CHAPTER – 1

INTRODUCTION

1.1 Background of the Study

Bank simply means a financial institution, which is engaged in monetary transaction. Basically, bank work as an institution which accepts deposits and lends loan to those who needs it. Bank provides benefits to depositors by paying fixed interest and borrower gets chance to improve business or other work by getting financial support. The bank helps people in every sector of economy like trade, industry, agriculture etc. Therefore we call a bank as a social institution also. A bank simply carries out the work of exchanging money, providing loan, accepting deposits and transferring money.

An institution established by law, which deals in money and credit is called bank. When a bank performs multiple tasks, the efficiency and effectiveness of work becomes weak. Hence, different banks are established for different purposes. The commercial bank is the oldest form of bank. There is considerable change in the original form of commercial bank. In general, bank means the commercial banks. Hence, the definitions of bank are also equally applicable to commercial banks. The profit maximization is the main objective of these banks.

Certainly, no comparison can be made between ancient and modern banks. In the ancient time, merchants, moneylenders and goldsmiths used to perform the work of banking in every country. The merchants used to exchange the gold, silver and gems. The moneylenders were found lending and borrowing money even in quite primitive communities. Whereas, Goldsmiths became the precursor of the modern bank note and the forerunners of the modern banking institutions. Hence, the banks started to carry out the work of creating credit, issuing the notes, depositing, lending, transacting the bills of exchange and promissory note etc.

Banking sector plays a vital role for economic development the country. So, bank is a resource mobilizing institution, which accepts deposit from various sources and invests

such accumulated resources in the field of agriculture, trade, commerce, industry, tourism etc.

Banks are among the most important sources of short-term working capital for businesses. They have become increasingly active in recent years in making long-term business loans for new plant and equipment. When businesses and consumers must make payments for purchase of goods and services, more often they use bank. Bank provides cheques, credit or debit cards, electronic accounts connected to a computer network for banking transactions. It is the banker to whom they turn most frequently for advice and counselling, when they need financial information and financial planning.

According to Kent, "A bank is an organization whose principal operations are concerned with the accumulation of the temporarily idle money of the general public for the purpose of advancing to others for expenditure."

According to Concise Oxford Dictionary, "Bank is an establishment for the custody of money received from or on behalf of its customers. Its essential duty is to pay their drafts on it, its profits arise from its use f the money left unemployed by them."

According to Prof. Crowther, "A banker is the dealer on debts. The bankers business is then to take the debts of other people to offer his own in exchange and thereby to create money".

In conclusion, we can say that banking is not static but a dynamic concept. It is a product of centuries and the development which has taken place is the product of a method of trial and error and experiences which were made and the results that followed relating to the acceptance of money and valuables as deposits, keeping them as such, lending them, whether to private individuals, to states or other bodies and for controlling the multifarious and multi-dimensional activities which in the beginning were only trivial and could be ignored but with the growth of time, become international in character and multi dimensional in nature. In this study, an attempt has been made to analyze and

evaluate the trade off between liquidity and profitability of Joint Venture Banks (JVBs) in Nepal. A bank has to perform several functions and among such, maintaining a balance between liquidity and profitability is also among one of the major function. In the absence of proper balance between liquidity and profitability, a bank cannot function properly in the right direction. So, the bank is always found paying the due consideration in maintaining the appropriate balance between such.

1.1.1 Development of Banking in Nepal

In the context of Nepal, The history of banking sector is rather more slow evolution. Even now, the banking sector is still in the evolutionary phase. So, far as banking is concerned with debt, we may go back in the Nepalese history, where a merchant namely "Sankhdhar" was recorded. He was the person who alone paid all debts of the people existing in the country at that time. Since then he introduced a new era called "Nepal Sambat". This record proves the existence of money lending function at that time. During the course of development of borrowing, we further come across the term "Tanka Dhari" at the end of the 14^{th} century meaning money lenders. They are one of the 64 castes classified on the basis of occupation.

