CHAPTER -1
INTRODUCTION

1.1 Background of the Study

Banking sector is the most vibrant part of economy which has been playing very vital role in mobilizing the financial resources from the saver to users. It, in general, collects the idle funds from different savers and accumulated funds is further proceeds to the needy centers like households sectors, business sectors. It is the heart of trade, commerce and industry. It makes the smooth flow of funds in the circulation body of the economy. It makes various functions like assets and liabilities transformation, security trading, agency functions and economies of scale, corporate social responsibilities, and other day to day banking functions.

Banking plays a significant role to the development of national economy. Bank is a financial institution, which primary deals in borrowing and leading. Modern bank performs many other varieties of function. Therefore it is difficult to define the functions of a modern bank because of their complexity and veracity in operation.

The word “Bank” is derived from the Italian word “BANCA’ which means a counter tables or bench used by medieval money exchange. Oxford dictionary defines bank as “an establishment for the custody of Money”. The banks operate in the modern and completive business environment. It is an account of this reason that different economists have offered different definitions, such as: "A Bank is an institution whose debts (bank deposits) are widely accepted in settlement of their people’s debts to each other”.

“A Bank is one who is in the ordinary course of his business, receives money which he repays by honoring cheque of persons from whom or on whose account he receive it”. Although, there are various types of banks, only

commercial banks are considered here, for the purpose of present study. They are the hearts of the modern financial system.

Economic development is the foundation development of any country. Economic development is supported by the financial infrastructure of that country. Financial institution constitutes an important part of the financial infrastructure. The main function of the bank is the collection of idle funds and mobilizes them to productive sector causing overall economic development, which finally leads to national development of the country. Bank pools the fund through deposit and mobilize them to productive sector in the form of loans and advances. Bank is the financial institution which deals with money by accepting various types of deposits, disbursing loan and rendering various types of financial services. It is the intermediary between the deficit and surplus of financial sources.

The concept of the banking has been developed from the ancient history with the effort of ancient goldsmiths who developed the practice of storing people's gold and valuables under such arrangement the depositors would leave their gold for safekeeping would get back their gold and valuable after paying a small amount as fee for safekeeping and serving.

The role of money in an economy is very important. Proper and well planned management of money directs, determines and enhances the health and productivity of total financial sector and the performance of financial sector affect the growth of economy. Hence, Money is the topic to manage and banks are the manager. The existence of a bank is for the change in every aspect of human being and its presence is for the upliftment of people. Banks are the back bone of the economy.

Financial Institution in the economy plays a crucial role in the process of economic growth of the country. Financial institution refers to a business concern that is mainly confined to finance for the development of the trade, commerce and industry. Trade, commerce and industry are the prime factors of the economic development. Bank is a financial institution, which primarily deals in borrowing and lending. Banking is a

vital part of national economy and a vehicle for the mobilization of economy's financial resources and extension of credit to the business and service enterprises.

Commercial banks are the heart of the financial system. They hold the deposits of individuals, government establishment and business units. They make funds available through their lending and investing activities to borrowers: individuals, business firms and government establishments. In doing so, they assist both the flow of goods and services from the producers to consumers and the financial activities of the government. They provide a large portion of medium of exchange and they are the media through which monetary policy is affected. These facts show that the commercial banking system of a nation is very important to the functioning of its economy.

In a global prospective, joint ventures are the mode of trading through partnership among nations and also a form of negotiations between various groups and services for sharing comparative advantages. A joint venture is the joining of forces between two or more enterprises for the purpose of carrying out a special operation (industrial or commercial investment, production or trade). These JVBS came into existence to accelerate the pace of economic development and financial system of the nation.

Proper financial decision making is extremely important in banking transaction for its efficiency and profitability. Most of the financial decisions of a bank are concerned with current assets and current liabilities. The working capital management of a bank is different from other types of business enterprises. A bank plays a significant role to fulfill the requirement of working capital of other type of business enterprise. It also needs to fulfill the requirement of working capital of other type of business enterprise. It also needs to efficiently manage its own working capital. Investment in working capital of other business enterprises is a part of current assets of bank's working capital and we

can consider deposits and short-term borrowings as a part of current liabilities.

1.2 Statement of the Problems

Working capital is a crucial capital, which is compared as lifeblood of the human beings for any organization. In most enterprises the management of working capital has been misunderstood as the management of money rather that it's efficient utilization. The management of working capital is synonymous to the management to short term liquidity. It has been regarded as one of the conditioning factor in the decision making issues. It is no doubt, very difficult to point out as to how much working capital is needed 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 assets and less of current liabilities. The less current liabilities implies less working capital heading to the lower returns resulting from the use of more high cost long term financing. So it is very essential to analyze and find out problems and its solution to make efficient use of funds for minimizing the risk of loss to attain profit objective.

Commercial banks like HBL and SBI are playing an important role in the economic development of the country. Wrong decision on working capital management of these two commercial banks not only affects the liquidity and profitability of the bank but also economy and banking system of the country.

Working capital management on bank is also difficult as that of manufacturing and non-manufacturing business organization. Commercial banks are great monetary institutions, which are playing important role to the general welfare of the economy. The responsibilities of commercial banks are more than any other financial institutions. They must be ready to pay on demand a good share of their liabilities without warning or notice. Bank collects fund from different types of deposits for providing loan and advances 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 fully and productively. The gap between collection of deposits and disbursement of loans increase the cash balance on bank, which require paying its large amount of liabilities on its depositors demand without notice. But large amount of idle cash balance also decrease profitability of banks.

HBL and SBI seen well in comparison to other joint venture banks on the account of their performance and profitability as well. It is the question of the study that whether there is any relationship of working capital management with regard to their performance and profitability among these banks.

So, following are the major problems that have been identified for the purpose of this study.

1. What is the current assets position in HBL and SBI?
2. What lending pattern of loan and advances and other investment will be profitability?
3. What are the components of working capital?
4. What are the relationships between loan and advance and total deposit, government securities and total deposit, cash and book balance and current liabilities, loan and advance and net profit?

1.3 Objectives of the Study

The main objective of this study is to highlight and examine the management of working capital in HBL and SBI. The specific objectives of this study are as follows:

1. To analyze the current assets position in HBL and SBI.
2. To examine the lending pattern of loan and advances and other investment.
3. To point out the components of working capital.

4. To assess the relationships between loan and advance and total deposit, government securities and total deposit, cash and book balance and current liabilities, loan and advance and net profit.

1.4 Significance of the Study

The study has multidimensional significance, which can be divided into four broader headings.

- Its significance to the outsiders: among outsiders, mainly the customers, financing agencies, stock exchanges and stock traders are interested in the performance of banks and the customers (both depositors and debtors) can identify to which bank they should go. The financial agencies can understand where there is more secured and, stock exchange, stockbrokers and stock traders can find out the relative worth of the stocks of each bank.
- Its significance to the policy makers: policy makers here refer to the government and Nepal Rastra Bank. The study will be helpful to them while formulating the policy regarding commercial banks.
- Its significance to the shareholders: the study might be helpful to aware the shareholders regarding the working capital Management, i.e., liquidity and profitability of their banks. The comparison will help them to identify the productivity of their funds in each of these two banks.
- Its significance to the management: the study might be helpful to go deep into the matters as to why the working capital management of their banks is better (or worse) than their competitors.

1.5 Limitations of the study

The study has been conducted with certain limitations. The time is the one factor of limitations. Besides it, the scope of the study is limited within the bank. Some more limitations are follows:

- The study mainly concentrates only on the working capital of HBL and SBI.

- The study, lack of the sufficient time resources are the major limitations of therefore the study has been conducted as partial fulfillment of the requirement for the "Master of Business study: Faculty of management T.U.
- The study period will be covered by only five fiscal year i.e. from 2007/08-2011/12.
- The study mainly based on secondary data collected from different sources.
- The study deals with only three commercial banks and data related to other commercial banks have not been accounted.
- The study has been carried out based on the published financial documents such as balance sheets, Profit and loss accounts, related journals, magazines and brochures. These published documents have their own limitations.

1.6 Organization of the study

This study has been divided into five chapters. They are as follows:
Chapter one is the introductory which deals with background of the study, profile of HBL and SBI, statement of problems, objective of the study, need of the study and limitations of the study.

The second chapter deals with the review of literatures relating to concept of working capital management, types of working capital, working capital policy, determinant of working capital, need of working capital, financing of working capital, review of books, review of journals/articles and review of dissertation.

The third chapter is the research methodology, which deals with research design, nature and sources of data, population and sample, period covered, data gathering procedure and tools of data analysis. For

the analysis, various financial and statistical tools have been used which are discussed in details in this third chapter.

The fourth chapter deals with the presentation and analysis of relevant data and information through a definite course of research design. The chapter also presents the results relating to working capital management.

The latest chapter is concerned with the summary of the study. Various conclusions are drawn from the study and recommendations are provided for improving the future performance.

CHAPTER - 2
REVIEW OF LITERATURE

This chapter consists of two parts-Conceptual Framework and Review of Related Studies. In conceptual framework, review of what has been written in academic books is carried out while review of related studies is further dividend into review of journals and review of master degree thesis.

This chapter in concerned with the review of relevant literatures available in the books, journals, articles, research reports, newspapers, magazines, policy documents which are published or unpublished. Every study is very much based on past knowledge, study and experiences. The past knowledge or the previous studies should not be ignored as it provides foundation to the present study. Various thesis works have done in different aspects of working capital of different organization are also reviewed for the purpose of justifying the study.

2.1 Meaning of Banks

Banks are very important financial intermediaries in financial market. “Financial intermediaries not only transfer money and securities between users and savers but also they create new financial products. They gain economics of scale in analysis of credit worthiness of potential borrowers, in processing and collecting loan, and minimize cost of information and make easy flow of transactions.” (Rose, 1999: 4).

Banks are the principal source of credit to household: individuals and family, business: all forms and local units of government. Furthermore, they are the source of financial information, planning and controlling. “Banking institution is inevitable for resource mobilization and all-round development of the country. It is resource for economic development; it maintains economic confidence of various segments and extends credit to people.” (Grywishki,1993:87). Banks deal with money by accepting various types of deposits, disbursing loans and investing in productive sectors and rendering other financial services as the primary function

Banks are channels between saving surplus and saving deficit people and thus, they are the bridge of utilized scatter fund to productive sectors. Hence, they represent a vital role in the transmission of government economic policies (especially monitory policies)

to the economy. When bank credit is expensive, the investment slows down and unemployment rises. Bank deposit represents the most significant component of the money supply used by the public. Commercial banks play an important role for economic development of the country as they provide capital for the development of industry, trade and business by investing the saving collected as deposits from public. They render various services to their customers facilitating their economic and social life.

2.1.1 Meaning of Commercial Banks

It is difficult to give concise and accurate definition of bank. It is so because a modern bank renders various functions. It is difficult to include all those functions in a single and concise definition. Even though, it can be said that a bank is an institution whose business is to trade in money. Trading in money relates to activities such as taking deposit, granting loans, discounting bills, issuing cheque to be drawn upon and other various functions on behalf of customers. Any institution will be known as bank if it renders all or some of these functions. It is quite impossible to discharge all these functions by a single bank. So they specialize in certain set of functions. Banks are classified on the basis of their functions, which are as follows:

1. Central Bank
2. Commercial Bank
3. Agriculture Bank
4. Industrial Bank
5. Exchange Bank
6. Saving Bank etc.

American Institute of Banking defines commercial bank as “Commercial Bank is a corporation which accepts demand deposits subject to cheque and makes short-term loans to business enterprises, regardless of the scope of its other services” (American Institute of Banking, USA 1972:345). The institution also aid down the four functions of commercial bank as receiving and handling deposits (Deposit Function), handling payments of money (Payment Function), making loans, and investments (Loan Function) and creating money by extension of credit (Money Function).

In today's concern the operating function of the commercial banks are, (a) to collect working capital (b) to utilize the working capital in various purposes (c) by utilizing the working capital, it earns profit and (d) part of the profit is distributed as dividend and part of the profit is retained for the expansion of banking transactions (Garg, 1977: 271).

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

2.1.2 Meaning of Joint Venture Banks

"A Joint Venture is forming of two forces between two or more enterprises for the purpose of carrying out of specific operation (industrial or commercial investments, production trade)", (Gupta, 1984:15-25). Joint Venture Banks are the commercial banks formed by joining a two or more enterprises, for the purpose of carrying out of specific operation such as investment in trade, business and industry as well as in the form of negotiation between various group of industries or traders to achieve mutual exchange of goods and services.

2.2 Concept of Working Capital Management

A bank must always have cash balances in hand in order to pay its depositors upon demand or when the amounts credited to them become due. It must also keep a proportion of its assets in forms that can readily be converted into cash. Only in this way can confidence in the banking system be maintained. Working capital is regarded as the life blood and nerve of a business concern and is essential to accommodate the smooth operations of any organizations. To sustain the belief of the people & customer, the organization should always get ready to meet the obligations.

According to I.M. Pandey, there are two concepts of working capital gross concept and net concept. The gross working capital, simply called as working capital, refers to the firm's investment in current assets. Current assets are the assets which can be converted into cash within an accounting year (or operating cycle) and include cash, short-term securities, debtors, bill receivable and stocks. The term net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders, which are expected to mature for payment within an accounting year and include creditors, bills payable, bank overdraft and outstanding expenses or accrued income. A positive net working capital will arise when current assets exceed current liabilities and a negative net working capital occurs when current liabilities are in excess of current assets. Net working capital concept also covers the question of judicious mix of long-term and short-term funds for financing current assets (Pandey, 1992:796-797).

Working Capital refers to the resources of the firm that are used to conduct day-to-day operation that makes business successful. Without cash, bills cannot be paid, without receivable the firm can not allow timing different between delivering goods to services and collecting the money to pay for them, without inventories the firm cannot engage in production nor can it stock goods to provide immediate deliveries. As a result of the critical nature of current assets the management of working capital is one of the most important areas in determining whether a firm will be successful. Need of working capital is directly related to firms growth. The term working capital refers to the current assets of the firm's those items that can be converted into cash with in the year. Net working capital is defined as the difference between current assets and current liabilities (Hamption and Wagner, 1989:34).

"Working capital may be defined as the funds deployed by the company in the form of cash, stock, sundry debtors and other currents assets. The total sum of funds deployed in such assets is termed as gross working capital. Net working capital is defined as the difference between gross working capital and current liabilities. The term working capital generally means net working capital. The liquidity position of a company is dependent of the investment in the working capital." (Mahat, Volume 2, Number 2, P. 22).

2.2.1 Issues of Working Capital

In the management of working capital, the most posing questions are how much working capital to maintain? What type of financing to use? How to adjust the working capital when there is a change in the level of business activities? In particular, they face the following issues with respect to the management of working capital, (Pradhan, 1992:148).

- Size of working capital to maintain size of each type of current assets
- Size of permanent & seasonal working capital investment
- Source of financing: Short-term or Long-term Financing
- Cost of financing: Cost of Short-term Vs Long-term Financing
- Risk associate with types of financing: Trade-off between cost and risk
- Maintenance of current ratio: Minimizing the risk of cash flow problem

2.2.2 Objectives of Working Capital in Banks

A bank undertakes many transactions daily. Sometimes, customers deposit large quantity and sometimes customers withdraw from their deposits in high quantity. Investment fund of bank is covered by deposit collections of different types of account holder. A bank should have to pay the money to depositors when they want to withdraw. For daily operation of office and to meet the administrative expenses, a bank should have certain level of working capital. Working capital is required to run the business smoothly and efficiently in the context of the set objectives. It is no doubt that no company can achieve its goals without proper use of working capital. Therefore, it can compare as lifeblood to the organization. The main objectives of arranging capital are as follows;

- To pay to depositors,
- To maintain Cash Reserve Ratio (CRR) & Statutory Liquidity Ratio (SLR),
- To satisfy the customers by granting loans promptly and increase the attraction of business etc.,
- To meet the administrative expenses, perform the task as per objectives of business and run the business smoothly,
- To fulfill the present need of business as well as get ready for risk & economic fluctuation in future.

2.2.3 Determinants of Working Capital of Banks

Working capital in banks is basically concerned with the liquidity management. Thus, the working capital of banks is synonymous to liquidity of banks. Many factors affect the liquidity or working capital of banks. They are:

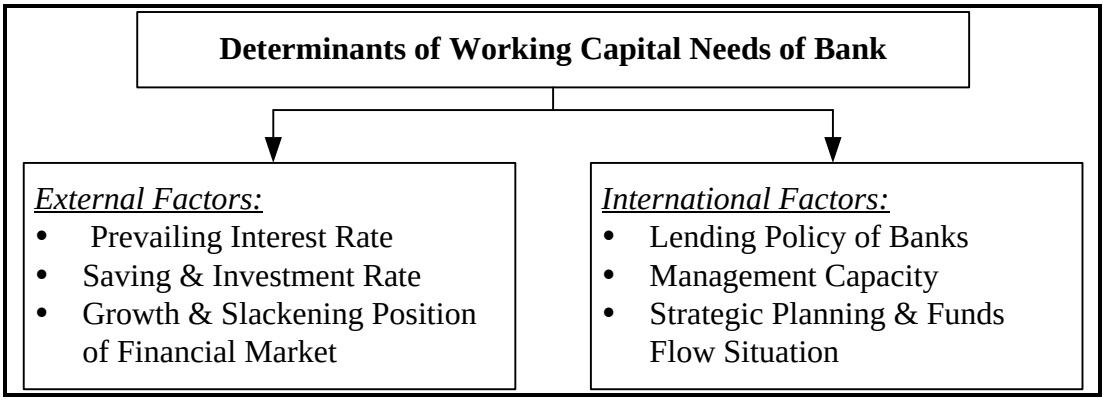
a. ***External Factors:***

- Prevailing interest rate of bank: If interest rate is high cash demand is low & liquidity need is low.
- Savings & investment situation: If income & saving scale of people is high, low liquidity. If investment in commercial field is high, high liquidity.
- Growth & scheming position of the financial market: If financial market of bank is in growth & prosperity, then low liquidity and if opposite, high liquidity.

b. ***Internal Factors:***

- Lending policy of bank: Great quantity for long-term investment needs high liquidity and if short-term loan policy, low liquidity.
- Management capacity: If management is efficient & ready to bear risk, low liquidity.
- Strategic planning & funds flow situation: Liquidity depends upon planning, & strategy. Current A/C needs high liquidity & payment. On the other hand fixed deposit needs low liquidity.

Figure 1: Determinants of Working Capital Needs of Bank

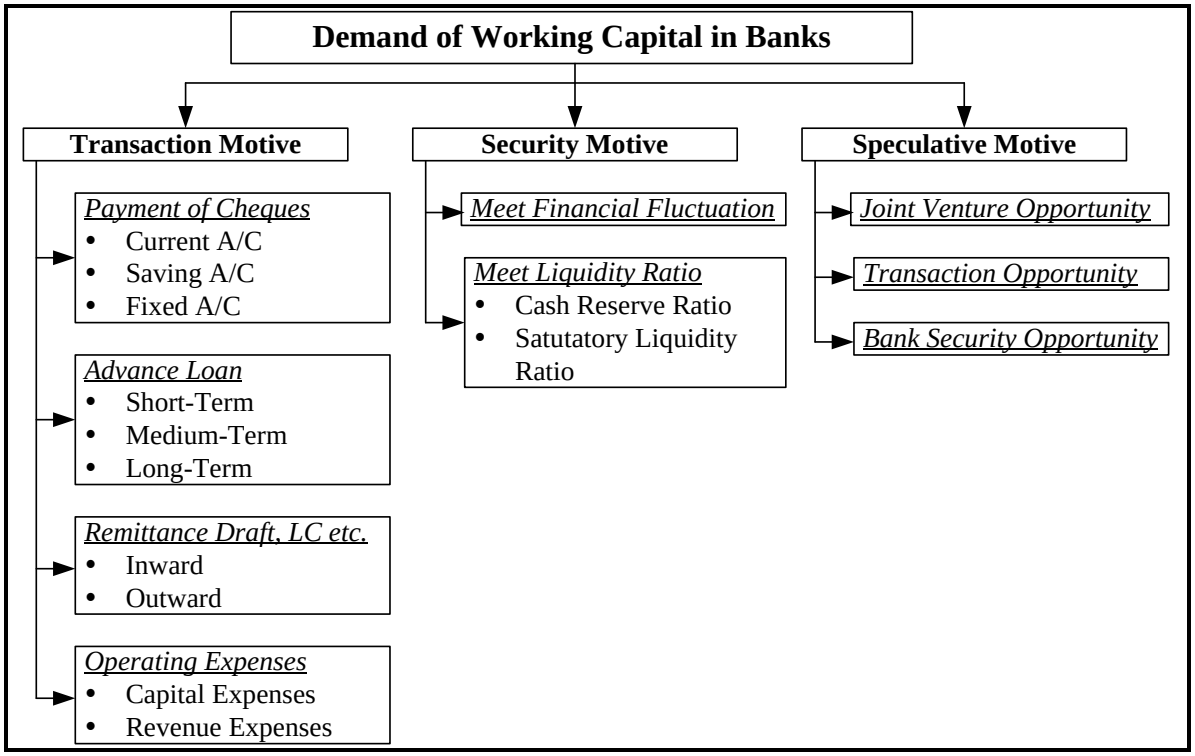


2.2.4 Demand of Working Capital in Banks

Working capital is maintained at bank by current saving, & fixed deposit collection. Specially, to grant loan and to pay cheques, creditors & account holders demand the liquidity. Generally, banks need liquidity for maintaining following goals

- Transaction motive
- Security motive
- Speculative motive
-

Figure 2: Demand of Working Capital in Banks



2.2.5 An Overview of Working Capital Management

Working Capital Management refers to the administration of all aspects of current assets, namely cash, marketable securities, stock and current liabilities. It is the functional area of finance that covers all the current accounts of the firm. It is concerned with the adequacy of current assets as well as the level of risk posed by current liabilities. It is a discipline that seeks proper policies for managing current assets by current liabilities and practical technique for maximizing the benefits from managing working capital.

