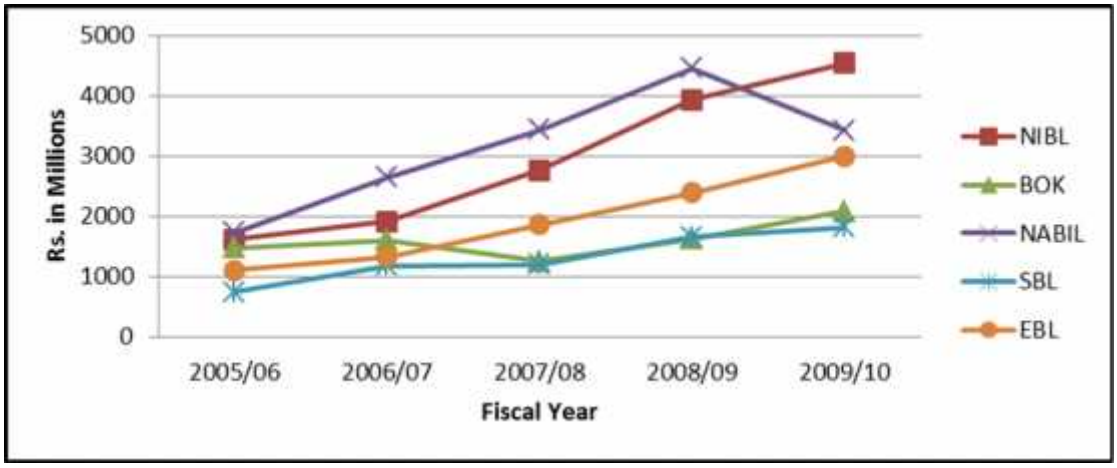
2082.23 millions, in the fiscal year 2009/10. In average, the net working capital of the bank is Rs. 1609.23 millions and the increment is 35.75% annually.

However, the net working capital in NABIL has increased almost by twofold within the five year periods and thus has reached to Rs. 3427.64 millions in the fiscal year 2009/10 from Rs. 1729.10 millions in the fiscal year 2005/06. In average, the net working capital of NABIL is Rs. 3139.84 millions and the growth rate in such capital is 24.23% in average. Moreover, SBL has been able to manage the increasing trend in net working capital, considering the magnificence of the liquidity, and thus the net working capital of the bank has increased from Rs. 744.60 millions in the fiscal year 2005/06 to Rs. 1815.89 millions in the fiscal year 2009/10. In average, the net working capital of SBL is Rs. 1320.11 millions and the average growth rate in working capital is 28.74%.

The table indicates that the banks have given more concentrations in increasing the current assets by greater amount than increasing the current liabilities. Thus it can be concluded that the banks are following aggressive working capital policy, since the short term debt has been extensively used to finance current assets. Although the net working capital of NABIL is highest, the growth rate in net working capital of BOK is highest, from which it can be considered that BOK has paid greatest attention in increasing net working capital than other does.

Figure 4.2

Net Working Capital Growth



4.1.5 Working Capital Financing Policy

The observed banks used short term debt comparatively much higher than the long term debt to finance the total assets. This indicates that the short term debt financing is also extensively used to finance the working capital. The table below shows to what extent the short term debt has been used to finance working capital of the bank.

Table 4.5

Working Capital Financing Policy

Bank	Fiscal Year					Mean	S.D.	C.V. %
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL								
STD	14696.47	19931.05	24928.10	34101.21	37919.02			
WC	15807.20	21262.47	26788.84	36489.68	40919.67			
Ratio	92.97	93.74	93.05	93.45	92.67	**93.18**	**0.38**	**0.40**
NIBL								
STD	19364.7	24912.72	35136.52	48014.16	51632.70			
WC	20986.69	26831.38	37903.22	51950.05	56169.16			
Ratio	92.27	92.85	92.70	92.42	91.92	**92.43**	**0.33**	**0.35**
BOK								
STD	10685.42	12658.12	16079.85	18454.41	20822.66			
WC	12167.59	14260.54	17334.65	20078.96	22904.89			
Ratio	87.82	88.76	92.76	91.91	90.91	**90.43**	**1.87**	**2.07**
NABIL								
STD	20281.78	24313.77	33095.56	38755.84	47870.60			
WC	22010.88	26966.50	36534.72	43206.40	51298.24			
Ratio	92.14	90.16	90.59	89.70	93.32	**91.18**	**1.35**	**1.48**
SBL								
STD	3972.64	6730.96	10394.87	16047.64	20626.11			

WC	4717.24	7907.99	11595.96	17709.59	22442			
Ratio	84.22	85.12	89.64	90.62	91.91	**88.30**	**3.07**	**3.47**

(Source: Appendix II)

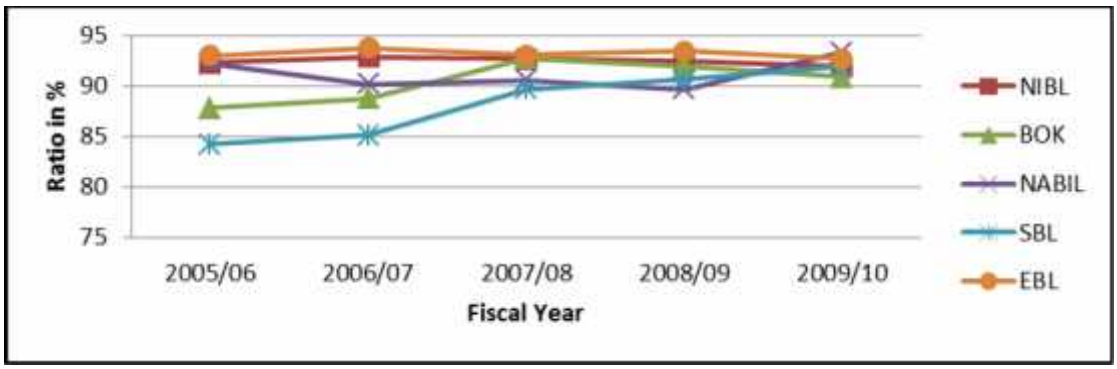
The above table depicts the working capital financing policy of the banks. The table shows that the banks use extensive amount of short term debt to finance the gross working capital. The financing of working capital in EBL through short term debt is in fluctuating trend, although it is higher, and thus has ranged from 92.67% in the fiscal year 2009/10 to 93.74% in the fiscal year 2006/07. In average, EBL has financed 93.18% of the working capital through short term debt and the coefficient of variation in such financing is only 0.40%, indicating consistency in the financing policy. Similarly, the short term debt to working capital of NIBL has been fluctuated during the periods, and thus is maximum, 92.85%, in the fiscal year 2006/07, and is lowest, 91.92%, in the final year. In average, the short term debt has covered 92.43% of the total working capital of the bank, and the coefficient of variation in the ratio is only 0.35%.

Likewise, the short term debt financing in working capital of BOK has increased for the first three fiscal years and decreased for the last two fiscal years. In average, BOK has financed 90.43% of the total working capital through short term debt, and the coefficient of variation in such financing policy is only 2.07%, indicating consistency. The short term debt to working capital of bank is highest, 92.76%, in the fiscal year 2007/08 and lowest, 87.82%, in the fiscal year 2005/06. Similarly, the short term debt financing in working capital of NABIL has increased in the observed periods. The short term debt financing has covered 89.70% of the working capital in lowest in the fiscal year 2008/09, and 93.32% of the working capital in highest in the fiscal year 2009/10 of NABIL. In average, NABIL has financed 91.18% of the working capital through short term debt. In addition, the short term debt capital has covered 84.22% of the total working capital in lowest in the fiscal year 2005/06, and 91.91% of the total working capital in highest in the fiscal year 2009/10. More interesting, the representation of short term debt capital is in increasing trend. In average, the short term debt has represented 88.30% of working capital and the variation in such representation is 3.47%.

The coefficient of variation indicates high uniformity ratio in the policy. Further, the extensive use of short term financing indicates that the banks are risk taker and thus demand higher liquidity. Among the four banks, EBL can be considered as the higher risk taker bank, since the utilization of short term debt capital percentage on working capital is highest.

Figure 4.3

Working Capital Financing Policy



4.1.6 Working Capital to Total Assets

The working capital to total assets measures the relationship between these two variables. Higher the ratio indicates higher amount of working capital which ultimately requires higher amount of short term debt, which is easier than long term debt to obtain, and bears low interest amount.

Table 4.6

Working Capital to Total Assets

Bank	Fiscal Year					Mean	S.D.	C.V. %
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL								
WC	15807.20	21262.47	26788.84	36489.68	40919.67			
TA	15959.28	21432.57	27149.34	36916.84	41382.76			
Ratio	99.05	99.21	98.67	98.84	98.88	**98.93**	**0.18**	**0.18**
Growth	0.19	0.16	-0.54	0.17	0.04			
NIBL								
WC	20986.69	26831.38	37903.22	51950.05	56169.16			
TA	21330.14	27590.84	38873.31	53010.80	57305.41			
Ratio	98.39	97.25	97.50	98.00	98.02	**97.83**	**0.41**	**0.41**
Growth	0.40	-1.16	0.26	0.51	0.02			
BOK								
WC	12167.59	14260.54	17334.65	20078.96	22904.89			
TA	12278.33	14581.39	17721.92	20496.00	23396.19			

Ratio	99.10	97.80	97.81	97.97	97.90	**98.12**	**0.49**	**0.50**
Growth	0.24	-1.31	0.01	0.16	-0.07			
NABIL								
WC	22010.88	26966.50	36534.72	43206.40	51298.24			
TA	22329.97	27253.39	37132.76	43867.39	52079.72			
Ratio	98.57	98.95	98.39	98.49	98.50	**98.58**	**0.19**	**0.20**
Growth	0.69	0.38	-0.56	0.10	0.01			
SBL								
WC	4717.24	7907.99	11595.96	17709.59	22442			
TA	4756.93	7954.67	11668.35	17881.75	22802.43			
Ratio	99.17	99.41	99.38	99.04	98.42	**99.08**	**0.36**	**0.36**
Growth	0.14	0.25	-0.03	-0.34	-0.62			

(Source: Appendix II)

The above table presents the ratio of working capital to total assets of the bank. The working capital to total assets of EBL has been in fluctuating trend. The ratio is 98.67% in lowest in the fiscal year 2007/08 and 99.21% in highest in the fiscal year 2006/07. In average, the working capital has covered 98.93% of the total assets of the bank and the coefficient of variation in such coverage is 0.18%, indicating uniformity. The uniformity in the ratio is also verified by the paltry increment in growth rate of the ratio, i.e. from -0.54% in the fiscal year 2007/08 to 0.19% in the fiscal year 2005/06.