In 1877 A.D. Tejaratha Adda was established by then government. The main purpose of this institution was to provide credit facilities for government staff and general public by collecting gold and silver at 5% rate of interest. Tejarath Adda did not use to accept deposit, it only provided credit facilities. So, we cannot say, it had performed fully banking transaction. But it played an important role towards the institutional development of banking system in Nepal.

On the course of development of bank, Nepal Bank Limited was established in 1994 B.S. under the Nepal Bank Act 1994 B.S. (1938 A.D.) as a commercial bank. NBL has been providing banking services and facilities from 1994 B.S. up to now. Really, NBL is the first modern bank in the history of banks in Nepal. Until mid 1940s, only metallic coins were used as medium of exchange. So, the government felt the need of separate

institution or body to issue national currencies and promote financial organization in the country. Hence, the Nepal Rastra Bank (NRB) Act 1955 was formulated and was approved by the government. Accordingly, the Nepal Rastra Bank was established in 1956 A.D. as the central bank of Nepal. After the establishment of NRB, the first 5 years plan was introduced in the country. The establishment of NRB set a milestone in the history of banking in Nepal. After this, a new way of thinking and a new sort of spirit arose in the field of banking. NRB was established with an objective of supervising, protecting and directing the functions of commercial banking activities. Although NRB was established in 2012 B.S., it took entirely a decade to consolidate its powers as the banker's bank and controller of the credit. NRB for the first time issued the Nepali notes on 7th Falgun 2016 B.S.

In a view of the various development programs launched after the beginning of planned development in the country, government established another commercial bank Rastra Banijya Bank in Public sector on 23rd January 1966 A.D. to provide banking facilities and to help economic development.

The tasks of bank are very dynamic, complex and riskier. In this Context, only local commercial banks could not play their role in the development of modern banking. Realizing this fact, the government felt that joint venture banks could contribute significantly in the formation and mobilization of internal capital for trade and commerce. As management of JVBs are mainly hold by foreign banks, it was felt some competitive advantages like increased skilled personal with modern banking knowledge, efficient banking services, advance management, skills and an international network of bank branches. Accordingly, government introduced new banking policy in 1980 A.D. They policy allowed foreign banks to operate as JVBs, provide autonomy to fix interest rate to a certain limit and introduced auctioning of government securities. These reforms are considered partial liberalization and a way to open economic policy.

As a result, the first JVB, Nepal Arab Bank Limited was established in 2041B.S (1985 A.D.) under the Commercial Bank Act 2031 B.S. (1974 A.D.) and the Company Act 2021 B.S. (1965A.D.). In short form, it is called NABIL Bank. Nepal entered a new era of development following the historic political changes with the restoration of parliamentary system of government based on multi-party democracy in 1991 A.D. As an important strategy in resource mobilization, democratic elected government has given high priority to foreign investment, private sector participation and economic liberalization.

In this context, the government encouraged foreign investment in Nepal by providing attractive incentives and facilities with liberal economic policy. The importance attached to foreign investment was clearly reflected in the new constitution. In the directive principles of the constitution, it is stated that the policy of attracting foreign capital and technology will be adapted. When democratically elected government introduced liberalization and open economic policy, the number of JVBs has increased rapidly. Apart from JVBs, a number of other financial institutions also emerged in the country.

It is clear that the growth of banks in Nepal is satisfactory. Certainly, it is not enough satisfactory in comparison to other countries. The healthy competition is not found in banking functions. Similarly, the banks are increasing in urban areas only. Modern and joint investment banks are not established in rural areas. Hence, the rural people have no access over banking services.

1.1.2 A Brief Profile of Everest Bank Limited (EBL)

Everest Bank Limited (EBL) started its operations in 1994 A.D. with a view and objective of extending professionalized and efficient banking services to various segments of the society. EBL joined hands with Punjab National Bank (PNB), India as its joint venture partner in 1997 A.D. The bank is providing its services through a wide network of 38 branches across the nation and one representative office in New Delhi. All the major branches of the bank are connected through Any Branch Banking System

(ABBS), a facility which enables a customer to do banking transactions from any of the branches irrespective of their having accounts in other branch.

