# CHAPTER-I

# INTRODUCTION

## 1.1 Background of the Study

Nepal is bordering between the two most populous countries of the world, India in the east, south, west and China in the north. Nepal is one of the least developed countries in the world lying as sandwiched between the two big countries, China and India. Poverty is widespread and basis necessities of many have not been fulfilled. The annual per capita GDP of Nepal is estimated to be just $ 290. Economic growth of the country has not improved substantially over time to overtake population growth. As the current population growth is 2.1 % per annum, the gain achieved by development activities has been overshadowed by growing population. Little over half (58.2%) of the population of the working age reported usually economically active in 2007. Contributions of non agricultural activities are gradually increasing in the GDP.

The economy of Nepal was closed and isolated before 2007 B. S. After the popular political movement of 2046 B. S, Nepal perused liberal, open and market oriented economy. Mixed economy of Nepal has made greater contribution for the development and operation of infrastructures like road, transport, and electricity and helped in the establishing many companies, banks, finance companies and manufacturing industries, however development is not satisfactory.

Financial institution can be considered as the catalyst to the economic growth of a country. The development process of a country involves the mobilization and deployment of resources. Development of trade, commerce and industry are the prime requisite for the attainment of the economic political and social goals. To fulfill the purpose of planning, financial functions more often dominate the other functions. “There is always lack of finance in underdeveloped economy because natural resources are either underutilized or

unutilized in productive sectors or even other purposes i.e. social welfare and so on. Likewise, underdeveloped countries are not deficient in land, water, mineral, forest or power resources, though they may be untapped; constituting only potential resources." So in these countries for the rapid development of the economy, there should be proper mobilization of resources. Due to various difficulties or even ignorance of the people, such resources have not been proper utilized. Hoarding could be one of the reasons for this. So, banks and other financial institutions play a vital role to encourage thrift and discourage hoardings by mobilizing the resources and removing the habit of hoarding. They pursue rapid economic growth, developing the banking habit among the people, collecting the small- scattered resources in one bulk and utilizing them in future productive purposes and rendering other valuable services to the country. Thus, this gives the individuals an opportunity to borrow funds against future income, which may improve the economic well being of the borrower.

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 which 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 mobilizations 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.

## Nepalese Financial System and Financial Service

Nepal Bank Limited (NBL) established in 1937 was the first commercial bank in Nepal. Following the establishment of Nepal Rastra Bank (NRB), the central bank of the country in 1956, was a major step towards the evolution and generalization of Nepalese financial system. The institutional network and volume of operations of the financial system has been expanded and diversified with a number of commercial banks which were five in 1990 and are 32 at the present. Similarly a number of other financial institutions came into operation rapidly.

The banking system comprises one central bank and 32 commercial banks, the non-bank financial institutions comprise development banks, rural development banks, finance companies, financial cooperatives, non-governmental financial organizations, contractual saving institutions like Employees Provident Fund, Citizen Investment Trust and Insurance Companies, Postal saving offices, and Nepal Stock Exchange. In addition, there are other quasi-financial institutions such as the Deposit Insurance and Credit Guarantee Corporation, Rural Housing Finance Company etc.

After the openness and liberalization in the financial system, the establishment of banks and financial institutions tremendously increased. The establishment process, in fact took an aggressive move. This type of development can be observed also in insurance services. The institutional network and volume of operations of insurance companies has expanded and diversified enough with the number of companies going up from 4 in 1990 to 22 at present.

Service sector is a major contributor on Gross Domestic Product (more than 50 percent in and average) and financial service is a major component of this sector. Financial services sector consists basically banking service and insurance service. Such services in Nepal are very important because they provide many opportunities for efficient allocation of resources, utilization, promotion of economic activities, and fair competition and increase in the foreign direct investment. Liberalization of trade in financial serves has many

positive advantages like economic growth, introduction of advanced financial practices and market efficiency.

The concept of financial institutions in Nepal was introduced when the first commercial bank, Nepal Bank Limited (NBL), was established in Kartik 30, 1994 B.S. as a semi-government organization. In Baisakh 14, 2013 B.S., the first central bank named as Nepal Rastra Bank was established with an objective of supervising, protecting and directing the functions of commercial banking activities. Consequently, another commercial bank fully owned by government, named as Rastriya Banijya Bank was established in 2022 B.S. under the Banijya Bank act 2021 B.S. In the fiscal year 2039/40, new banking policy was introduced for the establishment of new banks by the joint investment of foreign nations. Its objective was to create healthy competitive banking system and to provide cheap banking facilities to the people. The establishment of joint venture banks gave a new horizon to the financial sector of the country. Nepal Arab Bank Limited (NABIL) is the first joint venture commercial bank incorporated in 2041 B.S. In 2043 B.S., the second JVBs, Nepal Indosuez Bank Ltd (currently called Nepal Investment Bank Limited) in the form of JVB was also established. But more JVBS came into existence after the initiation of government's policy of economic liberalization and privatization in 2049 B.S. They are Himalayan Bank Ltd. (2049), Nepal SBI Bank Ltd. (2050), Nepal Bangladesh Bank Ltd. (2051), Everest Bank Ltd. (2051) and Bank of Kathmandu (2052) came into existence in chronological order. Under favorable environment, various other banks were established thereafter. In the current scenario, there are 32 commercial banks, 76 development banks and 13 rural development banks in Nepal.

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 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 Introduction of Standard Chartered Bank Nepal Limited

Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987 when it was initially registered as a joint-venture operation. Today the Bank is an integral part of Standard Chartered Group having an ownership of 75% in the company with 25% shares owned by the Nepalese public. The Bank enjoys the status of the largest international bank currently operating in Nepal.

Standard Chartered has a history of over 150 years in banking and operates in many of the world's fastest-growing markets with an extensive global network of over 1750 branches (including subsidiaries, associates and joint ventures) in over 70 countries in the Asia Pacific Region, South Asia, the Middle East, Africa, the United Kingdom and the Americas. As one of the world's most international banks, Standard Chartered employs almost 75,000 people, representing over 115 nationalities, worldwide. This diversity lies at the heart of the Bank's values and supports the Bank's growth as the world increasingly becomes one market.

With 17 points of representation, 18 ATMs across the country and with more than 350 local staff, Standard Chartered Bank Nepal Ltd. is in a position to serve its customers through an extensive domestic network. In addition, the global network of Standard Chartered Group gives the Bank a unique opportunity to provide truly international banking services in Nepal.

Standard Chartered Bank Nepal Limited offers a full range of banking products and services in Consumer banking, Wholesale and SME Banking catering to a wide range of customers encompassing individuals, mid-market local corporate, multinationals, large

public sector companies, government corporations, airlines, hotels as well as the DO segment comprising of embassies, aid agencies, NGOs and INGOs.

The Bank has been the pioneer in introducing 'customer focused' products and services in the country and aspires to continue to be a leader in introducing new products in delivering superior services. It is the first Bank in Nepal that has implemented the Anti-Money Laundering policy and applied the 'Know Your Customer' procedure on all the customer accounts.

Corporate Social Responsibility is an integral part of Standard Chartered's ambition to become the world's best international bank and is the mainstay of the Bank's values. The Bank believes in delivering shareholder value in a socially, ethically an environmentally responsible manner. Standard Chartered throughout its long history has played an active role in supporting those communities in which its customers and staff live. It concentrates on projects that assist children, particularly in the areas of health and education. Environmental projects are also occasionally considered. It supports non-governmental organisations involving charitable community activities The Group launched two major initiatives in 2003 under its 'Believing in Life' campaign- 'Living with HIV/AIDS' and 'Seeing is Believing'.With the current slowdown in the economy due to domestic and international factors and recently introduced changes in the NRB directives, the bank has taken the following strategies to achieve the targets for the fiscal year 2067/68: -

- Follow the standard banking practices
- To have the largest deposit base among the private sector banks.
- Increases the profitability and shareholder’s wealth
- Dominate cards acquiring market
- Expand delivery channels to stimulate additional fee revenue.
- Increase consumer bank contribution- ATM, consumer loans mortgages personal loans etc.
- To become bigger, more profitable and complete with biggest competitors.
- To provide best customer services.

## 1.3 Introduction of Himalayan Bank Limited

Himalayan Bank Limited was incorporated in 1992 A.D. by distinguished business personalities of Nepal in partnership with employee provident fund and Habib Bank Limited, one of the largest commercial bank of Pakistan. Banking operation was commenced from January 1993 A.D. It is the first joint venture bank managed by Nepali chief executive. Besides, commercial activities, bank also offers industrial and merchant banking facilities.

Himalayan Bank has always been committed to providing a quality service to its valued customers with a personal touch. All customers are treated with utmost courtesy as valued clients. The bank wherever possible offers tailor made facilities to its clients, based on the unique needs and requirements of different clients. To further extend the reliable and efficient services to its valued customers, Himalayan Bank has adopted Globus (developed by Temenos), the single Banking software where the Bank has made substantial investments. This has helped the Bank provide services like 'Any Branch Banking Facility', Internet Banking and SMS Banking. Living up to the expectations and aspirations of the Customers and other stakeholders of being innovative, HBL very recently introduced several new products and services. Millionaire Deposit Scheme, Small Business Enterprises Loan, Pre-paid Visa Card, International Travel Quota Credit Card, Consumer Finance through Credit Card and online TOEFL, SAT, IELTS, etc. fee payment facility are some of the products and services. HBL also has a dedicated offsite 'Disaster Recovery Management System'. Looking at the number of Nepalese workers abroad and their need for formal money transfer channel; HBL has developed exclusive and proprietary online money transfer software- HimalRemitTM. By deputing our own staff with technical tie-ups with local exchange houses and banks, in the Middle East and Gulf region, HBL is the biggest inward remittance handling Bank in Nepal. All this only reflects that HBL has an outside-in rather than inside-out approach where Customers' needs and wants stand first.
Himalayan Bank is committed to be a bank where "Business is done with a difference".

## 1.4 Statement of the Problem

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 than its 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 short term financing 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.

Joint venture banks like Standard Chartered Bank Nepal Limited and Himalayan Bank Limited 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 economic condition 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 funds 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 productivity. 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.

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

- How to manage the liquidity in SCBNL and HBL?
- What is the management attitude towards risk?
- How to build the image of Bank through working capital management?
- Is the composition of working capital of SCBNL and HBL appropriate?
- Which of the current assets are more problematic in SCBNL and HBL?
- What lending pattern of loan and advances and other investment will be profitable?
- What components of working capital that affect the operating income of SCBNL and HBL?

## 1.5 Objective of the Study

The main objective of this study is to examine the management of working capital in Standard Chartered Bank Nepal Limited and Himalayan Bank Limited. The specific objectives of this study are as follows: -

- To analyze the comparative study of working capital management of SCBNL and HBL.
- To study the position of current assets and current liabilities, their impact and relationship to each other.
- To analyze their composition of working capital, assets utilization and profitability.
- To provide suggestions and recommendations on the basis of analysis, for the improvement of working capital management of SCBNL and HBL in the future.

## 1.6 Significance of the Study

Nepalese commercial banks are operating in the competitive environment. In this situation, banks have to adopt suitable strategies for their existence. They should balance and co-ordinate the different functional areas of business concern. The success or failure of any organization depends on its strategy, which is affected by working capital management. Working capital management is the crux of problem to prepare proper strategy on its favor. The study has multidimensional significance which can be divided into four broader headings.

a) 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 of these two banks.
b) 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.
c) Its significance to the outsiders: among outsiders, mainly the customers, financing agencies, stock exchangers 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 stock exchange, stock brokers and stock traders who can find out the relative worth of the stocks of each bank.
d) 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 commercials banks.

Therefore, considering all these facts, the study of working capital management of SCBNL and HBL is considerably important.

## 1.7 Limitations of the Study

The scope of the present study has been limited in terms of period of study as well as sources and nature of data. The period covered by the study extends over 5 years from

2063/64 to 2067/68 B.S. At the time of study, the data could be available up to 2067/68 B.S. only. The limitations of this study are as follows: -

a) This study has been confined to only two of the joint venture banks, namely SCBNL and HBL.
b) The study is mainly based on secondary data. It is done mostly on the basis of the published financial documents, like balance sheet, profit and loss account and other related journals, magazine and books etc.
c) The study follows with specific tools such as ratio analysis, mean, C.V. Correlation and hypothesis.
d) The study is fully based on the student's financial resources and is to be completed within limited time. The report has taken only 5 year data for study from the year 2063/64 to 2067/68 B.S.

## 1.8 Organization of the Study

The first chapter includes general background of the study, historical perspective of banking industry, overview of sample banks, statements of the problem, objectives of the study, significance of the study and limitation of the study. The second chapter, Review of Literature contains the review of related books, journals, and past research works. Similarly the third chapter expresses the way and the technique of the studying applied in the research process. It includes research design, population and sample, data collection procedure and processing, tools and methods of analysis. The fourth chapter is the important chapter in which collected and processed data are presented, analyzed and interpreted with using financial tools as well as statistical tools. Finally, the fifth and the last chapter provide the summary of the study, conclusion and recommendations which are forwarded to the related companies to improve their working capital policies.

# CHAPTER-II

# REVIEW OF LITERATURE

The purpose of review of literature is to find out what research studies have been conducted in one chosen field of study and what remain to be done. It provides the student with the knowledge of the status of their field of research and foundation for developing a comprehensive theoretical framework which hypothesis can be developed for testing.

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 study is further divided into review of journals and master degree thesis.

This chapter is 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 Conceptual Framework

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.”(Rise, 1999:p.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 :p.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 utilizing 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 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.

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 cheques 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:

-Central Bank

-Commercial Bank

-Agriculture Bank

-Industrial Bank

-Exchange Bank

-Saving Bank etc.

American institute of Banking defines commercial bank as "Commercial Bank is a corporation which accepts demand deposits subject to cheques and makes short-term loans to business enterprises, regardless of the scope of its other services." (American Institute of Banking, USA 1972: p.345). The institute 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:p.271).

"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: p.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.

Some of the books on financial management regarding working capital management have been reviewed here under: -

**John J. Hampton & Celia L. Wagner (1983):** - These two authors wrote a book of working capital management. The book is divided in eight main chapters where the first topic describes about the working capital policies, nature of working capital and working capital strategies. In the second topic, there contain banking system and under this topic there contain sub-topic of money and its supply, features of U.S. commercial banking, measures of U.S. money supply, money creation. Similarly, in the third topic managing disbursements and collections are given. They set six sub-topic of cash management

system, managing collections and disbursement cash management problems, case of Chicago National Bank & Olean National Corporation. There after in the fourth chapter they have prepared commercial bank packages for cash management. In the third part of the book, they have established cash management where cash forecasting techniques are used. By the use of cash flow analysis, economics of short-term financing & sources of near term financing are prepared under the working capital analysis. In the fifth topic, there contain credit and collections by the analyzing credit capacity of customers, developing credit policies, collection policies and government regulations. Similarly, the sixth part includes about the concept of consumer loans, small business loans and credit scoring system. At the last part, the book describes about the inventory management its other important planning implementations through working capital ways. (Hamption & Wagner; 1983:177-182)

The well known professors **Weston and Brigham (1984)** have given some theoretical insights into working capital management after their various research studies on it. The bond conceptual findings of their study provide sound knowledge and guidance for the further study on the field of management of working capital in any enterprise and naturally to this study as well. They explain in the beginning, concept of working capital, working capital policy, requirement for external working capital financing. In the next chapter, they have dealt with the various components of working capital and their effective management techniques. The components of working capital they have dealt with are cash, marketable securities, receivables 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, loan from commercial banks and commercial paper. (Weston & Brigham; 1984:331)

**Van Horne (1994)** has categorized the various components of working capital, i.e. liquidity, receivables and inventory and current liabilities and grouping them according to the way they affect valuation. 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. He has written different types of books, articles and other facts relating to financial terminology. He is dealing about working capital management in broad version. He has explained all short-term assets. Working capital management usually described as involving the administration of these assets namely cash, marketable securities, receivables, inventories and the administration of current liabilities. (Van Horne;1994:421)

**Stephen H. Archer, G.M. Choate and George Rocette (1983): -** These American writers have written a book of financial management. In this book their view of Working Capital Management is the process of planning and controlling the level of mix of the CAs of the firm as well as financing these assets. Specially, working capital management requires financial managers to decide what quantities of cash, other liquid asset, accounts receivables and inventories the firm will hold at any points in time. In this definition, the management for working capital is the main task for financial manager and he has to be care in composition and activities of current assets. That is, it requires planning and controlling the level and mix of these assets (Archer, Choate and Rocette; 1983:601)

**Suniti Shrestha (1995)** study on portfolio behavior of commercial banks in Nepal and selected two local commercial banks, three joint-venture banks are one development bank as a sample for the study. Some major findings of her study are given below: -

- 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. (Shrestha;1995:113-114)

**I.M. Pandey (1999)** has described some conceptual ingredients, which are based on his various research studies. He has described various aspects of working capital management. He has divided working capital management into five chapters. The first chapter deals with the concept of working capital, need for working capital, determinants of working capital, issues in working capital management, estimating working capital needs, and financing current assets. In the second chapter, he has described the management of receivables, in which has dealt with goals of credit management, optimum credit policy, aspects of credit policy, and credit procedures for individual accounts. In the third chapter on inventory management, he has described the need to hold inventories, objectives of inventory management, inventory management technique and financial manger's role in inventory management. In the fourth chapter, he has described the management of cash and marketable securities, where he has dealt with facets of cash management, motives for holding cash, cash planning, managing the cash flows, determining the optimum cash balance, investment in marketable securities. Lastly, in the fifth chapter, he has described the financing of working capital with various methods such as trade credit, bank finance and commercial paper. (Pandey; 1999:805-956)

A company can follow three approaches on the mix of short term and long term source of financing, namely conservative, aggressive and matching approach. If more short term funds are used in financing current and fixed assets, it can be considered as aggressive approach. Conservative approach refers to more use of long term financing, which is less risky than aggressive approach. Matching approach is to finance variable current assets by short sources and permanent current assets by long term source. In working capital management, an important aspect is matching the type of financing with the type of assets. However, the degree of managerial aggressiveness often guides in choosing a certain combination of short and long term financing for working capital. (Pradhan; 2001:141)

## 2.2 Meaning of Working Capital

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. 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 and 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, bills 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: P.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 cannot 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 firm's 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: P.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 campany is dependent of the investment in the working capital.”(Mahat, Volume2, Number 2, P.22)

## 2.3 Issues of Working Capital

In the management of working capital, the most difficult 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: P.148).

-Size of working capital to maintain size of each type of current assets

-Size of permanent and 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

## 2.4 Working Capital Policy

Working capital policy refers to the firm’s basic policies regarding target levels for each category of current assets and how current assets will be financed. So first of all, in working capital management, a firm has to determine how much funds should be invested in working capital in gross concept. Every firm can adopt deferent financing policy according to the financial manager’s attitude towards the risk-return trade off. One of the most important decisions is financing current assets. Any firm has working capital policies regarding to the level of each category of current assets and their financing are discussed in the ensuring part of this section.

**a) Current Assets Investment policy: -** It refers to the policy regarding the total amount of current assets to be carried to support the given level of sales. There are three

alternative current assets investment policies, namely, Fat Cat, Lean and Mean and Moderate.

(i) **Fat Cat Policy:** -. It is the policy under which relatively large amounts of cash and marketable securities and inventories are carried, and sales are stimulated by a liberal credit policy which results in a high level of receivables. This also creates the longer receivable collection period. Thus this policy provides the lowest expected return in investment with lower risk. (Weston & Brigham; 1996:344)

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

(iii) **Moderate policy:** - It is the policy that is between the relaxed and restrictive policies. In moderate policy, a firm holds the amount of current assets in between the relaxed and restrictive policies. Both risk and returns are moderate in this policy.

**b) Current Assets Financing Policy:** - It is the manner in which the permanent and temporary current assets are financed. Current assets are financed with funds raised from different sources. But cost and risk affect the financing of any assets. Thus, current assets financing policy should clearly outline the sources of financing of currents. There are three variants namely aggressive, conservative and batching policies of current assets financing.

(i) **Aggressive Policy**: - In aggressive policy, all the fixed assets of a firm are financed with long-term capital, but some of the firm's permanent current assets are financed with short-term, non spontaneous sources of fund. (Weston & Brigham; 1996:348). In other words, the firm finances not only temporary current assets but also a part of permanent current assets with short-term

financing. (Weston & Brigham; 1996:347) In general, interest rate increases with time, i.e., the shorter the time, lower the interest rate. It is because lenders are risk adverse and risk generally increases with the length of lending period. Thus, under normal circumstances, the firm borrows on a short term financing rather than that from long term financing. On the other side, if the firm finances its permanent current assets by short term financing, then it runs the risk of renewing the borrowing again and again. This future interest expenses will fluctuate widely, and it may also be difficult for the firm to raise the funds during the stringent credit policy. In conclusion, there is higher risk, higher return and low liquidity position under this policy.

**(ii) Conservative Policy:** - In conservative policy, the firm uses long term financing to finance not only fixed assets and permanent current assets, but also part of temporary current assets i.e., with short term financing (Weston & Brigham; 1996:348). It means that the firm depends upon the long term sources for financing needs. This policy leads to high level of current assets, with long conversion cycle, low level of current liabilities and higher interest cost. The risk and return are lower than that of aggressive one. The risk adverse management follows this policy.

**(iii) Maturity Matching Policy:** - It is self-liquidity approach. In this policy, the firm finances the permanent current assets with long term financing and temporary with short term financing. It means that the firm matches the maturity of financing sources with an assets useful life. It lies in between the aggressive and conservative policies. It leads to neither high nor low level of current assets and current liabilities. It lies in between a low profitability. (Weston & Brigham; 1996:347) shows the temporary working capital is financed by short-term financing and long term financing. Thus, no working capital is financed by long-term funds. Hence, net working capital is zero under this policy.

## 2.5 Determinants of Working Capital

All the firms, whether public or private, manufacturing or non-manufacturing, must have adequate working capital to survive in competitive market. It should have neither too excess nor too adequate working capital. But, there are no sets of rules or formulate to determine the working capital requirement of the firm. It is because of a large number of factors that influence the working capital requirement of the firm. A number of factors affect different firm in different ways. Internal policies and changes in environment also affect the working capital. Generally, the following factors affect the working capital requirement of the firm. (Pandey; 1999:816)

**1. Nature and Size of business**

It depends upon the nature and size of the business. If the size of the firm is bigger, then it requires more working capital. While a small firm needs less working capital. Trading and financial firm requires large amount of working capital relatively to public utilities, while manufacturing concern lies between these two extremes.