Likewise, the representation of total assets by working capital in NIBL has ranged from 97.25% in the fiscal year 2006/07 to 98.39% in the fiscal year 2005/06. In average, 97.83% of the total assets of the bank has been covered by working capital and the fluctuation in such coverage is only 0.41%. In addition, the growth in ratio has ranged from -1.16% in the fiscal year 2006/07 to 0.51% in the fiscal year 2008/09.

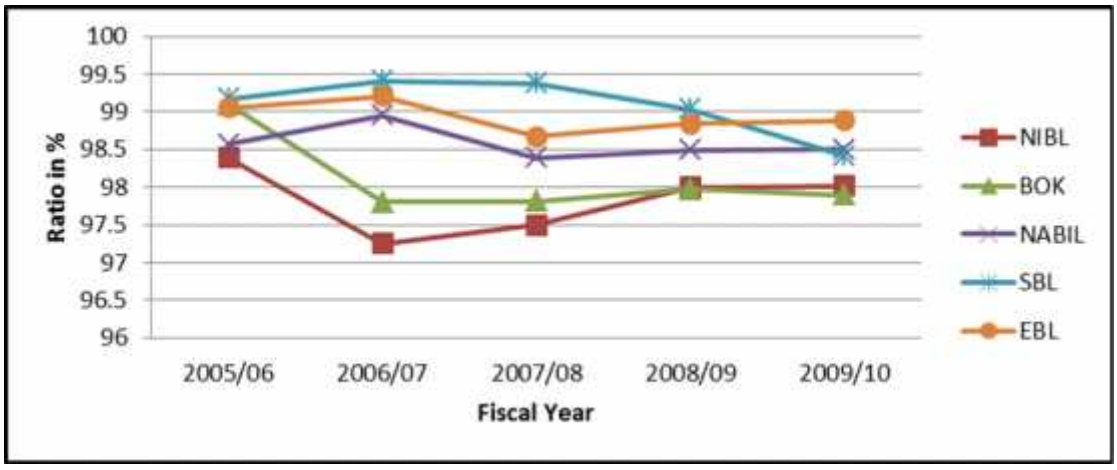
Similarly, the presence of working capital in total assets in BOK has also varied throughout the periods, and thus is maximum, 97.80%, in the fiscal year 2006/07 and minimum, 99.10%, in the fiscal year 2005/06. In average, 98.12% of the total assets of BOK is covered by working capital. Also, the working capital to total assets of NABIL has ranged from 98.54% in the fiscal year 2009/10 to 99.62% in the fiscal year 2005/06. In average, the ratio is 98.84%

and the variation in ratio is 0.40%, indicating high uniformity. Further, the working capital to total assets in SBL has increased in the first three fiscal years and then decreased in the remaining years. The ratio has ranged from 98.42% in the fiscal year 2009/10 to 99.38% in the fiscal year 2007/08. In average, the working capital has represented 99.08% of the total assets and the variation in the ratio is 0.36%, indicating high consistency.

On the basis of working capital to total assets, it can be concluded that SBL has high liquidity, since the ratio is highest in SBL, and NIBL has low liquidity. However, all the banks differ in paltry in the ratio.

Figure 4.4

Working Capital to Total Assets



4.1.7 Cash Reserve Ratio

Sound working capital management means sound liquidity, which ensures the security of deposit holders. Cash reserve ratio is considered as the major tool for measuring the bank's liquidity. As per the NRB's directives commercial banks have to keep 5% of the local deposit as balance in NRB from fiscal year 2003/04 to fiscal year 2008/09, while such rate has been increased to 5% from the fiscal year 2009/10.

Table 4.7

Cash Reserve Ratio

FY	NRB Req.	EBL		NIBL		BOK		NABIL		SBL	
		CRR	Excess	CRR	Excess	CRR	Excess	CRR	Excess	CRR	Excess
2005/06	5.00	1.88	-3.12	13.61	8.61	7.64	2.64	3.26	-1.74	5.03	0.03
2006/07	5.00	2.94	-2.06	10.47	5.47	8.02	3.02	6.00	1.00	5.07	0.07
2007/08	5.00	4.56	-0.44	10.91	5.91	7.57	2.57	8.37	3.37	5.11	0.11
2008/09	5.50	14.26	8.76	10.32	4.82	7.58	2.08	9.03	3.53	6.36	0.86
2009/10	5.50	15.53	10.03	7.77	2.27	8.32	2.82	3.02	-2.48	5.66	0.16
Mean		**7.83**		**10.62**		**7.83**		**5.94**		**5.45**	
S.D.		**5.84**		**1.86**		**0.30**		**2.50**		**0.51**	
C.V.%		**74.57**		**17.50**		**3.80**		**42.06**		**9.39**	

(Source: Appendix V)

The above table measures the liquidity of the bank to ensure the security of the deposit holders. The table shows that the cash reserve ratio maintained by EBL is above the minimum standard set out by NRB in all the fiscal years. The CRR of EBL has followed increasing trend for the observed periods, and thus is maximum, 15.53%, in the fiscal year 2009/10 and is minimum, 1.88%, in the fiscal year 2005/06. In average, EBL has kept 7.83% CRR within the five year periods, and the coefficient of variation in such ratio is 74.57%. However, EBL has not met the minimum standard of NRB in the first three years, which may be pernicious to security of deposit holders.

In contrast, the CRR of NIBL has decreased in most of the fiscal years. The CRR is highest, 13.61%, in the fiscal year 2005/06 and lowest, 7.77%, in the fiscal year 2009/10. In average, the CRR of the bank is 10.62% and the variation in the ratio is 17.50%. Though the ratio has decreased in most of the years, the ratio maintained by the bank is higher than the standard ratio in all the observed periods.

A like NIBL, BOK has also implemented the direction of NRB regarding the minimum cash reserve ratio, and thus has exceeded the minimum ratio in each fiscal year. The CRR of BOK is highest, 8.32%, in the fiscal year 2006/07 and

lowest, 7.57%, in the fiscal year 2007/08, and in average the CRR is 7.83%. The variation in the ratio has been observed to be 3.80% only.

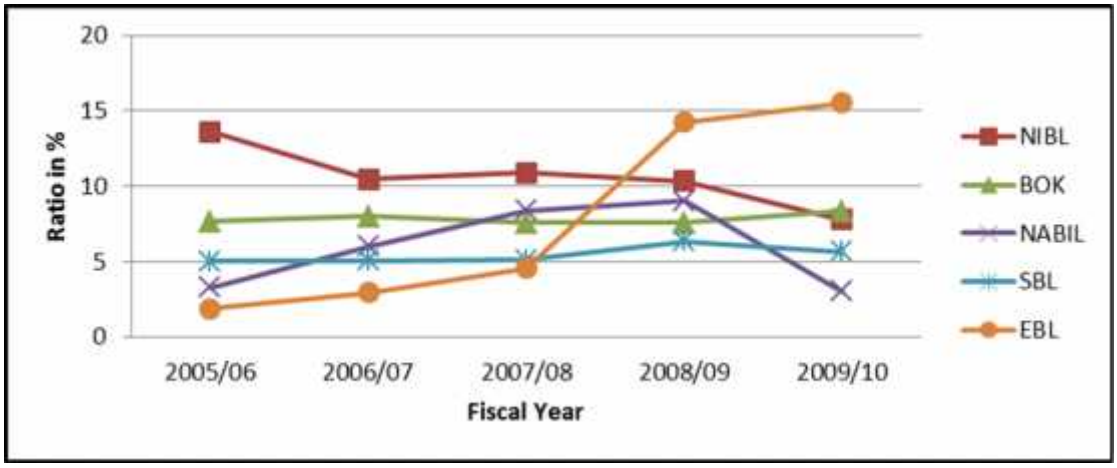
In contrast, the CRR on NABIL has varied in greater extent during the periods. Also, the bank could not meet the minimum requirement in two fiscal years. The CRR of the bank has ranged from 3.02%, lower by 2.48% than standard ratio, in the fiscal year 2009/10 to 9.03%, greater by 3.53% than the benchmark, in the fiscal year 2008/09. In average, the bank has maintained CRR to be 5.94% with the variation of 42.06%.

However, SBL has the policy of keeping CRR just above the minimum standard directed by NRB. The CRR of NABIL is highest, 6.36%, exactly 0.86% greater than the benchmark, in the fiscal year 2008/09, and is lowest, 5.03%, precisely 0.03% higher than the minimum requirement, in the fiscal year 2005/06. Whatever, in average the CRR of NABIL is 5.45%, and the coefficient of variation in the ratio is 9.39%, indicating high consistency.