The Bank is associated with Smart Choice Technology (SCT) to provide ATM services for its customers. EBL Debit Card can be accessed a more than 55 ATMs across the nation.

The bank is also managing the SCT ATM at Tribhuvan International Airport for the convenience of the customers and the travellers, the first and the only bank in Nepal to place ATM outlet at the Airport.

EBL is playing a pivotal role in facilitating remittance to and from across the globe. Being the first Nepalese bank to open a representative office in New Delhi, India, the Nepalese in India can open account in Nepal from the designated branches of Punjab National bank and remit their savings economically through banking channels to Nepal. The bank has a Drafts Drawing Arrangement with 175 branches of PNB all over India.

With an aim to help Nepalese citizens working abroad, the bank has entered into agreements with banks and finance companies in different countries, which enables quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, Singapore and U.K.

The bank recognizes the value of offering a complete range of services. It is pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus (Future Lease Rentals), Home Equity Loan, Car Loan, Loan Against Shares, Loan Against Life Insurance Policies and Loan for Professionals.

1.1.3 A Brief Profile of Himalayan Bank Limited (HBL)

Himalayan Bank was established in 1993 B.S. in joint venture with Habib Bank Limited of Pakistan. Despite the cut-throat competition in the Nepalese Banking sector,

Himalayan Bank has been able to maintain a lead in the primary banking activities, loans and deposits.

Himalayan Bank is an institution that's known throughout Nepal for its innovative approaches to merchandising and customer service. Products such as Premium Savings Account, HBL Proprietary Card and Millionaire Deposit Scheme besides services such as ATMs and Tele-banking were first introduced by HBL.

Other financial institutions in the country have been following its lead by introducing similar products and services. Therefore, HBL stands for the innovations that bring about in this country to help the Customers besides modernizing the banking sector. With the highest deposit base and loan portfolio amongst private sector banks and extending guarantees to correspondent banks covering exposure of other local banks under the credit standing with foreign correspondent banks, the bank believes, it obviously lead the banking sector of Nepal.

Himalayan Bank Limited holds of a vision to become a "Leading Bank of the country" by providing premium products and services to the customer, thus ensuring attractive and substantial returns to the stakeholders of the Bank. The Bank's mission is to become preferred provider of quality financial services in the country. There are two components in the mission of the Bank; Preferred Provider and Quality Financial Services; therefore HBL believe that the mission will be accomplished only by satisfying these two important components with the Customer at focus. The Bank always strives positioning itself in the hearts and minds of the customers.

Himalayan Bank has access to the worldwide correspondent network of Habib bank for fund transfer, letter of credit or any banking business anywhere in the word. Habib Bank is the largest and oldest bank in Pakistan having over 1700 domestic and 65 overseas branches covering all continents and over 1800 correspondents worldwide. Besides, Himalayan Bank has correspondent arrangement with 178 internationally renowned

banks like American Express Bank, Citibank, etc. Currently the bank has 32 branches and 52 ATM outlets across the nation.

1.1.4 A Brief Profile of NABIL Bank Limited (NABIL)

Nabil Bank Limited, the first foreign joint venture bank of Nepal with Arab Bank International, started operations in July 1984 A.D. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society.

Pursuing its objective, Nabil provides a full range of commercial banking services through its 43 branches across the country and over 170 reputed correspondent banks across the globe. The bank has 29 ATM locations inside Kathmandu valley and 26 locations outside valley.

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

Today, Nabil Bank is in a unique position in the banking industry of Nepal. As the nation's first joint venture bank it has an unmatched 25 years of operational experience, giving it unparallel insight into the market, risks, opportunities and customer needs. In conjunction to this, the bank today surges ahead in meeting its Mission to be the "Bank of First Choice" for all its stakeholders.