**2. Growth and Expansion**

This also affects the working capital requirement of a firm. A growing firm needs more working capital than those static ones. However, it is difficult to precisely determine the relationship between growth and expansion of the firm and working capital needs.

**3. Credit Policy**

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

**4. Production Policy**

If a firm produces seasonal goods, then it sells the products in a certain month of the year. In this situation, it can either confine its production only that period when goods are sold or follow a steady production policy through the year and produce goods at level to meet

the peak demand. The former policy does not need more working capital than the latter does.

**5. Availability of Credit**

Availability of credit facility is another factor that affects the working capital requirement. If the creditors avail a liberal credit terms than the firm will need less working capital and vice-versa. In other words, if the firm can get credit facility easily on favorable conditions, it requires less working capital to run the firm smoothly otherwise more working capital is required to operate the firm smoothly.

**6. Manufacturing Cycle**

Working capital requirement of an enterprise is also influenced by the manufacturing or production cycle. If refers to the time involved to make the finished goods from the raw materials. During the process of manufacturing cycle, the larger will be working capital requirement and vice-versa.

**7. Profit Margin**

The level of profit margin differs from firm to firm. It depends upon the nature and quality of product, marketing management and monopoly power in the market. If the firm deals with the high quality product, has a sound marketing management and has enjoyed monopoly power in the market then it earns quite high profit and vice-versa. Profit is sources of working capital pool by generating more internal funds.

**8. Price Level Change**

Generally, a firm is required to maintain the higher amount of working capital, if the price level rises, because the same level of current assets needs more funds due to the increasing price. In conclusion, the implications of changing price level on working capital position will vary from firm to firm depending on the nature and other relevant consideration of the operation of the concerned firms.

**9. Operating Efficiency**

It is also the important factor, which influence the working capital requirement of the firm. It refers to the efficient utilization of available resources at minimum cost. Thus, financing manager can contribute to strong working capital otherwise it requires large amount of working capital.

**10. Level of Taxes**

The level of taxes also influences working capital requirement. The amount of taxes to be paid in advance is determined by the prevailing tax regulations. But the firm's profit is not constant or can't be predetermined. Tax liability in a sense of short term liquidity is payable in cash. Therefore, the provision for tax amount is one of the important aspects of working capital planning. If tax liability increases, it needs to increase the working capital and vice-versa.

## 2.6 Need for Working Capital

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

**a) Transaction Motive:** - Transaction motive require a firm to hold cash and inventories to facilities smooth production and sales operations in regular. Thus, the firm needs working capital to meet the transaction motive.

**b) Precautionary Motive:** - Precautionary motive is the need to hold cash and inventories to safeguard against the risk of the unpredictable change in demand and supply forces and other factors such as strike, failure of important customers, unexpected slow down in collection of account receivable, cancellation of some other order for goods and some other unexpected emergency. Thus, the firm needs the working capital to meet the contingencies in future.

**c) Speculative Motive:** - It refers to the desire of a firm to take advantages of the opportunities like opportunities of profit making investment, an opportunity of purchasing raw material at a reduced price on payment of immediate cash, to speculate on interest rate, and to make purchase at favorable price etc. Thus, the firm needs the working capital to meet the speculative motive. (Van Horne & Wachowicz;1999:220)

## 2.7 Financing of Working Capital

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

a) **Long term Financing:** - Long term financing has high liquidity and low profitability. Ordinarily share, debenture, preference share, retained earning and long term debts from financial institution are the major sources of long term financing. Even it includes retained earnings and long term loan from Nepal Industrial Development Corporation and long term other commercial banks.

**b) Short Term Financing:** - Firm must arrange short term credit in advance. The sources of short term financing of working capital are trade credit and bank borrowing.

**c) Trade Credit:** - It refers to the credit that a customer gets from suppliers of goods in the normal course of business. The buying firms does not have to pay cash immediately for the purchase is called trade credit. It is mostly an informal arrangement and granted on an open account basis. Another form of trade credit is bills payable. It depends upon the term of trade credit.

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

**(i) Loan Arrangement:** - Under this arrangement the entire amount of loan is given credit by the bank to the borrowers account, and the loan is repaid in installments, interest is payables on actual balance outstanding.

**(ii) Overdraft Arrangement:** - Under this arrangement the borrowers is allowed to overdraw on his current account with the bank up to stipulate limit. Within this limit, any numbers of drawings are permitted. Repayment should be made in short period.

**(iii) Commercial Papers:** - It is used only be well-established high quality companies. The evidence of debts is an unsecured short term promissory note sold in the money market. It is sold either through dealers or directly to inventories. Besides the above form of credit, bank provide loan against the warehouse receipt, inventory receivable. In our context, most popular sources of short term financing are short term loan from public deposit, which is also a major source of working capital financing in our country.

**e) Spontaneous Financing:** - Spontaneous financing arises from the normal operation of the firms. The two major sources of such financing are trade credit (i.e., credit and bills payable) and accruals. Whether trade credit is free of cost or not actually depends upon the terms of trade credit. Financial manager of the firm would like to finance its working

capital with spontaneous sources as much as possible. In practical aspect, the real choice of current assets financing is either short term or long term sources. Thus, the financial manager concentrates his power in short term versus long term financing. Hence, the financing of working capital depends upon the working capital policy, which is perfectly dominated by the management attitude towards the risk return. (Pandey;1999:827)

## 2.8 Significance of Working Capital Management

The management of working capital is important for several reasons. For one thing, the current assets of a typical manufacturing firm account for over half of its total assets. For a distribution company, they account for even more. Excessive levels of current assets can easily result in a firm realizing a substandard return on investment. However, firms with too few current assets may incur shortages and difficulties in maintaining smooth operations.

For small companies, current liabilities are the principal source of external financing. These firms do not have access to the long term capital markets, other than to acquire a mortgage on a building. The fast-growing but larger company also makes use of current liability financing. For these reasons, financial manager and staff devote a considerable portion of their time to working capital matters. The management of cash, marketable securities accounts receivables, account payable, accruals, and other means of short term financing is the direct responsibility of the financial manager; only the management of inventories is not. Moreover, these management responsibilities require continuous, day-to-day supervision. Unlike dividend and capital structure decisions, we cannot study the issue, reach a decision, and set the matter aside for many months to come. Thus, working capital management is important, if for no other reason than the proportion of the financial manager's time that must be devoted to it. More fundamental, however, is the effect that working capital decisions have on the company's risk, return and share price. (Van Horne & Wachowicz; 1999:204)

### Profitability and Risk

Underlying sound working capital management lie two fundamental decision issues for the firm. They are the determination of: -

- The optimal level of investment in current assets.
- The appropriate mix of short-term financing used to support this investment in current assets.

In turn, these decisions are influenced by the trade-off that must be made between profitability and risk. Lowering the level of investment in current assets, while still being able to support sales, would lead to an increase in the firm's return on total assets. To the extent that the explicit costs of short-term financing are less than those of intermediate and long-term financing, the greater the proportion of short-term debt to total debt, the higher is the profitability of the firm.

Although short-term interest rates sometimes exceed long-term rates, generally they are less. Even when short-term rates are higher, the situation is likely to be only temporary. Over an extended period of time, we would expect to pay more in interest cost with long-term debt than we would with short-term borrowings, which are continually rolled over (refinanced) at maturity. Moreover, the use of short-term debt as opposed to longer term debt is likely to result in higher profits because debt will be paid off during periods when it is not needed.

These profitability assumptions suggest maintaining a low level of current assets and high proportion of current liabilities to total liabilities. This strategy will result in a low, or conceivably negative, level of net working capital. Offsetting the profitability of this strategy, however, is the increased risk to the firm. Here, risk means jeopardy to the firm for not maintaining sufficient current assets to

- meet its cash obligations as they occur
- support the proper level of sales (e.g. running out of inventory)

## 2.9 Review of Journal and Articles

Working capital management in public enterprises; published by **Manohar Krishna Shrestha (1982)**. The researcher studied working capital management of ten selected public enterprises. Specially, he has 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 turnover side, two public enterprises had negative working capital turnover, four had adequate turnover, and one had higher turnover on net working capital. He had also found out that 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 brought certain policy issues. This is as lack of suitable financial planning, negligence of working capital management, deviation between liquidity and turnover of assets inability 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. (Shrestha; 1982:12)

**R.S. Pradhan (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 of the presence of economics of scale, roles of capital cost, capacity utilization rates and the speed with which actual cash and inventories and 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 result suggests 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 working capital utilization on the demand for inventories, receivables and gross working capital is doubtful. (Pradhan; 1988:125)

## What is Working Capital?

Firms need cash to pay for all their day-to-day activities. They have to pay for raw materials, pay bills and so on. The money available to them to do this is known as the firm's working capital. The main sources of working capital are the current assets as these are the short term assets that the firm can use to generate cash. However, the firm also has current liabilities and also so these have to be taken account of when working out how much working capital has at its disposal.

Working capital is therefore: -

Working Capital = Current Assets – Current Liabilities

Where, current assets include stock, debtors and cash.

Thus, working capital is the same as net current assets and is an important part of the top half of the firm's balance sheet. It is vital to a business to have sufficient working capital to meet all its requirements. Many businesses have gone under, not because they were unprofitable, but because they suffered from shortages of working capital. (www.bized.ac.uk)

Working Capital refers to the cash a business requires for day-to-day operations, or, more specially, for financing the conversion of raw materials into finished goods, which the company sells for payment. Among the most important items of working capitals are levels of inventory, accounts receivable, and account payable. Analysts look at these items for signs of a company's efficiency and financial strength.

Take a simplistic case: a spaghetti sauce company uses $ 100 to build-up its inventory of tomatoes, onions, garlic, spices, etc. A week later, the company assembles the ingredients into sauce and ships it out. A week after the checks arrives from customers. That $ 100, which has been tied up for two weeks, is the company's working capital. The quicker the

company sells the spaghetti sauce, the quicker the company can go out and buy new ingredients, which will be made into more sauce sold at profit.

If the ingredients sit in inventory for a month, company cash stays tied-up and can't be used to grow the spaghetti business. Even worse, the company can be left strapped for cash when it needs to pay its bills and make investments. Working capital also gets trapped when customers do not pay their invoices on time or suppliers get paid too quickly or not fast enough.

The better a company manages its working capital, the less the company needs to borrow. Even companies with cash surpluses need to manage working capital to ensure that those surpluses are invested in ways that will generate suitable returns for investors. (http//www.investopedia.com)

## 2.10 Review of Previous Thesis

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

Joshi, Arjun Lal (1986) has studied on the topic "A study on working capital management of Birat Nagar Jute Mill Ltd.". The main objective of the study is to show the composition of working capital and relationship between working capital and working capital components. To fulfill these objectives, he has taken five-year study period and used secondary data. The researcher found out that inventory, cash and bank balance, receivable and components of working capital. The major portion of current asset has been occupied by inventory and cash, which have not been efficiently managed. The company has relied heavily on bank support for meeting additional funds without making the best utilization of realized funds. Receivable turnover is in favorable condition. Collection period is also favorable. It means the company can change in cash in very short period.

The major findings of the study are: -

- Inventory held major share of current assets followed by debtors and very negligible cash balance.
- The company held poor liquidity position and was financed by short term sources (short term bank credit.
- The company had not earned sufficient profit even to pay the interest on short term loans.

Pathak Pradeep Kumar (1994) conducted a research on "An Evaluation of Working Capital Management of Nepal Lube Oil Limited.". The main objective of the study is to apprise 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.

The researcher found out the current assets with respect to total assets is 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 the 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 liabilities and quick asset and current liability was.

## 2.11 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 Standard Chartered Bank Nepal Limited (SCBNL) and Himalayan Bank Limited (HBL). 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 Chartered Bank Nepal Limited and Himalayan Bank Limited" 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 and people.

# CHAPTER-III

# RESEARCH METHODOLOGY

## 3.1 Introduction

Research methodology is a sequential procedure and collection of scientific methods to be adopted in a systematic study. In other worlds, research methodology describes the methods and process applied in the entire aspect of the study. It is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his/her research problem along with the logic behind them. Thus, this chapter deals with research design, nature of data, data gathering procedure, population and samples, and data processing procedures.

## 3.2 Research Design

This study aims to portray accurately upon the working capital (or current assets and current liabilities) and its impact on overall financial position of two banks under consideration, namely, Standard Chartered Bank Nepal Limited and Himalayan Bank Limited. The research methodology followed for this study is basically descriptive cum analytical research design.

## 3.3 Population and Sample

Nowadays a number of commercial banks have been emerging rapidly. Some have already been established and others are in the process of establishment. Currently, there are 32 commercial banks in Nepal. In this study, all the commercial banks are population of study. Among them SCBNL and HBL are joint venture banks which have been selected as samples for the present study. The sample size constitutes 6.25% of the total population. For analysis purposes, financial statements only from preceding five year period are used.

## 3.4 Period Covered

As mentioned earlier, this study covers a period of five years from B.S. 2063/64 to 2067/68. The analysis is done on the basis of the data for these five years.

## 3.5 Nature and Sources of Data

The data used in this study are secondary in nature. Published annual reports of the concerned banks are taken as basic source of data. The data relating to financial performance are directly obtained from the concerned banks. Similarly, related books, magazine, journals, articles, reports, bulletins, data from Nepal Stock Exchange and Nepal Rastra Bank, Central Bureau of statistics, related website from internal sources etc. as well as other supplementary data and various economic surveys are also used. Previous related studies to the subject are also counted as source of information.

## 3.6 Data Gathering Procedure

Since the data have been obtained from secondary sources, after collection of financial statement, master sheet of financial data have been extracted and tabulated as per the need of this study. In order to process the data, financial statement and other available information were reviewed. These data were grouped in different tables and charts according to their nature. Most of the data have been compiled in one form and processed and interpreted as required.

## 3.7 Tools of Data Analysis

Financial as well as the statistical tools are used to make the analysis more convenient, reliable and authentic. For data analysis, different items from the balance sheet and other statements are tabulated. Their ratios, percentages, mean, standard deviations, and coefficients of variations are then calculated and presented in the tables. To study the relationship between two or more variables, correlation coefficients are also calculated. In order to know about the sources and applications of the fund, funds flow statement is prepared. Likewise, trend analysis is also used to know the trend of various ratios.

Following are the brief introductions of the financial and statistical tools used in this study.

### 3.7.1 Financial Tools

Financial tools are calculated to ascertain the financial condition of the firm. It is the relationship between financial variables contained in the financial statements. (i.e. balance sheet, profit and loss account and income statements). It helps the related parties to spot out the financial strength and weakness of the firm. There are several financial tools which can be applied in order to analyze the performance of commercial banks. The financial tools used in this study are as follows: - Liquidity Ratio, Activity Ratio, and Profitability Ratio. Similarly, net working capital and composition of working capital in terms of cash and bank balance percentage, loan and advances percentage government securities percentage and miscellaneous current assets percentage are also calculated.

**1. Liquidity Ratio: -** This ratio measures the liquidity position and short term solvency of the firm indicating the company's ability to meet short term obligations. Liquidity ratio measures the firm's ability to meet current obligations. In fact analysis of liquidity needs for the preparation of cash budgets and cash and funds flow statement but liquidity ratios, by establishing a relationship between cash and other current assets to current obligations, provides quick measure of liquidity. A firm should ensure that it does no suffer from lack of liquidity and also that it does not have excess liquidity.

**a) Current Ratio: -** The Current ratio is a measure of the firm's short-term solvency. It indicates the availability of current assets in rupees for every one rupee of current liability. 2:1 is normal standard of current ratio. A ratio of greater than one means, that the firm has more current assets than current liabilities.

$$\text{i.e. Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liability}}$$

Current assets include cash and other assets which can be converted into cash within one year i.e. debtors, inventories, account receivable, bills purchased, marketable securities, discount, advances and overdraft and prepaid expenses etc. The current liability is defined as liability which are short-term maturing obligation to be met within a year i.e. bills payable, banks credit, trade creditors, provision for taxation, dividends payable and outstanding expenses etc.

**b) Quick Ratio: -** Quick ratio is used to measure the ability of concerned firms to pay current obligation (Short term) without depending on other liquid assets of current ratio. It provides relationship between quick assets with current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of value. Cash is the most liquid asset. Other assets which are considered to be relatively liquid and included in quick assets are book debts and marketable securities. This quick ratio can be found out by dividing the total quick assets by total liabilities.

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

**c) Cash and Bank Balance to Deposit Ratio (without fixed deposits):** - This ratio is used to measure whether bank and cash balance is sufficient to cover its current call margin including deposits (excluding fixed deposits). The ratio is calculated as: -

$$\text{CBBDR} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposits (except fixed deposits)}}$$

d) **Savings Deposit to Total Deposit Ratio:** - Saving Deposit is an 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 calculated by dividing the total amount of savings deposits by the amount of total deposits which can be expressed as follows: -

$$\text{Savings Deposit to Total Deposit Ratio} = \frac{\text{Savings Deposits}}{\text{Total Deposits}}$$

**2. Activity or Turnover Ratio**

The funds of creditors and owners are invested in various assets to generate sales and profit. Activity ratios are used to evaluate the efficiency with which the firm manages and utilizes its assets. This ratio indicates how quickly certain assets are converted into cash. From this ratio it can be known whether or not the business activities are efficient. These ratios are also called turnover ratios because they indicate speed with which assets are converted or turnover into profit generating assets. These ratios, moreover, help in measuring the banks' ability to utilize their available resources. Following ratios are used under the activity ratios.

**a) Loan and Advances to Total Deposit Ratio:** - The ratio assesses to what extent the bankers are able to utilize the depositor's fund to earn profit by providing loans and advances. In other words, how quickly total collected deposits are converted into loans and advances given to the client to earn income. It is computed by dividing the total amount of loan and advances to total deposit fund. Higher ratio indicates higher/proper utilization of funds and low ratio is the signal of inefficiency or remaining idle.

$$\text{Loans and Advances to Total Deposit Ratio} = \frac{\text{Total Loans and Advances}}{\text{Total Deposits}}$$

**b) Loan and Advances to Fixed Deposit Ratio:** - This ratio differs slightly from the former one because it includes the fixed deposits only. The ratio measures how many much amount is used in loans and advances in comparison to fixed deposits. Fixed deposits are interest bearing long term obligations where as loan and advances are the major sources of investment in generating income for commercial banks. It is calculated as follows: -

Loans and Advances

$$\text{Loan and Advance to Fixed Deposit Ratio} = \frac{}{\text{Fixed Deposits}}$$

**c) Loan and Advance to Saving Deposits Ratio:** - This ratio assesses, how many times the fund is used to loan and advances against saving deposit. This ratio is also employed for the purpose of measuring utilizations of savings deposits in generating revenue by giving loan and advances to the client i.e., to determine to what extent collected saving deposit amount is being deployed in providing loan and advances to generate income. Saving deposits are interest bearing obligation for short term purpose whereas loan and advances are the short term investment for revenue income. This ratio indicates how much short term interest bearing deposits are utilized for income generating purpose. The formula for this ratio is as follows: -

$$\text{Loans and Advances to Saving Deposit Ratio} = \frac{\text{Loans and Advances}}{\text{Total Saving Deposits}}$$

## 3. Profitability Ratio

Profit is the difference between revenues and expenses over a period of usually one year. Profit is the ultimate output of a company and it will have no future fails to make sufficient profit. Therefore, the financial manager should continuously evaluate the efficiency of the company in terms of profits. The profitability ratio is calculated to measure the operating efficiency of the company. Profitability ratio can be determined on the basic of either sales or investment. Major profitability ratios are as under: -

**a) Interest Earned to Total Assets Ratio:** - This ratio is used to determine total interest earned from investments over the total assets of a firm. It can be computed as follows: -

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

**b) Net Profit to Total Assets Ratio: -** Profit to total assets ratio is useful in measuring the profitability of all financial resources invested compared to total assets of a firm. This ratio is calculated by dividing the amount of net profit by the amount of total assets employed.

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

**c) Net Profit to Total Deposit Ratio: -** This ratio measures the percentage of profit earned from the utilization of the total deposits. Deposits are mobilized for investment, loan and advances to the public in generating revenue. Higher ratio indicates the return from investment on loans and lower ratio indicates that the funds are not properly mobilized.

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

**4. Composition of Working Capital: -** To operate a business, different kinds of assets are needed. For the day-to-day business operation, different types of current assets are utilized. In case of SCBNL and HBL, the main components of current assets are cash and bank balance, loan and advances and government securities. Miscellaneous current assets are also a component of current assets. Prepaid expenses, outstanding income like interest receivable and other current assets are included in miscellaneous current assets.

In this study, composition percentages of following components: -

- Cash and Bank Balance percentage
- Loan and Advance percentage
- Government securities percentage
- Miscellaneous current assets percentage

**5. 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 arise when current assets exceed current liabilities. A negative net working capital occurs when current liabilities are in excess of current assets.

### 3.7.2 Statistical Tools

Various financial tools mentioned above were used to analyze the working capital management of SCBNL and HBL. Likewise, the relationship between different variables related to the study topics were also drawn out using statistical tools.

**a) Mean or average: -** The mean or average value is a single value within the range of the data that is used to represent all the values in the series. Since an average is somewhere within the range of the data, it is also called a measure of central value. Average value is determined by adding together all the terms and by dividing this total by the number of items. The formula is given below: -

$$\bar{x} = \frac{\sum x}{n}$$

**b) Standard Deviation:** - The standard deviation is the measure that is most often used to describe variability in data distribution. It can be thought of as a rough measure of the average amount by which observations deviate on either side of the mean. Denoted by Greek letter ± (read or sigma), standard deviation is extremely useful for judging the representatives of the mean. Standard Deviation is represented by: -

$$\text{Standard deviation } (\exists) = \sqrt{\frac{(X - \bar{X})^2}{n - 1}}$$

*Where,*

X = Expected return of the historical data.

N = Number of observations.

$\sum$ = Summation

**c) Coefficient of Variation:** -The relative measure of dispersion is the co-efficient of variation, comparable across distribution, which is defined as the ratio of the standard deviation to the mean expressed in percent.