It can be concluded that NIBL has better liquidity management, since the average CRR of NIBL is highest. Next to NIBL, BOK has managed the liquidity better than other banks, while EBL has lower CRR in the first three fiscal years. Thus it can be inferred that NIBL and BOK is quite success in managing working capital to have sound liquidity position.

Figure 4.5

Cash Reserve Ratio



4.1.8 Return on Equity

The aggressive policy uses more short term debt, the conservative policy uses less short term debt and the moderate policy uses moderate. Therefore the return on equity is higher in aggressive policy when the equity growth is lower and vice-versa. To determine whether the bank is following aggressive working capital policy, the return on equity and the relationship of ROE with equity growth have been measured.

Table 4.8

Return on Equity

FY	EBL		NIBL		BOK		NABIL		SBL	
	ROE	**Eq. Gr.**	**ROE**	**Eq. Gr.**	**ROE**	**Eq. Gr.**	**ROE**	**Eq. Gr.**	**ROE**	**Eq. Gr.**
2005/06	24.65	15.64	24.77	19.94	24.11	16.51	33.88	13.11	10.82	55.49
2006/07	24.67	24.79	26.70	32.69	26.42	18.28	32.76	9.71	12.01	31.60
2007/08	23.49	59.90	25.93	43.06	26.94	35.12	30.63	18.48	13.40	34.60
2008/09	28.99	14.70	23.05	45.45	26.51	29.77	32.94	28.44	17.04	19.69
2009/10	30.15	25.21	27.61	17.34	24.56	19.06	29.69	22.49	15.02	25.40
Mean	**26.39**		**25.61**		**25.71**		**31.98**		**13.66**	
S.D.	**2.66**		**1.59**		**1.14**		**1.56**		**2.20**	
C.V.%	**10.07**		**6.19**		**4.45**		**4.88**		**16.09**	

(Source: Appendix II)

The above table presents the achievement of the banks in terms of return on equity and the relationship of ROE with the equity growth. The table shows that the return on equity of EBL has increased in most of the fiscal years, except in the fiscal year 2007/08. The ROE is highest, 30.15%, in the fiscal year 2009/10 and lowest, 23.49%, in the fiscal year 2007/08. In average, the bank achieved 26.39% of the equity capital as return. Also, the growth rate of working capital has ranged from 14.70% in the fiscal year 2008/09 to 59.90% in the fiscal year 2007/08.

Similarly, the ROE of NIBL has been found to be in irregular trend and thus has ranged from 23.05% in the fiscal year 2008/09 to 27.61% in the fiscal year 2009/10. In average, NIBL has generated 25.61% of equity capital as return. In addition, the growth rate on equity capital of the bank has ranged from 17.34% in the fiscal year 2009/10 to 45.45% in the fiscal year 2008/09, and thus has slight inverse relationship with ROE.

Likewise, the return on equity of BOK for the fiscal year 2005/06 is 24.11%, which has increased to 26.42% in the fiscal year 2006/07, further has increased to 26.94% in the fiscal year 2007/08, and has decreased to 26.91% in the fiscal year 2008/09 and finally has decreased to 24.56% in the fiscal year 2009/10. In average, the return on equity is 25.71%, which indicates that BOK has generated Rs. 25.71 from Rs. 100 mobilization of equity capital to finance working capital. Also, the coefficient of variation of 4.45% in the ratio indicates quite uniformity in the ratio. However, the relationship of return on equity on equity capital growth is not in inverse order. In other words, the return on equity has not increased in the year when the equity capital growth has decreased in the same year compared to that in the previous year.

Further, the ROE of NABIL has followed decreasing trend in the first three fiscal years, and then fluctuated in the remain periods and thus ROE has ranged from 29.69% in the fiscal year 2009/10 to 32.94% in the fiscal year 2008/09,

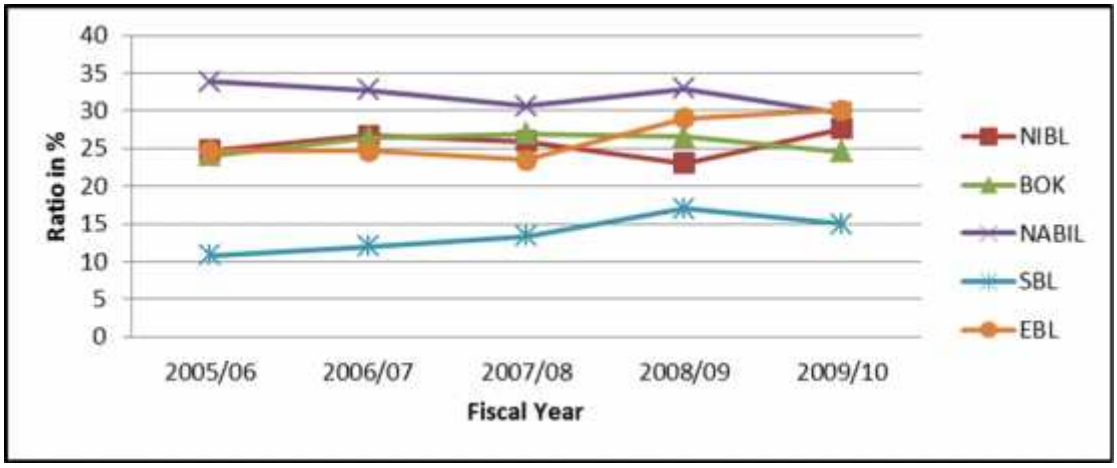
and in average the ROE is 31.98%, indicating generation of Rs. 31.98 return from Rs. 100 investment of equity capital. Finally, the growth rate of equity capital has ranged from 9.71% in the fiscal year 2006/07 to 28.44% in the fiscal year 2008/09, indicating no inverse relationship between ROE and equity capital growth.

Except in the fiscal year 2009/10, the ROE of SBL has ascertained to be in increasing trend, and thus the ROE has ranged from 10.82% in the fiscal year 2005/06 to 17.04% in the fiscal year 2008/09, while it has been observed to be 15.02% in the fiscal year 2009/10. Moreover, the growth in equity capital has ranged from 19.69% in the fiscal year 2008/09 to 55.49% in the fiscal year 2005/06. In average, the ROE of SBL has been measured to be 13.66%, and the variation in ROE is 16.09%. In addition, except in the fiscal year 2007/08, it has been noticed that there exists somewhat inverse relationship between the ROE and growth in working capital.

Thus, it can be said that none of the observed bank is following perfect aggressive working capital policy, since the principle of working capital states that when the return on equity increases and equity capital decreases, the working capital is said to be aggressive. However, it cannot be ignored that these observed banks are aggressive in financing the assets through short term debt.

Figure 4.6

Return on Equity



4.1.9 Statistical Analysis

Under this the relationship between the variables that are germane to the working capital management has been determined. Mainly, the Karl Pearson correlation coefficient, regression line and trend analysis have been used.

4.1.9.1 Correlation and Regression Analysis

This statistical tool measures the relationship between the variables. The correlation coefficient measures the relationship whereas the regression analysis measures to what extent the dependent variable is affected by the per unit change in independent variable.

4.1.9.1.1 Net Profit & Net Working Capital

To measure the relationship of net profit with net working capital, the net profit (Y) has been assumed to be the dependent variable on net working capital (X), independent variable. Then the correlation coefficient and regression line calculated in appendix have been summarized below.

Table 4.9

Correlation & Regression Analysis between

Net Profit & Net Working Capital

Correlation between Net Profit & NWC						Regression Equation
Bank	**r**	**r^2**	**P.E.**	**6 P.E.**	**Remarks**	
EBL	0.9993	0.9986	0.0004	0.0026	Significant	NP = -124.92 + 0.32 NWC

NIBL	0.9775	0.9554	0.0134	0.0807	Significant	NP = -78.10 + 0.28 NWC
BOK	0.5898	0.3478	0.1967	1.1804	Insignificant	NP = -46.66 + 0.25 NWC
NABIL	0.7403	0.5480	0.1364	0.8181	Insignificant	NP = 328.05 + 0.16 NWC
SBL	0.9697	0.9403	0.0180	0.1081	Significant	NP = -75.22 + 0.17 NWC

(Source: Appendix III)

The above table shows the relationship between the net working capital and the net profit after tax. The table delineates that the net profit of each bank has positive relationship with the net working capital and thus net profit increases/decreases with the increment/decrement in net working capital. The correlation between net profit and net working capital of EBL is 0.9993, NIBL is 0.9775, BOK is 0.5898, NABIL is 0.7403, and SBL is 0.9697. Also, the coefficient of determination indicates that 99.86%, 95.54%, 34.78%, 54.80% and 94.03% variation in net profit of EBL, NIBL, BOK, NABIL, and SBL respectively has been explained by change in net working capital. The probable error in the relationship between these two variables is 0.0004, 0.0134, 0.1967, 0.1364, 0.0180 and the six times probable error is 0.0026, 0.0807, 1.1804, 0.8181 and 0.1081 in EBL, NIBL, BOK, NABIL and SBL respectively.

Since, the value of 'r' is greater than the calculated 6 P.E. in EBL, NIBL and SBL, it can be considered that the relationship between net profit and net working capital is statistically significant in these banks, and thus net profit increases with the increase in net working capital and vice-versa. Further, the regression line of net profit on net working capital indicates that the net profit increases by Rs. 0.32 in EBL, Rs. 0.28 in NIBL, and Rs. 0.17 in SBL with per rupee increment in net working capital, if the other variable of the respective banks remains constant. However, the relationship between net profit and net working capital of BOK and of NABIL is statistically insignificant, and thus the net profit may not increase by the same amount with per rupee increment in net working capital as indicated in the regression analysis.

4.1.9.1.2 Net Profit & Short Term Debt

Let the net profit be the dependent variable and short term debt be the independent variable. Then the relationship between them in terms of correlation coefficient and regression line has been presented in the table below.