Nabil wants to be an actively participating 'good corporate citizen' in all the communities that the bank works in. And finally, the bank wants its high performing staff and the best people looking to build a career in banking to make Nabil Bank their first choice. The journey is hard and filled with challenges, but it is equally fulfilling and with a multitude of opportunities. To achieve this mission, the bank believes in delivering excellence to its stakeholders in an array of avenues, not just one parameter like profitability or market-share. The Bank has always given due importance in maintaining harmonious relations amongst staff at all levels. There is also a registered authorized staff union in the Bank.
The management and staff union are working closely in achieving the common goal of becoming the Bank of the first choice.

1.2 Focus of the Study

This study will focus on the trade off between liquidity and profitability of the three joint venture banks namely, Everest Bank Limited, Himalayan Bank Limited and NABIL Bank Limited, from the period of 2061/062 to 2065/066. In this study, attempts will be made to get knowledge about the relationship between liquidity and profitability, operational efficiency of the management, efficient use of total assets by the management etc. by identifying the strengths and weakness of the three respective banks. For the purpose of the study, evaluation of the bank is made with respect to liquidity and profitability ratios.

1.3 Statement of the Problem

Banking sector supports the economic growth of the country. Bank can also be termed as “an intermediary” which bridges the gap between the savers of the fund and the user of the funds. Banks are the custodians and distributors of liquid capital, which is lifeblood of commercial and industrial activities. According to Kent, "A bank is an organization whose principal operations are concerned with the accumulation of the temporarily idle money of the general public for the purpose of advancing to others for expenditure.”

Liquidity is a business firm's ability to repay its short-term debts and obligations on time. Short-term usually means one year or less. It is also known as marketability. According

to the principle of liquidity, banks should invest their funds in such sectors, where investment can be converted into cash easily and quickly without remarkable loss on their value. Therefore, banks must maintain liquidity to refund the deposit, when accountholders withdraw their deposits.

Profit is the difference between revenues and expenses over a period of time. Profit is the ultimate 'output' of a company, and it will have no future if it fails to make sufficient profits. Liquidity and profitability management is an important function of any business because it is the determinant of whether the entity will be in operation in the foreseeable future or not. Liquidity management is even more crucial as the lifeline of banking itself is money. For a bank, liquidity means having sufficient funds to meet regulatory, contractual and relationship obligations when required and at a reasonable cost to the bank. However, more than enough liquidity is also harmful and thus invites profitability risk. Thus, proper liquidity and profitability management ensures that all of a bank's lending commitments are met. Assessing a liquidity position can be challenging. An adequate liquidity position for one bank may not be sufficient for another. Therefore the liquidity and profitability are crucial for smooth operation of the bank. We cannot imagine profitability without liquidity; also, there is no growth in liquidity without profitability. So liquidity and profitability are correlated to each other.

In response to the economic liberalization policy of the government, establishment of private and JVBs is continued. The tendency to concentrate these banks only in urban areas. has raised certain questions. This state of affairs cannot contribute much to the socio-economic development of the country where ninety percent of the population depends upon agriculture. These commercial banks are reluctant to extend their operation in rural areas. But these banks are inclined to pay fines rather than directing their resources to such less profitable sector. This problem remains to be solved.

This study, basically focus its attention to reveal the struggle and success achieved by the JVBs. Commercial banks main motive is to make profit by providing services to the customers. In Nepal, the profitability rate, operating expenses, dividend distribution among the shareholders etc have been found inconsistent. There must be some reasons

behind such differences in performance. The problem of the study refers to the liquidity and profitability analysis of JVBs.

In this study, attempts have also been made to sort out the answers to the following questions:

1. How efficiently JVBs are managing their liquidity?
2. To what extent these banks have been able to raise their profitability?
3. Do they manage and utilize their assets efficiently?
4. Does the overall liquidity and profitability position indicate any special strength and weakness of these JVBs?
5. Why the focus of joint venture banks is mainly in Central and Urban areas only?
6. How far the joint venture banks have contributed in the economic development of the country?
7. How competitive are joint venture banks with other commercial banks within the country?
8. Has joint venture banks increased the life standard of people?