In symbol: -

$$C.V. = \frac{\exists}{\overline{X}} \times 100$$

*Where,*

$\pm$ = Standard deviation

$\overline{X}$ = Mean value of variances

Coefficient of variance is also useful in comparing the amount of variation in data groups with different mean. It is the relative measure of dispersion. A distribution with smaller coefficient is said to be more homogeneous than the other. On other hand, a series with greater coefficient of variance is said to be more variable of heterogeneous than the other (Gupta, S.C.; 2000:416)

**d) Coefficient of Correlation**: - Correlation is a statistical tool which is used to describe the degree to which is used to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship between two sets of figures. Among the various methods of finding out coefficient of correlation, Karl Pearson's method is applied in the study. The result of coefficient of correlation is always between +1 and -1. When r, the coefficient of correlation is +1, there is perfect relationship between two variables and vice-versa. When r is 0, there is no relationship between two variables. The formula for the calculation of coefficient of correlation between X and Y is given below: -

$$r = \frac{XY}{\sqrt{X^2 \; Y^2}}$$

Also, the test of significance of correlation coefficient has been done in this study. In order to test whether the correlation coefficient is significant to the correlation between the two variables, paired sample t-test has been applied at the standard significance level of 5%. If calculated value of t is greater or equal to its tabulated value, correlation is significant or else it is not significant.

**e) Trend Analysis**

Trend analysis is an analysis of financial ratio over time used to determine the improvement of determination of its financial situation. The trend line is represented by following equation.

$Y_C = a + bx$, where

$Y_C$ = Estimated value of Y for given value of x in coordinate axes,

a = Y intercept of mean of Y value,

b = slope of the line or rate of change

x = variable in time axis

To find the values of a & b, we have to solve the following equations

$Y = Na + b \quad X$ …….. (i)

$XY = a \quad X + b \quad X^2$ …… (ii)

Where, N = Number of years

To make calculation easier, the deviation of the independent variable (i.e. time) are taken from the middle of the time period so that $X = 0$, then the above two equation changes to simple fraction where we can determine the value of a and b.

**f) Test of Hypothesis**

A hypothesis is a conjectural statement of the relation between two or more variables. Hypothesis is always in declarative sentence form and they relate either generally or specifically, variables to variables. There are two criteria for 'good' hypothesis and hypothesis statement. One hypothetical statement is about the relations between variables. Second hypothesis carries a clear implication for testing the stated relation. These criteria mean the hypothesis statement certain two or more variables that are measurable and they specify how are related.

As stated in chapter one, some conceptual frame work of null and alternative hypothesis between SCBNL and HBL in various variables are formulated and tested as follows: -

For the study some set of null hypothesis have been formulated and tested.

(i) $H_0$ : There is no significant difference in composition of working capital between SCBNL and HBL.

$H_1$ : There is significant difference in composition of working capital between SCBNL and HBL.

(ii) $H_0$ : There is no significant difference in liquidity position between SCBNL and HBL.

$H_1$ : There is significant difference in liquidity position between SCBNL and HBL.

(iii) $H_0$ : There is no significant difference in profitability position between SCBNL and HBL.

$H_1$ : There is significant difference in profitability position between SCBNL and HBL.

To test the validity of our assumption, if sample size is less than 30, t-test is used. For applying t-test in the context of small sample, the t-value is calculated first and compared with the table value of t at a certain level of significance (say on 5%) for given degree of freedom. If calculated value of t exceeds the table value, we infer that the null hypothesis is rejected i.e., the difference is significance at 5% level of significance. But if it is less than the concerning table value of t, the null hypothesis is accepted i.e. the difference is not treated as significant.

# CHAPTER-IV

# PRESENTATION AND DATA ANALYSIS

## 4.1 Introduction

The major objective of this study is a comparative study of the management of working capital of Standard Chartered Bank Nepal Limited and Himalayan Bank Limited. To achieve the objective set in this study, data are presented and analyzed in this chapter. On the whole, this chapter is related to quantity analysis of various ratios. Some quality-oriented analysis has also been done in order to make the result realistic and complete to the possible extent.

The major variables of the study are cash and bank balance, loan and advances, and investment of government securities. Relevant data and information of working capital as well as financial performance of SCBNL and HBL are presented, compared and analyzed accordingly.

Analysis is performed using various financial and statistical tools. In financial tools, it uses ratio analysis in which various related ratios have been compared and analyzed such as liquidity ratios, turnover ratios, profitability ratios and composition of working capital. In statistical tools, it uses trend analysis, correlation analysis and hypothesis test.

## 4.2 Composition of Working Capital and its Trend Analysis

To operate the business, different kinds of assets are needed. For day-to-day business operation, different types of current assets are required. The main components of current assets at SCBNL and HBL are cash and bank balance, loan and advances and investment on government securities. Here, loan and advances mean only short-term Loan and Advances. Miscellaneous current assets are also a component of current assets. Prepaid expenses, outstanding incomes, for example, interest receivable, and other current assets are included in miscellaneous current assets.

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

**Table 4.1**

**Current Asset Components of SCBNL (Rs. in Million)**

| Fiscal Year | Cash & Bank Balance | Loan & Advances | Government Securities | Misc. Current Assets | Total Current Assets |
|---|---|---|---|---|---|
| **2063/64** | 1111.11 | 8143.20 | 5089.37 | 985.13 | 15328.81 |
| **2064/65** | 1276.24 | 8935.41 | 7210.50 | 998.15 | 18420.30 |
| **2065/66** | 2021.02 | 10502.63 | 5995.10 | 1054.58 | 19573.33 |
| **2066/67** | 2050.24 | 13718.59 | 7157.73 | 1104.52 | 24031.08 |
| **2067/68** | 3137.16 | 13679.75 | 9050.98 | 1184.04 | 27051.93 |

(Source: - Annual Report 2064-68)

**Table 4.2**

**Current Asset Components of HBL (Rs. in Million)**

| Fiscal Year | Cash & Bank Balance | Loan & Advances | Government Securities | Misc. Current Assets | Total Current Assets |
|---|---|---|---|---|---|
| **2063/64** | 2014.47 | 13451.66 | 4819.70 | 512.23 | 20798.06 |
| **2064/65** | 1717.35 | 15761.97 | 4565.32 | 512.23 | 22556.87 |
| **2065/66** | 1757.34 | 17793.72 | 6070.37 | 610.56 | 26231.99 |
| **2066/67** | 1448.14 | 20179.62 | 7166.54 | 658.87 | 29453.17 |
| **2067/68** | 3048.52 | 25519.52 | 3907.34 | 638.25 | 33113.63 |

(Source: - Annual Report 2064-68)

From the above tables, total amount of current asset components of HBL is seen higher than that of SCBL. Due to unequal volume of the components, percentage of components of current assets is required for comparative analysis.

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

**Table 4.3**

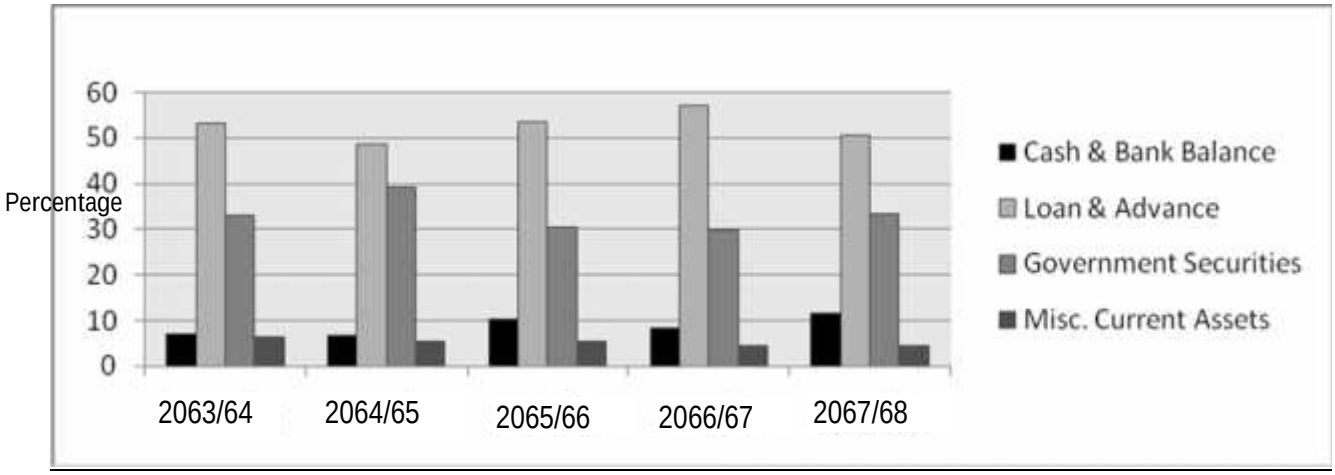
**Percentage Components of Current Assets of SCBNL**

| Fiscal Year | Cash & Bank Balance | Loan & Advances | Government Securities | Misc. Current Assets | Total Current Assets |
|---|---|---|---|---|---|
| **2063/64** | 7.24 | 53.12 | 33.21 | 6.43 | 100 |
| **2064/65** | 6.93 | 48.51 | 39.15 | 5.41 | 100 |
| **2065/66** | 10.33 | 53.66 | 30.63 | 5.38 | 100 |
| **2066/67** | 8.53 | 57.08 | 29.79 | 4.60 | 100 |
| **2067/68** | 11.60 | 50.56 | 33.46 | 4.38 | 100 |
| **Average** | 8.92 | 52.58 | 33.25 | 5.24 | |
| **Std. Dev.** | 1.79 | 2.91 | 3.27 | 0.72 | |
| **C.V.** | 0.20 | 0.055 | 0.098 | 0.13 | |

(Source: - ANNEX 4, 5, 6 and 7)

**Graph 4.1**

Bar Diagram of Percentage Composition of SCBNL's Current Assets




The above table 4.3 describes the value of current assets which are divided into Cash and Bank Balance , Loan and Advances, Government Securities and Miscellenous Current

Assets of SCBNL. The total of which comprises the Total Current Assets. All the parts are described in detail on each of their respective headings.

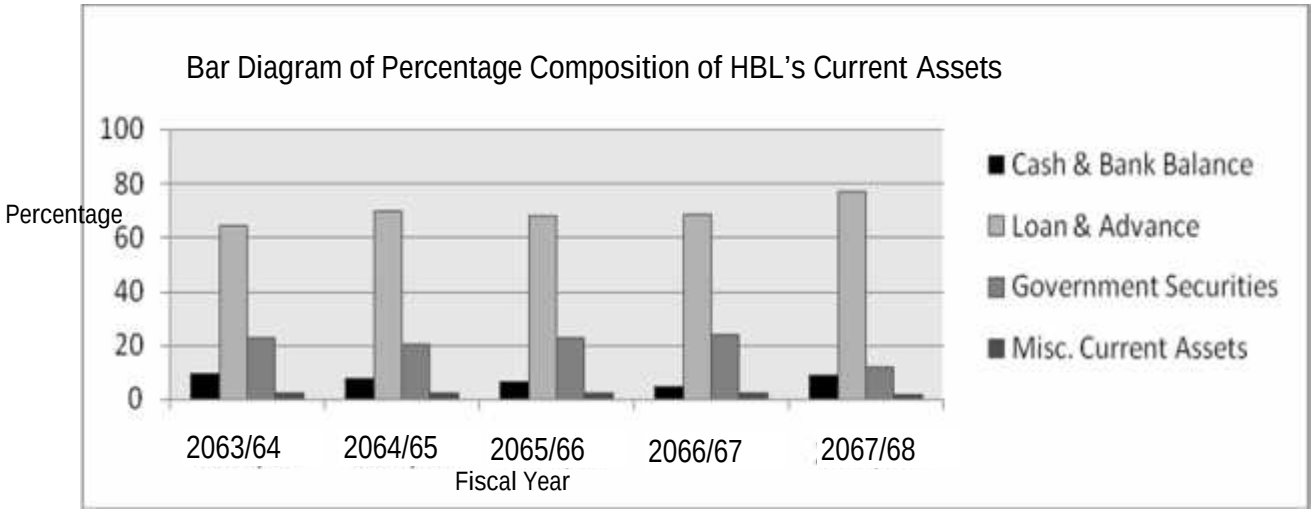
**Table 4.4**

**Percentage Components of Current Assets of HBL**

| Fiscal Year | Cash & Bank Balance | Loan & Advances | Government Securities | Misc. Current Assets | Total Current Assets |
|---|---|---|---|---|---|
| **2063/64** | 9.68 | 64.68 | 23.18 | 2.46 | 100 |
| **2064/65** | 7.62 | 69.87 | 20.23 | 2.28 | 100 |
| **2065/66** | 6.69 | 67.84 | 23.15 | 2.32 | 100 |
| **2066/67** | 4.91 | 68.52 | 24.34 | 2.23 | 100 |
| **2067/68** | 9.21 | 77.07 | 11.80 | 1.92 | 100 |
| **Average** | 7.62 | 69.60 | 20.54 | 2.24 | |
| **Std. Dev.** | 1.73 | 2.67 | 4.57 | 0.17 | |
| **C.V.** | 0.22 | 0.038 | 0.22 | 0.078 | |

(Source: - ANNEX 4, 5, 6 and 7)

**Graph 4.2**



### 4.2.1 Cash and Bank Balance Percentage

Cash and Bank balance percentage of SCBNL fluctuated over the study period. It is highest (11.60%) in the fifth year and lowest (6.93%) in the second year of the study period. The average cash and bank balance percentage of SCBNL is 8.92%

Likewise, cash and bank balance percentage of HBL also fluctuated over the study period. It is highest (9.68%) in the first year and lowest (4.91%) in the fourth year of the study period. The average cash and bank balance percentage of HBL is 7.62%.

The study shows that average cash and bank balance percentage of SCBNL (8.92%) is higher than that of HBL (7.62%).

Similarly, standard deviation is 1.79% in SCBNL whereas it is 1.73% in HBL. Hence it shows SCBNL has higher risk factor than that of HBL. Likewise, coefficient of variation is 0.20 for SCBNL and 0.22 for HBL, indicating more variation in cash and bank balance maintaining in HBL compared to SCBNL.

From the calculation of cash and bank balance percentage trend as per ANNEX 1, the value of the constants a and b are as follows: -

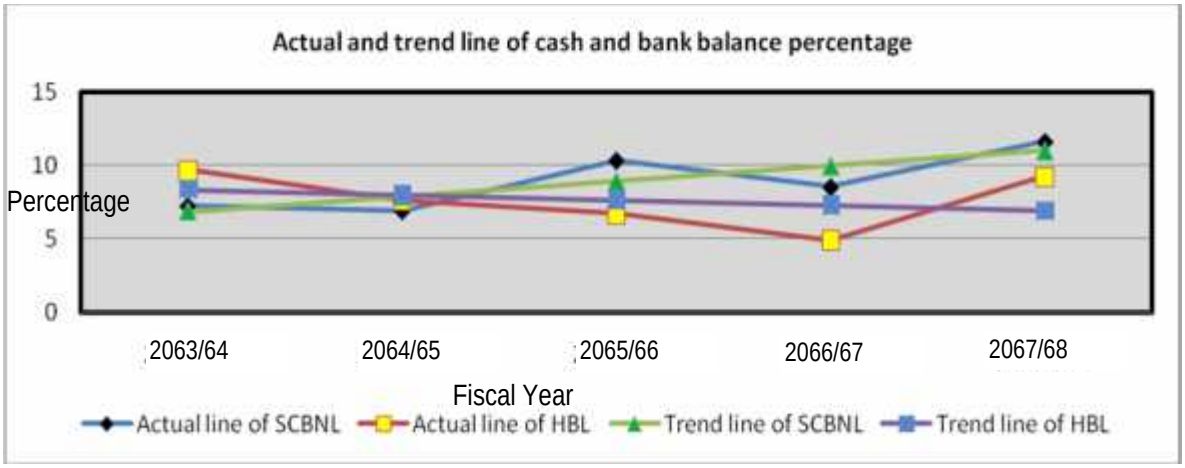
| SCBNL | HBL |
|---|---|
| a = 8.92% or 0.0892 | a = 7.62% or 0.0762 |
| b = 1.032 | b = -0.365 |

The rate of change of cash and bank balance percentage of SCBNL has positive and HBL has negative.

It implies the decreasing cash and bank balance percentage to total current assets of HBL. The negative balance of HBL shows that fast decreasing in cash and bank balance percentage. Higher negative trend value of cash and bank percentage of HBL indicates the better utilization of cash on income generating sources. And positive trend value of cash

and bank percentage to SCBNL indicates the lower utilization of cash on income generating source than HBL.

**Graph 4.3**




Graph 4.3 depicts that the trend line of SCBNL is lower than HBL for initial study period and then the trend line of SCBNL is higher than HBL due to high cash and bank balance percentage. It helps to conclude that the average cash and bank balance percentage of SCBNL is higher than HBL. And trend value of cash percentages indicates than HBL rapidly reduced its cash percentage on total current assets than SCBNL. The trend value also shows that HBL effectively utilized its cash balance to invest in income generating sector.

### 4.2.2 Loan and Advances Percentage

Loan and Advances percentage of SCBNL are found fluctuating in the study period. It is decreasing in the second study period beginning of the year and little bit increasing in the third and forth study period and again decreasing in the final year of the study period. It is highest in the year 2066/67 i.e., 57.08% and lowest in the year 2064/65 i.e., 48.51%. The average loan and advances percentage of SCBNL is 52.58%. The loan and advance percentages of SCBNL are higher than the average in years 2063/64, 2065/66 and 2066/67. But it is lower than the average in years, 2064/65 and 2067/68.

In case of HBL, the loan and advance percentage are also found fluctuating in the study period. It is increasing in the second year, forth year and fifth year of the study period. The highest percentage of loan and advance of HBL is in the year 2067/68 i.e., 77.07% and lowest in year 2063/64 i.e., 64.68. %. The average loan and advance percentage of HBL is 69.60%. The loan and advance percentages of HBL are lower than the average in years 2063/64, 2065/66 and 2066/67. But it is higher than the average in years 2064/65 and 2067/68.

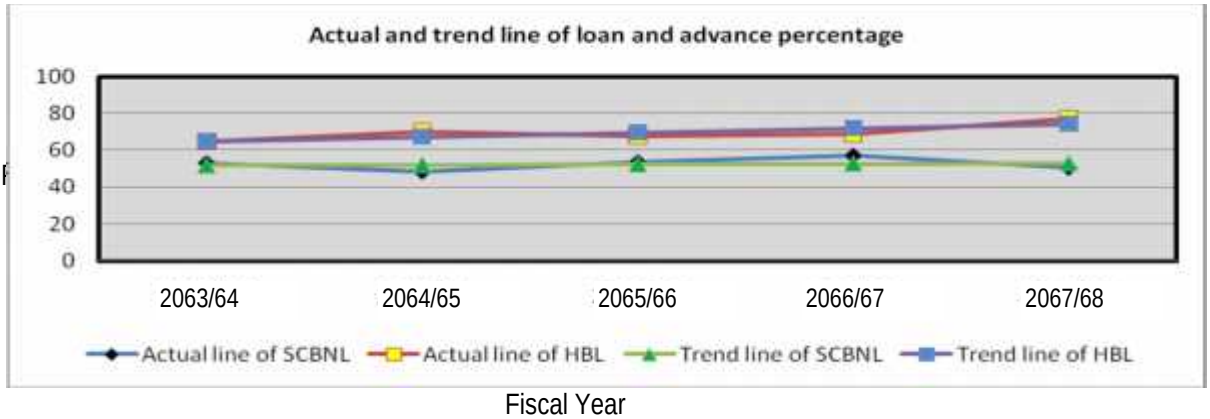
The standard deviation is 2.91% in SCBNL whereas it is 2.67% in HBL. Hence it shows SCBNL has higher risk factor than HBL that of. Likewise, coefficient of variation is 0.055 in SCBNL and 0.038 in HBL. Hence, more variation in loan and advance is maintained in SCBNL compared to. HBL

From calculation of loan and advance percentage trend as per ANNEX 2, the value of the constants a and b are as follows: -

| SCBNL | HBL |
|---|---|
| a = 52.58% or 0.5258 | a = 69.60% or 0.6960 |
| b = 0.345 | b = 2.343 |

The trend rates or the rate of change of loan and advances percentages b of both SCBNL and HBL are positive. It implies that the loan and advances of SCBNL and HBL are increasing.

**Graph 4.4**



Graph 4.4 shows that the trend line and actual line of loan and advances of HBL are always higher than SCBNL.

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

### 4.2.3 Government Securities

The Percentage of government securities is increasing of SCBNL in the study period. It is highest (39.15%) in the year 2064/65 and lowest (29.79%) in the year 2066/67. The average investment in government securities is 33.25%

Similarly, the percentage of government securities of HBL is fluctuating from the beginning of the year to the end of the year of the study period. It is highest (24.34%) in the year 2066/67 and lowest (11.80%) in the final year 2067/68. The average government securities percentage of HBL is 20.54%. The average government securities percentage of SCBNL (33.25%) is higher than that of HBL (20.54%).

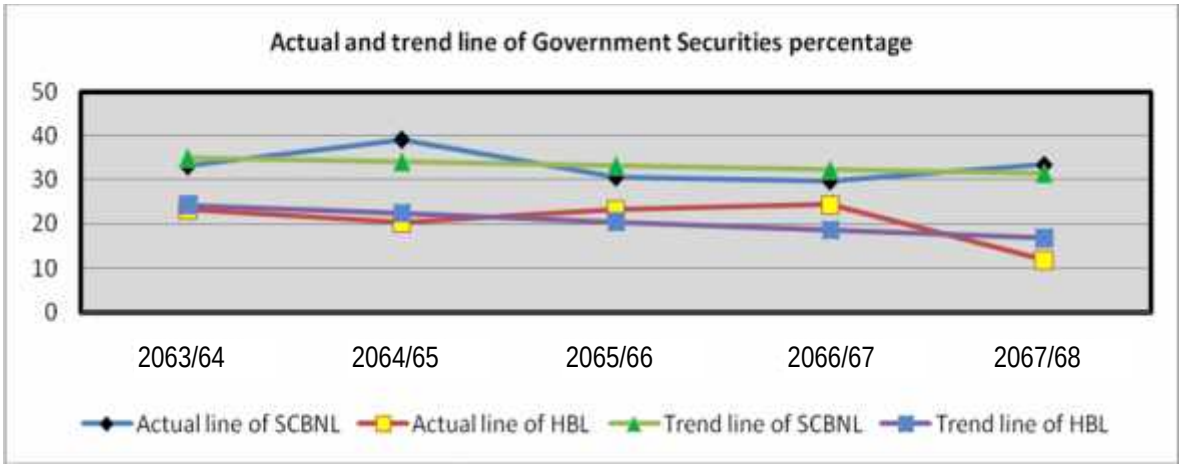
The standard deviation is 3.27% in SCBNL whereas it is 4.57% in HBL. Similarly, coefficient of variation is 0.098 in SCBNL and 0.22 in HBL. Hence, more variation in government securities is maintained in SCBNL compared to HBL.