In the words of K.V. Smith, The term working capital management closely relates with short-term financing; it is concerned with collection and allocation of resources.

Working capital management relates to problems that arise in attempting to manage the current assets, the current liabilities and interrelationships that exist between them (Smith, 1974:5).

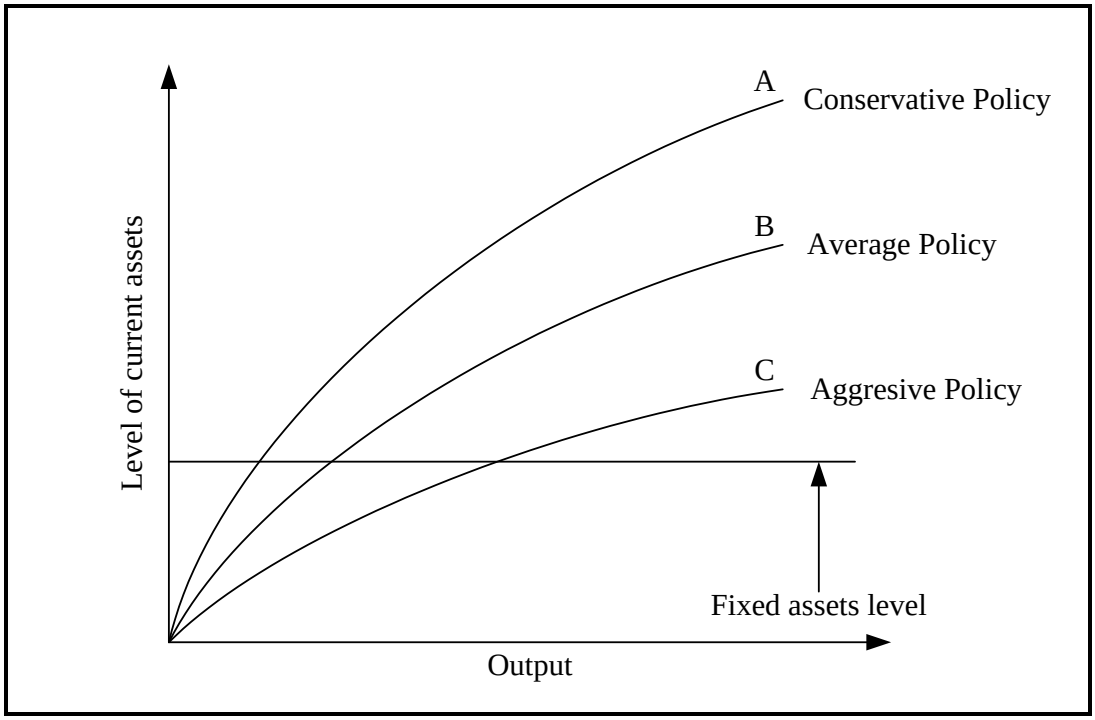
Working capital management is the crucial aspect of the financial management. It is the life-blood and controlling nerve center for any types or business organization because without the proper control upon it no business can run smoothly. The management of current assets and current liabilities is necessary for daily operations of any organizations. Thus, it plays the vital role in the success and failure of the organizations as it deals with the part of assets, which are transformed from one form to another form during the course of manufacturing cycle. Therefore, the role of working capital management is more significant for every business organization irrespective to their nature.

By the definition of various experts of working capital management, we conclude that, all institution, whether private or public, financial institution, manufacturing or non-manufacturing that need just adequate working capital to compete with competitive market. It is because over or under adequacy of working capital is dangerous from the firms objective points of view. Over investment on working capital affects the firm's profitability just as idle investment. On the other hand, under investment on working capital affects the liquidity position of the firm and causes to financial hindrance and failure of the company. It is therefore, a recognized fact that any mistake made in management of working capital can cause to adverse effects in business and reduces the liquidity, turnover and profitability and increases the cost of financing of the organization.

Need of working capital is directly related to firms growth. A firm can have different level of current assets to support the same level of output. The level of current assets can be measured by relating current assets to fixed assets. Its proportion upon the fixed assets of the firm indicates the working capital policy of the firm namely conservative and aggressive in two extreme ends. Dividing current assets by fixed assets gives Current Assets to Fixed Assets (CA/FA) ratio. Assuming a constant level of fixed assets, a higher CA/FA ratio indicates a conservative current assets policy and a lower CA/FA ratio means an aggressive current assets policy assuming other factors to be constant. A conservative policy implies greater liquidity or lower risk, while an aggressive policy indicates higher risk and poor liquidity, (Panday,

1992:822). Higher level of current assets implies greater liquidity and solvency of the firm. There is less risk of technical insolvency, but a considerable amount of funds will be tied up in current assets, which causes to lower the profitability. On the other side, to have a higher profitability, a firm can take an aggressive current assets policy maintaining lower lever of current assets, which will lower the solvency of the firm and the level of risk in the same manner. Thus the reasonable approach is to balance the cost of maintaining current assets and risk associated in such a way that the trade off between risk and return is minimized.

Figure 3: Alternative Current Assets Policies



Source: I. M. Panday, *Financial Management*, New Delhi: Vikash Publishing House, 1992, P. 822

When the firm follows the matching policy or average policy long-term financing will be used to finance fixed assets and permanent current assets and short-term financing to finance temporary or variable current assets (Pandey, 1992: 828).

The financing policy of the firm is said to be conservative when it depends more on long-term funds for financing needs. Under a conservative plan, the firm finances its permanent assets and a part of temporary current assets with long-term financing (Pandey, 1992: 828).

An aggressive policy is said to be followed by the firm when it uses more short-term financing than warranted by the matching plan. Under an aggressive policy, the firm finances a part of its permanent current assets with short-term financing (Pandey, 1992:828).

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

The objective of managing working capital is to aid in the value maximization of the firm by minimizing the cost of working capital. The level of working capital also differs by the types and nature of the business. The cost of maintaining the working capital depends on the source of finance used. The short-term sources generally cost less than the long-term sources, but they are riskier, (Pradhan, 1992:148).

2.3 Review of Books

The well known professors, *Weston and Brigham 1984*, in their book "Managerial Finance" have given theoretical insights into working capital management. The bond conceptual findings of their study provide sound knowledge and guidance for the further study in the field of management of working capital of any enterprise and naturally to this study as well. They explain, in the beginning, the importance of working capital, concept of working capital, financing of working capital, the use of short term versus long-term debt, relationship of current assets to fixed assets. In the next chapter they have dealt with the various components of working capitals and their effective management techniques. The components of working capital they have dealt with the cash, marketable securities, receivable and inventory for the efficient management of cash, they have explained the different cash management models. They have also explained the major sources and forms of short term financing, such as trade credit, loans from commercial banks and commercial paper.

Van Horne, 2000, another well known expert of financial management and writer in his book "Financial Management and Policy", has given the concept of capital management, it is usually described as involving the administration of these assets namely cash, marketable securities, receivables, inventories and the administration of

current liabilities. It means the working capital management is concerned with the problem that arises in attempting to manage the current assets, the current liabilities and the inter-relationship that exist between them. He has also described the different methods for efficient management of cash and marketable securities and various models for balancing cash and marketable securities. For the management of receivable, different credit and collection policies have been described and various principles of inventory have been examined for inventory management and control.

Shrestha 1995, has published "Portfolio Behavior of Commercial Banks in Nepal" based on the study of two local commercial banks, three joint-venture banks and one development bank as a sample for the study. Some major findings of her study are hereunder.

- Total deposits have been the major sources of fund for all the banks.
- Capital and reserve funds do not seem to have changed much over the year.
- The user of fund analysis shows that the resources of commercial banks are allocated in the liquid funds, investment on securities, loans and advances. Bills purchased and discounted.
- Among the portfolio, for Nepalese banks loan and advances share highest volume of the resources and the bills purchased and discounted the least over the year.
- The excess reserves of the commercial banks show unused resource. The cash reserve exceeds much more than the required cash reserve.

Pradhan, 1986, has published a book on management of working capital in Nepalese PEs. This book is based on the study of nine manufacturing public enterprises of Nepal for the duration of ten years from 1973 to 1982 AD. In his study, he aimed at examining the various aspects of management of working capital in selected manufacturing public enterprises of Nepal. The specific objectives undertaken in his study were:

- To conduct risk return analysis of liquidity of working capital position.
- To assess the short term financial liquidity position of the enterprises.
- To assess the structure and utilization of working capital and
- To estimate the transaction demand functions of working capital and its various components.
- His study has mentioned the following findings.

- It was found that most of the selected enterprises have been activating a trade off between risk and return thereby following neither an aggressive nor a conservative approach.
- It has showed a poor liquidity position of most of the enterprises. This poor liquidity position has been noticed as the enterprises have either negative cash flows or negative earnings before tax or they have excessive net current debts which cannot be paid within a year.
- The Nepalese manufacturing public enterprises have on an average half of their total assets in the form of current assets. Of all the different components of current assets, on an average, the share of inventories in total assets is the largest followed by receivables and cash in most of the selected enterprises.
- The economics of scale have been highest for inventories followed by cash and gross working capital, receivable and net working capital.
- The regression results also show that the level of working capital and its components and enterprise desires to hold depend not only on sales but on holding costs also.

His study is concerned with interrelationships that exist between managing current assets and current liabilities. The study manages to focus on net working capital concept. The study has employed ratio analysis, discriminate analysis and econometric models for its analysis.

2.4 Review of Related Journals/Articles

Shrestha, (ISDOC Bulletin, Vol.8, No.1-4, July 1982 - June 1983), in his study "Working capital management in public enterprises", based on ten selected public enterprises, states that manager often lacks basic knowledge of working capital and its overall impact on the operative efficiency and financial viability of public enterprises. The sample public enterprises are Birgunj Sugar Factory, Janakpur Cigarette Factory, Raghupati Jute Mills, Dairy Development Corporation, National Trading Ltd., Royal Drugs Ltd., National Construction Company of Nepal, Harisiddhi Brick and Tile Factory, Nepal Cheeuri Ghee Industry Ltd., and Chandeswori Textile Ltd. Specially, his study is focused on the liquidity turnover and profitability position of those enterprises. In this analysis, he found that four public enterprises have maintained adequate liquidity position, two public enterprises have excessive and remaining

others public enterprises had failed to maintain desirable liquidity position. On the turn over side, two public enterprises had negative turnover, four had adequate turnover, and one had higher turnover on net working capital. He had also found that out of ten public enterprises six were operating in loss while only four were setting some percentage of profit. With the reference of his findings, he has pointed certain policy flaws such as deficient financial planning, negligence of working capital management, deviation between liquidity and turnover of assets and iEBLity to show the positive relationship between turnover and return on net working capital. At the end, he has made some suggestive measures to overcome from the above policy issues. These are identification of management information system, positive attitude towards risk and profit and determination of right combinations of short-term and long-term sources of funds to finance working capital needs.

Acharya,(ISDOC Bulletin, Vol. 10, No. 3, Jan - Mar, 1985), has published an article relating on working capital management. He has defined the two major problem i.e. operational problems and organizational problems, regarding the working capital management in Nepalese public enterprises. The operational problems; he found were increase of current liabilities than current assets, not allowing the current ratio 2:1 and slow turnover of inventories. Similarly, change in working capital in relation to fixed capital had very low impacts over the profitability, than transmutation of working capital employed to sales, absent of apathetic management information system. Break-even analysis, funds flow analysis and ratio analysis were either undone or ineffective for performance evaluation. Finally, monitoring of the proper functioning of working capital management has never been considered as managerial job.

In the second part, he has listed the organizational problems in the public enterprises. In most of the public enterprises, there is lack of regular internal and external audit system as well as evaluation of financial results. Similarly very few public enterprises have been able to present their capital requirement functioning of finance department is not satisfactory and some public enterprises are even facing the under utilization of capacity.

Pradhan, (Vol.8, No. l, 1988), has published another article relating to working capital management. He studied on ‘the demand for working capital by Nepalese corporation’. He analyzed the selected nine manufacturing public corporation with the 12 years data from 1973-1984. Regression equation has been adopted for the analysis.

His study has summarized that the earlier studies concerning about the demand for cash and inventories by business firm did not report unanimous findings. A lot of controversies exist in respect to the presence of economics of scale, roles of capital cost, capacity utilization rates and the speed with which actual cash and inventories adjusted to describe cash and inventories respectively. To pooled regression, result shows the presence of economics of scale with respect to the demand for working capital and its various components. The regression results suggest strongly that the demand for working capital and its components is function of both sales and their capital cost. The estimated results show that the inclusion of capacity utilization variable in model seems to have contributed to the demand function cash and net working capital only. The effect of capacity utilization on the demand for inventories, receivables and gross working capital is doubtful.

Mahat (Vol. XII, No. 98, May 26 2004), also has published article relating to spontaneous resources working capital management. He has defined the three major sources of working capital i.e. equity financing, debt financing and spontaneous sources of financing, regarding the working capital management. Debt financing include short-term bank financing such as bank overdraft, cash credit, bills purchase and discounting, letter of credit etc. whereas spontaneous sources of working capital include trade credit, provisions and accrued expenses.

Mr. Mahat has defined that working capital management is one of the important pillars of corporate finance. However, Nepalese industries are facing difficulty in their survival by the cause of recession, which can bring best and worst in corporate finance such an environment should be efficient enough to cope with the possible worst happenings in future for working capital management. He has said that managing the working capital resources for a profit making industries are routine affairs of just making payment and arranging collection of debtors. In contrast, the company in debt trouble, it is rather difficult to meet its working capital gap by way of debt financing, the company should have to bear interest, which may cause to increase in the percentage of operating expenses to the turnover and depletion in the profits. Therefore, spontaneous sources of working capital will be a better source for working capital in order to improve its performance.

Consequently, in a changed economic scenario, every company should realize that iEBLity to manage working capital might land them in a vicious circle that can be

hard to get out from. It is indeed essential for industries to tighten their belts and checks their financial stability to face and stand in forthcoming competitive day.

2.5 Review of Previous Thesis

Various research works have done by MBA and MBS students in different aspects of commercial banking, such as financing performance, working capital management etc. studies and reviews on working capital management of other organizations and their conclusion are relevant to my study. Some reviewed previous dissertations are as follows:

Shrestha (2009) has carried out "A comparative study of working capital management in Bhaktapur Brick Factory and Harishiddh, Factory". His main objective is to focus on the components of working capital cash, inventory receivable and current liabilities. He had done comparative assumed of WCM of BBF and HBF. He had used financial ratios as a major tool of analysis. In addition of this, he had used mean, index, standard deviation and coefficient of variation. The major findings of his study are as follows:

- There is no proper relationship between liquidity and profitability of two brick factories.
- Both Brick factories have followed various working capitals. There is no good combination between fixed capital and working capital.
- BBF has been seriously suffered from negative return whereas HBF has generated positive return. However, both factories profitability position is not satisfactory.
- Overall management and working capital is not strong in both brick factories.

Pathak (2006) has done a research on "An Evaluation of working capital management of Nepal Lube Oil Limited.". The main objective of his study is to appraise the working capital management of NLOL and to study the relationship between sales and different variables of working capital. To achieve these objectives, he has taken five-year study period and applied the secondary data.

He found out the current assets with respect to total assets are in increasing trend year after year during the study period. It has occupied high portion than fixed assets. Investment on current assets has affected on investment on total assets. According to

him, the growing tendency of investment over current assets could have adverse effects In NLOL's wealth maximization goal in the long run.

According to the conclusion of his study, the major findings were:

- The company had lesser participation of fixed assets in total assets.
- Cash holds of the company was relatively small portion of total assets and inventory held largest portion indicating unsound inventory management.
- The company was inefficient in collecting receivables.
- Receivables were not affected by sales.
- Current assets did not depend upon the volume of cash and receivables however significance relation between proportion of current assets and total asset, current asset and fixed asset, current assets and current liabilities and quick asset and current liability was.

Shrestha (2003) has carried out a study, her study "A study on Working capital management with respect to National Trading Limited and Salt Trading Corporation Limited". Her main objective is to present overall picture of working capital of National Trading Limited and Salt Trading Corporation Limited. The major findings of the study are as follows:

- The Current Assets to Total Assets of NTL and STCL both are in fluctuating trend.
- The investment in current assets is high in both of the trading companies with respect to its total assets and net fixed assets.
- Cash and bank balance holds the highest portion followed by inventory in NTL whereas cash and bank balance holds the least portion in STCL and inventory holds the highest portion.
- The turnover position of the NTL and STCL are in fluctuating trend.
- The liquidity position of the STCL is satisfactory and favorable in comparison to the liquidity position of the NTL.

Lamsal (2004) has conducted research study on "A comparative study of working capital management of HBL and Standard Chartered Bank Nepal Limited." The main objectives are:-

- To study the current assets and current liabilities and their impact on liquidity and profitability.

- To analyze the liquidity, assets utilization, long term solvency and profitability of both banks.
- To analyze the comparative study of working capital management between HBL and SCBNL.

Based on his findings, the Standard Chartered should seriously adjust its policy of investment on loan and advances with collected funds and increase their proportion of loan and advances in total current assets. Fixed deposits and saving deposits turnover position are also not satisfactory on both banks. Therefore, HBL as well as SCBNIL should give proper attention on collection over dated loan and advances and utilization of idle fund as well as loan and advances. Interest earned to total assets ratio is higher cost on HBL but net profit ratios are less then SCBNL. It is due to higher cost on HBL. By adopting the matching working capital management policy instead of adopting conservative working capital policy HBL as well as SCBNL could improve in its profitability in the short run as well as long run.

The major findings of his study were:

- The major components of current assets in HBL and SCBNL are cash and bank balance, loan and advance and government securities.
- The liquidity position of SCBNL is better than HBL.
- The turnover position of HBL has better than SCBNL. The HBL has better utilization of deposits in income generating activity than SCBNL.
- Long term debt to net worth ratio of HBL is always higher than SCBNL on that study period.
- Net profit to total assets ratio and net profit to total deposit ratios are always higher on SCBNL than HBL. Cost of services to total assets ratio of HBL is always higher than the same of SCBNL

on the study period. The average value of interest earned to total assets ratio of HBL is higher than SCBNL.

Aryal (2006) a student of management finished his research study about working capital management. That study was conducted on "A study on working capital management of pharmaceutical industry of Nepal with special reference Royal Drugs Ltd. (RDL)". The main objective of that study was to find out working capital

management system and its effect on profitability of the company by using nine years data. The major findings of the study are described in the next paragraph.