1.4 Objectives of the Study

The general purpose of the study is to discuss, examine and evaluate the tradeoff between liquidity and profitability position of the concerned JVBs in Nepal. Thus, this study has been conducted to achieve the following objectives:

1. To explore and examine the relationship between liquidity and profitability of EBL, HBL and NABIL.
2. To determine the operational efficiency of the management of the banks under study.
3. To evaluate how efficiently the total assets have been used by the management of the banks.
4. To analyze the trend of net profit achieved by the concerned banks.
5. To examine the relationship between total deposit and net profit of the banks.
6. To analyze the specific problems faced by the banks.

1.5 Significance of the Study

The study of the analysis of liquidity and profitability position of joint venture banks in Nepal plays vital role in the managerial decision. Every organization has to analyze its financial performance in the every step of its operation, promotion, and expansion. There should be an appropriate equilibrium between the earning and non-earning assets. Commercial banks are always guided by the objective of profitability. All financial decisions of commercial banks are for the betterment of shareholder's wealth. There should be an effective system of funds allocation in order to safeguard the banks from the danger of illiquidity. An appropriate level must be achieved between them. The study ponders to find out whether commercial banks are alert or not in this regard.

This study will be helpful to enhance the financial performance of concern organization. This study will be usable and valuable for academicians, students, teachers and practitioners in the field of accounting and finance. This study enlightens the shareholders, financial agencies, stock exchange, stock trader, customers, depositors and debtors who can objectively identify the better banks to deal with.

Thus, this study analyses and states to maintain balance between principalities of liquidity and profitability. This study will be a helpful tool for the bank also in analyzing its practices on trade off between liquidity and profitability.

1.6 Limitations of the Study

In the context of Nepal, problem of reliable data is the major problem for research study. There is considerable place for arguing about its accuracy and reliability. Every study has limitations due to different factors of institutions, time-period taken, reliability of statistical data, tools and variances. The following limitations are pointed out in this study of trade off between liquidity and profitability position of JVBs:

1. The study analyzes only the relationship between liquidity and profitability of the selected joint venture banks and hence it does not cover the other aspects of the banks.

2. The study focuses only three joint venture banks viz Nabil, Himalayan and Everest banks only which may not truly represents the whole population.
3. This study is mainly conducted on the basis of secondary data. Therefore, the study has inherent limitation of the secondary data.
4. All the information gathered through primary sources has been assumed to true and correct.
5. The authenticity of the study depends on the authenticity of the data provided and collected.
6. This study covers the analysis of only five years data from FY 2062/63 to FY 2065/66; hence, the conclusion drawn confirms to the above periods only.

1.7 Organization of the Study

The study on trade off between liquidity and profitability of JVBs has been dividend into five chapters viz. Introduction, Review of Literature, Research Methodology, Presentation, and Analysis of Data and Summary, Conclusion and Recommendation.

Chapter-I Introduction

The introduction chapter deals with the general background and the subject matter of the study. It consists of introduction of research study, which explains the focus of the study, statement of the problem, objectives of the study, significance of the study and limitations of the study.

Chapter – II Review of Literature

In the second chapter, the relevant and pertinent literature and various studies have been reviewed. The review has been made in terms of the theoretical background of banking principles that are relevant to this research work.

Chapter – III Research Methodology

The third chapter briefly explains about the research methodology, which has been used to evaluate the liquidity and profitability position of banks under consideration. This chapter consists of research design, sample and population, sources of data, and statistical and financial tools and techniques to measure the liquidity and profitability position of JVBs.

Chapter – IV Presentation and Analysis of Data

In the fourth chapter, the data required for the study has been presented, analyzed and interpreted by using various tools and techniques of financial management and statistics to present the result relating to the study.

Chapter – V Summary, Conclusion and Recommendations

The fifth chapter is the final chapter of the study, which consists of the summary of the four earlier chapters. This chapter tries to draw out a conclusion of the study and attempts to offer various suggestions and recommendations for the improvement of the future performance of the banks under review.

Finally, bibliography and appendices are also included at the end of the study.