From the calculation of government securities percentage trend as per ANNEX 2, the value of the constants a and b are as follows: -

| SCBNL | HBL |
|---|---|
| a =33.25 or 0.3325 | a = 20.54% or 0.2054 |
| b = -0.886 | b = -1.865 |

The trend rate or rate of change of government securities percentage b of both banks has positive which implies that the government securities is decreasing in both banks in total current assets.

**Graph 4.5**




Graph 4.5 shows that the trend line and actual line of government securities percentage of SCBNL are always higher than that of HBL.

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

### 4.2.4 Miscellaneous Current Assets Percentage

The percentage of miscellaneous current assets of SCBNL is decreasing every year of the study period. It is highest (6.43%) in the first year 2063/64 and lowest (4.38%) in the final year 2067/68. The average miscellaneous current assets percentage for SCBNL is 5.24%.

The percentage of miscellaneous current assets of HBL is decreasing every year except in the year 2065/66 of the study period. It is highest (2.46%) in the first year 2063/64 and lowest (1.92%) in the final year 2067/68. The average miscellaneous current assets percentage for HBL is 2.24%.

The standard deviation is 0.72% in SCBNL whereas it is 0.17% in HBL. Coefficient of variation is 0.13 in SCBNL and 0.078 in HBL. Hence, more variation in miscellaneous current assets is maintained in HBL compared to SCBNL.

## 4.3 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 arise 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 point of view. So, net working capital can be more useful for the analysis of trade-off between profitability and risk. It enables a firm to determine how much amount is left for operational requirement.

**Table 4.5**

**Net Working Capital of SCBNL (Rs. in Million)**

| Fiscal Year | Current Assets | Current Liabilities | Net Working Capital | % Change in NWC |
|---|---|---|---|---|
| **2063/64** | 15328.81 | 5235.64 | 10093.17 | 0.65 |
| **2064/65** | 18420.30 | 24123.74 | -5703.44 | -0.30 |
| **2065/66** | 19573.33 | 9762.96 | 9810.37 | 0.50 |
| **2066/67** | 24031.08 | 10622.14 | 13408.94 | 0.55 |
| **2067/68** | 27051.93 | 17854.39 | 9197.54 | 0.33 |
| **Average** | | | **7361.31** | |
| **C.V.** | | | **0.90** | |

(Source: - Annex 8)

**Table 4.6**

**Net Working Capital of HBL (Rs. in Million)**

| Fiscal Year | Current Assets | Current Liabilities | Net Working Capital | % Change in NWC |
|---|---|---|---|---|
| **2063/64** | 20798.06 | 17628.85 | 3169.21 | 0.15 |
| **2064/65** | 22556.87 | 18459.45 | 4097.42 | 0.18 |
| **2065/66** | 26231.99 | 21364.57 | 4867.42 | 0.18 |
| **2066/67** | 29453.17 | 24613.25 | 4839.92 | 0.16 |
| **2067/68** | 33113.63 | 29813.24 | 3300.39 | 0.09 |
| **Average** | | | **4054.87** | |
| **C.V.** | | | **0.17** | |

(Source: - Annex 8)

Table 4.5 shows that the net working capital of SCBNL is decreasing during the study period except the year 2065/66 and 2066/67. The average net working capital of SCBNL is Rs. 7361.31 million. The net working capital of SCBNL ranges from Rs. -5703.44 million to 13408.94 million.

In case of HBL, table 4.6 shows that the net working capital is is in increasing trend till year 2065/66 and decreases in the following years 2066/67 and 2067/68 of the study period. The average net working capital of HBL is Rs. 4054.87 million. The net working capital in HBL ranges from 3169.21 million to Rs. 4867.42 million. In the year 2064/65, the net working capital of SCBNL has negative, which shows in that year the bank has not sufficient liquidity to tackle short term liabilities. In other study period of both bank has positive net working capital, so both banks can pay short term liabilities.

## 4.4 Financial 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 least square is used to analyze performance.

## 4.4.1 Liquidity Ratios: -

Liquidity of any business organization is directly related with the working capital or current assets and current liabilities of that organization. In other words, one of the main objectives of working capital management is keeping sound 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 ratios have been calculated.

### 4.4.1.1 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: -

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

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

**Table 4.7**

**Current Ratio (Rs. in Million)**

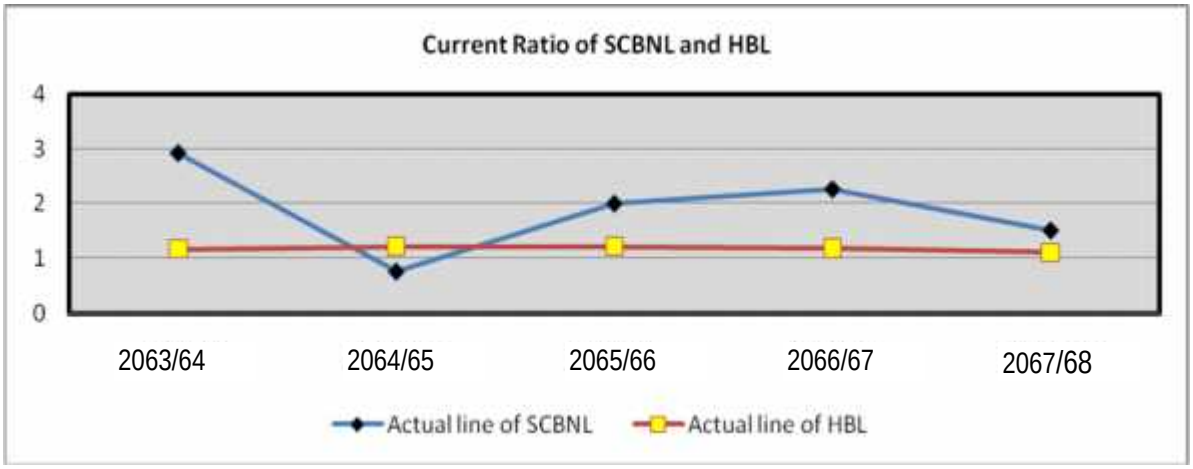
| Fiscal Year | SCBNL | | | HBL | | |
|---|---|---|---|---|---|---|
| | Current Assets | Current Liabilities | Ratio | Current Assets | Current Liabilities | Ratio |
| **2063/64** | 15328.81 | 5235.64 | 2.92 | 20798.06 | 17628.85 | 1.17 |
| **2064/65** | 18420.30 | 24123.74 | 0.76 | 22556.87 | 18459.45 | 1.22 |
| **2065/66** | 19573.33 | 9762.96 | 2 | 26231.99 | 21364.57 | 1.22 |
| **2066/67** | 24031.08 | 10622.14 | 2.26 | 29453.17 | 24613.25 | 1.19 |
| **2067/68** | 27051.93 | 17854.39 | 1.51 | 33113.63 | 29813.24 | 1.11 |
| **Average** | 1.89 | | | 1.18 | | |
| **Std. Dev.** | 0.72 | | | 0.040 | | |
| **C.V.** | 0.38 | | | 0.034 | | |

(Source: - Annex 9)

Table 4.7 depicts that the current assets and current liabilities of SCBNL are in fluctuating trend. Similarly in case of HBL, the current assets and current liabilities are increasing for all times. The current ratio of HBL is quite fluctuating and the current ratio of SCBNL is also in fluctuating trend. The highest current ratio of SCBNL is 2.92 in the year 2063/64 and lowest is 0.76 in the year 0.76. In HBL, the highest current ratio is 1.22 in the year 2064/65 and 2065/66 and lowest is 1.11 in the final year of the study period. The average current ratio of SCBNL is 1.89 and 1.18 of HBL. The yearly ratios of SCBNL are always higher than that of HBL except in the second year. Therefore, the average ratio of SCBNL is higher than that of HBL.

The standard deviation is 0.72 in SCBNL whereas it is 0.040 in HBL. Similarly, coefficients of variation are 0.38 in SCBNL and 0.034 in HBL. Hence, it shows there is more variation in current ratio maintained by SCBNL compared to HBL.

**Graph 4.6**




Graph 4.6 depict that the current ratio of SCBNL and HBL. It is clear from the above graph that current ratios of SCBNL are higher than HBL except second study period.

The above analysis helps to conclude that both banks are unable to maintain the standard current ratio of 2:1. Therefore, they have poor liquidity position according to norms however; they have sufficient current assets to discharge the current liabilities. Comparatively, the liquidity position of SCBNL is better than that of HBL. In other words, SCBNL has more ability to meets its current obligations than HBL.

#### 4.4.1.2. 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: -

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

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

**Table 4.8**

**Quick Ratio (Rs. in Million)**

| **Fiscal Year** | **SCBNL** | | | **HBL** | | |
|---|---|---|---|---|---|---|
| | **Quick Assets** | **Current Liabilities** | **Ratio** | **Quick Assets** | **Current Liabilities** | **Ratio** |
| **2063/64** | 6200.48 | 5235.64 | 1.18 | 6834.17 | 17628.85 | 0.38 |
| **2064/65** | 8486.74 | 24123.74 | 0.35 | 6282.67 | 18459.45 | 0.34 |
| **2065/66** | 8016.12 | 9762.96 | 0.82 | 7827.71 | 21364.57 | 0.36 |
| **2066/67** | 9207.97 | 10622.14 | 0.86 | 8614.68 | 24613.25 | 0.35 |
| **2067/68** | 12188.14 | 17854.39 | 0.68 | 6955.86 | 29813.24 | 0.23 |
| **Average** | 0.77 | | | 0.33 | | |
| **Std. Dev.** | 0.26 | | | 0.052 | | |
| **C.V.** | 0.35 | | | 0.15 | | |

(Source: - Annex 10)

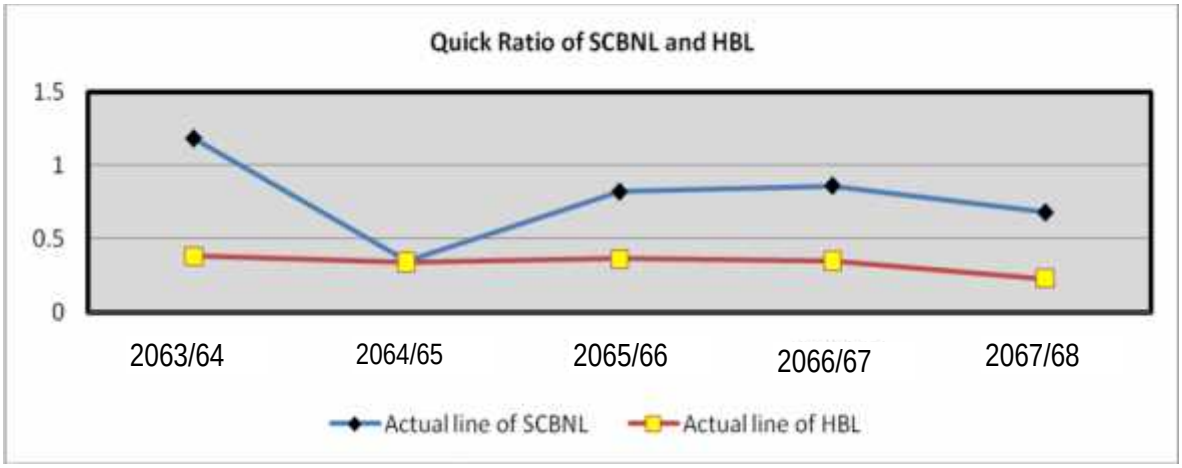
Table 4.8 shows that the quick ratios of SCBNL are in fluctuating trend for the study period. The ratio is highest (1.18) in the year 2063/64 and lowest (0.35) in the year 2064/65. The average quick ratio of SCBNL is 0.77.

The quick ratios of HBL are fluctuating over the study period. It is highest (0.38) in the initial study year 2063/64 and lowest (0.23) in the year 2067/68. The average quick ratio of HBL is 0.33.

The average quick ratio of SCBNL is higher than that of HBL.

The Standard deviation of SCBNL is 0.26 whereas HBL is 0.052. Similarly, coefficient of variation of SCBNL is 0.35 and 0.15 in HBL. Thus, coefficient of variation of SCBNL is higher than that of HBL which shows that there is more variation in quick ratio of SCBNL compared to HBL.

**Graph 4.7**




Graph 4.7 shows that the quick ratio of SCBNL and HBL. It is clear from the above graph that the quick ratios of SCBNL are always higher than HBL.

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

#### 4.4.1.3 Cash and Bank Balance to Deposit Ratio (Excluding Fixed Deposit)

This ratio is calculated as below: -

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

The following table shows the cash and bank balance to deposit ratio (excluding fixed deposit) of SCBNL and HBL.

**Table 4.9**

**Cash and Bank Balance to Deposit Ratio (Excluding Fixed Deposits (Rs. in Million)**

| Fiscal Year | SCBNL | | | HBL | | |
|---|---|---|---|---|---|---|
| | Cash and Bank Balance | Deposit | Ratio | Cash and Bank Balance | Deposit | Ratio |
| **2063/64** | 1111.11 | 17947.47 | 0.061 | 2014.47 | 18435.012 | 0.109 |
| **2064/65** | 1276.24 | 19789.032 | 0.064 | 1717.35 | 20093.85 | 0.085 |
| **2065/66** | 2021.02 | 20525.021 | 0.098 | 1757.34 | 21749.37 | 0.080 |
| **2066/67** | 2050.24 | 24504.99 | 0.083 | 1448.14 | 25418.78 | 0.056 |
| **2067/68** | 3137.16 | 25768.72 | 0.121 | 3048.52 | 28304.34 | 0.107 |
| **Average** | 0.0854 | | | 0.0874 | | |
| **Std. Dev.** | 0.022 | | | 0.019 | | |
| **C.V.** | 0.2576 | | | 0.2228 | | |

(Source: - Annex 11)

Table 4.9 demonstrates that the ratios of SCBNL are fluctuating over the study period. The ratios are increasing in the all year except in the year 2066/67. It is highest (0.121) in the years 2067/68 and lowest (0.061) in the year 2063/64. The average ratio of SCBNL is 0.0854.

In case of HBL, the ratios are fluctuating as well. It is decreased from the second year then after it is increased in final year. It is highest (0.107) in the first year and lowest is 0.056 in the years 2066/67. The average ratio of HBL is 0.0874.

The average ratio of HBL (0.0874) is higher than that of SCBNL (0.0.0854).

The standard deviation is 0.022 in SCBNL whereas it is 0.019 in HBL. Similarly, coefficient of variation of SCBNL is 0.2576 and 0.2228 in HBL. The coefficient of variation of SCBNL is higher than that of HBL. This explains that HBL is more preferable than SCBNL in terms of cash and bank balance to deposit ratio (except fixed deposit).

From the above analysis, it can be concluded that from the average ratios shows that liquidity position of HBL is better than SCBNL because it has higher average ratio than that of SCBNL. According to C.V., the cash and bank balance position with respect to total deposit except fixed deposit, is better in the case of HBL than SCBNL.

**4.4.1.4 Saving Deposit to Total Deposit Ratio**

This ratio is calculated as below: -

$$\text{Saving Deposit to Total Deposit Ratio} = \frac{\text{Saving Deposits}}{\text{Total Deposits}}$$

The following table summarizes the saving deposits to total deposit ratio of SCBNL and HBL

**Table 4.10**

**Saving Deposits to Total Deposit Ratio (Rs. in Million)**

| **Fiscal Year** | **SCBNL** | | | **HBL** | | |
|---|---|---|---|---|---|---|
| | **Saving Deposit** | **Total Deposits** | **Ratio** | **Saving Deposit** | **Total Deposits** | **Ratio** |
| **2063/64** | 13031 | 19363.47 | 0.67 | 12852 | 24814.012 | 0.51 |
| **2064/65** | 14598 | 23061.032 | 0.63 | 14583 | 26490.85 | 0.55 |
| **2065/66** | 15244 | 24647.021 | 0.61 | 15925 | 30048.41 | 0.52 |
| **2066/67** | 17856 | 29743.99 | 0.60 | 17973 | 31842.78 | 0.56 |
| **2067/68** | 19188 | 35871.72 | 0.53 | 20061 | 34681.34 | 0.57 |
| **Average** | 0.608 | | | 0.542 | | |
| **Std. Dev.** | 0.0457 | | | 0.023 | | |
| **C.V.** | 0.0752 | | | 0.042 | | |

(Source: - Annex 12)

Table 4.11 shows that the saving deposits to total deposit ratios of SCBNL is in decreasing trend. It is highest (0.67) in the year 2063/64 and lowest (0.53) in the year 2067/68. The average ratio of SCBNL is 0.608.

In case of HBL, the saving deposits to total deposit ratios are in increasing trend except in the year 2065/66. It is highest (0.57) in the year 2067/68 and lowest (0.51) in the years 2063/64 of the study period. The average ratio of HBL is 0.542.

The average ratio of SCBNL (0.608) is higher than that of HBL (0.542). The standard deviation of SCBNL is 0.0457. Similarly, the standard deviation of HBL is 0.023. The coefficient of variation of SCBNL is 0.0752. Likewise, the coefficient of variation of HBL is 0.042.

Savings deposit are short term liability, it is longer in term than 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 funds. From the above table 4.11, savings deposit to total deposits ratio of SCBNL is better than HBL.

#### 4.4.2.1 Loan and Advances to Total Deposit Ratio: -

This ratio is calculated as below: -

$$\text{Loans \& Advances to Total Deposit Ratio} = \frac{\text{Loan and Advances}}{\text{Total Deposits}}$$

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

**Table 4.11**

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

| **Fiscal Year** | **SCBNL** | | | **HBL** | | |
|---|---|---|---|---|---|---|
| | **Loan & Advances** | **Total Deposits** | **Ratio** | **Loan & Advances** | **Total Deposits** | **Ratio** |
| **2063/64** | 8143.20 | 19363.47 | 0.42 | 13451.66 | 24814.012 | 0.54 |
| **2064/65** | 8935.41 | 23061.032 | 0.38 | 15761.97 | 26490.85 | 0.59 |
| **2065/66** | 10502.63 | 24647.021 | 0.42 | 17793.72 | 30048.41 | 0.59 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **2066/67** | 13718.59 | 29743.99 | 0.46 | 20179.62 | 31842.78 | 0.63 |
| **2067/68** | 13679.75 | 35871.72 | 0.38 | 25519.52 | 34681.34 | 0.73 |
| **Average** | 0.412 | | | 0.616 | | |
| **Std. Dev.** | 0.029 | | | 0.063 | | |
| **C.V.** | 0.0726 | | | 0.103 | | |

(Source: - Annex 13)

Table 4.12 demonstrates that the loan and advances to total deposit ratios of SCBNL is in fluctuating trend during the study period. It is highest (0.46) in the years 2066/67 and and lowest (0.38) in the year 2064/65 and 2067/68. The average ratio of SCBNL is 0.412.

In case of HBL, the loan and advances to total deposit ratios are in increasing trend during the study period. It is highest (0.73) in the years 2067/68 and lowest (0.54) in the year 2063/64. The average ratio of HBL is 0.616.The average ratio of HBL (0.616) is higher than that of SCBNL (0.412).

The standard deviation of SCBNL is 0.029 whereas it is 0.063 in HBL. The coefficient of variation of SCBNL is 0.0726 and it is 0.103 in HBL. Thus C.V. of SCBNL is lower than HBL. This shows that there is less variation in loan and advance to total deposit ratio maintained by SCBNL compared to HBL. In other words, SCBNL 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 SCBNL. 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 SCBNL. However, higher C.V. in HBL compared to SCBNL shows high risk in loan and advances to total deposit ratio of HBL.

#### 4.4.2.2 Loan and Advances to Fixed Deposit Ratio

This ratio is calculated as below: -

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

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

**Table 4.12**

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

| **Fiscal Year** | **SCBNL** | | | **HBL** | | |
|---|---|---|---|---|---|---|
| | **Loan & Advances** | **Fixed Deposits** | **Ratio** | **Loan & Advances** | **Fixed Deposits** | **Ratio** |
| **2063/64** | 8143.20 | 1416 | 5.75 | 13451.66 | 6379 | 2.10 |
| **2064/65** | 8935.41 | 3272 | 2.73 | 15761.97 | 6397 | 2.46 |
| **2065/66** | 10502.63 | 4122 | 2.54 | 17793.72 | 8299 | 2.14 |
| **2066/67** | 13718.59 | 5239 | 2.61 | 20179.62 | 6424 | 3.14 |
| **2067/68** | 13679.75 | 10103 | 1.35 | 25519.52 | 6377 | 4.0018 |
| **Average** | 2.996 | | | 2.768 | | |
| **Std. Dev.** | 1.4643 | | | 0.7205 | | |
| **C.V.** | 0.4887 | | | 0.2603 | | |

(Source: - Annex 14)

Table 4.13 shows that the loan and advance to fixed deposit ratios of SCBNL are in decreasing trend except in the year 2066/67 of the study period. It is highest (5.75) in the year 2063/64 and lowest (1.35) in the year 2067/68 of the study period. The average ratio of SCBNL is 2.996.

In case of HBL, the yearly ratios are in increasing trend except in the year 2065/66 where it is decreased in comparison to the previous year. It is highest (4.0018) in the year 2067/68 and lowest (2.10) in the year 2063/64. The average ratio of HBL is 2.768.

The average ratio of SCBNL (2.996) is higher than that of HBL (2.768). The standard deviation of SCBNL is 1.4643 whereas it is 0.7205 in HBL. The coefficient of variation of SCBNL is 0.4887 and it is 0.2603 in HBL.

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

#### 4.4.2.3 Loan and Advances to Saving Deposits Ratio

This ratio is calculated as below: -

$$\text{Loans and Advances to Saving Deposit Ratio} = \frac{\text{Loan and Advances}}{\text{Saving Deposits}}$$

The following table shows the ratio of loan and advances to saving deposits of SCBNL and HBL.