Working capital is more difficult to manage than that of fixed capital. 65% of respondents of RDL said that working capital was more difficult to manage than fixed capital and only 35% were in favors of that fixed capital management is more difficult to manage than working capital. So far as the importance of current assets management, 82% of respondents of RDL have said that a lot of time has taken to it. With respect to receivable management the major factors affecting the larger investment in receivable is found to be liberal credit policy. The major reason for holding inventories is to facilitate smooth operation of production and sales. Majority of respondents of RDL performed for it not for to take advantage of price increase.

Thapa (2007) has conducted a study on "Comparative Study of working capital management of Nepal Bank Limited and Nepal Arab Bank limited." The main objective is to analyze the comparative study of working capital management of NBL and HBL. The major findings of the study are as follows:

- ☞ The liquidity position of NBL is better than that of HBL.
- ☞ HBL has better turnover and investment efficiency on loan and advance than NBL. So the management of loan and advance is more problematic in NBL than HBL.
- ☞ Profitability position of HBL is far better although NBL earned higher interest than HBL.

He has recommended that both bank should adopt matching working capital policy rather than conservative policy. He has also recommended that both bank should give attention to collect over

dated loan and advances and utilize the idle funds. High cost deposit should be reduce to minimize operating cost and maximize profit.

Bhattarai (2008) a student of management finished his research study about working capital management. That study was conducted on "Working capital Management of Cigarette Industry in Nepal with Special Reference to Janakpur Cigarette Factory". He has used data from 2003/04 to 2007/ 08. The main objectives of his study were to evaluate the performance of management of working capital of JCF, to measure the

efficiency of management in utilization of inventory, appraising the efficiency of management in utilization of account receivable, measuring the efficiency of management in the use of cash and evaluating the financial pattern of working capital of the factory.

The major findings of his study were as follows:

- Short term financial position of the factory is sound from the creditors point of view.
- The factory's liquid financial position is weak from the creditors points of view.
- Inventory of the factory has not been managed efficiently.
- Receivable, cash has not been managed efficiently.
- Working capital turnover ratio of the factory marked a fluctuating trend during the period of analysis.
- The current assets of the factory marked an irregular tendency while the current liabilities and net working capital recorded mixed trend.
- On the whole, the performance of working capital management is not satisfactory.

Thapa (2009) has conducted research on “Comparative study of working capital management of Nepal Bank Limited and HBL Bank Limited.”

The major objectives of the research are:-

- To review the related literature of recent development in working capital management.
- To analyses the comparative study of working capital management of NBL and HBL.
- To study the current asset and current liabilities and their impact and relationship to each other of NBL and HBL.

Based on his findings, he has recommended that NBL should reduce or replace fixed deposits by collecting higher amount of short term deposits. NBL as well as HBL should give proper attention on collection of over-dated loan and advances and utilization of idle fund as loan and advances. NBL should reduce its cost through reducing high cost deposit, and operate in a proper way so that it can have least

operating cost which further maximize its profitability and maximize shareholders return. Both banks should adopt the matching working capital management policy instead of adopting conservative working capital policy.

The major findings of his study were:

- The major components of current assets in NBL and HBL are cash, hank balance, loan advances and government securities.
- Out of the major three current assets components, cash and bank balance holds the smallest portion in NBL. On the other hand, government securities hold the smallest portion in HBL. The interest income of NBL was better than HBL.
- The trend of quick ratio, cash and bank balance to deposit ratio, and cash and bank balance to deposit ratio, and cash and bank balance to current, margin and other deposit ratios of NBL and HBL are decreasing. The liquidity position of NBL was always better than HBL.
- Fixed deposit to total deposit, ratios of NBL were always higher than same of HBL for the study period.
- The turnover positions of NBL are in fluctuating trend but turnover positions of HBL are decreasing in first three years then increasing in last two years of study period. HBL has the better utilization of deposits in income generating activity than NBL. Also the HBL has better investment efficiency on loan and advance.
- Large portion of long term debt is used in current assets of both banks but relatively it is higher on NBL than HBL. Both banks follow conservative working capital policy but NBL has more conservative working capital than HBL. Due to more conservative working capital policy, risk of insolvency is lesser but cost of fund is higher on NBL than HBL.
- The profitability position of HBL is far better although NBL earned higher interest HBL.

Shrestha (2010) has carried out his research on "A study on working capital management of Dairy Development Corporation". The main objective of the study is to analyze the current assets and current liabilities and their impact and relationship to each other. The major findings of his study are as follows:

- The major components of current assets in DDC are inventory cash and bank balance, sundry debtors and miscellaneous current assets in which inventory hold the major portion respectively in each year.
- The company's investment in the form of working capital has been increasing, The average investment in current assets is lower with respect to net fixed assets during the study period and DDC has no clear vision about the investment in current assets to fixed assets Portion.
- The average receivable turnover and ACP is in fluctuating trend during the study period.
- There is ineffective liquidity position and unsatisfactory profitability ratio in DDC.
- The overall return position of DDC is negative i.e. not in favorable condition. It is because of inefficient utilization of CA, TA and shareholders' wealth.

2.6 Research Gap

Many research studies have been conducted by the different students, experts and researchers about working capital management. There have been found numerous research studies on financial companies and public enterprises regarding working capital. Some studies are related to a case study of a single company and some others are comparative in nature. But the comparative study of working capital management between two financial companies can be hardly found. From the review of related studies no one study have been found (working capital management) as a comparative study in the context of HBL and SBI. The financial and statistical tools used by most of the researchers were ratio analysis, test of hypothesis and regression analysis. This research includes different tools like ratio analysis, correlation analysis and trend analysis as specific tools.

This research study made on “A comparative study of working capital management of Standard HBL and SBI” will be an effort to analyze on detail about working capital management of the two banks as a comparative study in present situation with the help of various related financial as well as statistical tools and techniques. The study can be beneficial to all the concerned parties like investors, policy makers, and student to carry on further studies.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Research simply means to search again and again. It is a systematic activity to achieve truth or finding solution to a problem. It is a process of a systematic and in-depth study or research of any particular topic, subject or area of investigation backed by the collection, compilation, presentation and interpretation of relevant details or data. Methodology is the research method used to test the hypothesis. So the research methodology refers to the overall research process, which a researcher conducts during his/her study. "The purpose of research is to discover answers to questions through the application of scientific procedures. The main aim of research is to find the truth which is hidden and which has not been discovered at yet." (Kothari, 1990:7)

3.2 Research Design

A research design is the conceptual structure within which research is conducted. It is an integrated system that guides the researcher in formulating, implementing, and controlling the study.

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevancy of the research purpose with economy in procedure. It is the plan and formulation of investigation idea and strategy to obtain answers to research questions and to control variance.

Kerlinger (1986) describes that “Research design is the plan, structure, and strategy of investigation conceived so as to obtain answers to research questions and to control variance. The plan is the overall scheme or program of the research. It includes an outline of what the investigator will do from writing the hypotheses and their operational implications to the final analysis of data. The structure of the research is more specific. It is the outline, the scheme, and the paradigm of the operation of the variables. With the aid of the diagrams that outline the variables and their relation and juxtaposition, it is possible to build structural schemes for accomplishing operational research purposes. The research methodology followed for this study is basically descriptive cum analytical research design

3.3 Population and Samples

There are altogether 32 commercial banks (domestic commercial banks and joint venture banks) functioning till to date and most of their stock and traded actively in the stock market. Here for the study or for sample Himalayan Bank Limited and SBI Bank Limited are taken in to account. Since all three sample banks are performing well and they are providing same traditional as well as modern transaction facilities, so effort is made to do the same, which have been consider as a population of the study.

3.4 Nature and Sources of Data

This study conducted on the basis of primary and secondary data. Secondary data relating to "Investment" e.g. deposit, loan and advances and profit/loss that have been directly obtained from the balance sheet and the P/L a/c of concerned banks annual reports, collected from number of institution and authorities like NRB budget speech, NRB published books, bank bulletin, newspaper, previous studies, security exchange board, Nepal stock exchange Ltd. All the secondary data are observed, processed and tabulating in the time as per need and objectives. Various data and information are collected from the economic journal, periodicals, bulletins magazines and other published and unpublished reports and documents from various sources.

3.5 Data Collection and Processing Techniques

Almost secondary data has been taken in this study. The data needed are collected from Balance Sheet, Profit & Loss Account, other related books of account of the concerned bank, stock exchange board and Nepal Rastra Bank. To meet the objectives of the study, the sources of secondary data of commercial bank are analyzed by using financial tools such as Ratio analysis. Secularly all the scores of individual data sheet (represented by primary data) were entered into SPSS version 11.5 database for tabulation & analysis simple descriptive analysis tools such as frequency, mean, standard deviation were used.

3.6 Data Processing and Presentation

The information and data obtained from the different sources are in row form. From that information, direct presentation is not possible. So it is necessary to process data and converts it into required form. After then only, the data are presented for this study. This process is called data processing. For the study, only required data are taken form the secondary source and presented likewise, in some case graphical presentation is also made. For presentation, different tables are used. Likewise, in some case graphical presentation is also made. The calculations that are related to this study are done with the help of scientific calculator as well as computer software program.

3.7 Tools and Techniques of Analysis.

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

3.7.1 Financial Tools

In this research study various financial tools are employed for the analysis. There are various ratios but in this study some selected ratios among them are used. 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. "Ratio analysis is such a power full tool of financial analysis that thought the help of it economic and financial position of business unit can be fully x-rayed." (Kothari, 1994, P 187). Ratios are calculated to obtain the better insight into real situation of working capitalmanagement of sample banks viz. NIBL, BOK and EBL. 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. Composition of Working Capital

Working capitalrefers to the resources of the firm that are used to conduct day to day operation that makes business successful. Simply, working capitalrefers to the current assets of the firms that can be converted into cash within a year. The main components are cash and bank balance, money at call or short notice, loan and advances and government securities.

Composition of working capitalis analyzed by calculating the following ratios.

i. Current Assets to Total Assets Ratio

$$\text{Current Assets Ratio} = \frac{\text{Current Assets}}{\text{Total Assets}} \times 100\%$$

It measures what portion of total assets used in the current assets. Lower ratio shows the risk and profitability will increase and vice-versa

ii. Current Assets to Fixed Assets Ratio

$$\text{Current Assets to Fixed Assets Ratio} = \frac{\text{Current Assets}}{\text{Fixed Assets}} \times 100\%$$

The relation between current assets and fixed assets is shown by this ratio. Higher ratio of this means the company has sounds working capitalposition and vice-versa.

iii. Cash and Bank Balance to Current Assets Ratio

$$\text{Cash and Bank Balance to Current Assets Ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Current Assets}} \times 100\%$$

What percent of current assets cover cash & bank balance is shown by this ratio. Lower the ratio means higher will be risk, profitability, and vice-versa.

iv. Cash and Bank Balance to Total Assets Ratio

$$\text{Cash and Bank Balance to Total Assets Ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Total Assets}} \times 100\%$$

What percent of total assets cover cash & bank balance is shown by this ratio. Lower the ratio means higher will be risk, profitability, and vice-versa.

B. Liquidity Position

Liquidity position of a company is identified with the help of liquidity ratio, which measures the company's ability to pay its current obligations. It is employed to determine the short-term solvency position of the company. In other words, this ratio provides insight into the present cash solvency in the event of adverse financial condition. This ratio is used to measure the company's short-term obligations with

short-term resources available at a given point of time. Therefore, it plays important role in the company.

i. Current Ratio

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

This ratio measures the short-term solvency, i.e. its ability to meet short-term obligations. Current ratio is calculated by dividing the current assets by current liabilities.

ii. Quick/Acid Test Ratio

$$\text{Quick/Acid Test Ratio} = \frac{\text{Quick assets}}{\text{Current Liabilities}}$$

Quick ratio is the ratio of quick/liquid assets to current liabilities. It establishes a relationship between quick/liquid assets and current liabilities. An asset is quick/liquid if it can be converted into cash immediately or reasonably soon without a loss of value. It is computed by deducting inventory and prepaid expenses from current assets.

iii. Cash and Bank Balance to Total Deposit Ratio (Excluding fixed deposit).

$$\text{Cash and Bank Balance to Total Deposit Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposit (Excluding Fixed Deposit)}} \times 100\%$$

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

iv. Saving Deposit to Total Deposit Ratio:

$$\text{Saving Deposit to Total Deposit Ratio} = \frac{\text{Saving Deposit}}{\text{Total Deposit}} \times 100\%$$

Saving deposit is interest bearing short-term deposit. The ratio is developed in order to find out the proportion of saving deposit, which is interest bearing and short-term

in nature. It is find out by dividing the total amount of saving deposits by the amount of total deposit.

C. Activity or Turnover Position

Turnover Position/Activity Position shows the efficiency in assets management as well as effectiveness of the investment of resources in the company. These ratios are intended to measure the effectiveness of the employment of the resources in a business concern. Through these ratios, it is known whether the funds employed have been used effectively in the business activities or not.

i. Loan and Advances to Total Deposit Ratio

$$\text{Loan and Advances to Total Deposit Ratio} = \frac{\text{Loan and Advances}}{\text{Total Deposits}} \times 100\%$$

This ratio assesses to what extent, the banks are able to utilize the depositor's funds to earn profit by providing loans and advances. It is computed dividing the total amounts of loans and advances by total deposited funds. High ratio is the symptom of higher/proper utilization of funds and low ratio is the signal of balance remained unutilized or idle.

ii. Loan and Advances to Fixed Deposit Ratio:

$$\text{Loan and Advances to Fixed Deposit Ratio} = \frac{\text{Loan and Advances}}{\text{Fixed Deposits}} \times 100\%$$

This ratio examines that how many times the funds is used in loans and advances against fixed deposits. For commercial banks, fixed deposits are long-term interest bearing obligations, whereas investment in loans and advances are the main sources of earning. This ratio is computed dividing loans and advances by fixed deposit as under. A low ratio indicates idle cash balance. It means total funds not properly utilized. This ratio examines to what extent the fixed deposits are utilized for income earning purpose.

iii. Loan and Advances to Saving Deposit Ratio:

$$\text{Loan and Advances to Savings Deposit Ratio} = \frac{\text{Loan and Advances}}{\text{Savings Deposits}} \times 100\%$$

This ratio assesses, how many times the fund is used to loans and advances against saving deposits. Saving deposits are interests bearing short-term obligation and the major sources of investment in loan and advances for income generation and the major sources of investment in loan and advances for income generating purpose by CBs. This ratio indicates how many times the short-term interest bearing deposits are utilized for generating the income. It is calculated by dividing the amount of loan and advances by total deposit in saving account.

D. Profitability Position

Profitability Position indicates the degree of success in achieving desired profit. It helps to find the efficiency of the organization. Various profitability ratios are calculated to measure the operating efficiency of business enterprises. Through profitability ratios the lender and investors want to decide whether to invest in a particular business or not. Some of the important profitability ratios used is as follows:

i. Interest Earned to Total Assets Ratio:

$$\text{Interest Earned to Total Assets Ratio} = \frac{\text{Interest Earned}}{\text{Total Assets}} \times 100\%$$

It is the ratio, which is formed to find out the percentage of the interest earned to total assets. This is derived by dividing the amount of interest earned by the total assets of the firms.

ii. Net Profit to Total Assets Ratio

$$\text{Net Profit to Total Assets Ratio} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}} \times 100\%$$

This ratio is very much crucial for measuring the profitability of funds invested in the banks assets. This ratio is commonly known as return on assets (***ROA***). It measures the return on assets. It is computed dividing the net profit after tax by total assets.

iii. Net Profit to Shareholders' Equity Ratio:

$$\text{Net Profit to Shareholders' Equity Ratio} = \frac{\text{Net Profit}}{\text{Net Worth}} \times 100\%$$

This ratio is calculated to see the profitability of owners' investment. In other words it tells us the earning power on shareholders' book investment and is frequently used in comparing two or more firms in an industry. This ratio is commonly known as return on equity (***ROE***). The return on equity is net profit divided by net worth.

iv. Net Profit to Total Deposit Ratio:

$$\text{Net Profit to Total Assets Ratio} = \frac{\text{Net Profit}}{\text{Total Deposit}} \times 100\%$$

This ratio is used for measuring the internal rate of return from deposits. It is computed dividing the net profit by total deposits. Higher ratio indicates the return from investment on loans and advances are desirable and lower ratio indicates the funds are not properly mobilizing.

v. Cost of Services to Total Assets Ratio:

$$\text{Cost of Services to Total Assets Ratio} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}} \times 100\%$$

A sound management always tries to utilize its larger amount of assets with minimum cost. This ratio is useful in measuring the assets utilization with cost of services. The ratio is computed dividing the cost of services by total assets.

E. Capital Structure or Leverage Position

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

i. Long-term Debt to Net worth Ratio:

$$\text{Long-term Debt to Net worth Ratio} = \frac{\text{Long-term Debt}}{\text{Net Worth}} \times 100\%$$

Long-term debt refers to the amount of fixed deposits and loans of the banks. The ratio measures the proportion of outsiders and owners fund employed in the

capitalization of banks. It is calculated by dividing the fixed obligations of the banks by owners claim.

ii. Net Fixed Assets to Long-term Debt Ratio:

$$\text{Net Fixed Assets to Long-term Debt Ratio} = \frac{\text{Net Fixed Assets}}{\text{Long-term Debt}} \times 100\%$$

Net fixed assets are applied to both physical and financial assets. This ratio is calculated to find out how many times not fixed assets are compared to the fixed liabilities. It is computed dividing net fixed assets by long-term debt.

3.5.2 Statistical Tools:

In this research study some statistical tools are also used for analysis to support the objective of the research work. The tools are as follows.

Correlation Analysis

Correlation is the statistical tools that we can use to describe the degree to which one variable is linearly related to another (1991, P. 505). The coefficient of correlation measures the degree of relationship between two sets of figures. Among the various methods of finding out coefficient of correlation, Karl Person's method is applied in the study. The result of co-efficient of correlation is always between +1 and -1, when r is +1 it means there is perfect relationship between two variables and vice versa. When r is 0, it means there is no relationship between two variables. In this study, simple coefficient of correlation is used to examine the relationship of different factors with working capital and other variables.

CHAPTER - 4
PRESENTATION AND ANALYSIS DATA

4.1 Introduction

This is the most important chapter of the study. In this chapter, collected data will be analyzed and presented mathematically. All the above mentioned financial and statistical tools will be used to present the data.

The main objective of the study is to evaluate the capital structure of selected joint venture bank. To analyze the financial performance in the respect to capital structure various presentation and analysis has been presented in this chapter according to analytical research design mention third chapter using various financial and statistical tools.

4.2 Ratio Analysis

Ratio analysis is a powerful financial tool to measure the financial performance of banks comparatively. As mentioned in research methodology, liquidity, turnover and profitability ratios are calculated. As a mathematical tool, the method of learn-square is used to analyze performance.

4.2.1 Liquidity Ratios

Liquidity of any business organization is directly related with the working capital or current with the working capital of that organization. In order words, one of the main objectives sounds liquidity position. Bank is different organization which is engaged in mobilization of funds. Therefore, without sound liquidity position, bank is not able to operate its function.

To measure the bank's solvency position or ability to meet its short-term obligation, various liquidity ratios are calculated and to know the trend of liquidity, trend analysis of major liquidity, trend analysis of major liquidity ratios have been calculation.

4.2.1.1 Current Ratio

This ratio indicates the current short term solvency position of bank. Higher current ratio indicates better liquidity position. In other words, current ratio represents a margin of safety i.e. a “cushion” of protection for creditors and

the highest the current ratio, greater the margin of safety, large the amount of current assets in relation to current liabilities, more the banks ability to meet its current obligations.

The current ratio can be calculated as shown below:

$$\textbf{Current Ratio } X \frac{\textbf{Current Assets}}{\textbf{Current Liabilities}}$$

The following table shows the current ratio to compare the working capital management of HBL and SBI.