Table 4.10

Correlation & Regression Analysis between Net profit & Short Term Debt

Correlation between Net Profit & STD						Regression Equation
Bank	**r**	**r^2**	**P.E.**	**6 P.E.**	**Remarks**	
EBL	0.9846	0.9695	0.0092	0.0552	Significant	NP = -168.63 + 0.03 STD
NIBL	0.9603	0.9221	0.0235	0.1409	Significant	NP = -133.75 + 0.02 STD
BOK	0.9966	0.9931	0.0021	0.0125	Significant	NP = -131.53 + 0.03 STD
NABIL	0.9575	0.9167	0.0251	0.1507	Significant	NP = 204.34 + 0.02 STD
SBL	0.9907	0.9814	0.0056	0.0337	Significant	NP = 24.57 + 0.01 STD

(Source: Appendix III)

The above table measures the relationship between net profit and short term debt. The table depicts that there exists perfect positive relationship between net profit and short term debt of each bank, since the correlation coefficient is higher, i.e. 0.9846 in EBL, 0.9603 in NIBL, 0.9966 in BOK, 0.9575 in NABIL, and 0.9907 in SBL. Further, the coefficient of determination indicates that 96.95%, 92.21%, 99.31%, 91.37% and 98.14% variation in net profit of EBL, NIBL, BOK, NABIL and SBL respectively has been caused by variation in short term debt.

Also, the P.E. and 6 P.E. calculated are 0.0092 and 0.0552 in EBL, 0.0235 and 0.1409 in NIBL, 0.0021 and 0.0125 in BOK, 0.0251 and 0.1507 in NABIL and 0.0056 and 0.0337 in SBL respectively. Since the value of 'r' is greater than the value of 6 P.E. in each bank, certainly there exists statistically significant relationship between net profit and short term debt in each bank. And, thus net profit increases/decreases with the increase in decrease in short term debt. Thus, the bank will earn more profit by using higher short term debt to finance the working capital. Consequently, the regression line of net profit on short

term debt indicates that net profit of the EBL increases by Rs. 0.03, NIBL increases by Rs. 0.02, BOK increases by Rs. 0.03, NABIL increases by Rs. 0.02, and SBL increases by Rs. 0.01 with per rupee increment in short term debt, if the respective variable remains constant.

4.1.9.1.3 Net Profit & Long Term Debt

To measure the relationship between net profit and long term debt, the correlation and regression line between them have been determined in appendix, which has been summarized below.

Table 4.11

Correlation & Regression Analysis between Net profit & Long Term Debt

Correlation between Net Profit & LTD						Regression Equation
Bank	**r**	**r^2**	**P.E.**	**6 P.E.**	**Remarks**	
EBL	0.9399	0.8835	0.0351	0.2108	Significant	NP = -23.81 + 1.16 LTD
NIBL	0.8318	0.6919	0.0929	0.5576	Significant	NP = -407.40 + 1.26 LTD
BOK	-0.7070	0.4998	0.1509	0.9053	Insignificant	NP = 541.52 – 0.33 LTD
NABIL	0.1904	0.0362	0.2907	1.7443	Insignificant	NP = 789.58 + 0.06 LTD
SBL	0.7851	0.6163	0.1157	0.6944	Significant	NP = 28.67 + 0.32 LTD

(Source: Appendix III)

The above table evaluates the relationship between net profit and long term debt. The table reveals that there exists positive relationship between net profit and long term in EBL, NIBL, NABIL, and SBL, since the correlation coefficient between these two variables is 0.9399 in EBL, 0.8318 in NIBL, 0.1904 in NABIL, and 0.7851 in SBL, and negative relationship between these two variables in BOK, correlation coefficient is -0.7070. However, the coefficient of determination indicates that 88.35%, 69.19%, 49.98%, 29.07% and 11.57% variation in net profit is explained by long term debt. To verify this statement, the probable error and 6 P.E. have been determined. The probable error in the relationship is 0.0351, 0.0929, 0.1509, 0.2907 and 0.1157 and the 6 P.E. is 0.2108, 0.5576, 0.9053, 1.7443 and 0.6944 in EBL, NIBL, BOK, NABIL and SBL respectively.

The relationship between these two variables is statistically insignificant in BOK and NABIL, since the value of 'r' is lower than the value of 6 P.E., and statistically significant in EBL, NIBL, SBL and NABIL, since the value of 'r' is greater than the value of 6 P.E. Hence net profit may not decrease by Rs. 0.33 in BOK, and may not increase by Rs. 0.06 in NABIL. However, the net profit certainly increases by Rs. 1.16 in EBL, Rs. 1.26 in NIBL, and Rs. 0.32 in SBL with per rupee increment in long term debt, as the regression line specifies, if the respective variable remains stable.

4.1.9.2 Trend Analysis

The trend analysis aids to predict the future value on the basis of the past years. To know the efficiency in working capital management of bank in future, the variables that are related to working capital have been estimated.

4.1.9.2.1 Trend Analysis of Net Working Capital

Let Year (X) 1, 2, 3, 4 and 5 denotes fiscal year 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 respectively. Then regression line of net working capital (Y) on year calculated in appendix has been presented below along with the trend value.

Table 4.12

Trend Analysis of Net Working Capital

FY	EBL	NIBL	BOK	NABIL	SBL
2010/11	3389.47	5309.79	1975.91	4698.31	2108.36
2011/12	3873.16	6094.41	2098.13	5217.80	2371.11
2012/13	4356.85	6879.03	2220.36	5737.29	2633.86
2013/14	4840.54	7663.64	2342.58	6256.78	2896.61
2014/15	5324.23	8448.26	2464.81	6776.28	3159.36

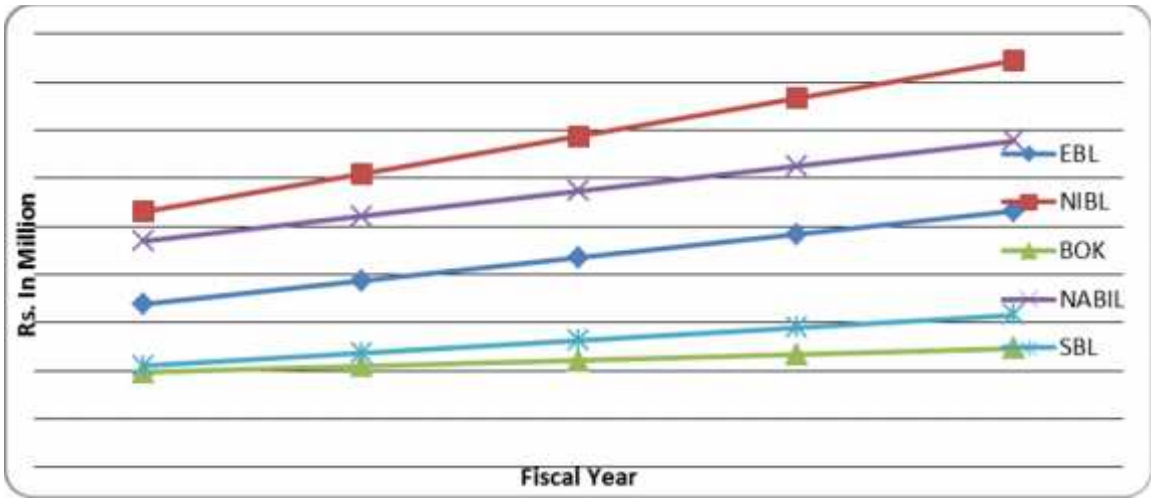
Regression	**Y = 487.34 + 483.69 X**	**Y = 602.09 + 784.62 X**	**Y = 1242.56 + 122.23 X**	**Y = 1581.37 + 519.49 X**	**Y = 531.86 + 262.75 X**

(Source: Appendix IV)

The table shows that the estimated value of net working capital in the fiscal year 2010/11 will be Rs. 3389.47 millions for EBL, Rs. 5309.79 millions for NIBL, Rs. 1975.91 millions for BOK, Rs. 4698.31 millions for NABIL and Rs. 2108.36 millions for SBL and in the fiscal year 2014/15 will be Rs. 5324.23 millions for EBL, Rs. 8448.26 millions for NIBL, Rs. 2464.81 millions for BOK, Rs. 6776.28 millions for NABIL and Rs. 3159.36 millions for SBL. Also, the regression line of net working capital on the time period indicates that the net working capital increases by Rs. 483.69 millions in EBL, Rs. 784.62 millions in NIBL, Rs. 122.23 millions in BOK, Rs. 519.49 millions in NABIL and Rs. 262.75 millions in SBL per year, if the other variable remains constant. Thus, it can be concluded that the pace of working capital will be highest in NIBL in future as well.

Figure 4.7

Trend Analysis of Net Working Capital



4.1.9.2.2 Trend Analysis of Short Term Debt

Let the dependent Variable, STD be denoted by Y and the independent variable, Year be denoted by X. Then, the regression equation of STD on Year and the trend value of STD are presented in the below table.