**Table 4.13**

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

| **Fiscal Year** | **SCBNL** | | | **HBL** | | |
|---|---|---|---|---|---|---|
| | **Loan & Advances** | **Saving Deposits** | **Ratio** | **Loan & Advances** | **Saving Deposits** | **Ratio** |
| **2063/64** | 8143.20 | 13031 | 0.62 | 13451.66 | 12852 | 1.04 |
| **2064/65** | 8935.41 | 14598 | 0.61 | 15761.97 | 14583 | 1.08 |
| **2065/66** | 10502.63 | 15244 | 0.68 | 17793.72 | 15925 | 1.11 |
| **2066/67** | 13718.59 | 17856 | 0.76 | 20179.62 | 17973 | 1.12 |
| **2067/68** | 13679.75 | 19188 | 0.71 | 25519.52 | 20061 | 1.27 |
| **Average** | 0.67 | | | 1.124 | | |
| **Std. Dev.** | 0.056 | | | 0.078 | | |
| **C.V.** | 0.084 | | | 0.069 | | |

(Source: - Annex 15)

Table 4.14 shows that the loan and advances to saving deposit ratios of SCBNL are fluctuating over the study period. It is highest (0.76) in the year 2066/67 and lowest (0.61) in the year 2064/65. The average ratio of SCBNL is 0.67.

In case of HBL, the loan and advances to saving deposit ratios of HBL is in increasing trend. It is highest (1.27) in the year 2067/68 and lowest (1.04) in the year 2063/64. The average ratio of HBL is 1.124. The average ratio of HBL (1.07) is higher than that of SCBNL (0.43).

The standard deviation of SCBNL is 0.056 whereas it is 0.078 in HBL. Similarly, the coefficient of variation of SCBNL is 0.084 and it is 0.069 in HBL.

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

## 4.4.3 Profitability Ratio

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

### 4.4.3.1 Interest Earned to Total Assets Ratio

This ratio can be calculated as below: -

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

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

**Table 4.14**

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

| Fiscal Year | SCBNL | | | HBL | | |
|---|---|---|---|---|---|---|
| | Interest Earned | Total Assets | Ratio (%) | Interest Earned | Total Assets | Ratio (%) |
| **2063/64** | 1058.67 | 21781.68 | 0.048 | 1446.46 | 28871.34 | 0.050 |
| **2064/65** | 1189.60 | 25767.35 | 0.046 | 1626.47 | 30579.80 | 0.053 |
| **2065/66** | 1411.98 | 28596.68 | 0.049 | 1775.58 | 34314.86 | 0.051 |
| **2066/67** | 1591.19 | 33335.78 | 0.047 | 1963.64 | 36857.62 | 0.053 |
| **2067/68** | 1887.22 | 40587.47 | 0.046 | 2342.19 | 40046.68 | 0.058 |
| **Average** | 0.047 | | | 0.053 | | |
| **Std. Dev.** | 0.0012 | | | 0.0028 | | |
| **C.V.** | 0.025 | | | 0.052 | | |

(Source: - Annex 16)

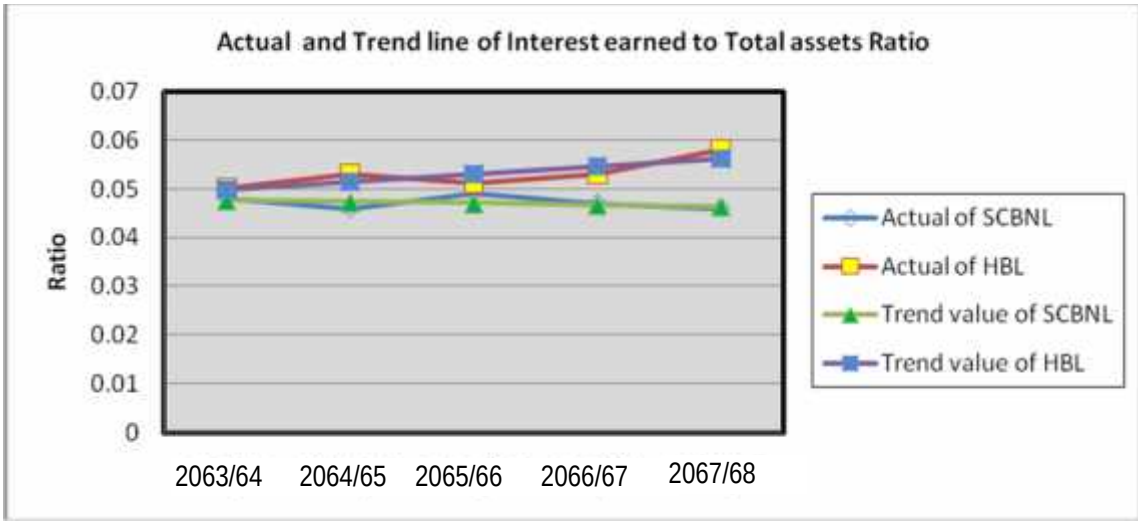
Table 4.15 shows that interest earned to total assets ratios of SCBNL are slightly fluctuating during the study period. It is in the increasing and decreasing trend. It is highest (0.049) in the year 2065/66 and lowest of (0.046) in the year 2064/65 and 2067/68. The average ratio of SCBNL is 0.047. The yearly ratios of SCBNL are higher than the average ratio in the first, third year whereas the yearly ratios are lower than the average ratio in the second and fifth year of the study period and average ratio is equal in the year 2066/67.

In case of HBL, the interest earned to total assets ratios of HBL is in fluctuating trend. In the final year of the study period, the ratio is highest (0.058) and it is lower in the year 2063/64 (0.05).The average ratio of SCBNL (0.053) is higher than that of HBL (0.047).
The standard deviation of SCBNL is 0.0012 whereas it is 0.0028 in HBL. The coefficient of variation of SCBNL is 0.025 and it is 0.052 in HBL. Thus, C.V. of SCBNL is lower than HBL. This shows that there is less variation in interest earned to total assets ratio maintained by SCBNL compared to HBL. In other words SCBNL has lower risk in it.
As per ANNEX 21, the values of constants a and b are as follows: -

| SCBNL | HBL |
|---|---|
| a = 0.047 | a = 0.053 |
| b = -0.0003 | b = 0.0016 |

The rate of change in interest earned to total assets ratio of HBL bank is positive which implies the increasing trend of ratio but the ratio of SCBNL negative which implies the decreasing of ratio.

**Graph 4.8**




Graph 4.8 depicts that the trend and actual lines of HBL are always higher than SCBNL during the study period. So the above analysis helps to conclude that the interest earned to total assets ratio of HBL is better than SCBNL. This implies that HBL is efficiently using its total assets (funds) to earn interest income.

#### 4.4.3.2 Net Profit to Total Assets Ratio

This ratio can be calculated as follows: -

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

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

**Table 4.15**

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

| **Fiscal Year** | **SCBNL** | | | **HBL** | | |
|---|---|---|---|---|---|---|
| | **Net Profit** | **Total Assets** | **Ratio (%)** | **Net Profit** | **Total Assets** | **Ratio (%)** |
| **2063/64** | 536.24 | 21781.68 | 0.024 | 308.27 | 28871.34 | 0.01 |
| **2064/65** | 658.76 | 25767.35 | 0.025 | 457.45 | 30579.80 | 0.014 |
| **2065/66** | 691.69 | 28596.68 | 0.024 | 491.82 | 34314.86 | 0.014 |
| **2066/67** | 818.92 | 33335.78 | 0.024 | 635.86 | 36857.62 | 0.017 |
| **2067/68** | 1025.11 | 40587.47 | 0.025 | 752.83 | 40046.68 | 0.018 |
| **Average** | 0.024 | | | 0.014 | | |
| **Std. Dev.** | 0.00063 | | | 0.0025 | | |
| **C.V.** | 0.02625 | | | 0.0178 | | |

(Source: - Annex 17)

Table 4.16 shows that net profit to total assets ratios of SCBNL are not much fluctuating during the study period. It is highest (0.25) in the year 2064/65 and 2067/68 and remaining three years it is constant of (0.24). The average ratio of SCBNL is 0.024.

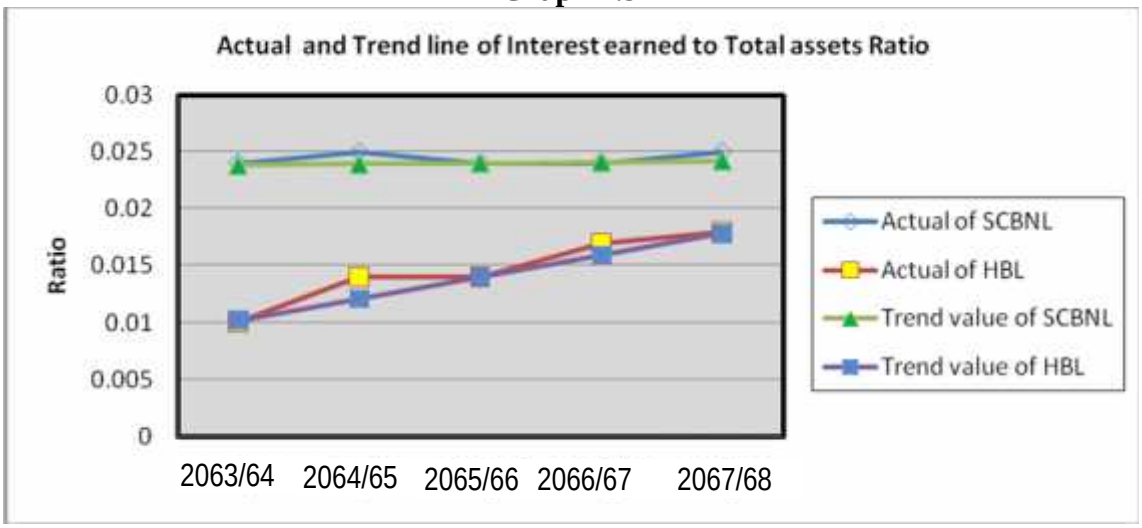
In HBL, the net profits to total assets ratios of HBL are in increasing trend during the study period. The average ratio of HBL is 0.014. The yearly ratios of SCBNL are always higher than HBL. Therefore, the average ratio of SCBNL is higher than HBL.

As per ANNEX 22, the values of constants a and b are as follows: -

| SCBNL | HBL |
|---|---|
| a = 0.024 | a = 0.014 |
| b = 0.0001 | b = 0.0019 |

The rate of change on net profit to total assets ratio of both bank has in positive trend, which shows both banks are able to maintain their net profit out of their total assets.

**Graph 4.9**




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

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

#### 4.4.3.3 Net Profit to Total Deposit Ratio

This ratio can be calculated as follows: -

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

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

**Table 4.16**

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

| Fiscal Year | SCBNL | | | HBL | | |
|---|---|---|---|---|---|---|
| | Net Profit | Total Deposits | Ratio (%) | Net Profit | Total Deposits | Ratio (%) |
| **2063/64** | 536.24 | 19363.47 | 0.027 | 308.27 | 24814.012 | 0.012 |
| **2064/65** | 658.76 | 23061.032 | 0.028 | 457.45 | 26490.85 | 0.017 |
| **2065/66** | 691.69 | 24647.021 | 0.028 | 491.82 | 30048.41 | 0.016 |
| **2066/67** | 818.92 | 29743.99 | 0.027 | 635.86 | 31842.78 | 0.019 |
| **2067/68** | 1025.11 | 35871.72 | 0.028 | 752.83 | 34681.34 | 0.021 |
| **Average** | 0.027 | | | 0.017 | | |
| **Std. Dev.** | 0.0015 | | | 0.0030 | | |
| **C.V.** | 0.057 | | | 0.178 | | |

(Source: - Annex 18)

Table 4.17 shows that the ratios of SCBNL are slightly fluctuating during the study period. The average ratio of SCBNL is 0.027.

In HBL, the ratios are a fluctuating during the study period. The highest ratio of HBL is 0.021 in the final year and lowest in the year 2065/66 (0.016). The average ratio of SCBNL is higher than that of HBL.

The coefficients of variation are 0.057 in SCBNL and 0.178 in HBL. Thus, C.V. of HBL is higher than that of SCBNL. This shows that there is more variation in net profit to total deposit ratio maintained by HBL compared to SCBNL. In other words, HBL has high risk in it.

The above analysis helps to conclude that the net profit to total deposit ratio of SCBNL is better than HBL. Mobilization of external funds is important to earn profit for a

commercial bank. Thus, SCBNL has better performance on mobilization of total deposits during that 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 Pearson's method is applied in the study. The result of coefficient of correlation is always between +1 and -1. When r, the coefficient of correlation is +1, there is perfect relationship between two variables and vice-versa. When r is 0, there is no relationship between two variables.

In order to test the correlation coefficient is significant of the correlation between the two variables; t-test has been applied at the standard significant level of 5%. If calculated value of t is greater or equal to its tabulated value, it is significant and vice versa.

### 4.5.1 Coefficient of Correlation between Loan and Advances and Total Deposits

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

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

**Table 4.17**

**Correlation Coefficients and Calculated and Tabulated t Values**

| Bank | r | Calculated t | Tabulated t | Result |
|---|---|---|---|---|
| SCBNL | 0.9312 | 0.3644 | 3.182 | Insignificant |
| HBL | 0.9718 | 6.8569 | 3.182 | Significant |

(Source: - Annex 21)

The table above indicates that the coefficient correlation between loan and advances and total deposits of SCBNL is 0.9312 which indicates highly positive relationship between these two variables. By considering the test statistic, since the calculated value of t is less than its tabulated value, it can be inferred that the value of r is insignificant. In other words, there is an insignificant correlation between total deposits and loan and advances.

In case of HBL, we observe coefficient of correlation between total deposits and loan and advances is 0.9718 which shows the highly positive relationship between the two variables. By considering the test statistics, since the calculated value of t is more than its tabulated value of 3.182, it can be concluded that the correlation between total deposit and loan and advance is highly significant in this case as well.

From the above analysis, it can be concluded that there is a highly significant relationship between loan and advance and total deposits in HBL bank only. Only HBL have utilized its total deposits on loan and advances effectively. But higher value of r in HBL shows better relationship as well as utilization of deposits on loan and advances than SCBNL.

### 4.5.2 Coefficient of Correlation between Investment on Government Securities and Total Deposit

The coefficient of correlation between investment on government security and total deposits is to measure the degree of relationship between two variables. Although bank utilizes 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 in government securities and whether there is any relationship between these two variables.

Table 4.20 shows the coefficient of correlation between government securities and total deposits during the study period.

**Table 4.18**

**Correlation Coefficients and Calculated and Tabulated t Values**

| Bank | r | Calculated t | Tabulated t | Result |
|---|---|---|---|---|
| SCBNL | 0.896 | 3.4935 | 3.182 | Significant |
| HBL | 0.1835 | 0.3232 | 3.182 | Insignificant |

(Source: - Annex 22)

The table above points out that the coefficient correlation between government securities and total deposits of SCBNL is 0.896 implying highly positive relationship between these two variables. By considering the test statistics, since the calculated value of t is more than its tabulated value of 3.182, it can be inferred that the value of r is significant,

In case of HBL, it is observed that coefficient of correlation between total deposits and government securities is 0.1835 which indicating the positive relationship between the two variables. By considering the test statistics, since the calculated value of t is less than its tabulated value of 3.182, it can be inferred that the value of r is not significant.

From the above analysis, it is clear that there is a highly significant relationship between investment on government securities and total deposits in SCBNL and correlation is also more significant in case of SCBNL in comparison to HBL.

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

Cash and Bank balance are most liquid components of current assets. They are required to meet the unexpected short term obligation or current liabilities. The coefficient of correlation between cash and bank balance and current liabilities is to measure the degree

or 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 between cash and bank balance and current liabilities, and calculated and tabulated values of t of SCBNL and HBL during the study period.

**Table 4.19**

**Correlation Coefficients and Calculated and Tabulated t Values**

| Bank | r | Calculated t | Tabulated t | Result |
|---|---|---|---|---|
| SCBNL | 0.1835 | 0.3232 | 3.182 | Insignificant |
| HBL | 0.6274 | 1.3958 | 3.182 | Insignificant |

(Source: - Annex 23)

From the above table, it can be inferred that the coefficient of correlation between cash and bank balance and current liabilities in SCBNL is 0.1835 which shows positive relationship between these two variables. By considering the test statistics, since the calculated value of t is less than its tabulated value of 3.182, we can say that the value of r is insignificant. In other words, there is no significant relationship between cash and bank balance and current liabilities.

In case of HBL, it can be seen that coefficient of correlation between cash and bank balance and current liabilities is positive. The value of r in this case is 0.6274, which shows highly positve relationship between two variables. By considering the test statistics, since the calculated value of t is less than its tabulated value of 3.l82, we can further conclude that the relationship between cash and bank balance and current liabilities is not significant. From the above analysis, it can be concluded that there is not significant relationship between cash and bank balance and current liabilities in both SCBNL bank and in HBL bank.

## 4.5.4. Coefficient of Correlation between Loan and Advances and Net Profit :

The basic function of a 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 and 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 between loan and advances and net profit, and calculated and tabulated t value of SCBNL and HBL during the study period.

**Table 4.20**

**Correlation Coefficients and Calculated and Tabulated t Values**

| Bank | r | Calculated t | Tabulated t | Result |
|---|---|---|---|---|
| SCBNL | 0.9045 | 3.675 | 3.182 | Significant |
| HBL | 0.9767 | 7.889 | 3.182 | Significant |

(Source: - Annex 24)

From the table above, it is found that the coefficient correlation between loan and advances and net profit of SCBNL is 0.9045 which shows highly positive relationship between these two variables. By considering the test statistics, since the calculated value of t is more than its tabulated value of 3.182, we can the value of r is significant. In other words, there is significant relationship between loan and advances and net profit.

In case of HBL, it is observed that coefficient of correlation between loan and advances and net profit is 0.9767 which shows highly positive relationship between these two variables. By considering the test statistics, since the calculated value of t is more than its tabulated value of 3.182, we can say that the value of r is significant. In other words, there is significant relationship between loan and advances and net profit.

From the above analysis, it can be concluded that both banks has significant relationship between loan and advances and net profit.

## 4.6 Test of Hypothesis

As stated in chapter there in research methodology, some conceptual framework of null and alternative hypothesis between SCBNL and HBL in various variables are formulated and tested as follows: -

For the study, following set of null hypothesis have been formulated and tested.

a. $H_0$: There is no significant difference in composition of working capital between SCBNL and HBL.

   $H_1$: There is significant difference in composition of working capital between SCBNL and HBL.

b. $H_0$: There is no significant difference in liquidity position between SCBNL and HBL.

   $H_1$: There is significant difference in liquidity position between SCBNL and HBL.

c. $H_0$: There is no significant difference in profitability position between SCBNL and HBL.

   $H_1$: There is significant difference in profitability position between SCBNL and HBL.

To test the validity of our assumption, if sample size is less than 30, t-test is used. In order to apply t-test in the context of small sample, the t-value is calculated first and compared with the table value of t at a certain level of significance (say on 5%) for given degree of freedom. If calculated value of t exceeds the table value, we infer that the null hypothesis is rejected, that is, the difference is significant at 5% level of significance. If t is less than corresponding table value of t, the null hypothesis is accepted. In order words, the difference is not treated as significant.

### 4.6.1. Composition of Working Capital

To judge whether there is significant difference in composition of working capital between SCBNL and HBL, following null hypothesis and alternative hypothesis are formulated and tested.

**a. Null Hypothesis:** -

$H_0$: There is no significant difference in composition of working capital between SCBNL and HBL.

**b. Alternative Hypothesis**: -

$H_1$: There is significant difference in composition of working capital between SCBNL and HBL.

The following table exhibits the mean value of various percentages measuring the composition or structure of working capital of SCBNL and HBL and student t value.

**Table 4.21**

**Mean t-value of composition of Working Capital**

| S.N. | Composition | SCBNL Mean | HBL Mean | Calculated t Value | Tabulated t Value | Result/ Decision |
|---|---|---|---|---|---|---|
| 1. | Cash & Bank Balance | 8.926 | 7.622 | 1.046 | 2.306 | $H_0$ is accepted |
| 2. | Loan and Advances | 52.586 | 69.596 | 6.758 | 2.306 | $H_0$ is rejected |
| 3. | Government Securities | 33.248 | 20.54 | 4.51 | 2.306 | $H_0$ is rejected |
| 4. | Misc. Current Assets | 5.24 | 2.242 | 8.05 | 2.306 | $H_0$ is rejected |

(Source: - Annex 25, 26, 27& 28)

From the table above, it is clear that there is no significant difference between cash and bank balance percentage of SCBNL and HBL because the calculated value of t is less than

its tabulated value, therefore null hypothesis is accepted. And there is significant difference between loan and advances, government securities and miscellaneous current assets percentage of SCBNL and HBL because the calculated value of t is more than its tabulated value, and therefore, the null hypothesis is rejected.

### 4.6.2 Liquidity Position

To judge whether there is significant difference in liquidity position between SCBNL and HBL, following null hypothesis and alternative hypothesis are formulated and tested.

**a. Null Hypothesis: -**

$H_0$: There is no significant difference in liquidity position between SCBNL and HBL.

**b. Alternative Hypothesis**: -

$H_1$: There is significant difference in liquidity position between SCBNL and HBL.

The following table exhibits the mean value of various percentages measuring the liquidity position of SCBNL and HBL and student t value.

**Table 4.22**

**t-value of Liquidity Position**

| S.N. | Composition | SCBNL Mean | HBL Mean | Calculated t Value | Tabulated t Value | Result/ Decision |
|---|---|---|---|---|---|---|
| 1. | Current Ratio | 1.89 | 1.182 | 1.94 | 2.306 | $H_0$ is accepted |
| 2. | Quick Ratio | 0.778 | 0.332 | 3.24 | 2.306 | $H_0$ is rejected |
| 3. | Cash & Bank Balance to Deposit Ratio (Ext. Fixed Deposit) | 0.085 | 0.087 | 0.135 | 2.306 | $H_0$ is accepted |
| 4. | Fixed Deposit to total deposit ratio | 0.167 | 0.2316 | 1.708 | 2.306 | $H_0$ is accepted |

| | | | | | | |
|---|---|---|---|---|---|---|
| 5. | Saving Deposit to Total Deposit ratio | 0.608 | 0.542 | 2.572 | 2.306 | $H_0$ is rejected |

(Source: - Annex 29, 30, 31, 32 & 33)

From the table above, it is clear that the current ratio, cash & bank balance to deposit ratio (ext. fixed deposit) and fixed deposit to total deposit ratio of SCBNL and HBL is no significantly difference as their calculated t value is less than the tabulated value. Whereas, there is significantly difference in quick ratio and saving deposit to total deposit ratio of these two banks.