Table 4.1: Current Ratio (Rs. in Million)

Fiscal Year	HBL			SBI		
	Current Assets	**Current Liabilities**	**Ratio**	**Current Assets**	**Current Liabilities**	**Ratio**
2007/08	20797.6	17620.78	1.18	16881.45	18694.56	0.90
2008/09	23494.63	20657.71	1.14	18495.86	18320.71	1.01
2009/10	21808.83	18834.42	1.16	21326.29	20195.51	1.06
2010/11	25662.69	21825.4	1.18	23153.12	20984.01	1.10
2011/12	28429.16	23223.59	1.22	27564.21	22811.51	1.21
Average	**1.176**			**1.056**		
Std. Dev.	**0.0297**			**0.0823**		
C.V.	**0.0253**			**0.0779**		

(Source:- Appendix 9)

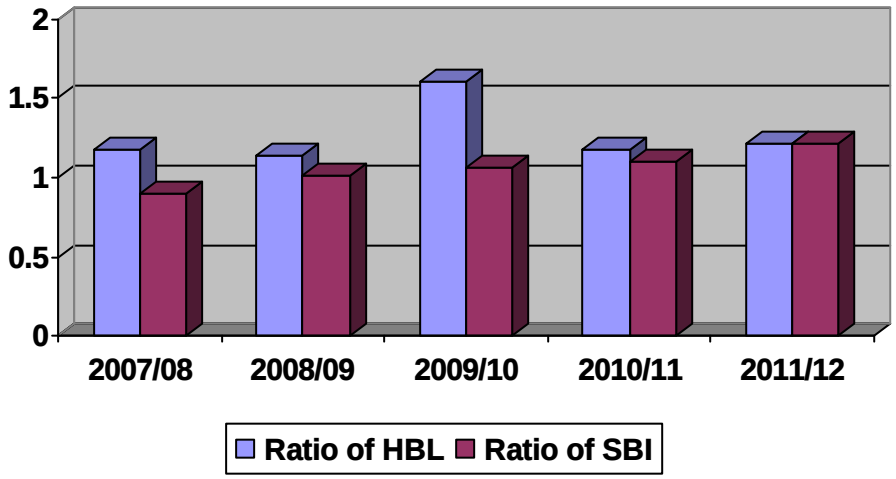
Table 4.1 depicts that current ratio of SBI is quite fluctuating. The highest current ratio of HBL is 1.22 in year 2011/12 and lowest is 1.14 in 2008/09. In SBI, the highest current ratio is 1.21 in the last year 2011/12 and lowest is 0.90 in the first year 2007/08. The average current ratio of HBL is 1.176. In SBI, the average current ratio is 1.056. The yearly ratios of HBL are always higher than that of SBI. Therefore, the average ratio of HBL is higher than the average ratio of SBI.

The standard deviation is 0.0297 is HBL where as it is 0.0823 in SBI. Similarly, coefficients of variation are 0.0253 in HBL and 0.0779 in SBI.

Hence, it shows there is more variation in current ratio maintained by SBI compared to HBL.

Graph 4.1

Current Ratio



Graph 4.1 depict that the current ratio of HBL and SBI. It is clear from the above graph that current ratios of HBL are always higher than SBI.

The above analysis helps to conclude that both banks have sufficient current assets to discharge the current liabilities. Comparatively, the liquidity position of HBL is better than that of SBI. In other words, HBL has more ability to meets its current obligations than SBI.

4.2.1.2 Quick Ratio

Quick ratio establishes a relationship between quick or liquid assets and current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of original value. Cash is a most liquid asset. Other assets which are considered to be relatively liquid and included in quick assets are book debts and marketable securities.

For quick ratio, cash and bank balance and government securities are included in quick assets. This ratio can be found out by dividing the total of quick assets by total current liabilities. The formula is given below:

$$\textbf{Quick Ratio } X = \frac{\textbf{Quick or Liquid Assets}}{\textbf{Current Liabilities}}$$

The following table shows the quick ratio of HBL and SBI.

Table 4.2: Quick Ratio (Rs. in Million)

Fiscal Year	HBL			SBI		
	Quick Assets	Quick Liabilities	Ratio	Quick Assets	Quick Liabilities	Ratio
2007/08	9893.04	17620.78	0.56	6128.18	18694.56	0.33
2008/09	12189.98	20657.71	0.59	5801.82	18320.71	0.32
2009/10	10573.88	18834.42	0.56	7925.31	20195.51	0.39
2010/11	11898.37	21825.40	0.55	7866.95	20984.01	0.37
2011/12	10890.11	23223.59	0.47	9922.24	228.11.51	0.43
Average	**0.546**			**0.368**		
Std. Dev.	**0.045**			**0.045**		
C.V.	**0.083**			**0.122**		

(Source:- Appendix 10)

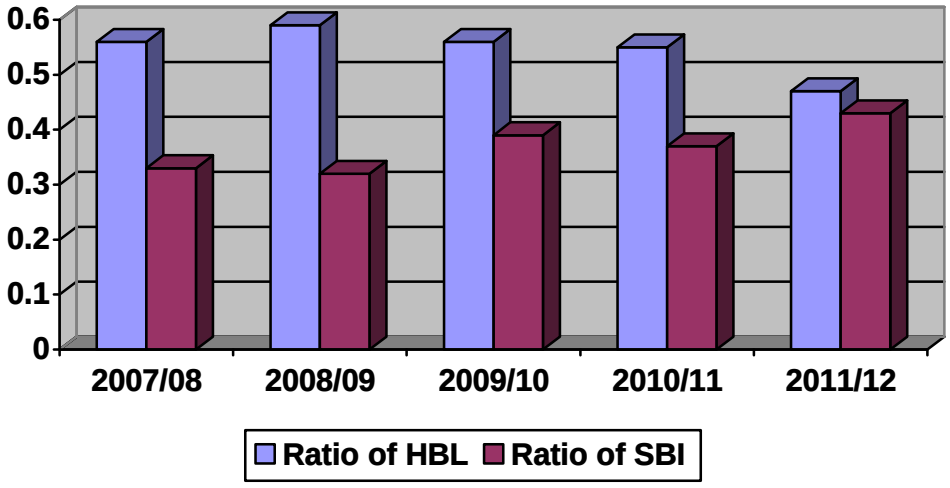
Table 4.2 shows that the quick ratios of HBL are fluctuating over the study period. The ratio is highest (0.59) in the year 2008/09 and lowest (0.47) in the year 2011/12. The average quick ratio of HBL is 0.546. The yearly quick ratios are lower than the average in the years 2009/10, 2010/11 and 2011/12. However, the ratio is higher than the average in the second year.

The quick ratios of SBI are also fluctuating over the study period. It is higher (0.43) in the year 2011/12 and lowest (0.32) in the year 2008/09. The average quick ratio of SBI is 0.368. In the last three years of the study period, the yearly quick ratios are higher than the average ratio. However, the ratios are lower than the average ratio in the first two years.

The average quick ratio of HBL is higher than that of SBI.The standard deviation is 0.045 in HBL whereas it is 0.045 in SBI. Similarly, coefficient of variation of HBL is 0.083 and 0.122 in SBI. Thus coefficient of variation of SBI is higher than that of HBL which shows that there is more variation in quick ratio of SBI Compared to HBL.

Graph 4.2

Quick Ratio



Graph 4.2 shows that the quick ratio of HBL and SBI. It is clear from the above graph that the quick ratios of HBL are always higher than SBI.

The above analysis helps to conclude that the quick ratios of HBL are always better than SBI. It shows the better liquidity position of HBL in comparison to SBI.

4.2.1.3 Cash and Bank Balance to Deposit ratio (Excluding Fixed Deposit):

This ratio is calculated is below:

$$\text{Balance to Deposit Ratio X} \frac{\text{Cash \& Bank Balance}}{\text{Total Deposit (Excluding Fixed Deposit)}}$$

The following table shows the cash and bank balance to deposit ratio (Excluding Fixed Deposit) of HBL and SBI

Table 4.3

Cash and Bank Balance to Deposit Ratio (Excluding Fixed Deposit*(Rs.In million)*

Fiscal year	HBL			SBI		
	Cash & Bank Balance	Deposit	Ratio	Cash & Bank Balance	Deposit	Ratio
2007/08	3170.21	16807.04	0.19	2129.31	17802	0.12
2008/09	4241.76	19732.96	0.21	2370.09	17300.16	0.14
2009/10	3370.81	17918.72	0.19	2455.55	18706.57	0.13
2010/11	3253.51	20924.72	0.11	2722.63	20140.65	0.14
2011/12	3782.17	21450.53	0.18	3467.36	21847.29	0.16
Average	**0.176**			**0.138**		
Std. dev	**0.0184**			**0.148**		
C.V.	**0.1045**			**0.1075**		

(Source:- Appendix 11)

Table 4.3 demonstrates that the ratios of HBL are fluctuating over the study period. The highest ratio is (0.21) in the year 2060\61 and lowest (0.11) in the year 2010/11. The average ratio of HBL is 0.176. The ratio is higher than the average only in the second year and last of the four years of study period has lower than average value.

In case of SBI, the ratios are fluctuating as well. The highest ratio is (0.16) in the year 2011/12 and lowest (0.12) in the year 2007/08. The average ratio of SBI is 0.138. The ratios are higher than average only in the last year and rest of the four years of the study period has lower than average value.

The average ratio of HBL (0.176) is higher than that of SBI (0.138).The Standard deviation is 0.0184 in HBL where as it is 0.0148 in SBI. Similarly, Coefficient of variation of SBI is higher than that of HBL. This explains that HBL is more preferable than SBI in terms of cash and bank balance to deposit ratio (except fixed deposit). SBI has high risk or the variability of the ratio is lower is HBL than SBI.

From the above analysis, it can be concluded that from the average ratio shows that liquidity position of HBL is better than SBI because it has higher average ratio than that of SBI.

4.2.1.4 Fixed Deposit to Total Deposit Ratio:

This ratio is calculated as follows:

$$\text{Fixed Deposit to Total Deposit Ratio X} \frac{\text{Fixed Deposits}}{\text{Total Deposit}}$$

Table 4.4

Fixed Deposit to Total Deposit Ratio (Rs. in million)

Fiscal year	HBL			SBI		
	Fixed Deposit	**Total Deposit**	**Ratio**	**Fixed Deposit**	**Total Deposit**	**Ratio**
2007/08	1948.6	18755.64	0.10	3205.37	21007.37	0.15
2008/09	1428.5	21161.46	0.07	4710.18	22010.34	0.21
2009/10	1416.38	19335.1	0.07	6107.43	24814	0.25
2010/11	2136.31	23061.03	0.09	6350.20	26490.85	0.24
2011/12	3196.49	24647.02	0.13	8201.13	30048.42	0.27
Average	**0.092**			**0.224**		
Std. dev	**0.025**			**0.047**		
C.V.	**0.27**			**0.21**		

(Source:- Appendix 12)

Table 4.4 shows that the fixed deposit to total deposit ratios of HBL are decrease after first year but increase in the last year during the study period. The ratio is at the constant level in the third year. It is highest (0.13) in the year 2011/12 and lower (0.07) in the year 2008/09 and 2009/10. The average ratio HBL is 0.092. The yearly ratios of the first and the last year are higher that the average ratio. However, the rest of second, third and fourth years are lower than that of the average ratio.

In SBI, the fixed deposit to total deposit ratios are increasing after the first year during the study period. It is higher (0.27) in the year 2011/12 and lowest (0.15) in the year 2007/08. The average ratio of SBI is 0.224.

The standard deviation of HBL is 0.025 where as it is 0.047 in SBI. The coefficient of variation of HBL is 0.27. Similarly, the coefficient of variation of SBI is 0.21. It shows that there is more variation in the composition in the fixed assets to total deposit ratio of HBL compared to SBI.

The above analysis helps to conclude that the fixed deposit to total deposit ratios of SBI are better than the HBL which indicates the better liquidity position in SBI than HBL. Fixed deposit, however, is higher cost long term source, which affected the profitability of bank adversely. The study shows HBL has high risk or the variability of ratio is higher in HBL that SBI.

4.2.1.5 Saving Deposit to Total Deposit Ratio

This ratio is calculated as below:

$$\textbf{Saving Deposit to Total Deposit Ratio } X \frac{\textbf{Saving Deposits}}{\textbf{Total Deposit}}$$

The following table summarize as the saving deposits to total deposit ratio of HBL and SBI.

Table 4.5

Saving Deposit to Total Deposit Ratio (Rs. in million)

Fiscal year	HBL			SBI		
	Saving Deposit	Total Deposit	Ratio	Saving Deposit	Total Deposit	Ratio
2007/08	10633.16	18755.64	0.57	10870.54	21007.37	0.52
2008/09	12771.83	21161.46	0.60	11759.6	22010.34	0.53
2009/10	13030.93	19335.1	0.67	12852.41	24814	0.51
2010/11	14597.67	23061.03	0.63	14582.86	26490.85	0.55
2011/12	15244.38	24647.02	0.62	15784.77	30048.42	0.52
Average	**0.618**			**0.526**		
Std. dev	**0.037**			**0.015**		
C.V.	**0.06**			**0.03**		

(source:- Appendix 13)

Table 4.5 shows that the saving deposits to total deposit ratios of HBL are fluctuating during the study period. It is higher (0.67) in the year 2009/10 and lowers (0.57) in the year 2007/08. The average ratio of HBL is 0.618. The yearly ratios of the first year lower than the average ratio. However, the yearly ratio of the last year is equal to the average ratio but the yearly ratios of the second third and the fourth year are higher than the average ratio.

In case of SBI, the saving deposits of total deposit ratios are also fluctuating in the study period. It is higher (0.55) in the year 2010/11 and lower (0.51) in the year 0.526. The yearly ratios are lower than the average ratio in the first, third and fifth year of the study period. However, the yearly ratios are higher than the average ratio in the second and fourth year.

The average ratio of HBL (0.618) is higher that that of SBI (0.526). The standard derivation of HBL is 0.037. Similarly, the standard deviation of SBI is 0.015. The coefficient of variation of HBL is 0.06. Likewise, the coefficient of variation of SBI is 0.03.

Saving deposit are short term viability it is longer in term the current and other deposits. So the large portion of saving deposit in total deposits shows the liquidity of the bank. Bank also pays interest on saving deposit whereas current, margin and other deposits are nominal cost fund. From the above table 4.11, Savings deposit to total deposits ratio of HBL is better than SBI.

4.2.2.1 Loan and advances to total deposit ratio

This ratio is calculated as below

$$\textbf{Loan and advances to total deposit ratio } X \frac{\textbf{Loan and Advances}}{\textbf{Total Deposits}}$$

The following table shows the effectiveness in utilization of total deposits HBL and SBI.

Table 4.6

Loan and Advances to Total Deposits Ratio (Rs. in million)

Fiscal year	HBL			SBI		
	Loan & Advances	Total Deposit	Ratio	Loan & Advances	Total Deposit	Ratio
2007/08	5695.82	18755.64	0.30	10001.85	21007.37	0.48
2008/09	6410.24	21161.46	0.30	11951.87	22010.34	0.54
2009/10	8143.21	19335.1	0.42	12424.52	24814	0.50
2010/11	8935.42	23061.03	039	14642.56	26490.85	0.55
2011/12	10502.64	24647.02	0.43	16998.00	30048.42	0.57
Average	**0.37**			**0.53**		
Std. dev	**0.064**			**0.037**		
C.V.	**0.184**			**0.073**		

(Source:- Appendix 14)

Table 4.6 demonstrates that the loan and advances to total deposit ratios of HBL are fluctuating during the study period. It is highest (0.43) in the year 2011/12 and lowest (0.30) in the year 2007/08 and 206/61. It is decreasing till the fourth year and again increases in the last year. The average ratio of HBL is 0.37. The yearly ratios of the third, fourth and last years are higher than the average ratio. However, the first and second years are lower than the average ratio.

The case of SBI, the loan and advances to total deposit ratios are also slightly fluctuation during the study period. It is highest (0.57) in the year 2011/12 and lowest (0.48) in the year 2007/08. The average ratio of SBI is 0.53.
The average ratio of SBI (0.53) is higher than that of HBL (0.37).

The standard deviation of HBL is 0.064. Where as it is 0.037 in SBI. The coefficient of variation HBL is 0.184 and it is 0.073 in SBI. Thus, C.V. of SBI is lower than HBL. This shows that there is less variation in loan and advances

to total deposit ratio maintained by SBI compared to HBL. In other worlds SBI has low risk.

The above analysis helps to conclude that loan and advances to total deposit ratio or total deposit turnover ratio of HBL is better than SBI. It is the indication of better performance of HBL. Thus, HBL is utilizing the funds more efficiently for the profit generating purpose on loan and advances than SBI. However, higher C.V. in HBL compared to SBI shows high risk in loan and advances to total deposits ratio of HBL.

4.2.2.2 Loan and Advance to Fixed Deposit Ratio

This ratio is calculated as below:

$$\textbf{Loans and Advances to Fixed Deposit Ratio } X \frac{\textbf{Loans and Advances}}{\textbf{Fixed Deposit}}$$

The following table shows the ratio of loan and advances to fixed deposits of HBL and SBI.

Table 4.7

Loan and Advances to Fixed Deposit Ratio (Rs. in Million)

Fiscal Year	HBL			SBI		
	Loan & Advances	**Fixed Deposits**	**Ratio**	**Loan & Advances**	**Fixed Deposits**	**Ratio**
2007/08	5695.82	1948.6	2.92	10001.85	3205.37	3.12
2008/09	6410.24	1428.5	4.49	11951.87	4710.18	2.54
2009/10	8143.21	1416.38	5.75	12424.52	6107.43	2.03
2010/11	8935.42	2136.31	4.18	14642.56	6350.20	2.31
2011/12	10502.64	3196.49	3.29	16998.00	8201.13	2.07
Average	**4.126**			**2.414**		
Std. Dev.	**1.022**			**0.445**		
C.V.	**0.501**			**0.266**		

(Source: Appendix 15)

Table 4.7 shows that the loan and advances to fixed deposit ratio of HBL are fluctuating during the study period. It is increasing in the second year till fourth year and again decreasing in the last year. It is highest (5.75) in the year 2009/10 and lowest (2.92) in the year 2007/08. The average ratio of HBL is 4.126. The yearly ratios of HBL are lower than the average ratio in the first and last year. However, the yearly ratio are higher than the average ratio in the second, third and fourth year.

In case of SBI, the yearly ratios are also fluctuating all the times during the study period. It is increasing in the first and second year and decreasing after fourth year. It is highest (3.12) in the year 2007/08 and lowest (2.03) in the year 2009/10. The average ratio of SBI is 2.414. The yearly ratio of SBI is 2.414. The yearly ratios of SBI are higher and second year. However, the yearly ratios of SBI are lower then the average ratio in the third, fourth and last year.

The average ratio of HBL (4.126) is higher than that of SBI (2.414).The standard deviation of HBL is 1.022 where as it is 0.445 in SBI. The coefficient of variation of HBL is 0.501 and it is 0.266 in SBI.

The above analysis helps to conclude that loan and advances to fixed deposit ratio of HBL is better than SBI. Because of lower amount of fixed deposit, the ratio because higher on HBL than SBI. The ratio implies that HBL is utilizing its fixed deposit in loan and advances more efficiently. Higher C.V. in HBL, compared to SBI, shows that the variability is more in loan and advance to fixed deposit ratio of HBL.

4.2.2.3 Loan and Advances to Saving Deposit Ratio

This is calculated as below:

$$\textbf{Loan and Advances to Saving Deposit Ratio } X \frac{\textbf{Loan and Advances}}{\textbf{Saving Deposits}}$$

The following table shows the ratio of loan and advances to saving deposit of HBL and SBI.

Table 4.8

Loan and Advance to Saving Deposit of HBL and SBI (Rs. in Million)

Fiscal Year	HBL			SBI		
	Loan & Advances	Fixed Deposits	Ratio	Loan & Advances	Fixed Deposits	Ratio
2007/08	5695.82	10633.16	0.54	10001.85	10870.54	0.92
2008/09	6410.24	12771.83	0.50	11951.87	11759.6	1.02
2009/10	8143.21	13030.93	0.62	12424.52	12852.41	0.97
2010/11	8935.42	14597.67	0.61	14642.56	14582.86	1.00
2011/12	10502.64	15244.38	0.69	16998.00	15784.77	1.08
Average	**0.592**			**0.998**		
Std. Dev.	**0.074**			**0.059**		
C.V.	**0.134**			**0.062**		

(Source:- Appendix 16)

Table 4.8 shows that the loan and advances to saving deposit ratios of HBL are fluctuating over the study period. It is increasing after second year. It is highest (0.69) in the year 2011/12 and lowest (0.50) in the year 2008/09. The average ratio of HBL is 0.592. The yearly ratios of HBL are lower than the average ratio in the first and second year of the study period. However, the yearly ratios of HBL are higher than the average ratio in the third, fourth and the last year.