Table 4.13

Trend Analysis of Short Term Debt

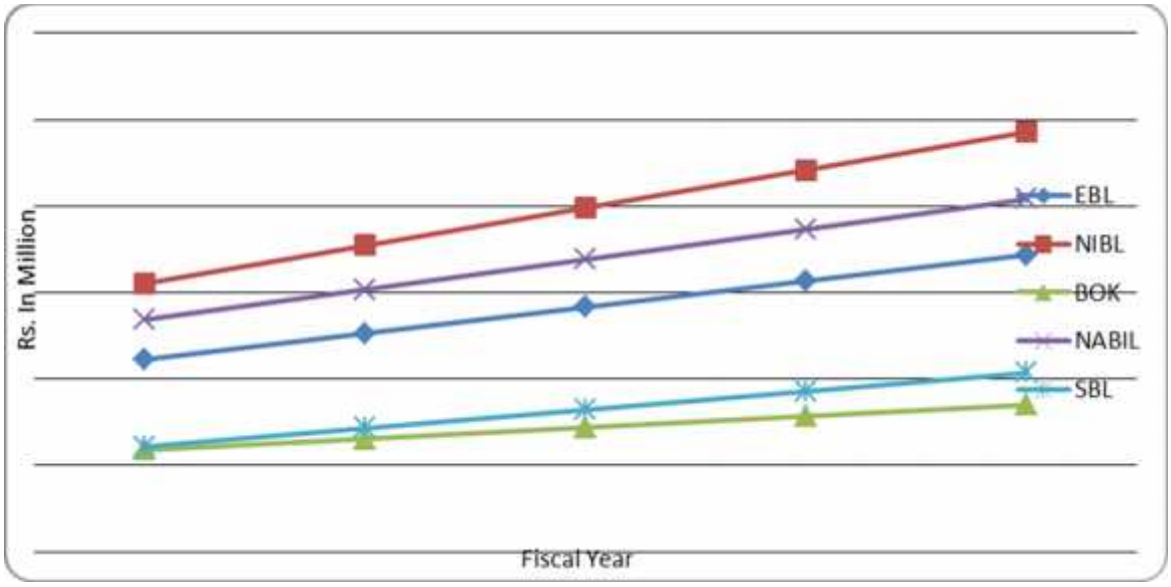
FY	EBL	NIBL	BOK	NABIL	SBL
2010/11	44499.75	62103.39	23561.32	53749.42	24341.53
2011/12	50561.27	70867.14	26168.40	60711.39	28603.89
2012/13	56622.80	79630.88	28775.48	67673.37	32866.25
2013/14	62684.33	88394.62	31382.55	74635.34	37128.62
2014/15	68745.85	97158.37	33989.63	81597.31	41390.98
Regression	**Y = 8130.59 + 6061.53 X**	**Y = 9520.93 + 8763.74 X**	**Y = 7918.86 + 2607.08 X**	**Y = 11977.60 + 6961.97 X**	**Y = -1232.64 + 4262.36 X**

(Source: Appendix IV)

The table shows that the short term debt increases with the lapse of time. The estimated value of short term debt in the fiscal year 2010/11 will be Rs. 44499.75 millions for EBL, Rs. 62103.39 millions for NIBL, Rs. 23561.32 millions for BOK, Rs. 53749.42 millions for NABIL, and Rs. 24341.53 millions for SBL, and in the fiscal year 2014/15 will be Rs. 68745.85 millions for EBL, Rs. 97158.37 millions for NIBL, Rs. 33989.63 millions for BOK, Rs. 81597.31 millions for NABIL and Rs. 41390.98 millions for SBL. Thus, it can be said that, as in past, NIBL will continue to use extensive amount of short term debt to finance the working capital. Also, the regression line of short term debt on year delineates that short term debt increases by Rs. 6061.53 millions in EBL, Rs. 8763.74 millions in NIBL, Rs. 2607.08 millions in BOK, Rs. 6961.97 millions in NABIL per year, and Rs. 4262.36 millions in SBL, if the other variable remains rigid.

Figure 4.8

Trend Analysis of Short Term Debt



4.1.9.2.3 Trend Analysis of Net Profit after Tax

The trend value of net profit after tax, and the regression line of NPAT, dependent variable (Y), on the fiscal year, independent variable (X), are presented in the table below.

Table 4.14

Trend Analysis of Net Profit after Tax

FY	EBL	NIBL	BOK	NABIL	SBL
2010/11	950.46	1412.06	603.36	1254.18	294.64
2011/12	1103.59	1635.06	684.66	1390.55	342.02
2012/13	1256.71	1858.07	765.95	1526.92	389.40
2013/14	1409.84	2081.07	847.25	1663.29	436.78
2014/15	1562.96	2304.08	928.55	1799.66	484.16
Regression	**Y = 31.70 + 153.13 X**	**Y = 74.04 + 223.00 X**	**Y = 115.57 + 81.30 X**	**Y = 435.95 + 136.37 X**	**Y = 10.36 + 47.38 X**

(Source: Appendix IV)

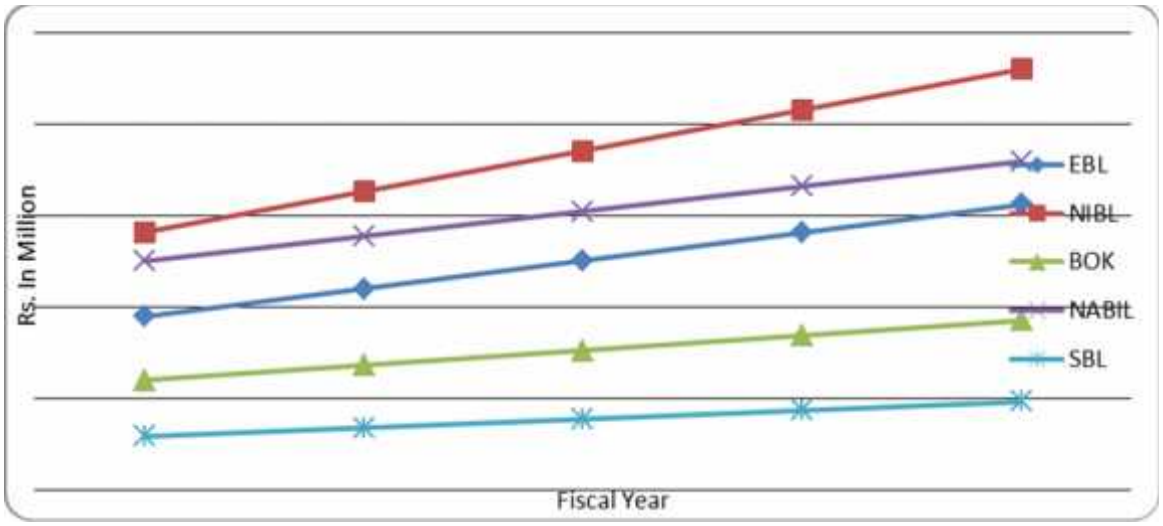
The above table measures the relationship of net profit with the time period. The table shows that net profit has positive relationship with the time, and thus net profit increases in each year. As a result, the estimated net profit after tax in the fiscal year 2010/11 will be Rs. 950.46 millions in EBL, Rs. 1412.06 millions in NIBL, Rs. 603.36 millions in BOK, Rs. 1254.18 millions in

NABIL, and Rs. 294.64 millions in SBL, and in the fiscal year 2014/15 will be Rs. 1562.96 millions in EBL, Rs. 2304.08 millions in NIBL, Rs. 928.55 millions in BOK, Rs. 1799.66 millions in NABIL and Rs. 484.16 millions in SBL. The table indicates that among the five observed banks, NIBL will be renowned as the highest profit making bank.

Likewise, the regression line of net profit on fiscal year indicates that the net profit of increases by Rs. 153.13 millions in EBL, Rs. 223 millions in NIBL, Rs. 81.30 millions in BOK, Rs. 136.37 million in NABIL per year and Rs. 47.38 millions in SBL, if the other variable remains uniform. Thus, it can be concluded that the pace of growth in net profit per year is highest in NIBL.

Figure 4.9

Trend Analysis of Net Profit after Tax



4.2 Primary Data Analysis

For the purpose of collecting primary data, a questionnaire having a set of 8 questions were prepared and presented to 12 respondents. The respondents were selected randomly from the employee of the selected banks and share-known personalities – especially from the share buyer/purchasers in NEPSE floor. The questions contained variety in types. From Question No. 1 to 7, the respondents were asked to choose the best alternative from the list whereas Question No. 8 contained ranking.

4.2.1 Performance Role of Working Capital

Working capital management is considered as the crucial faction of financial management. Thus, the first question asked to the respondents is to know the importance of role of working capital. Table 4.15 shows the results of the responses.

Table 4.15

Role of Working Capital

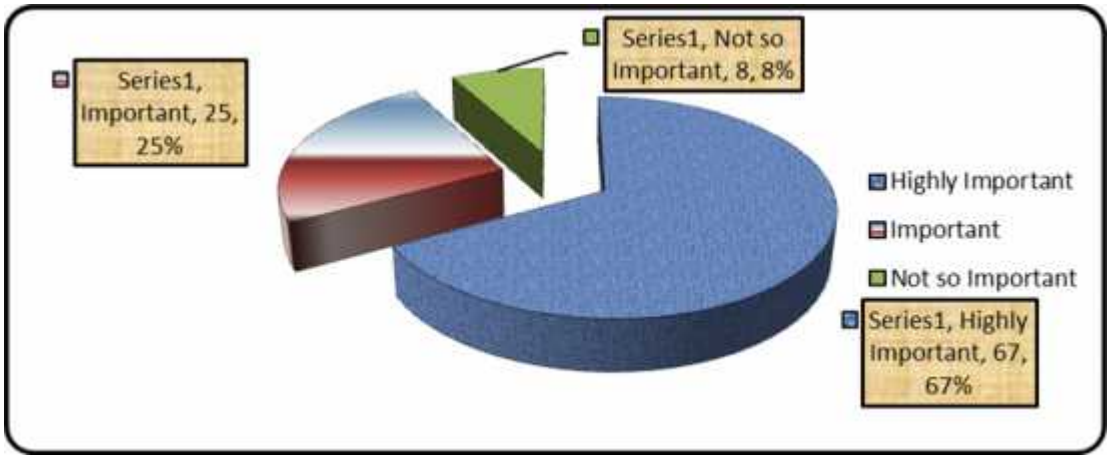
Responses	No. of Respondents			Total	
	High Level Employee	Middle Level Employee	Shareholder	No.	%
Highly Important	2	2	4	8	67
Important	0	1	2	3	25
Not so Important	0	1	0	1	8
Total	**2**	**4**	**6**	**12**	**100**

(Source: Opinion Survey, 2011)

The above table shows the number of respondents and their percentage relating the significance of performance role of working capital. It clears that majority, 8 out of 12 (67%) of the respondents think that the performance role of working capital is highly important for smooth running of business. Likewise, only 25% (3 out of 12) and 8% (1 out of 12) of the respondents gave the response that the performance role of working capital is important and not so important for business respectively.