### 4.6.3. Profitability Position

To judge whether there is significant difference in profitability position between SCBNL and HBL, following null hypothesis and alternative hypothesis are formulated and tested.

**a. Null Hypothesis: -**

$H_0$: There is no significant difference in profitability position between SCBNL and HBL.

**b. Alternative Hypothesis**: -

$H_1$: There is significant difference in profitability position between SCBNL and HBL.

The following table shows the mean value of various percentages measuring the profitability position of SCBNL and HBL and student t value.

**Table 4.23**

**Mean t-value of profitability position**

| S.N. | Composition | SCBNL Mean | HBL Mean | Calculated t Value | Tabulated t Value | Result/ Decision |
|---|---|---|---|---|---|---|
| 1. | Interest Earned to Total Assets | 0.047 | 0.053 | 4.167 | 2.306 | $H_0$ is rejected |
| 2. | Net Profit to Total Assets | 0.024 | 0.014 | 6.86 | 2.306 | $H_0$ is rejected |
| 3. | Net Profit to Total Deposits | 0.0276 | 0.017 | 6.90 | 2.306 | $H_0$ is rejected |

(Source: - Annex 34, 35, 36 )

From the above table, it is learnt that there is significant difference in interest earned to total assets, net profit to total assets and net profit to total deposits of SCBNL and HBL and null hypothesis is rejected

## 4.7 Major Findings

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

1) The major components of current assets in SCBNL and HBL 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 average are 8.92, 52.58 and 33.25 in SCBNL and 7.62, 69.60 and 20.54 in HBL, respectively. So it is found that the average cash and bank balance and government securities are higher on SCBNL than on HBL and average loan and advances percentage is higher in HBL than in SCBNL. The trend value of cash and bank balance is positive in SCBNL and negative in HBL. The trend value of loan and advance is positive in SCBNL and HBL. The trend value of government securities is negative in both banks.

2) The net working capital of SCBNL is positive in the study period except in the year 2064/65, which shows sufficient amount of working capital for operational requirement expect the year 2063/63. And the net working capital of HBL is always positive in that year. The average net working capital of SCBNL is Rs. 7361.31 million and that of HBL is Rs. 4054.87 million. The net working capital of SCBNL ranges from Rs. -5703.44 million to Rs. 10093.17 million whereas in HBL, it ranges from 3300.39 million to Rs. 4867.42 million. The CV of SCBNL is 0.90 and that of HBL is 0.17 which shows that there is very high variability of net working capital maintained by SCBNL compared to HBL.

3) The liquidity positions of banks are analyzed with the current ratio, quick ratio and cash balance to deposit ratio. The current ratios of SCBNL and HBL ranges from 0.76 to

2.92 and 1.11 to 1.22 respectively. Measuring the risk factor, it shows that there is more variation in current assets maintained by HBL compared to SCBNL. The average current ratio of SCBNL and HBL are 1.89 and 1.18 respectively. This shows that the liquidity position or short term solvency of SCBNL is in adequate position than HBL in the study period. The trend of liquidity ratio, or current ratio, quick ratio and cash and bank balance to deposit ratio of SCBNL and HBL 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 commercials banks.

4) Savings deposit to total deposit ratios of SCBNL are higher than that of HBL for the study period. The ratios of SCBNL range from 0.53 to 0.67 with an average of 0.608. The ratios of HBL range from 0.51 to 0.57 with an average of 0.542. Therefore, it is concluded that SCBNL has more short term and less costly sources of funds than HBL. The risk of SCBNL is higher compared to HBL.

5) The turnover positions of SCBNL have fluctuating trend. 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 0.412, 2.996 and 0.67 on SCBNL and 0.616, 2.768 and 1.124 on HBL, respectively. From the analysis of turnover of these two banks, it is found that HBL has slightly better turnover than SCBNL and risk is higher in SCBNL than HBL. Therefore, HBL has the better utilization of deposits in income generating activity than SCBNL. It also shows that HBL has better investment efficiency on loan and advance.

6) The profitability position of SCBNL and HBL are analyzed from different ways. The average value of interest earned to total assets ratio of HBL is 0.053 % which is higher than SCBNL's 0.047%. This implies that HBL is more efficiently using its total assets to earn interest income.

The trend value of interest earned to total assets ratio on both banks are decreasing. Although the net profit to total assets ratios and net profit to total deposit ratios are

always higher on SCBNL than on HBL most of the time during the study period. The trend value of net profit assets ratios of SCBNL and HBL are positive. This shows that SCBNL is more efficiently using its working fund of assets to earn higher rate of profit than HBL during the study period.

7) While analyzing the correlation coefficient, loan and advances and total deposits of both the banks SCBNL and HBL are significantly correlated. The value of r of SCBNL is 0.9312 and 0.97 in HBL. The positive value of r shows the positive relationship between loan and advances and total deposits. It shows that both banks utilizes its total deposit on loan and advances effectively and relationships as well as utilization of deposits are better in HBL than in SCBNL. Correlation between investment on government security and total deposits of SCBNL is highly significant but in case of HBL, it is not significant.

8) Coefficient of correlation between cash and bank balance and current liabilities of both bank shows that there is insignificant relationship between these two variables. The value of r is 0.1835 in SCBNL and 0.6274 in HBL. It shows that holding of cash and bank balance of HBL is more than SCBNL related with current liabilities. Coefficient of correlation between loan and advances and net profit of SCBNL is 0.9045 and in case of HBL it is 0.9767. It shows that there is significant relationship between loan and advances and net profit in SCBNL and HBL

9) While testing the hypothesis of companies of working capital, it has been observed that the mean value of proportion of cash and bank balance of SCBNL and HBL is not significantly different. Similarly, the mean value proportion of loan and advances, government securities and misc. current assets of SCBNL and HBL are significantly different.

10) While testing the hypothesis of liquidity management, it has been observed that he mean value of current ratio, cash & bank balance to deposit ratio (ext. fixed deposit) and fixed deposit to total deposit ratio of SCBNL and HBL is no significantly

difference as their calculated t value is less than the tabulated value. Whereas, there is significantly difference in quick ratio and saving deposit to total deposit ratio of these two banks.

11) While testing the hypothesis of profitability position, it is observed that the mean value of interest earned to total assets, net profit to total assets and net profit to total deposits of SCBNL and HBL and null hypothesis is rejected.

# CHAPTER-V

# SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter is dedicated to provide conclusions after comparatively analyzing the working capital management of two joint venture banks, Standard Chartered Bank Nepal Limited (SCBNL) and Himalayan Bank Limited (HBL), respectively. It also tries to provide some recommendations to the concerned banks from the conclusion derived from the study.

## 5.1 Summary

Establishment of commercials 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 seven 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.

As mentioned earlier, this study concentrates on the comparative analysis of working capital position of aforementioned banks SCBNL and HBL. From the perspective of the researcher, these two banks are chosen for study mainly because of accessibility and availability of financial data for latest five year period.

To fulfill the objective, an appropriate research methodology has been developed, which includes ratio analysis as financial tool and trend analysis, correlation coefficient and test of hypothesis as statistical tools. The major ratio analysis consists of the composition of working capital, liquidity position, turnover position, capital structure position and profitability position. Under these, main ratios and their trend position are studied in the chapter four.

In order to test the relationship between the various components of working capital, Karl Pearson's Correlation Coefficient r is calculated and analyzed. Some null hypothesis formulated in chapter three, are tested in appendices and results are analyzed in chapter four.

The necessary data are derived from the balance sheet and profit and loss account of SCBNL and HBL for the period of five years from fiscal year 2063/64 to 2067/68 B.S. In this chapter an attempt has been made to present conclusions and some suggestions and recommendations.

## 5.2 Conclusion

In conclusion, it can be said that working capital management is one of the most important parts of every financial institutions. Working capital is a crucial capital, which is often compared to lifeblood of the human being. After analyzing the two samples banks SCBNL and HBL comparatively using various financial and statistical tools, various important conclusions have been derived from the study. The average cash and bank balance percentage is higher in HBL than in SCBNL. The net working capitals of only SCBNL are positive except the year 2064/65 of the study period. Comparatively, SCBNL has higher net working capital that HBL. Both the banks are able to maintain adequate liquidity position to meet the short term or even instant obligations in that period. The current ratio of both SCBNL and HBL are below the normal standard ratio of 2:1. However, the liquidity position of SCBNL is slightly better than that of HBL. 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.

Analyzing the turnover position between these two banks, the HBL is utilizing its funds more efficiently for the generating purpose on loan and advances than SCBNL. HBL is utilizing saving deposits more for the income generating purpose whereas SCBNL 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 HBL is slightly higher than that of SCBNL. Therefore, HBL is more efficiently using its total assets (funds) to earn interest income. The net profit to total assets and the net profit to deposit ratios are also higher in SCBNL than in HBL. Thus, it is concluded that the average profitability ratio of SCBNL is higher than that of HBL. 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.

The correlation coefficient of the variables selected for the statistical analysis shows that both banks has insignificant relationship with cash and bank balance and current liabilities. There is significant relationship with government securities and total deposits in SCBNL but insignificant relationship in HBL. And there is significant relationship with loan and advances and net profit.

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

## 5.3 Recommendations

On the basis of above analysis and conclusion, following recommendations are made.

1) Although proportion of government securities out of the total current assets of SCBNL is more than other current assets. Similarly, the proportion of loan and advances out of the total current assets of HBL is more than 50% of current assets. Hence, SCBNL 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.

2) 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 SCBNL, we found negative working capital in the year 2064/65 during the study period however; it is always positive in HBL. Therefore, to eradicate this situation in SCBNL, suitable working capital should be formulated and implemented. There should be keeping optimum size of investment in current assets and current liabilities.

3) The liquidity position in terms of current ratio of both SCBNL and HBL are below than normal standard. Therefore, both banks should increase the current assets.

4) The turnover of the commercial banks is the primary factor of income generating activity. Total deposits turnover position of both banks is less than unity. 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 SCBNL and HBL should give proper attention on collection of over-dated loan and advances and utilization of idle funds as loan and advances.

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

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

7) The unskilled manpower, over-staffing, unsystematic purchase of raw materials, unnecessary expenses, misuse of facilities, heavy expenses on overhead etc. may be

the causes for high operating cost. So, both SCBNL and HBL are recommendation to pay attention to these aspects.

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

9) By implementing the matching working capital management policy instead of adopting conservative working capital policy, SCBNL, as well as HBL, can improve in its profitability in both short and long runs.

10) Improper working capital leads to decrease the profitability of the company and leads to ruin the company in the long run. So, SCBNL and HBL are recommended to give emphasis to proper working capital policy to uplift the financial performance of the companies in the competitive age of today.

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**ANNEX 1**

**Calculation of Trend Value of Cash and Bank Balance to Current Assets Ratio**

| X | $X^2$ | SCBNL | | | HBL | | |
|---|---|---|---|---|---|---|---|
| | | $Y_1$ | $XY_1$ | $Y_C$= a+bx | $Y_2$ | $XY_2$ | $Y_C$= a+bx |
| -2 | 4 | 7.24 | -14.48 | 6.856 | 9.68 | -19.36 | 8.35 |
| -1 | 1 | 6.93 | -6.93 | 7.888 | 7.62 | -7.62 | 7.985 |
| 0 | 0 | 10.33 | 0 | 8.92 | 6.69 | 0 | 7.62 |
| 1 | 1 | 8.53 | 8.53 | 9.952 | 4.91 | 4.91 | 7.255 |
| 2 | 4 | 11.60 | 23.20 | 10.984 | 9.21 | 18.42 | 6.89 |
| | **$\sum X^2 = 10$** | **$\sum Y_1$ = 44.63** | **$\sum XY_1$ = 10.32** | | **$\sum Y_2$ = 38.11** | **$\sum XY_2$ = -3.65** | |

**For SCBNL,**

$$a = \frac{\sum Y_1}{N} = \frac{44.63}{5} = 8.92$$

$$b = \frac{\sum XY_1}{\sum X^2} = \frac{10.32}{10} = 1.032$$

**For HBL,**

$$a = \frac{\sum Y_2}{N} = \frac{38.11}{5} = 7.62$$

$$b = \frac{\sum XY_2}{\sum X^2} = \frac{-3.65}{10} = -0.365$$

**ANNEX 2**

**Calculation of Trend Value of Loan and Advances to Current Assets Ratio**

| X | $X^2$ | SCBNL | | | HBL | | |
|---|---|---|---|---|---|---|---|
| | | $Y_1$ | $XY_1$ | $Y_C$= a+bx | $Y_2$ | $XY_2$ | $Y_C$= a+bx |
| -2 | 4 | 53.12 | -106.24 | 51.89 | 64.68 | -129.36 | 64.914 |
| -1 | 1 | 48.51 | -48.51 | 52.235 | 69.87 | -69.87 | 67.257 |
| 0 | 0 | 53.66 | 0 | 52.58 | 67.84 | 0 | 69.60 |
| 1 | 1 | 57.08 | 57.08 | 52.925 | 68.52 | 68.52 | 71.943 |
| 2 | 4 | 50.56 | 101.12 | 53.27 | 77.07 | 154.14 | 74.286 |
| | **$\sum X^2 = 10$** | **$\sum Y_1$ = 262.93** | **$\sum XY_1$ = 3.45** | | **$\sum Y_2$ = 347.98** | **$\sum XY_2$ = 23.43** | |

**For SCBNL,**

$$a = \frac{\sum Y_1}{N} = \frac{262.93}{5} = 52.58$$

$$b = \frac{\sum XY_1}{\sum X^2} = \frac{3.45}{10} = 0.345$$

**For HBL,**

$$a = \frac{\sum Y_2}{N} = \frac{347.98}{5} = 69.60$$

$$b = \frac{\sum XY_2}{\sum X^2} = \frac{23.43}{10} = 2.343$$

## ANNEX 3

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

| X | $X^2$ | SCBNL | | | HBL | | |
|---|---|---|---|---|---|---|---|
| | | $Y_1$ | $XY_1$ | $Y_C$= a+bx | $Y_2$ | $XY_2$ | $Y_C$= a+bx |
| -2 | 4 | 33.21 | -66.42 | 35.022 | 23.18 | -46.36 | 24.27 |
| -1 | 1 | 39.15 | -39.15 | 34.136 | 20.23 | -20.23 | 22.405 |
| 0 | 0 | 30.63 | 0 | 33.25 | 23.15 | 0 | 20.54 |
| 1 | 1 | 29.79 | 29.79 | 32.364 | 24.34 | 24.34 | 18.675 |
| 2 | 4 | 33.46 | 66.92 | 31.478 | 11.80 | 23.6 | 16.81 |
| | **∑X2 = 10** | **∑Y1 = 166.24** | **∑XY1 = -8.86** | | **∑Y2 = 102.7** | **∑XY2 = -18.65** | |

**For SCBNL,**

$$a = \frac{\sum Y_1}{N} = \frac{166.24}{5} = 33.25$$

$$b = \frac{\sum XY_1}{\sum X^2} = \frac{-8.86}{10} = -0.886$$

**For HBL,**

$$a = \frac{\sum Y_2}{N} = \frac{102.70}{5} = 20.54$$

$$b = \frac{\sum XY_2}{\sum X^2} = \frac{-18.65}{10} = -1.865$$

## ANNEX 4

**Cash and Bank Balance to Current Assets (%)**

| Year | $X_1$ | $X_2$ | $d_1^2 = (X_1-\bar{X}_1)^2$ | $d_2^2 = (X_2-\bar{X}_2)^2$ |
|---|---|---|---|---|
| 2063/64 | 7.24 | 9.68 | 2.82 | 4.24 |
| 2064/65 | 6.93 | 7.62 | 3.96 | 0.00 |
| 2065/66 | 10.33 | 6.69 | 1.98 | 0.87 |
| 2066/67 | 8.53 | 4.91 | 0.15 | 7.34 |
| 2067/68 | 11.60 | 9.21 | 7.18 | 2.52 |
| **N = 5** | **$\sum X_1$ = 44.63** | **$\sum X_2$ = 38.11** | **$\sum d_1^2$ = 16.09** | **$\sum d_2^2$ = 14.97** |

**For SCBNL,**

Average = 8.92
Std. Dev. = 1.79
C.V. = 0.20

**For HBL,**

Average = 7.62
Std. Dev. = 1.73
C.V. = 0.22

## ANNEX 5

**Loan and Advances to Current Assets (%)**

| **Year** | $X_1$ | $X_2$ | $d_1^2 = (X_1-\bar{X}_1)^2$ | $d_2^2 = (X_2-\bar{X}_2)^2$ |
|---|---|---|---|---|
| 2063/64 | 53.12 | 64.68 | 0.29 | 24.10 |
| 2064/65 | 48.51 | 69.87 | 16.56 | 0.078 |
| 2065/66 | 53.66 | 67.84 | 1.17 | 2.95 |
| 2066/67 | 57.08 | 68.52 | 20.25 | 1.14 |
| 2067/68 | 50.56 | 77.07 | 4.08 | 7.48 |
| **N = 5** | **$\sum X_1 = 262.93$** | **$\sum X_2 = 347.98$** | **$\sum d_1^2 = 42.35$** | **$\sum d_2^2 = 35.74$** |

**For SCBNL,**

Average = 52.58
Std. Dev. = 2.91
C.V. = 0.055

**For HBL,**

Average = 69.59
Std. Dev. = 2.67
C.V. = 0.038

## ANNEX 6

**Investment on Government Securities to Current Assets (%)**

| **Year** | $X_1$ | $X_2$ | $d_1^2 = (X_1-\bar{X}_1)^2$ | $d_2^2 = (X_2-\bar{X}_2)^2$ |
|---|---|---|---|---|
| 2063/64 | 33.21 | 23.18 | 0.0016 | 6.96 |
| 2064/65 | 39.15 | 20.23 | 34.81 | 0.096 |
| 2065/66 | 30.63 | 23.15 | 6.87 | 6.81 |
| 2066/67 | 29.79 | 24.34 | 11.97 | 14.44 |
| 2067/68 | 33.46 | 11.80 | 0.044 | 76.38 |
| **N = 5** | **$\sum X_1 = 166.24$** | **$\sum Y_2 = 102.70$** | **$\sum d_1^2 = 53.6956$** | **$\sum d_2^2 = 104.38$** |

**For SCBNL,**

Average = 33.25
Std. Dev. = 3.27
C.V. = 0.098

**For HBL**,

Average = 20.54
Std. Dev. = 4.57
C.V. = 0.22

**ANNEX 7**

**Miscellaneous Current Assets to Current Assets Ratio (%)**

| **Year** | $X_1$ | $X_2$ | $d_1^2 = (X_1-\overline{X}_1)^2$ | $d_2^2 = (X_2-\overline{X}_2)^2$ |
|---|---|---|---|---|
| 2063/64 | 6.43 | 2.46 | 1.4161 | 0.04 |
| 2064/65 | 5.41 | 2.28 | 0.028 | 0.0016 |
| 2065/66 | 5.38 | 2.32 | 0.0196 | 0.0064 |
| 2066/67 | 4.60 | 2.23 | 0.4096 | 0.0001 |
| 2067/68 | 4.38 | 1.92 | 0.7393 | 0.1024 |
| **N = 5** | **$\sum X_1 = 26.20$** | **$\sum Y_2 = 11.21$** | **$\sum d_1^2 = 2.6126$** | **$\sum d_2^2 = 0.15$** |

**For SCBNL,**

Average = 5.24
Std. Dev. = 0.72
C.V. = 0.13

**For HBL,**

Average = 2.24
Std. Dev. = 0.17
C.V. = 0.078

**ANNEX 8**

**Net Working Capital**

| **Year** | $X_1$ | $X_2$ | $d_1^2 = (X_1-\overline{X}_1)^2$ | $d_2^2 = (X_2-\overline{X}_2)^2$ |
|---|---|---|---|---|
| 2063/64 | 10093.17 | 3169.21 | 7463059.06 | 784393.63 |
| 2064/65 | -5703.44 | 4097.42 | 170687692.60 | 1810.50 |
| 2065/66 | 9810.37 | 4867.42 | 5997894.88 | 660237.50 |
| 2066/67 | 13408.94 | 4839.92 | 36573828.62 | 616303.50 |
| 2067/68 | 9197.54 | 3300.39 | 3371740.61 | 569240.07 |
| **N = 5** | **$\sum X_1 =$ 36806.58** | **$\sum Y_2 =$ 20274.36** | **$\sum d_1^2 =$ 224094215.77** | **$\sum d_2^2 =$ 2631985.20** |

**For SCBNL,**

Average = 7361.31
Std. Dev. = 6694.68
C.V. = 0.90

**For HBL,**

Average = 4054.87
Std. Dev. = 725.53
C.V. = 0.17

**ANNEX 9**

**Current Ratio**

| **Year** | **$X_1$** | **$X_2$** | **$d_1^2 = (X_1-\bar{X}_1)^2$** | **$d_2^2 = (X_2-\bar{X}_2)^2$** |
|---|---|---|---|---|
| 2063/64 | 2.92 | 1.17 | 1.06 | 0.0001 |
| 2064/65 | 0.76 | 1.22 | 1.27 | 0.0016 |
| 2065/66 | 2 | 1.22 | 0.01 | 0.0016 |
| 2066/67 | 2.26 | 1.19 | 0.13 | 0.0001 |
| 2067/68 | 1.51 | 1.11 | 0.14 | 0.0049 |
| **N = 5** | **$\sum X_1 = 9.45$** | **$\sum Y_2 = 5.91$** | **$\sum d_1^2 = 2.61$** | **$\sum d_2^2 = 0.0083$** |

**For SCBNL,**

Average = 1.89
Std. Dev. = 0.72
C.V. = 0.38

**For HBL,**

Average = 1.18
Std. Dev. = 0.040
C.V. = 0.034

(Note : X1 is the Current Ratio of SCBNL and X2 is the Current Ratio of HBL; the formula used to calculate the Current Ratio = Current Assets/Current Liabilities)