In case of SBI, the loan and advances to saving deposit ratio of SBI are also fluctuating during the study period. It is decreasing in the third year and than increasing till last year. It is highest (1.08) in the year 2011/12 and lowest (0.92) in the year 2007/08. The average ratio of SBI is 0.998. The yearly ratios of SBI are higher than the average ratio in the second and last year. However, the yearly ratio of the fourth year is equal to the average ratio but the yearly ratios of the first and the third year are lower than the average ratio.

The average ratio of SBI (0.998) is higher than that of HBL (0.592).

The standard deviation of HBL is 0.074 whereas it is 0.059 in SBI. Similarly, the coefficient of variation of HBL is 0.134 and it is 0.062 in SBI.

From the above analysis, it can be concluded that the loan and advances to saving deposits ratio of SBI is better than that of HBL. In implies that SBI is utilizing short term fund of outsiders more effectively than HBL but risk more in HBL than SBI.

4.2.3 Profitability Ratio

Profitability ratio is the measurement of efficiency. It provides the degree of success in achieving designed profit. Here, profitability is measured in terms of various ratios as follows:

4.2.3.1 Interest Earned to Total Assets Ratio

This ratio can be calculated as below:

$$\textbf{Interest Earned to Tatal to Assets Ration } X \frac{\textbf{Interest Earned}}{\textbf{Total Assets}}$$

The following table shows the interest earned to total assets ratio of HBL and SBI.

Table 4.9

Interest Earned to Total Assets Ratio (Rs. in Million)

Fiscal Year	HBL			SBI		
	Interest Earned	Total Assets	Ratio	Interest Earned	Total Assets	Ratio
2007/08	1001.36	21000.5	0.05	1201.23	23355.23	0.05
2008/09	1042.18	23642.06	0.04	1245.89	24762.04	0.05
2009/10	1058.68	21893.89	0.05	1446.47	24844.69	0.05
2010/11	1189.60	25776.37	0.05	1626.47	29460.39	0.06
2011/12	1411.98	28596.69	0.05	1775.58	33519.15	0.05
Average	**0.048**			**0.052**		
Std. Dev.	**0.0045**			**0.0045**		
C.V.	**0.093**			**0.087**		

(Source:- Appendix 17)

Table 4.9 shows that interest earned to total assets ratios of HBL are slightly fluctuating during the study period. It is decreasing in second year and increasing in the third year then refrain constant till last year. It is highest (0.05) is the years 2007/08, 2009/10, 2010/11 and 2011/12 and lowest (0.04) in the year 2008/09. The average ratio of HBL is 0.048. The yearly ratios of HBL are higher than the average ratio in the first, third, four and fifth. However, the yearly ratios are lower than the average ratio in the second year of the study period.

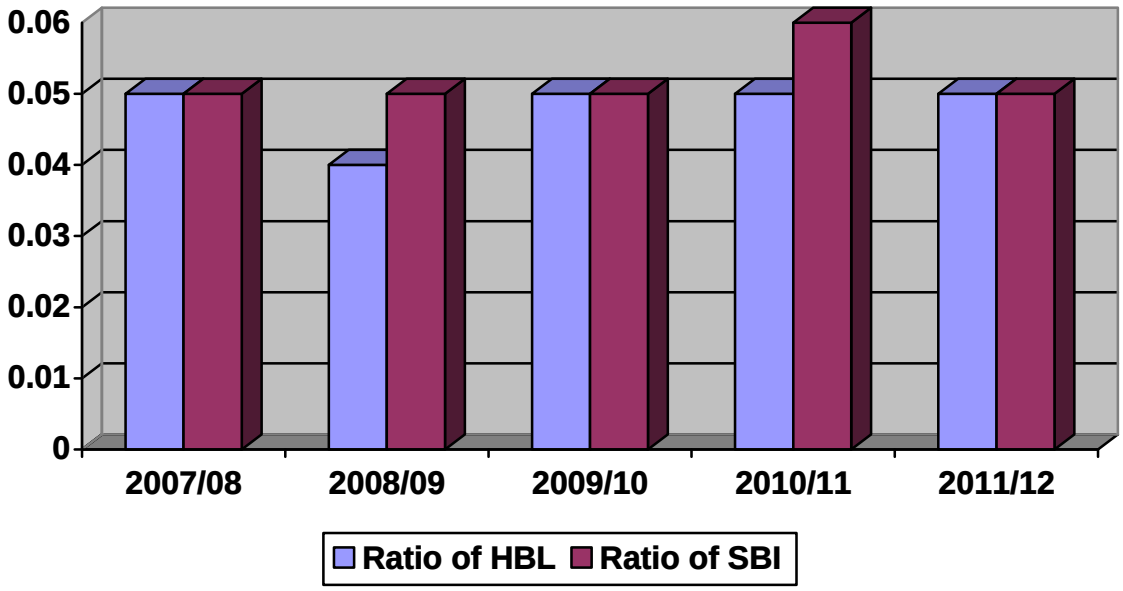
In case of the SBI, the interest earned to total assets ratios of SBI are also fluctuating during the study period. It is highest (0.06) in the year 2010/11 and lowest (0.05) in the year 2007/08, 2008/09, 2009/10, 2010/11 & 2011/12. The average ratio of SBI is 0.052.

The average ratio SBI (0.052) is higher than that of HBL (0.048).The standard deviation of HBL and SBI is 0.0045. The coefficient of variation of HBL is 0.093 and it is 0.087 in SBI. Thus, C.V. of SBI is lower than HBL. This shows that there is less variation in interest earned to total assets ratio in interest earned to total assets ratio maintained by SBI compared to HBL. In other words, SBI ha lower risk in it.

The rate of change in interest earned to total assets ratio of both bank are positive which implies the increasing trend of ratio.

Graph 4.3

Interest Earned to Total Assets Ratio



Graph 4.3 depicts that the trend and actual lines of SBI are always higher than HBL during the study period. So, the above analysis helps to conclude that the interest earned to total assets ratio of SBI is better than HBL. This ratio of SBI is better than HBL. This implies that SBI is efficiently using its total assets (funds) to earn interest income.

4.2.3.2 Net Profit to Total Assets Ratio

This ratio can be calculated as follow:

$$\textbf{Net Profit to Total Assets Ratio } X \frac{\textbf{Net Profit}}{\textbf{Total Assets}}$$

The following table shows the net profit to total assets ratio of HBL and SBI.

Table 4.10

Net Profit to Total Assets Ratio (Rs. in Million)

Fiscal Year	HBL			SBI		
	Net Profit	**Total Assets**	**Ratio**	**Net Profit**	**Total Assets**	**Ratio**
2007/08	506.96	21000.5	0.02	212.12	23355.23	0.01
2008/09	257.8	23642.06	0.02	263.05	24762.04	0.01
2009/10	539.21	21893.89	0.02	308.28	27844.69	0.01
2010/11	658.75	25776.37	0.03	457.46	29460.39	0.02
2011/12	691.65	28596.69	0.02	491.82	33519.15	0.01
Average	**0.022**			**0.012**		
Std. Dev.	**0.004**			**0.004**		
C.V.	**0.182**			**0.3**33		

(source:- Appendix 18)

Table 4.10 shows that net profit to total assets ratios of HBL are not much fluctuating during the study period. It is highest (0.03) in the year 2010/11 and lowest (0.02) in the rest of the years during the study period. The average ratio of HBL is 0.022.

In SBI, the net profits to total assets ratios of SBI are also not much fluctuating during the study period. The average ratio of SBI is 0.012. The yearly ratios of HBL are always higher than SBI. Therefore, the average ratio of HBL is higher than SBI.

As per appendix 26, the values of constants a and b are as follows:

HBL

a = 0.022% or 0.00022

b = 0.001

SBI

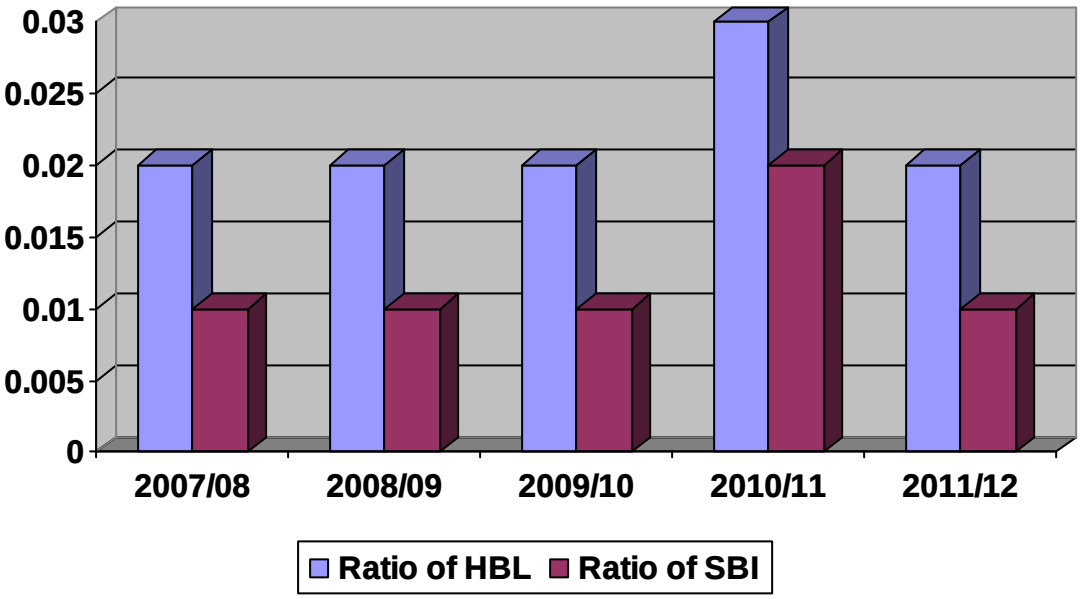
a = 0.012% or 0.00012

b. 0.001

The rate of change on net profit to total assets ratio of both banks are same save which implies constant level of trend ratio neither increasing non decreasing trend.

Graph 4.4

Net Profit to Total Assets Ratio



Graph 4.9 depicts that actual and trend lines of HBL are always higher than BHL during the study period. The actual and trend lines of SBI are on the same path of the graph.

The analysis above helps to conclude that the overall profitability of HBL has been better than SBI. HBL is efficient using its working fund of assets to earn higher rate of profit.

4.2.3.3 Net Profit to Total Deposit Ratio

This ratio can be calculated as follows:

$$\textbf{Net Profit to Total Deposit Ratio } X \frac{\textbf{Net Profit}}{\textbf{Total Deposits}}$$

The following table shows the net profit to total deposits ratio of HBL and SBI.

Table 4.11

Net Profit to Total Deposit Ratio (Rs. in Million)

Fiscal Year	HBL			SBI		
	Net Profit	**Total Deposits**	**Ratio**	**Net Profit**	**Total Deposits**	**Ratio**
2007/08	506.95	18755.64	0.03	212.12	21007.37	0.01
2008/09	537.8	21161.46	0.03	263.05	22010.34	0.01
2009/10	539.21	19335.1	0.03	308.28	24814	0.01
2010/11	658.75	23061.03	0.03	457.46	26490.85	0.02
2011/12	691.65	24647.02	0.03	491.82	30048.42	0.02
Average	**0.03**			**0.014**		
Std. Dev.	**0**			**0.005**		
C.V.	**0**			**0.393**		

(Source:- Appendix 19)

Table 4.11 shows that the ratios of HBL are always same during the study period. The average ratio of HBL is 0.03%.

In SBI, the ratios are a little bit fluctuating during the study period. The highest ratio of SBI is 0.02%in the year2010/11 and 2011/12 and rest of the year it is same 0.01%. The average ratio of SBI is 0.014%. The average ratio of HBL is higher than that of SBI.

The coefficients of variation are 0 in HBL and 0.393 in SBI. Thus, C.V. of SBI is higher than that of HBL. This shows that there is more variation in net profit to total deposit ratio maintained by SBI compared to HBL. In other words, SBI has high risk in it.

The above analysis helps to conclude that the net profit to total deposit ratio of HBL is better than SBI. Mobilization of external funds in important to earn profit for a commercial bank. Thus, HBL has better performance on mobilization total deposits during that period.

4.2.3.4 Cost of Services to Total Assets Ratio

This ratio can be calculated as follows:

$$\textbf{Cost of Services to Total Assets Ratio } X \frac{\textbf{Cost of Services}}{\textbf{Total Assets}}$$

The following table shows the cost of services to total assets ratio of HBL and SBI.

Table 4.12

Cost of Services to total assets Ratio (Rs. in Million)

Fiscal Year	HBL			SBI		
	Cost of Services	Total Assets	Ratio	Cost of Services	Total Assets	Ratio
2007/08	383.46	21000.5	0.02	674.28	23355.23	0.03
2008/09	410.5	23642.06	0.02	644.05	24762.04	0.03
2009/10	402.71	21893.89	0.02	740.55	27844.69	0.03
2010/11	471.43	25776.37	0.02	883.41	29460.39	0.03
2011/12	612.85	28596.69	0.02	1039.60	33519.15	0.03
Average	**0.02**			**0.03**		
Std. Dev.	**0**			**0**		
C.V.	**0**			**0**		

(Source:- Appendix 20)

Table 4.12 shows that ratios of HBL are constant all the time during the study period. The average ratio of HBL is 0.02.

In SBI, ratios are constant all the time during the study period. The average ratio of SBI is 0.03.

The coefficients of variation are 0 in both banks.

4.3 Composition of Working Capital and its Trend Analysis

The operation of the business requires different kinds of current assets. The current assets as for day-to-day business operation. The main components of

current assets at HBL and SBI are cash and bank balance, loan and advances and investment government securities. Miscellaneous current assets are also a component of current assets prepaid expenses, outstanding incomes for example, interest receivable, and other current assets are included on miscellaneous current assets.

Table 4.1 and 4.2 shows the amount of cash and bank balance, loan and advances, government securities and miscellaneous current assets of HBL and SBI respectively for the study period.

Table 4.13: Current Assets Components of HBL (Rs. in Million)

Fiscal Year	Cash & Bank Balance	Loan & Advances	Government Securities	Misc. Current Assets	Total Current Assets
2007/08	3170.21	5695.82	6722.83	5208.74	20797.6
2008/09	4241.76	6410.24	7948.22	4894.41	23494.63
2009/10	3370.81	8143.21	7203.07	3091.74	21808.83
2010/11	3253.51	8935.42	8644.86	4828.90	25662.69
2011/12	3782.17	10502.54	7107.94	7036.41	28429.16

(Source:- Annual Report 2062–2067)

Table 4.14: Current Asset Components of SBI (Rs. in Million)

Fiscal Year	Cash & Bank Balance	Loan & Advances	Government Securities	Misc. Current Assets	Total Current Assets
2007/08	2129.31	10001.85	3998.87	751.42	16881.45
2008/09	2370.09	11951.87	3431.73	742.17	18495.86
2009/10	2455.55	12424.52	5469.76	976.46	21326.29
2010/11	2722.63	14642.56	5144.32	643.61	23153.12
2011/12	3467.36	16998.00	6454.88	643.97	27564.21

(Source:- Annual Report 2062–2067)

From the above tables, total amount of current assets components of HBL is seen higher than that of SBI. Due to unequal volume of the components,

percentage of components of current assets is required from comparative analysis.

The percentage composition of current assets to total current assets i.e. cash and bank balance, loans and advances investment in government securities and miscellaneous current assets are as follows:

Table 4.15: Percentage Components of Current Assets of HBL

Fiscal Year	Cash & Bank Balance	Loan & Advances	Government Securities	Misc. Current Assets	Total Current Assets
2007/08	15.24	27.39	32.33	25.04	100
2008/09	18.05	27.28	33.84	20.83	100
2009/10	15.45	37.34	33.03	14.18	100
2010/11	12.68	34.82	33.68	18.82	100
2011/12	13.30	36.95	25.00	24.75	100
Average	**14.94**	**32.756**	**32.576**	**20.724**	
Std. Dev.	**2.111**	**5.041**	**3.724**	**4.508**	
C.V.	**0.141**	**0.154**	**0.118**	**0.218**	

(Source:- Appendix 4, 5, 6, 7)

Graph No. 4.5

Bar Diagram of Percentage Composition of HBL's Current Assets

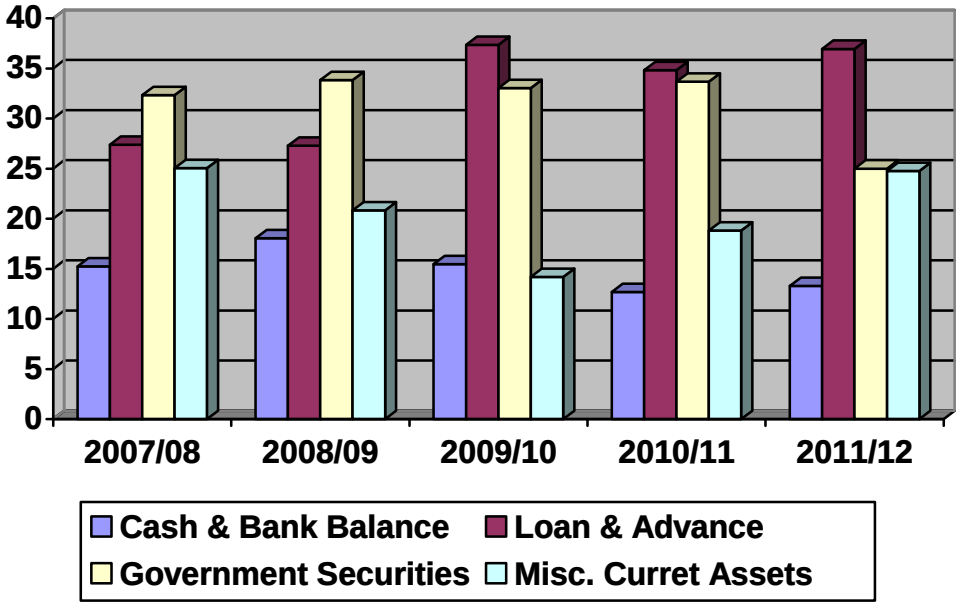


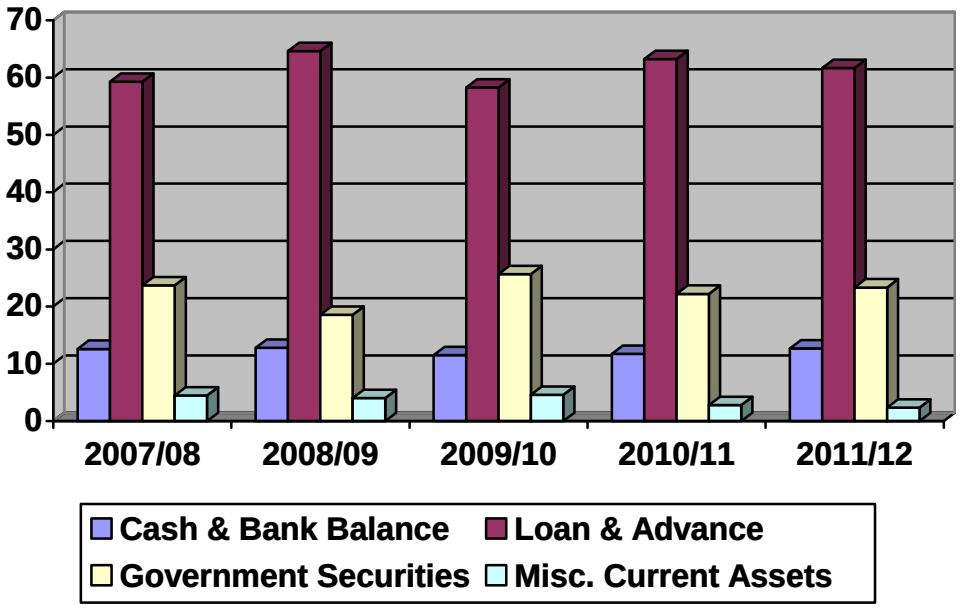
Table 4.16: Percentage Components of Current Assets of SBI

Fiscal Year	Cash & Bank Balance	Loan & Advances	Government Securities	Misc. Current Assets	Total Current Assets
2007/08	12.61	59.25	23.69	4.45	100
2008/09	12.81	64.62	18.55	4.02	100
2009/10	11.51	58.26	25.65	4.58	100
2010/11	11.76	63.24	22.22	2.78	100
2011/12	12.58	61.66	23.42	2.34	100
Average	**12.25**	**61.406**	**22.706**	**3.634**	
Std. Dev.	**0.579**	**2.660**	**2.629**	**1.014**	
C.V.	**0.047**	**0.043**	**0.116**	**0.279**	

(Source:- Appendix 4, 5, 6, 7)

Graph 4.6

Bar Diagram of Percentage Composition of SBI's Current Assets



4.3.1 Cash and Bank Balance Percentage

Cash and Bank Balance Percentage of HBL fluctuated over the study period. It is highest (15.45%) in the third year and lowest (12.68%) in the fourth year of the study period. The average cash and bank balance percentage of HBL is 14.94%.Likewise, cash and bank balance percentage of SBI also fluctuated over the study period. It is highest (12.81%) in the second year and lowest (11.51%) in the third year of the study period. The average cash and bank balance percentage of SBI is 12.35%.