CHAPTER – II
REVIEW OF LITERATURE

The review of literature is a very important aspect of the research. This chapter highlights upon the existing literature. For this, several books, dissertation, reports, handouts and articles published in journals and newspapers are reviewed.

2.1 Theoretical Review

2.1.1 Concept of Liquidity

"Liquidity is the status and part of the assets which can be used to meet the obligation. Liquidity can be viewed in terms of liquidity stored in the balance sheet and in terms of liquidity available through purchased funds. The degree of liquidity depends upon the relationship between cash assets plus those assets which can be quickly turned into cash and the liability awaiting payment. Generally, the definition of liquidity can't be found in the same way, in the countries of whole world. Because, it is known, as much as the development of the monetary sector take place or the use of monetary devices increases, so much the definition of it goes wider. Liquidity means the whole money stock of money."(Bhandari, 2003:143)

According to D. W. Pearce, "Availability of cash, and of assets readily convertible into Cash, to meet immediate obligations, this means, process, time and cost of conversion of liquid assets should be little”.

As per manning Decay," An asset is completely liquid, if its owner can count with absolute certainty on turning it into cash at a very short notice and without loss". This means, the asset should be easily converted into cash at a short notice without any loss of assets.

"Liquidity management is the part of risk management framework of the financial services industry, which concerns all financial institutions whether they are commercial banks or development banks or finance companies or other financial institutions."
(Shrestha; 2061: 16)

"Liquidity ratio measures the ability of the firm to meet its current obligations. In fact, analysis of liquidity needs the preparation of cash budgets and cash and fund flow statements; but liquidity ratios, by establishing a ratio between cash and other current assets to current obligations, provide a quick measure of liquidity. A firm should ensure that it does not suffer from lack of liquidity, and also that it does not have excess liquidity. The failure of a company to meet its obligations due to lack of sufficient liquidity will result in a poor creditworthiness, loss of creditors' confidence, or even in legal tangles resulting in the closure of the company. A very high degree of liquidity is also bad; idle assets earn nothing. The firm's fund will be unnecessarily tied up in current assets. Therefore, it is necessary to strike a proper balance between high liquidity and lack of liquidity."(Pandey, 2000:114)

The liquidity position of bank is very important to maintain the public faith upon banks. People deposit their precious assets and funds into bank with the faith that banks repay it with guarantee as agreed terms and conditions. So, bank must refund the public deposit on demand or on expiry of predetermined time period. When a bank fails to repay deposited money on deposit, it tends to the loss of public faith upon banks. Then account holders rush into bank to withdraw their money deposited.

Lack of adequate liquidity is often one of the first signs that a bank is in serious financial trouble. Due to this bank usually begins to lose deposits. This erodes its supply of cash and forces the bank to dispose in more liquid assets. In this situation, other bank becomes more increasingly reluctant to lend the troubled bank any funds without additional security or a high rate of interest. This will further reduce the earnings of the bank and threatens it with failure.

Liquidity management is much more important than we may realize, because a bank can be closed if it cannot rise enough liquidity even through technically it may be still solvent. Many banks assume that liquid funds can be borrowed virtually without limiting any time they needed. Therefore, they notice little need to store liquidity in the form of easily marketed, stable-price assets. The enormous cash shortages experienced in recent years by banks make clear that liquidity needs cannot be ignored.

"Liquidity is an important principle of bank lending. According to the principle of liquidity, banks should invest their funds in such sectors, where investment can be converted into cash easily and quickly without remarkable loss on their value. Banks should invest majority of their funds in government securities and first class securities, which possess sufficient liquidity." (Singh, 2062:97)

There are certain securities such as central, state and local government bonds, which are easily saleable without affecting their market prices. The shares and debentures of ordinary firms are not easily marketable. So, the banks should make investments in government securities and shares and debentures of reputed joint stock companies. This is the basic principle of liquidity.