Figure 4.10

Role of Working Capital



4.2.2 Responsibility to Manage Working Capital

A well managed working capital is the necessity of every business organization. Now, to clear the query that who is responsible to manage an effective working capital, the respondents were asked on this regard. The responses were obtained as shown in Table 4.16.

Table 4.16

Responsibility to Manage Working Capital

Responses	No. of Respondents			Total	
	High Level Employee	Middle Level Employee	Shareholder	No.	%
Top Level Management	2	3	5	10	83
Middle Level Management	0	1	1	2	17
Low Level Management	0	0	0	0	0
Total	**2**	**4**	**6**	**12**	**100**

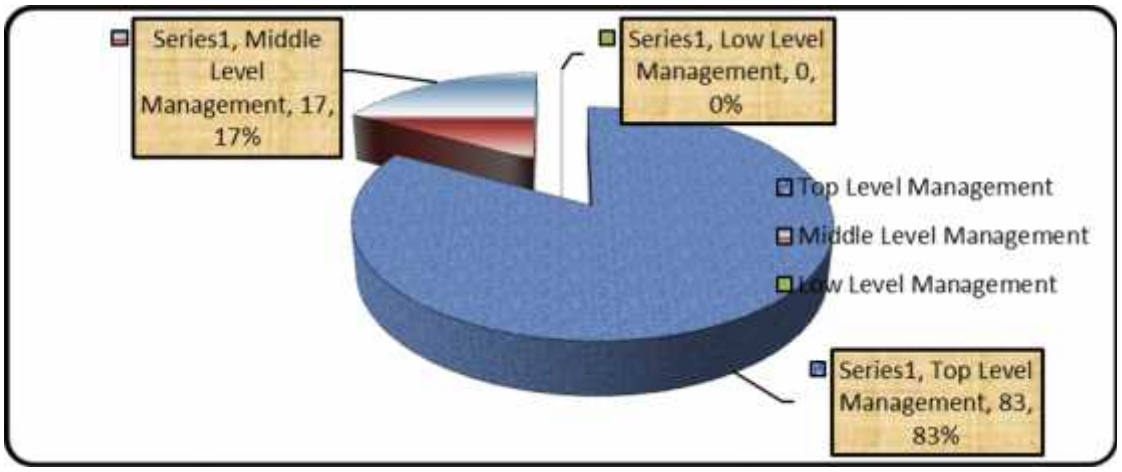
(Source: Opinion Survey, 2011)

The above table shows that the majority of the respondent, 10 out 12 (83%) stated that high level management is responsible for managing working capital. Likewise, 2 respondents stated that middle level management should be responsible to manage working capital whereas nobody pointed out low level management to be responsible for working capital. Looking each category, all the respondents (2 out of 2) of high level employee, 3 out of 4 of middle level

employee and 5 out of 6 of shareholders strongly affirmed that top level management of the bank should be responsible to manage the working capital.

Figure 4.11

Responsibility to Manage Working Capital



4.2.3 Working Capital Policy

There are three types of working capital viz. aggressive, moderate and conservative. The policy depends upon the nature of the business. So, to know which type of working capital befits in bank, the respondents were asked on this regard. The responses obtained from them are presented in the table 4.17.

Table 4.17

Working Capital Policy

Responses	**No. of Respondents**			**Total**	
	High Level Employee	**Middle Level Employee**	**Shareholder**	**No.**	**%**
Aggressive	2	4	3	9	75
Moderate	0	0	2	2	17
Conservative	0	0	1	1	8
Total	**2**	**4**	**6**	**12**	**100**

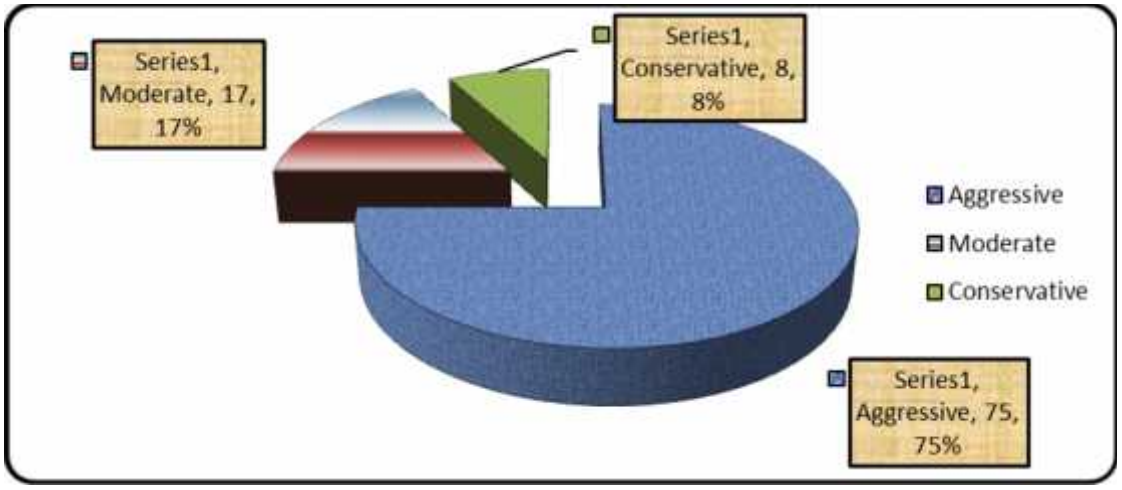
(Source: Opinion Survey, 2011)

The study reveals that 75% of the respondents think that aggressive working capital is the best policy for the bank, whereas 17% and 8% of the respondents think that moderate and conservative policy is the best policy respectively.

Looking independently, cent percent of Top level employee and Middle level employee supported aggressive policy, since the company is also adopting aggressive policy by using comparatively higher amount of short term financing and increasing profit in each year. Whereas, 3 respondents of Shareholder, 2 respondents of shareholder and 1 respondent of shareholder supported aggressive, moderate and conservative policy respectively uses their own experience and interest.

Figure 4.12

Working Capital Policy



4.2.4 Impact of Working Capital on Profitability

To know the degree of impact of working capital on profitability, the respondents were asked whether working capital affects on profitability or not. The responses obtained are presented in the following table.

Table 4.18

Impact of Working Capital on Profitability

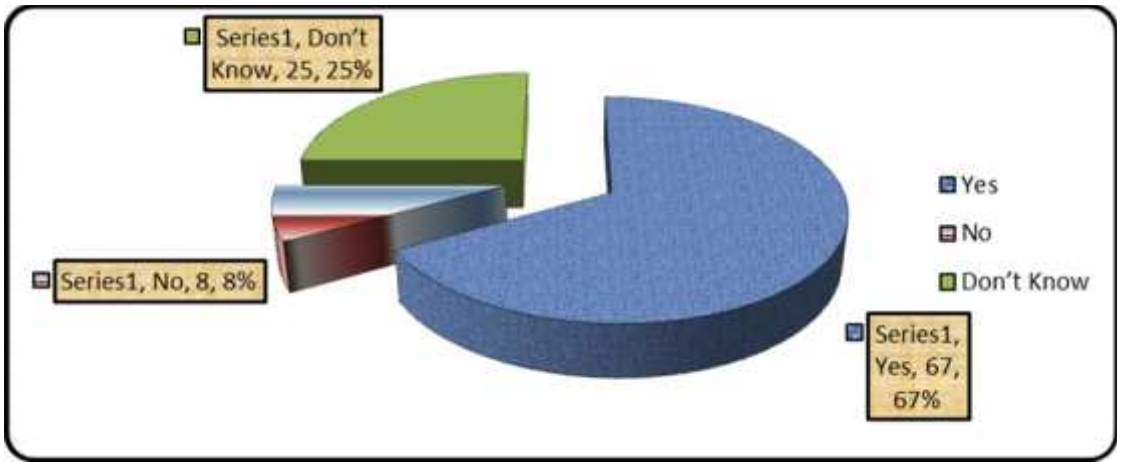
Responses	No. of Respondents			Total	
	High Level Employee	Middle Level Employee	Shareholder	No.	%
Yes	2	3	3	8	67
No	0	0	1	1	8
Don't Know	0	1	2	3	25
Total	**2**	**4**	**6**	**12**	**100**

(Source: Opinion Survey, 2011)

The above table 4.18 shows that two-third (67%) of the respondents stated that certainly working capital policy highly impacts the level of profit earning. 8% of the respondents said that working capital does not affect profitability, whereas 25% of the respondents remained neutral. More specifically, 2 out of 2 high level employees, 3 out of 4 middle level employees, and 3 out of 6 shareholders have stated that working capital has greater impact on the profitability of the banks. However, 1 shareholder out of 6 has stated that the working capital has no impact on profitability, and 1 out of 4 middle level employees & 2 out of 6 shareholders have stated that they have no idea on this issue.

Figure 4.13

Impact of Working Capital on Profitability



4.2.5 Working Capital and Risk

Also to know whether working capital has impact on risk of the company or not, the respondents were asked on this matter. The responses obtained are presented in the following table 4.19.