The study shows that average cash and bank balance percentage of HBL (14.94%) is higher than that of SBI (12.25%).Similarly, standard deviation is 2.111% in HBL, whereas it is 0.579% in SBI. Hence it shows HBL has higher risk factor than that of SBI. Likewise, coefficient of variation is 0.141 for HBL and 0.047 for SBI, indicating more variation in cash and bank balance maintained in HBL compared to SBI.

From the calculation of cash and bank balance percentage trend as per Appendix 5, the value of the constants a and b are as follows:

HBL	**SBI**
a = 14.94% or 0.1494	a = 12.25% or 0.1225
b = 1.735	b = 2.405

The rate of change of cash and bank balance percentage b in both the banks are positive.

It implies the increment cash and bank balance percentage to total current assets on both banks. The positive value of 'b' for both bank shows the increasing in cash and bank balance percentage positive trend value of cash and bank percentage indicates the better utilization of cash on generating income.

4.3.2 Loan and Advances Percentage

Loan and advances percentage of HBL, are found slightly fluctuating in the study period. It is increasing in the third, fourth and fight year and decreasing in the first and second year of the study period. It is highest in year 2009/10 i.e., 37.34% and lowest in the year 2008/09 i.e. 27.28%. The average loan and advances percentage of HBL is 32.756%. The loan and advances percentage of HBL are lower that the average in years 2007/08 and 2008/09. But it is higher than the average in years 2009/10, 2010/11 and 2011/12.

In case of SBI, the loan and advances percentage of SBI are always fluctuating in the study period. After first year, it is increasing in the second year and decreasing in the third year and again increasing in fourth year but again decreasing in fifth year. The highest percentage of loan and advance of SBI is in year 2008/09 i.e. 64.62% and lowest in b year 2009/10 i.e., 58.26%. The average loan and advance percentage of SBI is 61.406%. The loan and advance percentage of SBI are lower than the average in years 2007/08 and 2009/10. But it is higher than the average in years 2008/09, 2010/11 and 2011/12.

The standard deviation is 5.041% in HBL where as it is 2.660% in SBI. Hence, it shows HBL has higher risk factor than that of SBI. Likewise, coefficient of variation is 0.154 in HBL and 0.043 in SBI. Hence, more variation in loan and advance is maintained in HBL compared to SBI.

From calculation of loan and advances percentage trend as per Appendix-6, the value of the constants a and b are as follows:

HBL	SBI
a = 32.76% or 0.3276	a = 61.41% or 0.6141
b = 2.666	b = 0.344

The trend rates on the rate of change of loan and advances percentage of both banks are positive. It implies that the loan and advances of both banks are decreasing.

The above analysis helps to conclude that the loan and advance percentage of SBI are better than HBL. This loan and advances percentage of total current assets indicates that the greater portion of current assets of SBI, is employed for the income generating purpose.

4.3.3 Government Securities

The percentage of government securities is increasing of HBL in the study period. It is highest (33.84%) in the year 2008/09 and lowest (25.00%) in the last year 2011/12. The average investment in government securities is 31.576%.

Similarly, the percentage of government securities of SBI, is decreasing in the second year and increasing in the third and fifth year and comparatively less increasing in the fifth year. It is highest (25.65%) in the third year 2009/10 and lowest (18.55%) in the second year 2008/09. The average government securities percentage of SBI is 22.706%. The average government securities percentage of HBL (31.576%) is higher than that of SBI (22.706%).

The standard deviation is 3.724% in HBL whereas it is 2.629% in SBI. Similarly, coefficient of variation is 0.118 in HBL and 0.116 in SBI. Hence, more variation in government securities is maintained in HBL compared to SBI.

From the calculation of government securities percentage trend as per appendix 7, the value of the constants a and b are as follows:

HBL	SBI

a = 31.58% or 0.3158	a = 22.71% or 0.2271
b = -1.482	b = 0.313

The trend rate or rate of change of government securities percentage b of HBL is negative and it is positive in SBI.

The above analysis helps to conclude that government securities percentage on total current assets of HBL is better than SBI. It shows that HBL has prioritized to invest on government securities rather than loan and advances due to unavailability of secured investment sector.

4.3.4 Miscellaneous Current Assets Percentage

The percentage of miscellaneous current assets of HBL is fluctuating in every year of study period. It is highest (25.04%) in the first year 2007/08 and lowest (14.18%) in the third year 2009/10. The average miscellaneous current assets percentage of HBL is 20.724%.

The percentage of miscellaneous current assets of SBI is fluctuating in the period of study. It is increasing in the first, second and third year and decreasing in the fourth and fifth year of the study period. It is highest (4.45%) in the first year 2007/08 and lowest (2.34%) in the last year 2011/12. The average miscellaneous current assets percentage for SBI is 3.634%.

The standard deviation is 4.508% in HBL whereas it is 1.014 in SBI Coefficient of variation is 0.218 is HBL and 0.279 in SBI. Hence, more variation in miscellaneous current asset is maintained in SBI compared to HBL.

4.4 Net working capital

Net working capital is the difference between current assets and current liabilities. Net working capital can be positive or negative. A positive net working capital will rise when current assets exceed current liabilities. A negative net working capital occurs when current liabilities are in excess of current assets. All the organization should have just adequate working capital to serve in competitive market. Excessive or inadequate working capital is dangerous from the firm's points of view. Excessive investment working

capital affects a firm's profitability just as idle investment yields nothing. In the same way inadequate or negative working capital may be harmful to the organization. So, net working can be more useful for the analysis of trend-off between profitability and risk. It enables a firm to determine how much amount is left for operational requirement.

Total 4.17: Net Working Capital of HBL (Rs. in Million)

Fiscal Year	Current Assets	Current Liabilities	Net Working Capital	% charge in NWC
2007/08	20797.60	17620.78	3176.82	
2008/09	23494.63	20657.71	2836.92	-0.11
2009/10	21808.83	18834.42	2974.41	0.05
2010/11	25662.69	21825.40	3837.29	0.29
2011/12	28429.16	23223.59	5205.57	0.36
Average			**3606.202**	
C.V.			**0.270**	

(Source:- Appendix 8)

Total 4.18: Net Working Capital of SBI (Rs. in Million)

Fiscal Year	Current Assets	Current Liabilities	Net Working Capital	% charge in NWC
2007/08	16881.45	18694.56	-1813.11	
2008/09	18495.86	18320.71	175.15	-1.10
2009/10	21326.29	20195.51	1130.78	5.46
2010/11	23153.12	20984.01	2169.11	0.92
2011/12	27564.21	22811.51	4752.70	1.19
Average			**1282.926**	
C.V.			**1.8957**	

(Source:- Appendix 8)

Table 4.18 shows that the net working capital of HBL is increasing always during the study period. The average net working capital of HBL is Rs. 3606.202 million. The net working capital of HBL ranges from Rs. 2836.92 million to Rs. 5205.57 million.

In case of SBI, table 4.6 shows that the net working capital is decreasing in the first year and continuously increase till last year of the study period. The average net working capital of SBI is Rs. 1282.926 million. The net working capital in SBI ranges from Rs. -1813.11 million to Rs. 4752.70 million. HBL

has negative working capital but SBI has negative working capital in the first year during the study period.

4.5 Correlation Analysis

Correlation is a statistical tool that can be used to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship between to sets of figures. Among the various methods of finding out coefficient of correlation, Karl Person's methods are applied in the study. The result of coefficient of correlation is always between +1 and -1, there is perfect relationship between two variables and vice versa. When r is o, there is no relationship between two variables.

4.5.1 Coefficient of Correlation between loan and Advances and Total Deposit:

The coefficient of correlation between loan and advances and total deposits is to measure the degree of relationship between major components of current assets i.e. loan and advances and major sources of fund on bank i.e. total deposits. In correlation analysis deposit is independent variable (y) and loan and advance is dependent variable (x). The purpose of computing coefficient of correlation is to justify whether the deposits are significantly used in loan and advances or not and whether there is any relationship between these two variables. To find out the correlation r various calculation are done.

The 4.19 shows the coefficient of correlation r, between loan and advances and total deposits, and test statistic value t of HBL and SBI during the study period.

Table 4.19

Correlation Analysis between Loan and Advances and Total Deposits

Bank	R	Per	6 Per
HBL	0.828	0.21	1.26
SBI	0.975	0.015	0.09

(Source:- Appendix 23)

From the above table, we can find that coefficient of correlation between loan and advances and total deposits in HBL (r) is 0.828. It shows positive

relationship between two variables. By considering the probable error, since the value of r i.e. 0.828 is less than six times of PEr i.e. 1.26, we can say that the value of 'r' is not significant.

In case of SBI, we observe coefficient of correlation between loan and advances and total deposits is 0.975, which shows the positive relationship between the two variables. By considering the probable error, since the value of r i.e. 0.975 is higher than the six time PEr i.e. 0.09 it shows that relationship between those two variables is highly significant.

From the above analysis, it can be concluded that there is no significant relationship between loan and advances and total deposits is HBL but it is highly significant in SBI.

4.5.2 Coefficient of correlation between Investment of Government securities and total deposit:

The coefficient of correlation between investment of government security and total deposit it to measure the degree of relationship between two variables. Although bank utilities its deposits on loan and advances, some part of idle deposits are invested on government securities. In correlation analysis, deposit is independent variable Y and a government security is dependent variable X. The purpose of computing coefficient of correlation in this case is to justify whether or not the excess deposits are significantly used is government securities and whether there is any relationship between these two variables.

Table 4.20 shows the coefficient of correlation r, between government securities and total deposits i.e. r PEr, 6PEr, of HBL and SBI during the study period.

Table 4.20

Correlation Analysis between Government Securities and Total Deposits

Bank	R	Per	6 Per

HBL	0.419	0.25	1.49
SBI	0.924	0.04	0.24

(Source:- Appendix 24)

The above tables indicate that the coefficient of correlation between government securities and total deposits value 'r' is 0.419 is HBL. It shows positive relationship between two variables. By considering the probable error, since the value of r i.e. 0.419 is less that six time PEr i.e. 1.49, we can say that the value of 'r' is not significant.

In case of SBI, we observe coefficient of Correlation between government securities and total deposits is 0.924, which shows the positive relationship between two variables. By considering the probable error, since the value of r i.e. 0.924 is higher than the six time PEr, i.e. 0.24 it shows that relationship between two variables is highly significant.

From the above analysis, it can be concluded that there is no significant relationship between government security and total deposits in HBL but it is highly significant in SBI.

4.5.3 Coefficient of Correlation between Cash and Bank Balance and Current Liabilities:

Cash and Bank balance are most liquid component of current asset, which is required to meet the unexpected short-term obligation i.e. current liabilities. The coefficient of correlation between Cash and bank balance and current liabilities is to measure the degree of relationship between cash and bank balance and current liabilities. To find out the correlation, various calculations are performed.

Table 4.21 shows the coefficient of Correlation r, between cash and bank balance and current Liabilities i.e. r, Per, 6Per of HBL and SBI during the study period.

Table 4.21

Correlation Analysis between Cash and Bank Balance and Current Liabilities

Bank	R	Per	6 Per
HBL	0.435	0.25	1.5
SBI	0.936	0.04	0.24

(Source:- Appendix 25)

The above table indicates that the coefficient of correlation between cash and bank balance and current liabilities value 'r' is 0.435 in HBL. It shows positive relationship between two variables. By considering the probable error, since the value of r i.e. 0.435 is less that six time PEr i.e. 1.5, we can say that the value of 'r' is not significant.

In case of SBI, we observe coefficient of correlation between cash and bank balance and current liabilities is 0.936, which shows the positive relationship between two variables. By considering the probable error, since the value of r i.e. 0.936 is higher that six time PEr i.e. 0.24, it shows that relationship between two variables is highly significant.

From the above analysis, it can be concluded that there is no significant relationship between cash & bank balance and total deposit in HBL but it is highly significant in SBI.

4.5.4 Coefficient of correlation between loan and advances and Net Profit:

The basic function of commercial bank is to collect deposit and invest these funds on loan and advance to generate higher profit. Large amount of loan and advances generate higher profit. The coefficient of correlation between loan and advances and net profit measures the degree of relationship between loan advances and net profit. In correlation analysis, loan and advances is independent variable Y and net profit is dependent variable x. The purpose of computing coefficient of correlation is to justify whether or not the loan and advances significantly generate profit and whether there is any relationship between these two variables.

Table 4.22 Shows the coefficient of correlation r, between loan and advances and net profit i.e. r, PEr, 6PEr, of HBL and SBI during the study period.

Table 4.22

Correlation Analysis between Loans and Advances and Net Profit

Bank	R	Per	6 Per
HBL	0.384	0.25	1.5
SBI	0.677	0.16	0.98

(Source:- Appendix 26)

The above table indicates that the coefficient of correlation between loan and advances and net profit value 'r' is 0.384 in HBL. It shows positive relationship between two variables. By considering the probable error, since the value of r i.e. 0.384 is less than six time PEr, i.e.1.5, we can say that the value of 'r' is not significant.

In case of SBI, we observe coefficient of correlation between loan and advances and net profit is 0.677, which shows the positive relationship between two variables. By considering the probable error, since the value r i.e. 0.677 is less that six time PEr i.e. 0.98, it shows that the value of 'r' is not significant.

From the above analysis, we conclude that there is no significant relationship between on loan and advance and net profit in HBL and SBI.

4.6 Major Findings:

The major findings of this study of HBL and SBI during the five-year period are summarized below:

a. The net working capital of both HBL is positive and SBI is negative in the year 2007/08 of study period which shows sufficient amount of working capital for operational requirement in that year. The average net working capital of HBL is Rs.2606.20 million and that of SBI is

Rs. 1282.93 million. The net working capital of HBL range from RS.2836.92 million to Rs.5205.57 million where as in SBI, it ranges from Rs.-1813.11 million to Rs.4752.70 million. The CV of HBL is 0.27 and that of SBI is 1.9 which shows that there is very high variability of net working capital maintained by HBL compared to SBI.

b. The liquidity positions of bank are analyzed with the current ratio, quick ratio and cash balance to deposit ratio. The current ratios of HBL and SBI ranges from 1.14 to 1.22 and 0.9 to 1.21, respectively. Measuring the risk factor it shows that there is more variation in current ratio maintained by HBL compared to SBI. The average current ratio of HBL and SBI are 1.176 and 1.056 respectively. This shows that the liquidity position or short term solvency of HBL is better than SBI in the study period. The trends of liquidity ratio, or current ratio, quick ratio, cash and and balance to deposit ratio of HBL and SBI are increasing. Although higher liquidity means lower risk as well as lower profit in general, it does not necessarily mean lower profit in case of commercial banks.

c. The turnover positions of HBL have fluctuating. The average value of loan and advances to total deposit ratio, loan and advances to fixed deposit ratio and loan and advances to saving deposit ratio are 0.37, 4.126 and 0.592 on HBL and 0.53, 2.414 and 0.998 on SBI, respectively. From the analysis of turnover of these banks. It is found that SBI has slightly better turnover than HBL and risk is higher in HBL than SBI, Therefore, SBI has the better utilization of deposits in income generating activity than HBL. It also shows that SBI has better investment efficiency on loan and advance.
d. Saving deposit to total deposit ratios of HBL are higher than that of SBI for the study period. The ratios of HBL range from 0.57 to 0.67 with an average 0.618. The ratios of SBI range from 0.51 to 0.55 with an average of 0.526. Therefore, it is concluded that HBL has more

short term and less costly sources of funds than SBI. The risk of HBL is higher compared SBI.

e. The major components of current assets in HBL and SBI are cash and bank balance, loan and advance and government securities. In the study period, the proportion of cash and bank balance, loan and advances and government securities to total current assets on an averages and government securities to total current assets on an average are 14.94%, 32.76% and 31.58% in HBL and 12.25%, 61.41 and 22.71 in SBI, respectively. So it is found that the average cash and bank and bank balance and government securities are higher on HBL than on SBI and average loan and advances percentage is higher in SBI than in HBL. The trend value of cash and bank balance is positive in both bank and also the trend value of loan and advance is positive in both banks. But trend value of government securities is negative in HBL and positive in SBI.

f. Fixed deposit to total deposit ratios of SBI are higher than that of HBL during the study period. The ratios of HBL range from 0.07 to 0.13 with an average of 0.092. The ratios of SBI range from 0.15 to 0.27 with an average of 0.224. Therefore, it is concluded the SBI has more long-term and costly sources of funds than HBL and the risk is higher in HBL than in SBI.

g. The profitability position of HBL and SBI are analyzed from different ways. The average value of interest earned to total assets ratios and net profit to total assets ratio of SBI is 0.052% which is higher than HBL's 0.048%. This implies that SBI is more efficiently using its total assets to earn interest income.

h. While analyzing the correlation, loan and advances and total deposits of both the banks HBL and SBI are significantly correlated. The value of r of HBL is 0.528 and 0.975 in SBI. The positive value of r shows the positive relationship between loan and advances and total deposits.

It shows that both banks utilize its total deposit on loan and advances effectively but relationships as well as utilization of deposits are better in SBI than in HBL. Correlation between investment on government security and total deposits of HBL is not significant but in case of SBI, it is highly significant.

i. Cost of services to total assets ratio of SBI is higher than that of HBL. Cost of services to total assets of both banks ranges from 0.02% to 0.02% in HBL and 0.03% to 0.03% in SBI. Therefore, it is found that profitability portion to SBI is better than HBL. It would be better to decrease the cost of services of HBL.

j. Coefficient of correlation between cash and bank balance and current liabilities of HBL shows that there is no significant relationship but there is highly significant relationship in SBI. The value of r is 0.435 on HBL and 0.936 on SBI. It shows that holding of cash and bank balance of HBL and SBI is related with current liabilities. Coefficient of correlation between loan and advances and net profit of HBL is 0.384 and in case of SBI it is 0.677. it shows that there is no significant relationship between loan and advances and net profit in HBL. It shows that change on loan and advances on HBL and SBI do not change the amount of profit significantly. It may de due to the use of higher amount of costly funds and other higher costs.

k. The value of interest earned to total assets ratio on banks are deceasing. Although the net profit to total assets ratios and net profit to total deposit ratios are always higher on HBL than on SBI most of the time during the study period. The trend value of net profit to total assets ratio of HBL and SBI is at constant level. This shows that HBL is more efficiently using its working fund of assets to earn higher rate of profit than during the study period.

CHAPTER - 5
SUMMARY, CONCLUSION AND RECOMMENDATIONS

This is the concluding chapter of this study. This chapter is divided into three sections summary, conclusion and recommendation. In this chapter, we summarized the study in brief. In the last section of this chapter some recommendations have given, which is useful to stakeholders and to concerned companies as well. They can use these recommendations to take some corrective actions to draw decisions.

5.1 Summary

Financial institution includes banks, finance companies, co-operative organizations and insurance companies. All of them do contribute something to the economy of the country. Financial institutions play a vital role in the proper functioning of an economy. Among them, banking sector plays an important role in the economic development of the country. Commercial

banks are one of the vital aspects of this sector, which deals in the process of channel zing the available resources in the needed sectors. It is the intermediary between the deficit and surpluses of financial resource.