Liquidity is the availability of cash at the time when needed at a reasonable cost. One of the most important tasks faced by the management of any bank is ensuring adequate liquidity. A bank is considered to be well liquidity maintaining bank if it has ready access to immediately spendable funds at reasonable cost precisely at the time when those funds are needed. This suggests that a well liquidity maintaining bank either has the right amount of immediately spendable funds on hand when they are required or can quickly raise liquid funds by borrowing or by selling assets.

The liquidity position of a firm would be satisfactory if it is able to meet its current obligations when they become due. A Firm can be said to have the ability to meet its short-term liabilities if it has sufficiently liquid funds to pay the interest on its short-

maturing debt usually within a year as well as to repay the principal. This ability is reflected in the liquidity ratios of a firm. The liquidity ratios are particularly useful in credit analysis by banks and other suppliers for short-term loans.

2.1.2 Importance of Liquidity

A bank can't be run without liquidity. The Nepal Rastra Bank from time to time changes the legal provision about the liquidity. The compulsion about the commercial banks should keep the cash in their various funds shows the importance of liquidity. The commercial banks and financial institutions should maintain the balance of cash fund in required quantity as per the the law and the NRB. The importance of liquidity is considered very sensitive because if it can't maintain the liquidity, it has to pay fine.

The commercial banks and financial institutions should keep the stock of liquid assets in the ratio of their deposit liability, as determined by the NRB.The commercial banks and the financial institutions should keep the fund correctly to repay the liability of total deposit. If a commercial bank or a financial institution does not keep the stock of liquid property as per the law and policy of the central bank, then there is a provision to fine them. So, there is no dispute that liquidity is the most important thing for a bank.

People deposit their savings into bank to safeguard them, earn interest and get back whenever they need. Therefore, banks must maintain liquidity to refund the deposit, when accountholders withdraw their deposits. Hence, Liquidity is the life-blood for bank, without which a bank cannot survive for long. Banking transactions are more dependent upon the mutual faith between bankers and customers. It is essential to maintain sufficient cash reserve in bank to maintain the public faith. The basic importance of bank liquidity can be presented as follows:

a) Liquidity is essential for the payment of all sorts of deposits such as current, saving and fixed account of its customers.
b) Liquidity is important to meet the daily expenses that are spent in the administrative functions.
c) Liquidity is important to maintain statutory liquidity ratios in banks.

d) Liquidity is important and inevitable factor to advance loan.
e) Liquidity is needed to pay dividend to their shareholders.
f) Liquidity is essential to face the economic rise and fall or in economic crisis.
g) Liquidity is essential to gain trust from the public including other sectors.
h) Liquidity is necessary for the efficient and healthy competition among banks.

2.1.3 Criteria for Measuring Liquidity Position of Bank

The bank liquidity is the most important for a bank. If there is less bank liquidity, the bank can't be run. If there is much liquidity, the bank should bear great loss economically. Both high liquidity and low liquidity are not good omen for the bank. The bank should be able to keep the liquidity in balance. This is very difficult task. However, the bank liquidity can be measured by the following criteria:

a) Deposit investment ratio

Liquidity can be measured by the deposit investment ratio. The depositors deposit the cash in the current, saving and fixed accounts. The bank receives the most liquidity as deposit. The bank invests the capital collected by deposit in various profitable and productive sectors in the form of loan. By earning much profit from it, the bank can get a lot of amount from the amount of deposit. The bank has the nature of paying lower interest to the depositors and taking higher interest from the place it invested. And the bank doesn't invest all the cash as loan. A part from the deposit invested, the bank also has other cash. Thus, the criteria of liquidity can be found from it.

b) Investment in assets

The criteria of measuring liquidity in bank, depends on the type of asset which the bank has made investment. The bank doesn't waste cash stock received from different source of capital. The bank can invest the money, it possesses in different types of assets. In such condition, the bank has low liquidity because the investment made in such nature of assets need much cash. And the bank gains income very low from such nature of assets. But in contrast to it, if the bank has invested in the share of various companies, the investment in government securities and treasury bills and in the debentures of different

business institutions, bank liquidity is abundant. In this way, the investment that the bank has done can be used as the criteria of measuring liquidity.