Table 4.19

Working Capital and Risk

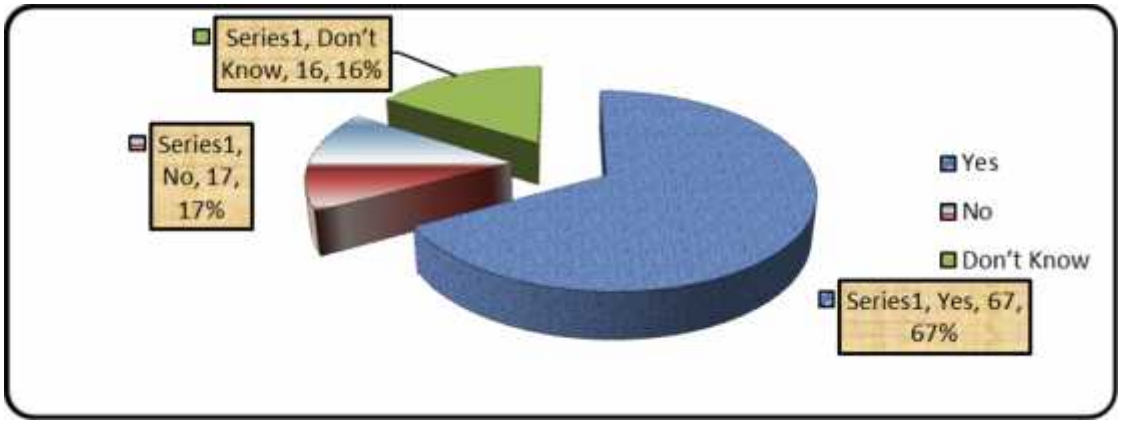
Responses	No. of Respondents			Total	
	High Level Employee	Middle Level Employee	Shareholder	No.	%
Yes	2	2	4	8	67
No	0	1	1	2	17
Don't Know	0	1	1	2	16
Total	**2**	**4**	**6**	**12**	**100**

(Source: Opinion Survey, 2011)

Table 4.19 shows that most of the respondents agreed that working capital has impact on risk of the company. About two-third of the respondents (67%), 8 out of 12, stated that working capital policy affects the risk of the company, approximately 17% of the respondents and 16% of the respondents said that working capital policy does not have impact on risk of the company and remained neutral respectively. Looking each category, the cent percent of high level employee (2 out of 2), half of the middle level employee (2 out of 4) and two-third of the shareholders (4 out of 6) are in the view that working capital policy affects on the risk of the company.

Figure 4.14

Working Capital and Risk



4.2.6 Liquidity Position

Since the liquidity ratios plays a crucial role in paying debts and preventing company from turning bankruptcy, the respondents were asked whether the liquidity position of the bank is appropriate. The responses obtained are presented in the following table 4.20.

Table 4.20

Liquidity Position

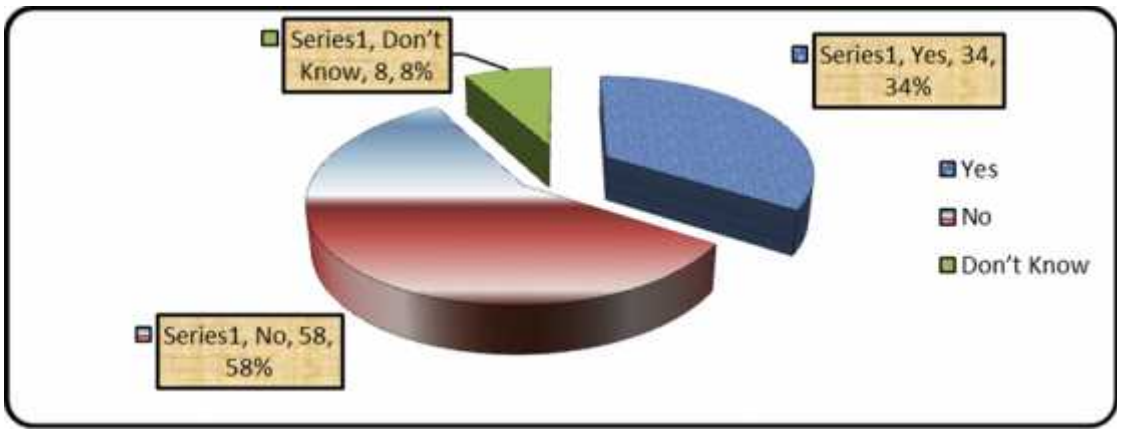
Responses	No. of Respondents			Total	
	High Level Employee	Middle Level Employee	Shareholder	No.	%
Yes	1	1	2	4	34
No	1	3	3	7	58
Don't Know	0	0	1	1	8
Total	**2**	**4**	**6**	**12**	**100**

(Source: Opinion Survey, 2011)

Table 4.20 clears that the liquidity position of the bank is not so good. Almost more than half of the respondents (58%) said that the liquidity position of the bank is not appropriate. Similarly, one-third of the respondents (34%) stated that the liquidity position of the bank is appropriate, whereas 8% (1 out of 12) remained neutral. However, the cash reserve ratio maintained by the bank has met the NRB's minimum requirement, except in one fiscal year.

Figure 4.15

Liquidity Position



4.2.7 Working Capital Investment Policy

To know which working capital investment policy the most of the commercial bank is adopting, the respondents were asked to express their view on this regard. The responses obtained from them have been presented in the following Table 4.21.

Table 4.21

Working Capital Investment Policy

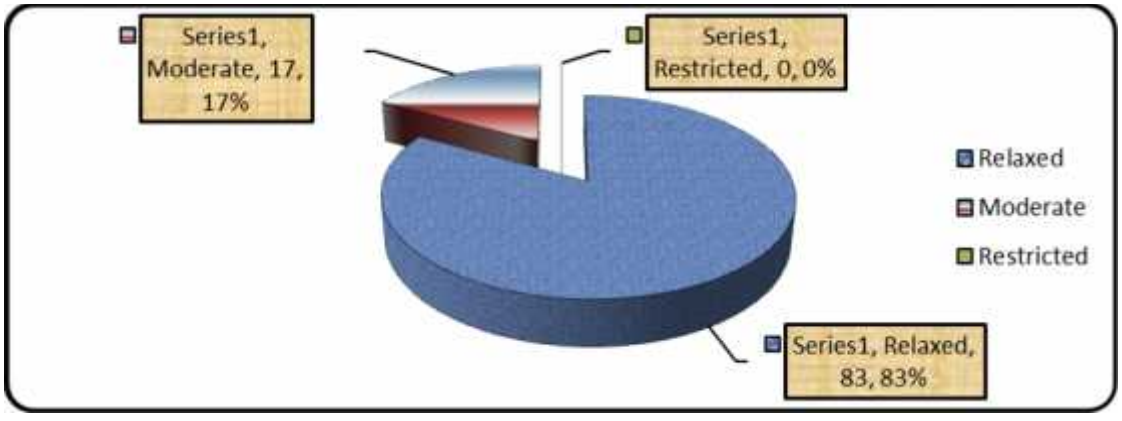
Responses	No. of Respondents			Total	
	High Level Employee	Middle Level Employee	Shareholder	No.	%
Relaxed	2	3	5	10	83
Moderate	0	1	1	2	17
Restricted	0	0	0	0	0
Total	**2**	**4**	**6**	**12**	**100**

(Source: Opinion Survey, 2011)

The above table shows that most of the commercial banks are adopting relaxed working capital investment policy. About 83% of the respondents, 17% of the respondents and 0% of the respondents said that the company is adopting relaxed, moderate and restricted working capital investment policy respectively. Looking the majority, 10 out of 12 and the financial statement where current assets are higher than fixed assets in each year, it can be considered that the company is adopting relaxed working capital investment policy.

Figure 4.16

Working Capital Investment Policy



4.2.8 Factors Affecting Working Capital

On the basis of the responses collected from the respondents, the different indicators which influence the working capital of the bank most has been ranked as follows in the table 4.22.

Table 4.22

Most Influential Factor of Working Capital

Indicators	Basis	Rank						Total	Weight	Mean Wt.	Overall Rank
		1	2	3	4	5	6				
Nature and Size of Business	Total	6	5	1	0	0	0	12	19	1.58	1
	High Level Employee	1	1	0	0	0	0	2	3	1.50	1
	Middle Level Employee	3	1	0	0	0	0	4	5	1.25	1
	Shareholder	2	3	1	0	0	0	6	11	1.83	1
Current Assets Policy	Total	0	0	1	0	7	4	12	62	5.17	5
	High Level Employee	0	0	0	0	1	1	2	11	5.50	3
	Middle Level Employee	0	0	1	0	2	1	4	19	4.75	5
	Shareholder	0	0	0	0	4	2	6	32	5.33	5
Credit Policy	Total	1	1	7	3	0	0	12	36	3	3
	High Level Employee	0	0	1	1	0	0	2	7	3.50	2
	Middle Level Employee	0	0	2	2	0	0	4	14	3.50	4
	Shareholder	1	1	4	0	0	0	6	15	2.50	3
Growth and Expansion	Total	0	2	2	8	0	0	12	42	3.5	4
	High Level Employee	0	0	1	1	0	0	2	7	3.50	2
	Middle Level Employee	0	1	1	2	0	0	4	13	3.25	3
	Shareholder	0	1	0	5	0	0	6	22	3.67	4
Profit Margin	Total	5	4	1	1	1	0	12	25	2.08	2
	High Level Employee	1	1	0	0	0	0	2	3	1.50	1
	Middle Level Employee	1	2	0	0	1	0	4	10	2.50	2
	Shareholder	3	1	1	1	0	0	6	12	2.00	2
Level of Taxes	Total	0	0	0	0	4	8	12	68	5.67	6
	High Level Employee	0	0	0	0	1	1	2	11	5.50	3
	Middle Level Employee	0	0	0	0	1	3	4	23	5.75	6
	Shareholder	0	0	0	0	2	4	6	34	5.67	6

(Source: Opinion Survey, 2011)

The above table clarifies that nature and size of the business is the most affecting factor for working capital management. One high level employee, three mid level employee and two shareholders of the banks have ranked 1 for

nature and size of business. Next to it, the profit margin of the bank influences the working capital management. About, one top level employee, one mid level employee and three shareholders have given first preference the profit margin, and eventually it has got rank two. Similarly, the credit policy of the banks also influences the working capital management. Only one shareholder has given first preference to the credit policy. Likewise, growth and expansion, which has got rank four, of the bank also decides the working capital management of the bank. In addition, current assts policy, which has been ranked five, and level of taxes, which has been ranked six, have less influence on the working capital management.