**ANNEX 10**

**Quick Ratio**

| **Year** | **X1** | **X2** | **$d_1^2 = (X_1-\bar{X}_1)^2$** | **$d_2^2 = (X_2-\bar{X}_2)^2$** |
|---|---|---|---|---|
| 2063/64 | 1.18 | 0.38 | 0.1681 | 0.0025 |
| 2064/65 | 0.35 | 0.34 | 0.1764 | 0.0001 |
| 2065/66 | 0.82 | 0.36 | 0.0025 | 0.0009 |
| 2066/67 | 0.86 | 0.35 | 0.0081 | 0.0004 |
| 2067/68 | 0.68 | 0.23 | 0.0081 | 0.01 |
| **N = 5** | **$\sum X_1 = 3.89$** | **$\sum Y_2 = 1.66$** | **$\sum d_1^2 = 0.3632$** | **$\sum d_2^2 = 0.0139$** |

**For SCBNL,**

Average = 0.77
Std. Dev. = 0.26
C.V. = 0.35

**For HBL,**

Average = 0.33
Std. Dev. = 0.052
C.V. = 0.15

**ANNEX 11**

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

| **Year** | **X1** | **X2** | $\mathbf{d_1^2 = (X_1-\overline{X}_1)^2}$ | $\mathbf{d_2^2 = (X_2-\overline{X}_2)^2}$ |
|---|---|---|---|---|
| 2063/64 | 0.061 | 0.109 | 0.00059536 | 0.00046656 |
| 2064/65 | 0.064 | 0.085 | 0.00045796 | 0.00000576 |
| 2065/66 | 0.098 | 0.080 | 0.00015876 | 0.00005476 |
| 2066/67 | 0.083 | 0.056 | 0.00000576 | 0.00098596 |
| 2067/68 | 0.121 | 0.107 | 0.00126736 | 0.00038416 |
| **N = 5** | $\mathbf{\sum X_1 = 0.427}$ | $\mathbf{\sum Y_2 = 0.437}$ | $\mathbf{\sum d_1^2 = 0.0024852}$ | $\mathbf{\sum d_2^2 = 0.0018972}$ |

**For SCBNL,**

Average = 0.0854
Std. Dev. = 0.022
C.V. = 0.2576

**For HBL,**

Average = 0.0874
Std. Dev. = 0.019
C.V. = 0.2228

**ANNEX 12**

**Saving Deposit to Total Deposit Ratio**

| **Year** | **X1** | **X2** | $\mathbf{d_1^2 = (X_1-\overline{X}_1)^2}$ | $\mathbf{d_2^2 = (X_2-\overline{X}_2)^2}$ |
|---|---|---|---|---|
| 2063/64 | 0.67 | 0.51 | 0.003844 | 0.001024 |
| 2064/65 | 0.63 | 0.55 | 0.000484 | 0.000064 |
| 2065/66 | 0.61 | 0.52 | 0.000004 | 0.000484 |
| 2066/67 | 0.60 | 0.56 | 0.000064 | 0.000324 |
| 2067/68 | 0.53 | 0.57 | 0.006084 | 0.000784 |
| **N = 5** | **$\sum$ X1 = 3.04** | **$\sum$Y2 = 2.71** | $\mathbf{\sum d_1^2 = 0.01048}$ | $\mathbf{\sum d_2^2 = 0.00268}$ |

**For SCBNL,**

Average = 0.608
Std. Dev. = 0.0457
C.V. = 0.0752

**For HBL,**

Average = 0.542
Std. Dev. = 0.023
C.V. = 0.042

**ANNEX 13**

**Short-term Loan and Advances to Total Deposit Ratio**

| **Year** | $\mathbf{X_1}$ | $\mathbf{X_2}$ | $\mathbf{d_1^2 = (\overline{X_1}-X_1)^2}$ | $\mathbf{d_2^2 = (\overline{X_2}-X_2)^2}$ |
|---|---|---|---|---|
| 2063/64 | 0.42 | 0.54 | 0.000064 | 0.005776 |
| 2064/65 | 0.38 | 0.59 | 0.001024 | 0.000676 |
| 2065/66 | 0.42 | 0.59 | 0.000064 | 0.000676 |
| 2066/67 | 0.46 | 0.63 | 0.002304 | 0.000196 |
| 2067/68 | 0.38 | 0.73 | 0.001024 | 0.012996 |
| **N = 5** | $\mathbf{\sum X_1 = 2.06}$ | $\mathbf{\sum Y_2 = 3.08}$ | $\mathbf{\sum d_1^2 = 0.00448}$ | $\mathbf{\sum d_2^2 = 0.02032}$ |

**For SCBNL,**

Average = 0.412
Std. Dev. = 0.029
C.V. = 0.0726

**For HBL,**

Average = 0.616
Std. Dev. = 0.063
C.V. = 0.103

## ANNEX 14
## Short-term Loan and Advances to Fixed Deposit Ratio

| **Year** | $X_1$ | $X_2$ | $d_1^2 = (X_1-\bar{X}_1)^2$ | $d_2^2 = (X_2-\bar{X}_2)^2$ |
|---|---|---|---|---|
| 2063/64 | 5.75 | 2.10 | 7.584516 | 0.446224 |
| 2064/65 | 2.73 | 2.46 | 0.070756 | 0.094864 |
| 2065/66 | 2.54 | 2.14 | 0.207936 | 0.394384 |
| 2066/67 | 2.61 | 3.14 | 0.148996 | 0.138384 |
| 2067/68 | 1.35 | 4.0018 | 2.709316 | 1.522262 |
| **N = 5** | **$\sum X_1 = 14.98$** | **$\sum Y_2 = 13.8418$** | **$\sum d_1^2 = 10.72152$** | **$\sum d_2^2 = 2.596118$** |

**For SCBNL,**

Average = 2.996
Std. Dev. = 1.4643
C.V. = 0.4887

**For HBL,**

Average = 2.768
Std. Dev. = 0.7205
C.V. = 0.2603

## ANNEX 15
## Short-term Loan and Advances to Saving Deposit Ratio

| **Year** | $X_1$ | $X_2$ | $d_1^2 = (X_1-\bar{X}_1)^2$ | $d_2^2 = (X_2-\bar{X}_2)^2$ |
|---|---|---|---|---|
| 2063/64 | 0.62 | 1.04 | 0.0025 | 0.007056 |
| 2064/65 | 0.61 | 1.08 | 0.0036 | 0.001936 |
| 2065/66 | 0.68 | 1.11 | 0.0001 | 0.000196 |
| 2066/67 | 0.76 | 1.12 | 0.0081 | 0.000016 |
| 2067/68 | 0.71 | 1.27 | 0.0016 | 0.021316 |
| **N = 5** | **$\sum X_1 = 3.38$** | **$\sum Y_2 = 5.62$** | **$\sum d_1^2 = 0.0159$** | **$\sum d_2^2 = 0.03052$** |

**For SCBNL,**

Average = 0.67
Std. Dev. = 0.056

**For HBL,**

Average = 1.124
Std. Dev. = 0.078

C.V. = 0.084

C.V. = 0.069

**ANNEX 16**

**Interest Earned to Total Assets Ratio (%)**

| Year | $X_1$ | $X_2$ | $d_1^2 = (\bar{X_1}-X_1)^2$ | $d_2^2 = (\bar{X_2}-X_2)^2$ |
|---|---|---|---|---|
| 2063/64 | 0.048 | 0.050 | 0.000001 | 0.000009 |
| 2064/65 | 0.046 | 0.053 | 0.000001 | 0 |
| 2065/66 | 0.049 | 0.051 | 0.000004 | 0.000004 |
| 2066/67 | 0.047 | 0.053 | 0 | 0 |
| 2067/68 | 0.046 | 0.058 | 0.000001 | 0.000025 |
| **N = 5** | **$\sum X_1 = 0.236$** | **$\sum Y_2 = 0.265$** | **$\sum d_1^2 = 0.000007$** | **$\sum d_2^2 =$ 0.000038** |

**For SCBNL,**

Average = 0.047
Std. Dev. = 0.0012
C.V. = 0.025

**For HBL,**

Average = 0.053
Std. Dev. = 0.0028
C.V. = 0.052

**ANNEX 17**

**Net Profit to Total Assets Ratio (%)**

| Year | $X_1$ | $X_2$ | $d_1^2 = (\bar{X_1}-X_1)^2$ | $d_2^2 = (\bar{X_2}-X_2)^2$ |
|---|---|---|---|---|
| 2063/64 | 0.024 | 0.01 | 0 | 0.000016 |
| 2064/65 | 0.025 | 0.014 | 0.000001 | 0 |
| 2065/66 | 0.024 | 0.014 | 0 | 0 |
| 2066/67 | 0.024 | 0.017 | 0 | 0.0000009 |
| 2067/68 | 0.025 | 0.018 | 0.000001 | 0.000016 |
| **N = 5** | **$\sum X_1 = 0.122$** | **$\sum Y_2 = 0.073$** | **$\sum d_1^2 =$ 0.000002** | **$\sum d_2^2 =$ 0.0000329** |

**For SCBNL,**

Average = 0.024
Std. Dev. = 0.00063
C.V. = 0.02625

**For HBL,**

Average = 0.014
Std. Dev. = 0.0025
C.V. = 0.178

**ANNEX 18**

**Net Profit to Total Deposit Ratio (%)**

| Year | $X_1$ | $X_2$ | $d_1^2 = (\bar{X_1}-X_1)^2$ | $d_2^2 = (\bar{X_2}-X_2)^2$ |
|---|---|---|---|---|
| 2063/64 | 0.027 | 0.012 | 0 | 0.000025 |
| 2064/65 | 0.028 | 0.017 | 0.000001 | 0 |
| 2065/66 | 0.028 | 0.016 | 0.000001 | 0.000001 |
| 2066/67 | 0.027 | 0.019 | 0 | 0.000004 |

| | | | | |
|---|---|---|---|---|
| 2067/68 | 0.028 | 0.021 | 0.00001 | 0.000016 |
| **N = 5** | **$\sum X_1 = 0.138$** | **$\sum Y_2 = 0.085$** | **$\sum d_1^2 =$ 0.000012** | **$\sum d_2^2 =$ 0.000046** |

**For SCBNL,**

Average = 0.027
Std. Dev. = 0.0015
C.V. = 0.057

**For HBL,**

Average = 0.017
Std. Dev. = 0.0030
C.V. = 0.178

## ANNEX 19
## Calculation of Trend Value of Interest Earned to Total Assets Ratio

| X | $X^2$ | SCBNL | | | HBL | | |
|---|---|---|---|---|---|---|---|
| | | $Y_1$ | $XY_1$ | $Y_C = a+bx$ | $Y_2$ | $XY_2$ | $Y_C = a+bx$ |
| -2 | 4 | 0.048 | -0.096 | 0.0476 | 0.050 | -0.1 | 0.0498 |
| -1 | 1 | 0.046 | -0.046 | 0.0473 | 0.053 | -0.053 | 0.0514 |
| 0 | 0 | 0.049 | 0 | 0.047 | 0.051 | 0 | 0.053 |
| 1 | 1 | 0.047 | 0.047 | 0.0467 | 0.053 | 0.053 | 0.0546 |
| 2 | 4 | 0.046 | 0.092 | 0.0464 | 0.058 | 0.116 | 0.0562 |
| | **$\sum X^2 = 10$** | **$\sum Y_1 =$ 0.236** | **$\sum XY_1 =$ -0.003** | | **$\sum Y_2 =$ 0.265** | **$\sum XY_2 =$ 0.016** | |

**For SCBNL,**

$$a = \frac{\sum Y_1}{N} = \frac{0.236}{5} = 0.047$$

$$b = \frac{\sum XY_1}{\sum X^2} = \frac{-0.003}{10} = -0.0003$$

**For HBL,**

$$a = \frac{\sum Y_2}{N} = \frac{0.265}{5} = 0.053$$

$$b = \frac{\sum XY_2}{\sum X^2} = \frac{0.016}{10} = 0.0016$$

## ANNEX 20
## Calculation of Trend Value of Net profit to Total Assets Ratio

| X | $X^2$ | SCBNL | | | HBL | | |
|---|---|---|---|---|---|---|---|
| | | $Y_1$ | $XY_1$ | $Y_C = a+bx$ | $Y_2$ | $XY_2$ | $Y_C = a+bx$ |
| -2 | 4 | 0.024 | -0.048 | 0.0238 | 0.01 | -0.02 | 0.0102 |
| -1 | 1 | 0.025 | -0.025 | 0.0239 | 0.014 | -0.014 | 0.0121 |
| 0 | 0 | 0.024 | 0 | 0.024 | 0.014 | 0 | 0.014 |
| 1 | 1 | 0.024 | 0.024 | 0.0241 | 0.017 | 0.017 | 0.0159 |
| 2 | 4 | 0.025 | 0.05 | 0.0242 | 0.018 | 0.036 | 0.0178 |
| | **$\sum X^2 = 10$** | **$\sum Y_1 =$0.122** | **$\sum XY_1$** | | **$\sum Y_2 =$0.073** | **$\sum XY_2$** | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | **=0.001** | | | **=0.019** | |

**For SCBNL,**

$$a = \frac{\sum Y_1}{N} = \frac{0.122}{5} = 0.024$$

$$b = \frac{\sum XY_1}{\sum X^2} = \frac{0.001}{10} = 0.0001$$

**For HBL,**

$$a = \frac{\sum Y_2}{N} = \frac{0.073}{5} = 0.014$$

$$b = \frac{\sum XY_2}{\sum X^2} = \frac{0.019}{10} = 0.0019$$

**ANNEX 21**

**Calculation of Correlation Coefficient between Loan & Advances and Total Deposit of SCBNL**

| **LA (X)** | **TD (Y)** | **$x = X - \bar{X}$** | **$X^2$** | **$y = Y - \bar{Y}$** | **$Y^2$** | **xy** |
|---|---|---|---|---|---|---|
| 8143.20 | 19363.47 | -2852.71 | 8137954.34 | -7173.97 | 51465989.04 | 20465255.95 |
| 8935.41 | 23061.032 | -2060.5 | 4245660.25 | -3476.41 | 12085482.11 | 7163142.81 |
| 10502.63 | 24647.021 | -493.28 | 243325.15 | -1890.42 | 3573721.80 | 932506.37 |
| 13718.59 | 29743.99 | 2722.68 | 7412986.38 | 3206.54 | 10281898.77 | 8730382.33 |
| 13679.75 | 35871.72 | 2683.84 | 7202997.16 | 9334.27 | 87128596.43 | 25051687.20 |
| $\sum X$ = 54979.58 | $\sum Y$ = 132687.233 | | $\sum x^2$ =27242923.28 | | $\sum y^2$ = 164535688.15 | $\sum xy$ =62342974.66 |

$$\bar{X} = \frac{\sum X}{N} = \frac{54979.58}{5} = 10995.91 \qquad \bar{Y} = \frac{\sum Y}{N} = \frac{132687.233}{5} = 26537.45$$

$$\text{Correlation, } r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{62342974.66}{\sqrt{27242923.28 \times 164535688.15}} = 0.9312$$

$$\text{Test Statistics, } t = \frac{r}{\sqrt{1 - r2}} \times \sqrt{n - 2} = \frac{0.9312}{\sqrt{1 - (0.9312)^2}} = 0.6311$$

**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** |
|---|---|---|---|---|---|---|
| 13451.66 | 24814.012 | -5089.60 | 25904028.16 | -4761.47 | 22671577.52 | 24233977.71 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 15761.97 | 26490.85 | -2779.29 | 7724452.90 | -3084.63 | 9514942.24 | 8573081.31 |
| 17793.72 | 30048.41 | -747.54 | 558816.05 | 472.93 | 223662.78 | -353534.09 |
| 20179.62 | 31842.78 | 1638.36 | 2684223.49 | 2267.30 | 5140649.29 | 3714653.63 |
| 25519.52 | 34681.34 | 6978.26 | 48696112.63 | 5105.86 | 26069806.34 | 35630018.60 |
| 92706.49 | 147877.39 | | 85567633.23 | | 63620638.17 | 71798197.16 |

$$\overline{X} = \frac{\sum X}{N} = \frac{92706.29}{5} = 18541.26 \quad \overline{Y} = \frac{\sum Y}{N} = \frac{147877.39}{5} = 29575.48$$

$$\text{Correlation, } r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{71798197.16}{\sqrt{85567633.23 \times 63620638.17}} = 0.9718$$

$$\text{Test Statistics, } t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2} = \frac{0.97}{\sqrt{1 - (0.97)^2}} = 6.8589$$

**ANNEX 22**

**Calculation of Correlation Coefficient between Government Securities & Total Deposit of SCBNL**

| **GS (X)** | **TD (Y)** | **$x = X - \overline{X}$** | **$X^2$** | **$y = Y - \overline{Y}$** | **$Y^2$** | **xy** |
|---|---|---|---|---|---|---|
| 5089.37 | 9363.47 | -1811.37 | 3281061.28 | -15173.98 | 230249669.00 | 27485692.15 |
| 7210.50 | 23061.032 | 309.76 | 95951.26 | -1476.41 | 2179810.111 | -457335.24 |
| 5995.10 | 24647.021 | -905.64 | 820183.81 | 109.57 | 12005.804 | -99231.88 |
| 7157.73 | 29743.99 | 256.99 | 66043.86 | 5206.54 | 27108058.77 | 1338028.71 |
| 9050.98 | 35871.72 | 2150.24 | 4623532.06 | 11334.27 | 128465676.40 | 24371400.72 |
| 34503.68 | 122687.233 | | 8886772.27 | | 388015220.10 | 52638554.47 |

$$\overline{X} = \frac{\sum X}{N} = \frac{34503.68}{5} = 6900.74 \quad \overline{Y} = \frac{\sum Y}{N} = \frac{122687.23}{5} = 24537.45$$

$$\text{Correlation, } r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{52638554.47}{\sqrt{8886772.27 \times 388015220.10}} = 0.896$$

$$\text{Test Statistics, } t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2} = \frac{0.896}{\sqrt{1 - (0.896)^2}} = 3.4935$$

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

| **GS (X)** | **TD (Y)** | **$x = X - \overline{\ }$** | **$X^2$** | **$y = Y - \overline{\ }$** | **$Y^2$** | **xy** |
|---|---|---|---|---|---|---|

| | | X | | Y | | |
|---|---|---|---|---|---|---|
| 4819.70 | 24814.012 | -486.15 | 236341.82 | -4761.45 | 22671482.29 | 2314778.91 |
| 4565.32 | 26490.85 | -740.53 | 548384.68 | -3084.62 | 9514880.54 | 2284253.64 |
| 6070.37 | 30048.41 | 764.52 | 584490.83 | 472.94 | 223672.24 | 361572.08 |
| 7166.54 | 31842.78 | 1860.69 | 3462167.27 | 2267.31 | 5140694.63 | 4218761.04 |
| 3907.34 | 34681.34 | -1398.51 | 1955830.22 | 5105.87 | 26069908.46 | -7140610.25 |
| 26529.27 | 147877.39 | | 6787214.82 | | 63620638.16 | 2038755.41 |

$$\overline{X} = \frac{\sum X}{N} = \frac{26529.27}{5} = 5305.85 \qquad \overline{Y} = \frac{\sum Y}{N} = \frac{147877.39}{5} = 29575.47$$

$$\text{Correlation, } r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{2038755.41}{\sqrt{6787214.82 \times 63620638.16}} = 0.1835$$

$$\text{Test Statistics, } t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2} = \frac{0.098}{\sqrt{1 - (0.098)^2}} = 0.3232$$

**ANNEX 23**

**Calculation of Correlation Coefficient between Cash & Bank Balance and Current Liabilities of SCBNL**

| CB (X) | CL (Y) | $x = X - \overline{X}$ | $X^2$ | $y = Y - \overline{Y}$ | $Y^2$ | xy |
|---|---|---|---|---|---|---|
| 1111.11 | 5235.64 | -808.04 | 652928.64 | -8284.13 | 68626809.86 | 6693908.41 |
| 1276.24 | 24123.74 | -642.91 | 413333.26 | 10603.97 | 112444179.80 | -6817398.40 |
| 2021.02 | 9762.96 | 101.87 | 10377.49 | -3756.81 | 14113621.38 | -382706.23 |
| 2050.24 | 10622.14 | 131.09 | 17184.58 | -2897.63 | 8396259.61 | -379850.32 |
| 3137.16 | 17854.39 | 1218.01 | 1483548.36 | 4334.62 | 18788930.54 | 5279610.51 |
| 9595.77 | 67598.87 | | 2577372.33 | | 222369801.19 | 4393563.97 |

$$\overline{X} = \frac{\sum X}{N} = \frac{9595.77}{5} = 1919.15 \qquad \overline{Y} = \frac{\sum Y}{N} = \frac{67598.87}{5} = 13519.77$$

$$\text{Correlation, } r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{4393563.97}{\sqrt{2577372.33 \times 222369801.19}} = 0.1835$$

r 0.1835

Test Statistics, $t = \frac{}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{}{\sqrt{1-(0.1835)^2}} = 0.3232$

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

| CB (X) | CL (Y) | $x = X - \bar{X}$ | $X^2$ | $y = Y - \bar{Y}$ | $Y^2$ | xy |
|---|---|---|---|---|---|---|
| 2014.47 | 17628.85 | 17.31 | 299.63 | -4747.02 | 22534198.88 | -82170.916 |
| 1717.35 | 18459.45 | -279.81 | 78293.63 | -3616.42 | 15338345.62 | 1011910.48 |
| 1757.34 | 21364.57 | -239.82 | 57513.63 | -1011.30 | 1022727.69 | 242529.96 |
| 1448.14 | 24613.25 | -549.02 | 301422.96 | 2237.38 | 5005869.264 | -1228366.40 |
| 3048.52 | 29813.24 | 1051.36 | 1105357.87 | 7437.37 | 55314472.52 | 7819353.32 |
| 9985.82 | 111879.36 | | 1542887.70 | | 99215613.97 | 7763256.44 |

$\bar{X} = \frac{\sum X}{N} = \frac{9985.82}{5} = 1997.16$ $\bar{Y} = \frac{\sum Y}{N} = \frac{111879.36}{5} = 22375.87$

Correlation, $r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{7763256.44}{\sqrt{1542887.70 \times 99215613.97}} = 0.6274$

Test Statistics, $t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.6274}{\sqrt{1-(0.6274)^2}} = 1.3958$