Every business needs capital to operate business smoothly and the capital is said to be blood of the business. Working capital is a scare sources and much more essential to maintain smooth operation of any firm. As in order form, working capital structure is crucial part for banking industry too. Establishment of commercial banks, especially joint venture banks, has continued in response to the economic liberalization policies of the government. As a result, in Nepal there are twenty commercial banks at present competing with each other in their business. These joint venture banks have concentrated themselves on financing foreign trade, commerce and industry.

The researcher has identified the research problem of five Commercial banks .The objectives which are determined on the basis of research problem. In order to carry out this study, the primary as well as secondary sources of data have been used. The analysis is performed with the help of financial and statistical tools. The presentation and analysis of data providers the clear picture in terms of financial strength and weakness of these Commercial banks. The analysis is associated with comparison and interpretation. Various financial ratios of five commercial banks are analyzed such as liquidity ratio, assets management ratio, activity ratio, profitability ratio and growth ratio. Under statistical analysis, some relevant statistical tools such as trend analysis, coefficient of correlation analysis and hypothesis test are used .This study helps to analyze the portfolio behavior of lending and measuring the ratio of loan and advances made in different sector. It is also helpful to analyze the credit contribution on total profitability.

Financial institution includes banks, finance companies, co-operative organizations and insurance companies. All of them do contribute something to the economy of the country. Financial institutions play a vital role in the proper functioning of an economy. Among them, banking sector plays an important role in the economic development of the country. Commercial

banks are one of the vital aspects of this sector, which deals in the process of channelyzing the available resources in the needed sectors. It is the intermediary between the deficit and surpluses of financial resource.

Present study is very successful to meet the stated objectives designed for the study. The researcher highlights or introduces the meaning and importance of research paper and meets the objectives followed by various sequential steps.

First chapter of the study dealt about basic assumption of the study. Basically it highlights the concept and importance or significance of the study. It also presents research issues, research problems, basic objectives of the study, rationality of the study, limitation of the study, process of the study and introduction of the study. Lastly, it discusses about the organizational structure of the study.

Second chapter helped the researcher to provide knowledge about the development and progress made by the earlier researcher on the concerned field or topic of the study. It helped to know the research work undertaken by them. It also tried to know the some concept used in this study. Moreover, it summarized the finding of the previous findings of the study to provide knowledge about the background of the work done by them and to step the duplicate of previous work. Lastly, earlier international research related to concept is also attempted to review the finding of the study.

Third chapter of the study discussed about various research methodologies used for the study. Basically, research methodology here signifies the research design, sources of data, population and sample of data, data collection procedure, data collection techniques, data collection methods and tools and techniques employed etc.

Fourth chapter of the study dealt about data presentation and analysis. It first presented the generated data in tabular form and analyzed it in systematically as per the objectives mentioned above. The researcher tried to analyze the comparative financial condition or position of bank in terms of working capital, comparative industrial environment of bank with respect to working

capitaland comparative management quality in terms of working capital. Detail of the findings can be presented as below.

5.2 Conclusion

- The average cash and bank balance and government securities percentage are higher on HBL than SBI and average loan and advances percentage is higher in SBI than in HBL. The net working capital of HBL is positive in the first year of the study period. Comparatively, HBL has higher net working capital than SBI.

- Therefore, from above all, it can be concluded that both the banks are not of much difference. Comparatively, HBL is financially steady and better than SBI. But it does not mean that SBI is not performing well. Both banks are striving for better performance by adopting various new strategies and providing additional services.

- Analyzing the turnover position between these two banks, the SBI is utilizing its funds more efficiently for the profit generating purpose on loan and advances than HBL. SBI is utilizing saving deposits more for the income generating purpose whereas HBL is utilizing more fixed deposits for the income generating purpose.

- In case of profitability position, profitability in terms of interest earned to total assets ratio of SBI is slightly higher than that of HBL. Therefore, SBI is more efficiently using its total assets (funds) to earn interest income. The net profit to total assets and the net profit to deposits ratios are higher in HBL than in SBI. Thus, it is concluded that the average profitability ratio of HBL is higher than that of SBI. Both the banks have constant level of growth in profitability during the study period. To acquire higher profits they should take strong steps for the better management, strong marketing and strategic development etc.
- Both the banks are able to maintain adequate liquidity position to meet the short term or even instant obligations in that period. However, the liquidity position of HBL is slightly better than that of SBI. Although

higher liquidity means lower risk as well as lower profit, but in commercial bank, higher liquidity is not always the cause of lower profitability.

- The correlation coincident of the variables selected for the statistical analysis shows that HBL has insignificant relationship with cash and bank balance and current liabilities, loan and advances and net profit loan and advances and total deposit and government securities and total deposits. Similarly, SBI has insignificant relationship with loan and advances and net profit but significant relationship with cash and bank balance and current liabilities, government securities and total deposits and loan and advances and total deposits.

5.3 Recommendations

- Net profit to total assets ratio is higher on HBL than SBI but net profit to total deposits ratio is higher on SBI than HBL. However, interest earned to total assets ratio and the cost of services are higher on SBI than HBL. Therefore, SBI should try to reduce its cost by reducing high cost deposits and operating in proper and efficient way so that it can least operating cost which further maximizes its profitability and shareholder return.

- Improper working capital leads to decrease the profitability of the company and leads to run the company in the long run. So, HBL and SBI are recommended to give emphasis to proper working capital policy to uplift the financial performance of the companies in the competitive age of today.
- By implementing the matching working capital management policy instead of adopting conservative working capital policy, HBL, as well as SBI, can improve in its profitability in both short and long runs.

- From turnover ratios, investment policy of SBI seems better than that of HBL during the study period. It is therefore necessary for HBL to utilize its deposits in income generating activities by better investment efficiency on loan and advances.

- The liquidity position in terms of current ratio of both HBL and SBI are below than normal standard. Therefore, both banks should increase the current assets. Shift from invest in govt. Securities to loan &advances, which will support in increase the profitability.

- Positive working capital represents the sound financial management of the banks. Similarly, negative working capital represents the poor financial management of the banks. In case of HBL, we found always positive working capital during the study period however; it is positive in the first year in SBI and negative in the second year then again positive in the rest of the years. Therefore, to eradicate this situation in SBI, suitable working capital should be formulated and implemented. There should be keeping optimum size of investment in current assets and current liabilities.

- Although proportion of loan and advances out of the total current assets of HBL is more than other current assets. Similarly, the proportion of loan and advances out of the total current assets of SBI is more than 50% of Current assets. Hence, HBL should adjust its policy of investment on loan and advances with collected funds and increase the proportion of loan and advances in total current assets.

- The turnover of the commercial banks is the primary factor of income generating activity. Fixed deposits and saving deposits turnover position are also not satisfactory on both banks. Due to the poor turnover position, the chances of bad debts and non-earning idle funds are high. Therefore, both HBL and SBI should give proper attention on collection of over-dated loan and advances and utilization of idle funds as loan and advances.

  Proportion of saving to total deposit is more than 49 % in both HBL and SBI. Comparatively, HBL is better than that of SBI.

- The unskilled manpower, over-staffing, unsystematic purpose of raw materials, unnecessary expenses, misuse of facilities, heavy expenses on overhead etc. may be the cause for high operating cost. So, both HBL and SBI are recommended to pay attention to these aspects.

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APPENDIX-1
Calculation of Trend Value of Cash and Bank Balance to Current Assets Ratio:

X	X^2	HBL			SBI		
		Y_1	XY_1	$Y_C=a+bx$	Y_2	XY_2	$Y_C=a+bx$
-2	4	15.24	-30.48	11.47	12.61	-25.22	7.44
-1	1	18.05	-18.05	16.32	12.18	-12.81	9.85
0	0	15.45	0	14.94	11.51	0	12.25
1	1	12.68	12.68	16.68	11.76	11.76	14.66
2	4	13.30	53.2	18.41	12.58	50.32	17.06
	ǵx^2=10	**ǵy_1=74.72**	**ǵxy_1=17.35**		**ǵy_2=61.27**	**ǵxy_2=24.05**	

For HBL,

$$a = \frac{Y_1}{N} = \frac{74.72}{5} = 14.94$$

$$b = \frac{XY_1}{X^2} = \frac{17.35}{10} = 1.735$$

For SBI,

$$a = \frac{Y_2}{N} = \frac{61.27}{5} = 12.25$$

$$b = \frac{XY_2}{X^2} = \frac{24.05}{10} = 2.405$$

APPENDIX-2
Calculation of Trend Value of Loan and Advances to Current Assets Ratio:

X	X^2	HBL			SBI		
		Y_1	XY_1	$Y_C=a+bx$	Y_2	XY_2	$Y_C=a+bx$
-2	4	27.39	-54.78	27.43	59.25	-118.5	60.72
-1	1	27.28	-27.28	30.09	64.62	-64.62	61.07
0	0	37.34	0	32.76	58.26	0	61.41
1	1	34.82	34.82	37.49	63.24	63.24	61.75
2	4	36.95	73.90	38.09	61.66	123.32	62.10
	ǵx^2=10	**ǵy_1=163.78**	**ǵxy_1=26.66**		**ǵy_2=307.03**	**ǵxy_2=3.44**	

For HBL,

$$a = \frac{Y_1}{N} = \frac{163.78}{5} = 32.76$$

$$b = \frac{XY_1}{X^2} = \frac{26.66}{10} = 2.666$$

For SBI,

$$a = \frac{Y_2}{N} = \frac{307.03}{5} = 61.41$$

$$b = \frac{XY_2}{X^2} = \frac{3.44}{10} = 0.344$$

APPENDIX-3

Calculation of Trend Value of Investment on Government Securities to Current Assets Ratio:

X	X^2	HBL			SBI		
		Y_1	XY_1	$Y_C=a+bx$	Y_2	XY_2	$Y_C=a+bx$
-2	4	32.33	-64.66	34.54	23.69	-47.38	22.08
-1	1	33.84	-33.84	33.06	18.55	-18.55	22.40
0	0	33.03	0	31.58	25.65	0	22.71
1	1	33.68	33.68	30.10	22.22	22.22	23.02
2	4	25.00	50	28.62	23.42	46.84	23.34
	ǵx^2=10	**ǵy_1=157.88**	**ǵxy_1=-14.82**		**ǵy_2=113.53**	**ǵxy_2=3.13**	

For HBL,

$$a \text{ X} \frac{Y_1}{N} \text{ X} \frac{157.88}{5} \text{ X} 31.58$$

$$b \text{ X} \frac{XY_1}{X^2} \text{ X} \frac{14.82}{10} \text{ X} 1.482$$

For SBI,

$$a \text{ X} \frac{Y_2}{N} \text{ X} \frac{113.53}{5} \text{ X} 22.71$$

$$b \text{ X} \frac{XY_2}{X^2} \text{ X} \frac{3.13}{10} \text{ X} 0.313$$

The Following formulas are used to calculate mean, standard deviation and coefficient variation

Mean $\overline{X} \text{ X} \frac{X}{N}$, Standard Deviation = $\text{X}\sqrt{\frac{d^2}{n \text{ Z} 1}}$, coefficient of Variation C.V. $\text{X} \frac{¢}{\overline{X}}$,

Let X_1 and X_2 denote the ratio of HBL and SBI, respectively

APPENDIX-4
Cash and Bank Balance to Current Assets (%):

Year	X_1	X_2	d_1^2	d_2^2
2007/08	15.24	12.61	0.09	0.1296
2008/09	18.05	12.81	9.6721	0.3136
2009/10	15.45	11.51	0.2601	0.5476
2010/11	12.68	11.76	5.1076	0.2401
2011/12	13.30	12.58	2.6896	0.1089
N=5	**$\sum x_1$= 74.72**	**$\sum x_2$= 61.27**	**$\sum d_1^2$ = 17.8194**	**$\sum d_2^2$ = 1.3398**

For HBL,

Average = 14.94

Std. Dev. = 2.111

C.V. = 0.141

For SBI,

Average = 12.25

Std. Dev. = 0.579

C.V. = 0.047

APPENDIX-5
Loan and Advances to Current Assets (%):

Year	X_1	X_2	d_1^2	d_2^2
2007/08	27.39	59.25	28.79396	4.64834
2008/09	27.28	64.62	29.98658	10.32980
2009/10	37.34	58.26	21.01306	9.89732
2010/11	34.82	63.24	4.26009	3.36356
2011/12	36.95	61.66	17.58964	0.06452
N=5	**$\sum x_1$= 163.78**	**$\sum x_2$= 307.03**	**$\sum d_1^2$ = 101.64333**	**$\sum d_2^2$ = 28.30354**

For HBL,

Average = 32.756

Std. Dev. = 5.041

C.V. = 0.154

For SBI,

Average = 61.406

Std. Dev. = 2.660

C.V. = 0.043

APPENDIX-6
Government Securities to Current Assets Ratio (%):

Year	X_1	X_2	d_1^2	d_2^2
2007/08	32.33	23.69	0.56852	0.96826
2008/09	33.84	18.55	5.12570	17.27234
2009/10	33.03	25.65	2.11412	8.66714
2010/11	33.68	22.22	4.42682	0.23620
2011/12	25.00	23.42	43.24378	0.50980
N=5	**$\sum x_1$= 157. 88**	**$\sum x_2$= 113. 53**	**$\sum d_1^2$ = 55.47894**	**$\sum d_2^2$ = 27.65374**

For HBL,

Average = 31.576

Std. Dev. = 3.724

C.V. = 0.118

For SBI,

Average = 22.706

Std. Dev. = 2.629

C.V. = 0.116

APPENDIX-7
Miscellaneous Current Assets to Current Assets Ratio (%):

Year	X_1	X_2	d_1^2	d_2^2
2007/08	25.04	4.45	18.62786	0.66586
2008/09	20.83	4.02	0.01124	0.14899
2009/10	14.18	4.58	42.82394	0.89492
2010/11	18.82	2.78	3.62522	0.72932
2011/12	24.75	2.34	16.20868	1.67444
N=5	**$\sum x_1$= 103.62**	**$\sum x_2$= 18.17**	**$\sum d_1^2$ = 81.29694**	**$\sum d_2^2$ = 4.11353**

For HBL,

Average = 20.724

Std. Dev. = 4.508

C.V. = 0.218

For SBI,

Average = 3.634

Std. Dev. = 1.014

C.V. = 0.279

APPENDIX-8
Net Working Capital:

Year	X_1	X_2	d_1^2 X $\int x_1 Z\overline{x_1}$	d_2^2 X $\int x_2 Z\overline{x_2}$
2007/08	3176.82	-1813.11	184367.18	9585438.91
2008/09	2836.92	17=.15	591794.80	1227167.67
2009/10	2974.41	1130.78	399161.13	23148.41
2010/11	3837.29	2169.11	53401.66	785322.08
2011/12	5205.57	4712.70	2557978	12039331.61
N=5	**ǵx_1= 18031.01**	**ǵx_2= 6414.63**	**ǵ d_1^2 = 3786702.77**	**ǵ d_2^2 = 23660408.68**

For HBL,

Average = 3606.202

Std. Dev. = 972.97

C.V. = 0.2698

For SBI,

Average = 1282.926

Std Dev. = 2432.098

C.V. = 1.8957

APPENDIX-9
Current Ratio:

Year	X_1	X_2	d_1^2 X $\int x_1 Z\overline{x_1}$	d_2^2 X $\int x_2 Z\overline{x_2}$
2007/08	1.18	0.90	0.000016	0.024336
2008/09	1.14	1.01	0.001296	0.002116
2009/10	1.16	1.06	0.000256	0.000016
2010/11	1.18	1.10	0.000016	0.001936
2011/12	1.22	1.21	0.001936	0.023716
N=5	**ǵx_1= 5.88**	**ǵx_2= 5.28**	**ǵ d_1^2 = 0.00352**	**ǵ d_2^2 = 0.271144**

For HBL,

Average = 1.176

Std. Dev. = 0.0297

C.V. = 0.0253

For SBI,

Average = 1.056

Std. Dev. = 0.0823

C.V. = 0.0779

APPENDIX-10
Quick Ratio

Year	X_1	X_2	$d_1^2 X\{x_1 Z\bar{x}_1\}$	$d_2^2 X\{x_2 Z\bar{x}_2\}$
2007/08	0.56	0.33	0.000196	0.001444
2008/09	0.59	0.32	0.001936	0.002304
2009/10	0.56	0.39	0.000196	0.000484
2010/11	0.55	0.37	0.000016	0.00004
2011/12	0.47	0.43	0.005776	0.003844
N=5	**ǵx₁= 2.73**	**ǵx₂= 1.84**	**ǵ d_1^2 = 0.00812**	**ǵ d_2^2 = 0.008076**

For HBL,

Average = 0.546

Std. Dev. = 0.045

C.V. = 0.083

For SBI,

Average = 0.368

Std. Dev. = 0.045

C.V. = 0.122

APPENDIX-11
Cash and Bank Balance to Deposit Ratio (Excluding Fixed Deposit):

Year	X_1	X_2	$d_1^2 X\{x_1 Z\bar{x}_1\}$	$d_2^2 X\{x_2 Z\bar{x}_2\}$
2007/08	0.19	0.12	0.000196	0.000324
2008/09	0.21	0.14	0.001156	0.000004
2009/10	0.19	0.13	0.000196	0.000064
2010/11	0.11	0.14	0.004356	0.000004
2011/12	0.18	0.16	0.00016	0.000484
N=5	**ǵx₁= 0.88**	**ǵx₂= 0.69**	**ǵ d_1^2 = 0.001352**	**ǵ d_2^2 = 0.00088**

For HBL,

Average = 0.176

Std. Dev. = 0.0184

C.V. = 0.1045

For SBI,

Average = 0.138

Std. Dev. = 0.0148

C.V. = 0.1075

APPENDIX-12
Fixed Deposit to Total Deposit Ratio:

Year	X_1	X_2	d_1^2	d_2^2
2007/08	0.10	0.15	0.000064	0.005476
2008/09	0.07	0.21	0.000484	0.000196
2009/10	0.07	0.25	0.000484	0.000676
2010/11	0.09	0.24	0.000004	0.000256
2011/12	0.13	0.27	0.001444	0.002116
N=5	**$\sum x_1 = 0.46$**	**$\sum x_2 = 1.12$**	**$\sum d_1^2 = 0.00248$**	**$\sum d_2^2 = 0.00872$**

For HBL,

Average = 0.092

Std. Dev. = 0.0.25

C.V. = 0.27

For SBI,

Average = 0.224

Std. Dev. = 0.047

C.V. = 0.21

APPENDIX-13
Saving Deposit to Total Deposit Ratio:

Year	X_1	X_2	d_1^2	d_2^2
2007/08	0.57	0.52	0.002304	0.000036
2008/09	0.60	0.53	0.000324	0.000016
2009/10	0.67	0.51	0.002704	0.000256
2010/11	0.63	0.55	0.000144	0.000576
2011/12	0.62	0.52	0.000004	0.000036
N=5	**$\sum x_1 = 3.09$**	**$\sum x_2 = 2.63$**	**$\sum d_1^2 = 0.00548$**	**$\sum d_2^2 = 0.00092$**

For HBL,

Average = 0.618

Std. Dev. = 0.037

C.V. = 0.06

For SBI,

Average = 0.526

Std. Dev. = 0.015

C.V. = 0.03

APPENDIX-14
Loan and Advances to Total Deposit Ratio:

Year	X_1	X_2	d_1^2	d_2^2
2007/08	0.30	0.48	0.0049	0.0025
2008/09	0.30	0.54	0.0049	0.0001
2009/10	0.42	0.50	0.0025	0.0009
2010/11	0.39	0.55	0.0004	0.0004
2011/12	0.43	0.57	0.0036	0.0016
N=5	**$\sum x_1$= 1.84**	**$\sum x_2$= 2.64**	**$\sum d_1^2$ = 0.0163**	**$\sum d_2^2$ = 0.0055**

For HBL,

Average = 0.37

Std. Dev. = 0.064

C.V. = 0.184

For SBI,

Average = 0.53

Std. Dev. = 0.037

C.V. = 0.073

APPENDIX-15
Loan and Advances to Fixed Deposit Ratio:

Year	X_1	X_2	d_1^2	d_2^2
2007/08	2.92	3.12	1.4544	0.4984
2008/09	4.49	2.54	0.1324	0.0158
2009/10	5.75	2.03	1.887	0.1474
2010/11	4.18	2.31	0.0029	0.0108
2011/12	3.29	2.07	0.6988	0.1183
N=5	**$\sum x_1$= 20.63**	**$\sum x_2$= 12.07**	**$\sum d_1^2$ = 4.1752**	**$\sum d_2^2$ = 0.7907**