4.3 Major Findings of the Study

From the above data analysis, the following major findings have been drawn;

Findings from Secondary Data Analysis

- Most of the banks finance total assets by using extensively debt capital than by using equity capital. In average, debt capital represents 93.73%, 92.85%, 92.28%, 92.60% and 90.80% of the total assets finance in EBL, NIBL, BOK, NABIL and SBL respectively. However, only 6.27%, 7.15%, 7.72%, 7.40% and 9.20% of the total assets finance is represented by equity capital in EBL, NIBL, BOK, NABIL and SBL respectively.
- Long term debt has been used in lower amount compared to short term debt. Short term debt represents 98.35% in EBL, 97.39% in NIBL, 96.16% in BOK, 97.08% in NABIL and 96.33% in SBL of total debt capital.
- The gross working capital of BOK has followed increasing trend. During the five year periods, the average gross working capital is Rs. 28253.57 millions in EBL, Rs. 38768.10 millions in NIBL, Rs. 17349.33 millions in BOK, Rs. 36003.35 million in NABIL and Rs. 12874.56 millions in SBL. And the average growth rate in gross

working capital is 29.03%, 29.52%, 18.66%, 25.35% and 49.57% in EBL, NIBL, BOK, NABIL & SBL respectively.

- The net working capital has followed increasing trend in EBL, NIBL & SBL. The average net working capital is Rs. 1938.40 millions in EBL, Rs. 2955.94 millions in NIBL, Rs. 1609.23 millions in BOK, Rs. 3139.84 millions in NABIL and Rs. 1320.11 millions in SBL.
- Each bank has extensively used short term debt to finance working capital, current assets. 93.18%, 92.43, 90.43%, 91.18% & 88.30% of the total working capital of EBL, NIBL, BOK, NABIL and SBL respectively has been financed through short term debt. The working capital has represented 98.93% in EBL, 97.83% in NIBL, 98.12% in BOK, 98.58% in NABIL and 99.08% in SBL of the total assets.
- Except EBL and NABIL, the other observed banks have met the minimum cash reserve ratio directed by NRB in each fiscal year. The average CRR maintained during the five year periods is 7.83% by EBL, 10.62% by NIBL, 7.83% by BOK 5.94% by NABIL and 5.45% by SBL.
- The relationship of return on equity and equity growth is not strongly inverse, since the ROE has not increased with the decrease in equity capital growth and vice versa in most of the observed periods. EBL, NIBL, BOK, NABIL and SBL have generated Rs. 26.39, Rs. 25.61, Rs. 25.71, Rs. 31.98 and Rs. 13.66 respectively from Rs. 100 investment of equity capital.
- The net profit has positive relationship with net working capital, short term debt and long term debt. However, the relationship between net profit & long term debt, and net profit & net working capital is statistically insignificant in BOK and NABIL.
- The estimated value of net working capital in the fiscal year 2014/15 will be Rs. 5324.23 millions for EBL, Rs. 8448.26 millions for NIBL, Rs. 2464.81 millions for BOK, Rs. 6776.28 millions for NABIL, and Rs. 3159.36 millions for SBL, net profit in the fiscal year 2014/15 will be Rs. 1562.96 millions for EBL, Rs. 2304.08 millions for NIBL, Rs.

928.55 millions for BOK, Rs. 1799.66 millions for NABIL and Rs. 484.16 millions for SBL.

Findings from Primary Data Analysis

- 67% of the total respondents have opined that the performance role of working capital is very important in the banks. Similarly, 83% of the respondents have stated that the top level management should be responsible for managing working capital.
- While 75% of the respondents have said that the aggressive working capital policy is appropriate in the commercial banks. Likewise, 67% have opined that the working capital has greater impact on the profitability and risk of the bank.
- Further, 58% of the respondents have opined that the liquidity position of the bank is not so satisfactory. In addition, 67% of the respondents have stated that the bank is adopting relaxed working capital investment policy. Eventually, the nature and size of the business is the most influential factor in the working capital management of the banks.

CHAPTER –V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Many companies still underestimate the importance of working capital management as a lever for freeing up cash from inventory, accounts receivable, and accounts payable. By effectively managing these components, companies can sharply reduce their dependence on outside funding and can use the released cash for further investments or acquisitions. This will not only lead to more financial flexibility, but also create value and have a strong impact on a company's enterprise value by reducing capital employed and thus increasing asset productivity.

High working capital ratios often mean that too much money is tied up in receivables and inventories. Typically, the knee-jerk reaction to this problem is to apply the big squeeze by aggressively collecting receivables, ruthlessly delaying payments to suppliers and cutting inventories across the board. But that only attacks the symptoms of working capital issues, not the root causes. A more effective approach is to fundamentally rethink and streamline key processes across the value chain. This will not only free up cash but lead to significant cost reductions at the same time.

Commercial banks are the main source of fund, in terms of loan, for the rest of existing industries. There has been recession due to the failure of the banks in having sufficient liquidity, and as a consequent the unemployment rate of the world jumped up tremendously. Thus at first the liquidity of the bank should be sufficient for the economic development, and for this it is necessary for the

banks and other stakeholders to understand whether the working capital of the concerned banks is suitable. However, the study of all the commercial banks of the country in the context of working capital is somewhat impossible and time consuming. Considering these difficulties, the study randomly selects five commercial banks, namely EBL, NIBL, BOK, NIBL and SBL, to depict the working capital management of the whole banking industry of the country.

5.2 Conclusion

From the analysis, it can be inferred that the debt capital is the main source of fund for the assets requirement of the commercial banks. However, the short term debt capital has been extensively practiced by these observed banks to finance the assets, making the total assets more risky, and thus revealing the adoption of aggressive financing policy. However, among the five observed banks, EBL has the most risky total assets, verified by the highest debt capital representation on total assets, and most extensive use of short term debt capital on total debt financing. Furthermore, the growing concentration on increasing the current assets by greater amount than the current liabilities indicates the following of aggressive working capital. As a consequence, both the gross working capital and net working capital of the observed banks have increased in most of the periods. In addition, on the basis of the working capital to total assets, it can be stated that SBL has more sufficient liquidity than that other banks possess. This finding has been deteriorating by the cash reserve ratio, as the cash reserve ratio is highest in NIBL. However, it is quite disappointing that EBL and NABIL have not met the minimum cash reserve ratio as directed by NRB in each fiscal year. Thus, it cannot be ensured that that the deposits are asylum in the banks.

In addition, it can be inferred that the observed banks are risk takers since the short term financing to working capital is higher in each banks. Also, EBL can be considered as the highest risk taker, since the utilization of short term debt capital percentage on working capital is highest. So far as the adoption of the

perfect working capital, none of the banks seem to be expert in following such policy, since in most of the fiscal years there has not been ascertained inverse relationship between ROE and equity growth. Statistically, it can be assumed that there exists significant relationship between net profit and net working capital in EBL, NIBL and SBL, and thus net profit increases/decreases with the increase/decrease in net working capital in these banks. Also, the same situation exists between the net profit and long term debt, however, it can be categorically said that there exist perfect positive relationship between net profit and short term debt. Although, it is estimated that the net working capital, short term debt and net profit increase in most of the banks, it can be considered that the pace of growth of net working capital, short term debt financing and net profit will be highest in NIBL.

On the basis of questionnaire survey, it can be concluded that the role of working capital is crucial for smooth operation of the bank. And the responsibility of top level management should be more liable than lower echelon management in managing the required working capital. Further, the bank should be risk taker and should adopt the aggressive policy for the sustainability of the bank in long run, since the working capital has crucial impact on the profitability and risk. Astoundingly, it can be concluded that the liquidity position of the banks are not satisfactory, and the banks should review the liquidity management to ameliorate the liquidity.

5.3 Recommendations

On the basis of major findings and the conclusion drawn, the following recommendations, which will undoubtedly enhance the bank's performance, are made;

- The bank should use the long term debt capital instead of large amount of short term debt capital to reduce the risk.
- To minimize the liquidity risk, the bank should follow the cash reserve ratio directed by NRB.

- Considering the cash and bank balance, the bank should increase the portion of cash and bank balance in total assets.
- Similarly, the observed banks should effectively mobilize their total assets, shareholders' equity and total deposit to maximize its profit and sustain in long run. Also, these bank needs to reduce its cost of services to maximize their profit.
- The observed banks should promote fixed deposit to lessen the immediate requirement of cash and thus having sound working capital management.
- The bank needs to adopt the best capital structure that will best suit its interest and thus maximizes profitability and liquidity and minimizes cost.
- To minimize the risk, the bank should use equity capital as well in the same level of debt capital. In other word, the bank should follow moderate policy.
- Finally, the bank needs to have highly positive relationship between loan and advances with total deposit and loan and advances with net profit.

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