**ANNEX 24**

**Calculation of Correlation Coefficient between Loan & Advances and Net Profit of SCBNL**

| LA (X) | NP (Y) | $x = X - \bar{X}$ | $X^2$ | $y = Y - \bar{Y}$ | $Y^2$ | xy |
|---|---|---|---|---|---|---|
| 8143.20 | 536.24 | -2852.71 | 8137954.34 | -209.90 | 44059.68 | 598783.82 |
| 8935.41 | 658.76 | -2060.50 | 4245660.25 | -87.38 | 7635.96 | 180046.49 |
| 10502.63 | 691.69 | -493.28 | 243325.15 | -54.45 | 2965.23 | 26859.096 |
| 13718.59 | 818.92 | 2722.68 | 7412986.382 | 72.77 | 5296.34 | 198129..42 |
| 13679.75 | 1025.11 | 2683.84 | 7202997.146 | 278.96 | 77822.029 | 748684.006 |
| 54979.58 | 3730.72 | | 27242923.268 | | 137779.239 | 1752502.832 |

$\bar{X} = \frac{\sum X}{} = \frac{54979.58}{} = 10995.91$ $\bar{Y} = \frac{\sum Y}{} = \frac{3730.72}{} = 746.144$

N 5 N 5

$$\text{Correlation, } r = \frac{\sum xy}{\sqrt{\sum X^2 \sum Y^2}} = \frac{1752502.832}{\sqrt{27242923.268 \times 137779.239}} = 0.9045$$

$$\text{Test Statistics, } t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.9045}{\sqrt{1-(0.9045)^2}} = 3.675$$

**Calculation of Correlation Coefficient between Loan & Advances and Net Profit of HBL**

| LA (X) | NP (Y) | $x = X - \overline{X}$ | $X^2$ | $y = Y - \overline{Y}$ | $Y^2$ | xy |
|---|---|---|---|---|---|---|
| 13451.66 | 308.27 | -5089.63 | 25904333.54 | -220.97 | 48827.74 | 1124655.54 |
| 15761.97 | 457.45 | -2779.32 | 7724619.66 | -71.79 | 5153.80 | 199527.38 |
| 17793.72 | 491.82 | -747.57 | 558860.90 | -37.42 | 1400.25 | 27974.069 |
| 20179.62 | 635.86 | 1638.33 | 2684125.18 | 106.62 | 11367.82 | 174678.74 |
| 25519.52 | 752.83 | 6978.23 | 48695693.93 | 223.59 | 49992.78 | 1560262.45 |
| 92706.49 | 2646.23 | | 85567633.21 | | 116742.39 | 3087098.17 |

$$\overline{X} = \frac{\sum X}{N} = \frac{92706.49}{5} = 18541.29 \quad \overline{Y} = \frac{\sum Y}{N} = \frac{2646.23}{5} = 529.24$$

$$\text{Correlation, } r = \frac{\sum xy}{\sqrt{\sum X^2 \sum Y^2}} = \frac{3087098.17}{\sqrt{85567633.21 \times 116742.39}} = 0.9767$$

$$\text{Test Statistics, } t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.9767}{\sqrt{1-(0.9767)^2}} = 7.889$$

**ANNEX 25**

**Calculation of t value of Cash and Balance Percentage on Total Current Assets**

| SCBNL | | | HBL | | |
|---|---|---|---|---|---|
| CB (X) | $x = X - \overline{X}$ | $x = (X - \overline{X})^2$ | CB (Y) | $y = Y - \overline{Y}$ | $y = (Y - \overline{Y})^2$ |
| 7.24 | -1.686 | 2.842596 | 9.68 | 2.058 | 4.235364 |
| 6.93 | -1.996 | 3.984016 | 7.62 | -0.002 | 0.00006 |
| 10.33 | 1.404 | 1.971216 | 6.69 | -0.932 | 0.868624 |
| 8.53 | -0.396 | 0.156816 | 4.91 | -2.712 | 7.354944 |
| 11.60 | 2.674 | 7.150276 | 9.21 | 1.588 | 2.521744 |
| **44.63** | | 16.10492 | **38.11** | | 14.980736 |

$$\bar{X} = \frac{\sum X}{N} = \frac{44.63}{5} = 8.926 \qquad \bar{Y} = \frac{\sum Y}{N} = \frac{38.11}{5} = 7.622$$

$$S^2 = \frac{\sum (X - \bar{X})^2 + \sum (Y - \bar{Y})^2}{N_1 + N_2 - 2} = \frac{31.08}{8} = 3.88$$

$$\text{Test Statistics, } t = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left| \frac{1}{N_1} + \frac{1}{N_2} \right|}} = \frac{1.304}{1.2457} = 1.046$$

$/ t / = 1.046$

**ANNEX 26**

**Calculation of t value of Loan and Advances Percentage on Total Current Assets**

| SCBNL | | | HBL | | |
|---|---|---|---|---|---|
| **LA (X)** | **$x = X - \bar{X}$** | **$x = (X - \bar{X})^2$** | **LA (Y)** | **$y = Y - \bar{Y}$** | **$y = (Y - \bar{Y})^2$** |
| 53.12 | 0.534 | 0.285156 | 64.68 | -4.916 | 24.167056 |
| 48.51 | -4.076 | 16.613776 | 69.87 | 0.274 | 0.075076 |
| 53.66 | 1.074 | 1.153476 | 67.84 | -1.756 | 3.083536 |
| 57.08 | 4.494 | 20.196036 | 68.52 | -1.076 | 1.157776 |
| 50.56 | -2.026 | 4.104676 | 77.07 | 7.474 | 55.860676 |
| **262.93** | | 42.35312 | **347.98** | | 84.34412 |

$$\bar{X} = \frac{\sum X}{N} = \frac{262.93}{5} = 52.586 \qquad \bar{Y} = \frac{\sum Y}{N} = \frac{347.98}{5} = 69.596$$

$$S^2 = \frac{\sum (X - \bar{X})^2 + \sum (Y - \bar{Y})^2}{N_1 + N_2 - 2} = \frac{126.69}{8} = 15.83$$

$$\text{Test Statistics, } t = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left| \frac{1}{N_1} + \frac{1}{N_2} \right|}} = \frac{-17.01}{2.5169} = -6.758$$

$/ t / = 6.758$

**ANNEX 27**

**Calculation of t value of Government Securities Percentage on Total Current Assets**

| SCBNL | HBL |
|---|---|

| GS (X) | $x = X - \bar{X}$ | $x = (X - \bar{X})^2$ | GS (Y) | $y = Y - \bar{Y}$ | $y = (Y - \bar{Y})^2$ |
|---|---|---|---|---|---|
| 33.21 | -0.038 | 0.001444 | 23.18 | 2.64 | 6.9696 |
| 39.15 | 5.902 | 34.833604 | 20.23 | -0.31 | 0.0961 |
| 30.63 | -2.618 | 6.853924 | 23.15 | 2.61 | 6.8121 |
| 29.79 | -3.458 | 11.957764 | 24.34 | 3.8 | 14.44 |
| 33.46 | 0.212 | 0.044944 | 11.80 | -8.74 | 76.3876 |
| **166.24** | | 53.69168 | **102.7** | | 104.7054 |

$$\bar{X} = \frac{\sum X}{N} = \frac{166.24}{5} = 33.248 \qquad \bar{Y} = \frac{\sum Y}{N} = \frac{102.70}{5} = 20.54$$

$$S^2 = \frac{\sum (X - \bar{X})^2 + \sum (Y - \bar{Y})^2}{N_1 + N_2 - 2} = \frac{158.40}{8} = 19.80$$

$$\text{Test Statistics, } t = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left| \frac{1}{N_1} + \frac{1}{N_2} \right|}} = \frac{12.708}{2.8142} = 4.51$$

$/ t / = 4.51$

## ANNEX 28

**Calculation of t value of Miscellaneous Current Assets Percentage on Total Current Assets**

| SCBNL | | | HBL | | |
|---|---|---|---|---|---|
| **MCA (X)** | **$x = X - \bar{X}$** | **$x = (X - \bar{X})^2$** | **MCA (Y)** | **$y = Y - \bar{Y}$** | **$y = (Y - \bar{Y})^2$** |
| 6.43 | 1.19 | 1.4161 | 2.46 | 0.218 | 0.047524 |
| 5.41 | 0.17 | 0.0289 | 2.28 | 0.038 | 0.001444 |
| 5.38 | 0.14 | 0.0196 | 2.32 | 0.078 | 0.006084 |
| 4.60 | -0.64 | 0.4096 | 2.23 | -0.012 | 0.000144 |
| 4.38 | -0.86 | 0.7396 | 1.92 | -0.322 | 0.103684 |
| **26.2** | | 2.6138 | **11.21** | | 0.15888 |

$$\bar{X} = \frac{\sum X}{N} = \frac{26.2}{5} = 5.24 \qquad \bar{Y} = \frac{\sum Y}{N} = \frac{11.21}{5} = 2.242$$

$$S^2 = \frac{\sum (X - \bar{X})^2 + \sum (Y - \bar{Y})^2}{N_1 + N_2 - 2} = \frac{2.77}{8} = 0.3465$$

$$\text{Test Statistics, } t = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left| \frac{1}{} + \frac{1}{} \right|}} = \frac{2.998}{0.37} = 8.05$$

$N_1$ $N_2$

/ t / = 8.05

**ANNEX 29**

**Calculation of t value of Current Ratio**

| SCBNL | | | HBL | | |
|---|---|---|---|---|---|
| **CR (X)** | **$x = X - \overline{X}$** | **$x = (X - \overline{X})^2$** | **CR (Y)** | **$y = Y - \overline{Y}$** | **$y = (Y - \overline{Y})^2$** |
| 2.92 | 1.03 | 1.0609 | 1.17 | -0.012 | 0.000144 |
| 0.76 | -1.13 | 1.2769 | 1.22 | 0.038 | 0.001444 |
| 2 | 0.11 | 0.0121 | 1.22 | 0.038 | 0.001444 |
| 2.26 | 0.37 | 0.1369 | 1.19 | 0.008 | 0.000064 |
| 1.51 | -0.38 | 0.1444 | 1.11 | -0.072 | 0.005184 |
| 9.45 | | 2.6312 | 5.91 | | 0.00828 |

$$\overline{X} = \frac{\sum X}{N} = \frac{9.45}{5} = 1.89 \qquad \overline{Y} = \frac{\sum Y}{N} = \frac{5.91}{5} = 1.182$$

$$S^2 = \frac{\sum (X - \overline{X})^2 + \sum (Y - \overline{Y})^2}{N_1 + N_2 - 2} = \frac{2.63}{8} = 0.329$$

$$\text{Test Statistics, } t = \frac{\overline{X} - \overline{Y}}{\sqrt{S^2 \left| \frac{1}{N_1} + \frac{1}{N_2} \right|}} = \frac{0.708}{0.3632} = 1.94$$

/t/ = 1.94

**ANNEX 30**

**Calculation of t value of Quick Ratio**

| SCBNL | | | HBL | | |
|---|---|---|---|---|---|
| **QR (X)** | **$x = X - \overline{X}$** | **$x = (X - \overline{X})^2$** | **QR (Y)** | **$y = Y - \overline{Y}$** | **$y = (Y - \overline{Y})^2$** |
| 1.18 | 0.402 | 0.161604 | 0.38 | 0.048 | 0.002304 |
| 0.35 | -0.428 | 0.183184 | 0.34 | 0.008 | 0.000064 |
| 0.82 | 0.042 | 0.001764 | 0.36 | 0.028 | 0.000784 |
| 0.86 | 0.082 | 0.006724 | 0.35 | 0.018 | 0.000324 |
| 0.68 | -0.098 | 0.009604 | 0.23 | -0.102 | 0.010404 |
| 3.89 | | 0.36288 | 1.66 | | 0.01388 |

$$\overline{X} = \frac{\sum X}{N} = \frac{3.89}{5} = 0.778 \qquad \overline{Y} = \frac{\sum Y}{N} = \frac{1.66}{5} = 0.332$$

$$S^2 = \frac{\sum (X - \overline{X})^2 + \sum (Y - \overline{Y})^2}{} = \frac{0.37}{} = 0.0047$$

$N_1 + N_2 - 2 = 8$

$$\text{Test Statistics, } t = \frac{\overline{X} - \overline{Y}}{\sqrt{S^2\left|\frac{1}{N_1} + \frac{1}{N_2}\right|}} = \frac{0.446}{0.137} = 3.24$$

/t/ = 3.24

**ANNEX 31**

**Calculation of t value**

**Cash and Bank Balance to Deposits Ratio (CBDR, Excluding Fixed Deposit)**

| SCBNL | | | HBL | | |
|---|---|---|---|---|---|
| **CBDR (X)** | **$x = X - \overline{X}$** | **$x = (X - \overline{X})^2$** | **CBDR (Y)** | **$y = Y - \overline{Y}$** | **$y = (Y - \overline{Y})^2$** |
| 0.061 | -0.024 | 0.000576 | 0.109 | 0.022 | 0.000484 |
| 0.064 | -0.021 | 0.000441 | 0.085 | -0.002 | 0.000004 |
| 0.098 | 0.013 | 0.000169 | 0.080 | -0.007 | 0.000049 |
| 0.083 | -0.002 | 0.000004 | 0.056 | -0.031 | 0.000961 |
| 0.121 | 0.036 | 0.001296 | 0.107 | 0.02 | 0.0004 |
| 0.427 | | 0.002486 | 0.437 | | 0.001898 |

$$\overline{X} = \frac{\sum X}{N} = \frac{0.427}{5} = 0.085 \qquad \overline{Y} = \frac{\sum Y}{N} = \frac{0.435}{5} = 0.087$$

$$S^2 = \frac{\sum(X - \overline{X})^2 + \sum(Y - \overline{Y})^2}{N_1 + N_2 - 2} = \frac{0.0043}{8} = 0.000548$$

$$\text{Test Statistics, } t = \frac{\overline{X} - \overline{Y}}{\sqrt{S^2\left|\frac{1}{N_1} + \frac{1}{N_2}\right|}} = \frac{-0.002}{0.0148} = -0.135$$

/ t / = 0.135

**ANNEX 32**

**Calculation of t value of Fixed Deposit to Total Deposit Ratio (FDTDR)**

| SCBNL | | | HBL | | |
|---|---|---|---|---|---|
| **FDTDR (X)** | **$x = X - \overline{X}$** | **$x = (X - \overline{X})2$** | **FDTDR (Y)** | **$y = Y - \overline{Y}$** | **$y = (Y - \overline{Y})2$** |
| 0.073 | -0.094 | 0.008836 | 0.257 | 0.0254 | 0.00064516 |
| 0.141 | -0.026 | 0.000676 | 0.241 | 0.0094 | 0.00008836 |
| 0.167 | 0 | 0 | 0.276 | 0.0444 | 0.00197136 |

| | | | | | |
|---|---|---|---|---|---|
| 0.176 | 0.009 | 0.000081 | 0.201 | -0.0306 | 0.00093636 |
| 0.281 | 0.114 | 0.012996 | 0.183 | -0.0486 | 0.00236196 |
| 0.838 | | 0.022589 | 1.158 | | 0.0060032 |

$$\overline{X} = \frac{\sum X}{N} = \frac{0.838}{5} = 0.167 \qquad \overline{Y} = \frac{\sum Y}{N} = \frac{1.158}{5} = 0.2316$$

$$S^2 = \frac{\sum(X - \overline{X})^2 + \sum(Y - \overline{Y})^2}{N_1 + N_2 - 2} = \frac{0.02859}{8} = 0.0035$$

$$\text{Test Statistics, } t = \frac{\overline{X} - \overline{Y}}{\sqrt{S^2\left|\frac{1}{N_1} + \frac{1}{N_2}\right|}} = \frac{-0.0646}{0.0378} = -1.708$$

$/ t / = 1.708$

**ANNEX 33**
**Calculation of t value**
**Saving Deposits to Total Deposits Ratio (SDTDR)**

| SCBNL | | | HBL | | |
|---|---|---|---|---|---|
| **SDTDR (X)** | **$x = X - \overline{X}$** | **$x = (X - \overline{X})^2$** | **SDTDR (Y)** | **$y = Y - \overline{Y}$** | **$y = (Y - \overline{Y})^2$** |
| 0.67 | 0.062 | 0.003844 | 0.51 | -0.032 | 0.001024 |
| 0.63 | 0.022 | 0.000484 | 0.55 | 0.008 | 0.000064 |
| 0.61 | 0.002 | 0.000004 | 0.52 | -0.022 | 0.000484 |
| 0.60 | -0.008 | 0.000064 | 0.56 | 0.018 | 0.000324 |
| 0.53 | -0.078 | 0.006084 | 0.57 | 0.028 | 0.000784 |
| 3.04 | | 0.01048 | 2.71 | | 0.00268 |

$$\overline{X} = \frac{\sum X}{N} = \frac{3.04}{5} = 0.60+8 \qquad \overline{Y} = \frac{\sum Y}{N} = \frac{2.71}{5} = 0.542$$

$$S^2 = \frac{\sum(X - \overline{X})^2 + \sum(Y - \overline{Y})^2}{N_1 + N_2 - 2} = \frac{0.01316}{8} = 0.001645$$

$$\text{Test Statistics, } t = \frac{\overline{X} - \overline{Y}}{\sqrt{\left|\frac{1}{111} \quad \frac{1}{111}\right|}} = \frac{0.066}{0.02565} = 2.572$$

$$\sqrt{S^2 \left( \frac{}{N_1} + \frac{}{N_2} \right)}$$

/ t / = 2.572

**ANNEX 34**
**Calculation of t value**
**Interest Earned to Total Assets Ratio (Rs. in Million)**

| SCBNL | | | HBL | | |
|---|---|---|---|---|---|
| **IE (X)** | **$x = X - \overline{X}$** | **$x = (X - \overline{X})^2$** | **IE (Y)** | **$y = Y - \overline{Y}$** | **$y = (Y - \overline{Y})^2$** |
| 0.048 | 0.001 | 0.000001 | 0.050 | -0.003 | 0.000006 |
| 0.046 | -0.001 | 0.000001 | 0.053 | 0 | 0 |
| 0.049 | 0.002 | 0.000004 | 0.051 | -0.002 | 0.000004 |
| 0.047 | 0 | 0 | 0.053 | 0 | 0 |
| 0.046 | -0.001 | 0.000001 | 0.058 | 0.005 | 0.000025 |
| 0.236 | | 0.000007 | 0.265 | | 0.000035 |

$$\overline{X} = \frac{\sum X}{N} = \frac{0.236}{5} = 0.047 \qquad \overline{Y} = \frac{\sum Y}{N} = \frac{0.265}{5} = 0.053$$

$$S^2 = \frac{\sum (X - \overline{X})^2 + \sum (Y - \overline{Y})^2}{N_1 + N_2 - 2} = \frac{0.000042}{8} = 0.00000525$$

$$\text{Test Statistics, } t = \frac{\overline{X} - \overline{Y}}{\sqrt{S^2 \left| \frac{1}{N_1} + \frac{1}{N_2} \right|}} = \frac{-0.006}{0.00144} = -4.167$$

/ t / = 4.167

**ANNEX 35**
**Calculation of t value**
**Net Profit to Total Assets Ratio (Rs. in Million)**

| SCBNL | | | HBL | | |
|---|---|---|---|---|---|
| **NP (X)** | **$x = X - \overline{X}$** | **$x = (X - \overline{X})^2$** | **NP (Y)** | **$y = Y - \overline{Y}$** | **$y = (Y - \overline{Y})^2$** |
| 0.024 | 0 | 0 | 0.01 | -0.004 | 0.000016 |
| 0.025 | 0.001 | 0.000001 | 0.014 | 0 | 0 |
| 0.024 | 0 | 0 | 0.014 | 0 | 0 |

| | | | | | |
|---|---|---|---|---|---|
| 0.024 | 0 | 0 | 0.017 | 0.003 | 0.000009 |
| 0.025 | 0.001 | 0.000001 | 0.018 | 0.004 | 0.000016 |
| 0.12 | | 0.000002 | 0.073 | | 0.000041 |

$$\overline{X} = \frac{\sum X}{N} = \frac{0.12}{5} = 0.024 \qquad \overline{Y} = \frac{\sum Y}{N} = \frac{0.073}{5} = 0.014$$

$$S^2 = \frac{\sum (X - \overline{X})^2 + \sum (Y - \overline{Y})^2}{N_1 + N_2 - 2} = \frac{0.000043}{8} = 0.0000053$$

$$\text{Test Statistics, } t = \frac{\overline{X} - \overline{Y}}{\sqrt{S^2 \left| \frac{1}{N_1} + \frac{1}{N_2} \right|}} = \frac{0.01}{0.00145} = 6.86$$

$/ t / = 6.86$

ANNEX 36

**Calculation of t value**

**Net Profit to Total Deposits Ratio (Rs. in Million)**

| **SCBNL** | | | **HBL** | | |
|---|---|---|---|---|---|
| **NP (X)** | **$x = X - \overline{X}$** | **$x = (X - \overline{X})^2$** | **NP (Y)** | **$y = Y - \overline{Y}$** | **$y = (Y - \overline{Y})^2$** |
| 0.027 | -0.0006 | 0.00000036 | 0.012 | -0.005 | 0.000025 |
| 0.028 | 0.0004 | 0.00000016 | 0.017 | 0 | 0 |
| 0.028 | 0.0004 | 0.00000016 | 0.016 | -0.001 | 0.000001 |
| 0.027 | -0.0006 | 0.00000036 | 0.019 | 0.002 | 0.000004 |
| 0.028 | 0.0004 | 0.00000016 | 0.021 | 0.004 | 0.000016 |
| 0.138 | | 0.0000012 | 0.085 | | 0.000046 |

$$\overline{X} = \frac{\sum X}{N} = \frac{0.138}{5} = 0.0276 \qquad \overline{Y} = \frac{\sum Y}{N} = \frac{0.085}{5} = 0.017$$

$$S^2 = \frac{\sum (X - \overline{X})^2 + \sum (Y - \overline{Y})^2}{N_1 + N_2 - 2} = \frac{0.0000472}{8} = 0.0000059$$

$$\text{Test Statistics, } t = \frac{\overline{X} - \overline{Y}}{} = \frac{0.0106}{} = 6.90$$

$$\sqrt{S^2\left|\frac{1}{N_1} + \frac{1}{N_2}\right|} \qquad 0.001536$$

$/ t / = 6.90$