For HBL,

Average = 4.126

Std. Dev. = 1.0217

C.V. = 0.5006

For SBI,

Average = 2.414

Std. Dev. = 0.445

C.V. = 0.266

APPENDIX-16
Loan and Advances to Saving Deposit Ratio:

Year	X_1	X_2	d_1^2	d_2^2
2007/08	0.54	0.92	0.0027	0.0060
2008/09	0.50	1.02	0.0084	0.0004
2009/10	0.62	0.97	0.0007	0.0007
2010/11	0.61	1.00	0.0003	0.0000
2011/12	0.69	1.08	0.0096	0.0067
N=5	**$\acute{g}x_1$= 2. 96**	**$\acute{g}x_2$= 4. 99**	**$\acute{g}\, d_1^2$ = 0.0217**	**$\acute{g}\, d_2^2$ = 0.0138**

For HBL,

Average = 0.592

Std. Dev. = 0.0736

C.V. = 0.133

For SBI,

Average = 0.998

Std. Dev. = 0.0587

C.V. = 0.062

APPENDIX-17
Interest Earned to Total Assets Ratio (%):

Year	X_1	X_2	d_1^2	d_2^2
2007/08	0.05	0.05	0.00004	0.000004
2008/09	0.04	0.05	0.00064	0.000004
2009/10	0.05	0.05	0.00004	0.000004
2010/11	0.05	0.06	0.00004	0.000064
2011/12	0.05	0.05	0.00004	0.000004
N=5	**$\acute{g}x_1$= 0.24**	**$\acute{g}x_2$= 0.26**	**$\acute{g}\, d_1^2$ = 0.00008**	**$\acute{g}\, d_2^2$ = 0.00008**

For HBL,

Average = 0.048

Std. Dev. = 0.0045

C.V. = 0.093

For SBI,

Average = 0.052

Std. Dev. = 0.0045

C.V. = 0.087

APPENDIX-18
Net Profit to Total Assets Ratio (%):

Year	X_1	X_2	d_1^2	d_2^2
2007/08	0.02	0.01	0.000004	0.000004
2008/09	0.02	0.01	0.000004	0.000004
2009/10	0.02	0.01	0.000004	0.000004
2010/11	0.03	0.02	0.000064	0.000064
2011/12	0.02	0.01	0.000004	0.000004
N=5	**$\sum x_1 = 0.11$**	**$\sum x_2 = 0.06$**	**$\sum d_1^2 = 0.00008$**	**$\sum d_2^2 = 0.00008$**

For HBL,

Average = 0.022

Std. Dev. = 0.004

C.V. = 0.182

For SBI,

Average = 0.012

Std. Dev. = 0.004

C.V. = 0.333

APPENDIX-19
Net Profit to Total Deposit Ratio (%):

Year	X_1	X_2	d_1^2	d_2^2
2007/08	0.03	0.01	0	0.000016
2008/09	0.03	0.01	0	0.000016
2009/10	0.03	0.01	0	0.000016
2010/11	0.03	0.02	0	0.000036
2011/12	0.03	0.02	0	0.000036
N=5	**$\sum x_1 = 0.15$**	**$\sum x_2 = 0.07$**	**$\sum d_1^2 = 0$**	**$\sum d_2^2 = 0.00012$**

For HBL,

Average = 0.03

Std. Dev. = 0

C.V. = 0

For SBI,

Average = 0.014

Std. Dev. = 0.005

C.V. = 0.393

APPENDIX-20
Cost of Services to Total Assets Ratio (%):

Year	X_1	X_2	d_1^2	d_2^2
2007/08	0.02	0.03	0	0
2008/09	0.02	0.03	0	0
2009/10	0.02	0.03	0	0
2010/11	0.02	0.03	0	0
2011/12	0.02	0.03	0	0
N=5	**$\acute{g}x_1$= 0.1**	**$\acute{g}x_2$= 0.15**	**$\acute{g} d_1^2$ = 0**	**$\acute{g} d_2^2$ = 0**

For HBL,

Average = 0.02

Std. Dev. = 0

C.V. = 0

For SBI,

Average = 0.03

Std. Dev. = 0

C.V. = 0

APPENDIX-21
Calculation of Trend Value of Interest Earned to Total Assets Ratio:

X	X^2	HBL			SBI		
		Y_1	XY_1	Y_C=a+bx	Y_2	XY_2	Y_C=a+bx
-2	4	0.05	-0.1	0.046	0.05	-0.1	0.05
-1	1	0.04	-0.04	0.047	0.05	-0.05	0.51
0	0	0.05	0	0.048	0.05	0	0.52
1	1	0.05	0.05	0.049	0.06	0.06	0.53
2	4	0.05	0.1	0.05	0.05	0.1	0.54
	$\acute{g}x^2$=10	**$\acute{g}y_1$=0.24**	**$\acute{g}xy_1$=0.01**		**$\acute{g}y_2$=0.26**	**$\acute{g}xy_2$=0.01**	

For HBL,

$$a = \frac{XY_1}{N} \times \frac{0.24}{5} \times 0.048$$

$$b = \frac{XY_1}{X^2} \times \frac{0.01}{10} \times 0.001$$

For SBI,

$$a = \frac{XY_2}{N} \times \frac{0.26}{5} \times 0.052$$

$$b = \frac{XY_2}{X^2} \times \frac{0.01}{10} \times 0.001$$

APPENDIX-22
Calculation of Trend Value of Net Profit to Total Assets Ratio:

X	X^2	HBL			SBI		
		Y_1	XY_1	$Y_C=a+bx$	Y_2	XY_2	$Y_C=a+bx$
-2	4	0.02	-0.04	0.02	0.01	-0.02	0.01
-1	1	0.02	-0.02	0.021	0.01	-0.01	0.011
0	0	0.02	0	0.022	0.01	0	0.012
1	1	0.03	0.03	0.023	0.02	0.02	0.013
2	4	0.02	0.04	0.024	0.01	0.02	0.014
	ǵx^2=10	**ǵy_1=0.11**	**ǵxy_1=0.01**		**ǵy_2=0.06**	**ǵxy_2=0.01**	

For HBL,

$$a = \frac{XY_1}{N} = \frac{0.11}{5} = 0.022$$

$$b = \frac{XY_1}{X^2} = \frac{0.01}{10} = 0.001$$

For SBI,

$$a = \frac{XY_2}{N} = \frac{0.06}{5} = 0.012$$

$$b = \frac{XY_2}{X^2} = \frac{0.01}{10} = 0.001$$

APPENDIX-23

Calculation of Correlation Coefficient between Loan & Advances and Total Deposit of HBL:

LA (X)	TD (Y)	$X = X - \bar{X}$	X^2	$Y = Y - \bar{Y}$	Y^2	XY
5695.82	18755.64	-2241.65	5024994.72	-2636.41	6950657.69	5909908.48
6410.24	21161.46	-1527.23	2332431.47	-230.59	53171.75	352163.97
8143.21	19335.1	205.74	42328.95	-2056.95	4231043.30	423196.89
8935.42	23061.03	997.95	995904.20	1668.98	2785494.24	1665558.59
10502.64	24647.02	2565.17	6580097.13	3254.97	10594829.70	8349551.39
ǵx= 39687.33	**ǵy= 106960.25**		**ǵx^2= 14975756.47**		**ǵy^2= 24615196.68**	**ǵxy= 15853985.54**

$$\bar{X} = \frac{X}{N} = \frac{39687.33}{5} = 7937.47$$

$$\bar{Y} \text{X} \frac{Y}{N} \text{X} \frac{106960.25}{5} \text{X} 21392.05$$

Correlation,

$$r \text{X} \frac{xy}{\sqrt{x^2 \quad y^2}}$$

$$\text{X} \frac{15853985.54}{\sqrt{14975756.47 \mid 24615196.68}}$$

$$\text{X} 0.828$$

$$PEr \text{X} 0.6745 \mid \frac{1 \text{Z} r^2}{\sqrt{n}} \text{X} 0.6745 \mid \frac{1 \text{Z} (0.828)^2}{\sqrt{5}} \text{X} 0.6745 \mid \frac{0.6856}{2.2361} = 0.21$$

$\ldots 6PE_r = 6 \text{ x } 0.21$

$= 1.26$

Calculation of Correlation Coefficient between Loan & Advance and Total Deposit of SBI:

LA (X)	**TD (Y)**	$X \text{X} X \text{Z} \bar{X}$	$\mathbf{X^2}$	$Y \text{X} Y \text{Z} \bar{Y}$	$\mathbf{Y^2}$	**XY**
10001.85	21007.37	-3201.91	10252227.65	-3866.83	14952374.25	12381241.65
11951.87	22010.34	-1251.89	1567228.57	-2863.86	8201694.1	3585237.70
12424.52	24814	-779.24	607214.98	-60.2	3624.04	46910.25
14642.56	26490.85	1438.8	2070145.44	1616.65	2613557.22	2326036.02
16998.00	30048.42	3794.24	14396257.18	5174.22	26772552.61	19632232.49
ǵx= 66018.8	**ǵy= 124370.98**		**ǵx^2= 28893073.82**		**ǵy^2= 52543802.22**	**ǵxy= 37971658.11**

$$\bar{X} \text{X} \frac{X}{N} \text{X} \frac{66018.8}{5} \text{X} 13203.76$$

$$\bar{Y} \text{X} \frac{Y}{N} \text{X} \frac{124370.98}{5} \text{X} 24874.20$$

Correlation,

$$r \text{ X} \frac{xy}{\sqrt{x^2 \quad y^2}}$$

$$\text{X} \frac{37971658.11}{\sqrt{28893073.82 \mid 52543802.22}}$$

X0.9745

$$PEr \text{ X}0.6745 \mid \frac{1 \text{Z} r^2}{\sqrt{n}} \text{ X}0.6745 \mid \frac{1 \text{Z} (0.975)^2}{\sqrt{5}} \text{ X}0.6745 \mid \frac{0.049}{2.2361} = 0.015$$

… $6PE_r$ = 6 x 0.015

= 0.09

APPENDIX-24

Calculation of Correlation Coefficient between Government Securities & Total Deposit of HBL:

GS (X)	TD (Y)	$X \text{ X} X \text{ Z} \overline{X}$	$\mathbf{X^2}$	$Y \text{ X} Y \text{ Z} \overline{Y}$	$\mathbf{Y^2}$	XY
6722.83	18755.64	-802.55	644086.50	-2636.41	6950657.69	2115850.85
7948.22	21161.46	422.84	178793.67	-230.59	53171.75	-97502.68
7203.07	19335.1	-322.31	10388.3.74	-2056.95	4231043.30	662975.55
8644.86	23061.03	1119.48	1253235.47	1668.98	2785494.24	1868389.73
7107.94	24647.02	-417.44	174256.15	3254.97	10594829.7	-1358754.68
ǵx= 37626.92	**ǵy= 106960.25**		**ǵx²= 2354255.53**		**ǵy²= 24615196.68**	**ǵxy= 3190958.77**

$$\overline{X} \text{ X} \frac{X}{N} \text{ X} \frac{37626.92}{5} \text{ X} 7525.38$$

$$\overline{Y} \text{ X} \frac{Y}{N} \text{ X} \frac{106960.25}{5} \text{ X} 21392.05$$

Correlation,

$$r \text{ X} \frac{xy}{\sqrt{x^2 \quad y^2}}$$

$$\text{X} \frac{3190958.77}{\sqrt{2354255.53 \mid 24615196.68}}$$

$$\text{X} 0.4192$$

$$PEr \text{ X} 0.6745 \mid \frac{1 \text{ Z} r^2}{\sqrt{n}} \text{ X} 0.6745 \mid \frac{1 \text{ Z} (0.419)^2}{\sqrt{5}} \text{ X} 0.6745 \mid \frac{0.8244}{2.2361} = 0.25$$

$\ldots 6PE_r = 6 \text{ x } 0.25$

$= 1.49$

Calculation of Correlation Coefficient between Government Securities and Total Deposit of SBI:

GS (X)	TD (Y)	X XX Z$\overline{X}$	X^2	Y XY Z$\overline{Y}$	Y^2	XY
3998.87	21007.37	-901.04	811873.08	-3866.83	14952374.25	3484168.50
3431.73	22010.34	-1468.18	2155552.51	-2863.86	8201694.1	4204661.98
5469.76	24814	569.85	324729.02	-60.20	3624.04	-34304.97
5144.32	26490.85	244.41	59736.25	1616.65	2613557.22	395125.43
6454.88	30048.42	1554.97	2417931.70	5174.22	26772552.61	8045756.87
ǵx= 24499.56	**ǵy= 124370.98**		**ǵx²= 5769822.56**		**ǵy²= 52543802.22**	**ǵxy= 16095407.91**

$$\overline{X} \text{ X} \frac{X}{N} \text{ X} \frac{24499.56}{5} \text{ X} 4899.91$$

$$\overline{Y} \text{ X} \frac{Y}{N} \text{ X} \frac{124370.98}{5} \text{ X} 24874.20$$

Correlation,

$$r \text{ X} \frac{xy}{\sqrt{x^2 \quad y^2}}$$

$$\text{X} \frac{16095407.91}{\sqrt{5769822.56 \mid 52543802.22}}$$

$$\text{X} 0.9244$$

$$PEr \text{ X} 0.6745 \mid \frac{1 \text{ Z} r^2}{\sqrt{n}} \text{ X} 0.6745 \mid \frac{1 \text{ Z} (0.924)^2}{\sqrt{5}} \text{ X} 0.6745 \mid \frac{0.1462}{2.2361} = 0.04$$

$\ldots 6PE_r = 6 \text{ x } 0.04$

$= 0.24$

APPENDIX-25

Calculation of Correlation Coefficient between Cash and Bank Balance and Current Liabilities of HBL:

CB (X)	CL (Y)	$X \; X X \; Z \overline{X}$	X^2	$Y \; XY \; Z \overline{Y}$	Y^2	XY
3170.21	17620.78	-393.48	154826.5	-2809.60	7893852.20	1105521.40
4241.76	20657.71	678.07	459778.9	227.33	51678.90	154145.65
3370.81	18824.42	-192.88	3720.27	-1605.96	2579107.80	309757.56
3253.51	21825.4	-310.18	96211.60	1395.02	1946080.80	-432707.30
3782.17	23223.59	218.48	47733.50	2793.21	7802022.10	610260.52
ǵx= 17818.46	**ǵy= 102151.90**		**ǵx²= 795753.20**		**ǵy²= 20272741.50**	**ǵxy= 1746977.83**

$$\overline{X} \; X \frac{X}{N} \; X \frac{17818.46}{5} \; X 3563.69$$

$$\overline{Y} \; X \frac{Y}{N} \; X \frac{10215190}{5} \; X 20430.38$$

Correlation,

$$r \; X \frac{xy}{\sqrt{x^2 \quad y^2}}$$

$$X \frac{1746977.83}{\sqrt{795753.20 \mid 20272741.50}}$$

$$X 0.435$$

$$PEr \; X 0.6745 \mid \frac{1 Z r^2}{\sqrt{n}} \; X 0.6745 \mid \frac{1 Z (0.435)^2}{\sqrt{5}} \; X 0.6745 \mid \frac{0.8108}{2.2361} = 0.25$$

$\ldots 6PE_r = 6 \text{ x } 0.25$

$= 1.5$

Calculation of Correlation Coefficient between Cash and Bank Balance and Current Liabilities of SBI:

CB (X)	CL (Y)	$X \text{ X} X \text{ Z} \overline{X}$	$\mathbf{X^2}$	$Y \text{ XY Z} \overline{Y}$	$\mathbf{Y^2}$	XY
2129.31	18694.56	-499.68	249680.10	-1506.70	2270144.90	752867.86
2370.09	18320.71	258.9	67029.20	-1880.55	3536468.30	486874.40
2455.55	20195.51	-173.44	30081.40	-5.75	33.10	997.28
2722.63	20984.01	93.64	8768.40	782.75	612697.60	73296.71
3467.36	22811.57	838.37	702864.30	2610.25	6813405.10	2188355.29
ǵx= 13144.94	**ǵy= 101006.30**		**ǵx²= 1058423.4**		**ǵy²= 13232749**	**ǵxy= 3502391.54**

$$\overline{X} \text{ X} \frac{X}{N} \text{ X} \frac{13144.94}{5} \text{ X} 2628.99$$

$$\overline{Y} \text{ X} \frac{Y}{N} \text{ X} \frac{101006.30}{5} \text{ X} 20201.26$$

Correlation,

$$r \text{ X} \frac{xy}{\sqrt{x^2 \quad y^2}}$$

$$\text{X} \frac{33011417.97}{\sqrt{1058423.4 \mid 13232749}}$$

$$\text{X} 0.9358$$

$$PEr \text{ X} 0.6745 \mid \frac{1 \text{ Z} r^2}{\sqrt{n}} \text{ X} 0.6745 \mid \frac{1 \text{ Z} (0.936)^2}{\sqrt{5}} \text{ X} 0.6745 \mid \frac{0.1239}{2.2361} = 0.04$$

$\ldots 6PE_r = 6 \text{ x } 0.04$

$= 0.24$

APPENDIX-26

Calculation of Correlation Coefficient between Loan and Advance and Net Profit of HBL:

LA (X)	NP (Y)	X XX Z$\overline{X}$	X^2	Y XY Z$\overline{Y}$	Y^2	XY
5695.82	506.95	-2241.65	5024994.70	-279.92	7355.20	627482.67
6410.24	537.8	-1527.23	2332431.50	-249.07	62035.90	380387.18
8143.21	539.21	205.74	42328.90	-247.66	61335.50	-50953.57
8935.42	658.75	997.95	995904.20	-128.10	16409.60	-124843.55
10502.64	691.65	2565.17	6580097.10	-95.22	9066.80	-244255.49
ǵx= 39687.33	**ǵy= 2934.36**		**ǵx²= 14975756.40**		**ǵy²= 156203**	**ǵxy= 587817.24**

$$\overline{X} \text{ X} \frac{X}{N} \text{ X} \frac{39687.33}{5} \text{ X} 7937.47$$

$$\overline{Y} \text{ X} \frac{Y}{N} \text{ X} \frac{3934.36}{5} \text{ X} 786.87$$

Correlation,

$$r \text{ X} \frac{xy}{\sqrt{x^2 \quad y^2}}$$

$$\text{X} \frac{587817.24}{\sqrt{14975756.4 \mid 20272741.50}}$$

$$\text{X} 0.384$$

$$PEr \text{ X} 0.6745 \mid \frac{1 \text{ Z} r^2}{\sqrt{n}} \text{ X} 0.6745 \mid \frac{1 \text{ Z} (0.384)^2}{\sqrt{5}} \text{ X} 0.6745 \mid \frac{0.8525}{2.2361} = 0.25$$

… $6PE_r$ = 6 x 0.25

= 1.5

Calculation of Correlation Coefficient between Loan and Advance and Net Profit of SBI:

LA (X)	NP (Y)	$X - \bar{X}$	X^2	$Y - \bar{Y}$	Y^2	XY
10001.85	212.12	-3201.91	10252227.60	-134.43	18071.40	430432.80
11951.87	263.05	-1251.89	1567228.60	-83.50	6972.30	104532.80
12424.52	308.28	-779.24	607215	-38.27	1464.60	29821.50
14642.56	457.46	1438.80	2070145.40	110.91	12301	159577.30
16998.00	491.82	3794.24	14396257.20	145.27	21103.40	551189.20
ǵx= 66018.80	**ǵy= 1732.73**		**ǵx²= 28893073.80**		**ǵy²= 122660.70**	**ǵxy= 1275553.60**

$$\bar{X} = \frac{X}{N} = \frac{66018.80}{5} = 13203.76$$

$$\bar{Y} = \frac{Y}{N} = \frac{1732.73}{5} = 346.55$$

Correlation,

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

$$= \frac{1275553.60}{\sqrt{28893073.80 \times 122660.70}}$$

$$= 0.677$$

$$PEr = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - (0.677)^2}{\sqrt{5}} = 0.6745 \times \frac{0.5417}{2.2361} = 0.163$$

$\therefore 6PE_r = 6 \times 0.163$

$= 0.98$