c) Cash reserve ratio

The cash reserve ratio also can be taken as criteria of measuring bank liquidity. The commercial bank should maintain the cash reserve ratio as fixed by the central bank by opening an account in central bank and also should maintain the statutory liquidity ratio, in its own treasury. It changes from time to time. Thus, bank liquidity can be measured from this also.

d) Profitability

The bank should be able to earn income from the medium of investment because it is a legal person. The objective of the bank is intensified with the concept of gaining profit. The bank should invest its money to gain the profit. The bank can invest in various ways. A great deal of cash is deposited in a bank from different accounts as deposit. The bank invests as loan, the cash fund and the cash collected from various other sources. In addition to it, the bank spreads its investments in various profitable sectors. The bank provides various banking services to its customers. The bank becomes successful if it generates income from such all investments and functions. But the bank certainly provides little interest to the account holders who deposit the money in the bank. Thus, the liquidity can be guessed from the profit of which a bank has gained.

e) Investment in loan

The bank distributes loans in different sectors. The source of loan investment is important for the various sources of income of the bank. It is an important to know what sort of loan and how much loans the bank has distributed, while the bank distributes the loan. If the bank is intensified with the concept of gaining profit, the bank disburse loan as a long term and mid term basis. If it has paid its attention to the safety, it invests in short term loan. If great deal of amount is invested in long term and mid term, then there is lower liquidity. Thus, loan investment also be the criteria of measuring the liquidity.

f) Structure of bank

The organizational structure of a bank also gives speculation of bank liquidity. If the structure of the bank is in single nature, there is higher liquidity in the bank. If the banks

have many branches, liquidity is lower because the liquidity remains scattered in different branches and sub-branches. In this way, the bank liquidity can be found out from the organizational structure of a bank.

g) Position of business

If the business environment of the bank is good, then liquidity remains low. On the contrary, if the business environment is not good then liquidity remains high in the bank. In this way, the position of the business can be the medium to guess the criteria of measuring liquidity.

2.1.4 Concept of Profitability

"Profitability is the measurement of efficiency. Profitability also indicates public acceptance of the product and shows that the firm can produce competitively. Moreover, profit provides the money for repaying the debt incurred to finance the project and the resources for the internal financing expansion. The profitability of a firm can be measured by its profitability ratios. In other words, the profitability ratios are designed to provide answers to questions such as (i) Is the profit earned by the firm adequate? (ii) What rate of return does it represent? (iii) What is the rate of profit for various division and segments of the firm? (iv) What is the earning per share? (v) What amount was paid in dividends? (vi) What is the rate of return to equity-holders? and so on."

Profitability ratio indicates the degree of success in achieving desired profit. It furnishes answers to how efficiently the bank is being managed. Although profitability ratio mainly studies the earning power of the bank, it depicts almost entire performance of the bank.
(Khan and Jain; 1992:98)

Business environment is full of risks and uncertainties. To grasp the global changing technologies, to stay in the market uncertainties, to replace acquire assets and enhancing business scope etc. required a profit margin.
(Saunders & Cornett; 2004: 61)

Profit is necessary to plough back in the investments like innovations, business expansion and self-financing. It also attracts investors for further investment.
(Mishkin; 1998: 26)

Shareholders provide equity capital to the business because they expect the entity will provide return to their funds at least equal or above market rate of return. To maintain the shareholders expectation, it is most important that a firm should earn sufficient profit so that it can distribute dividends. (Mishkin; 1998: 26)

"Profit is the difference between revenues and expenses over a period of time (usually one year). Profit is the ultimate 'output' of a company, and it will have no future if it fails to make sufficient profits. Therefore, the financial manager should continuously evaluate the efficiency of the company in terms of profits. The profitability ratios are calculated to measure the operating efficiency of the company. Besides management of the company, creditors and owners are also interested in the profitability of the firm. Creditors want to get interest and repayment of principal regularly. Owners want to get a required rate of return on their investment. This is possible only when the company earns enough profits."(Panday, 2000: 420)

Commercial banks are established to earn profit. Without profit, they cannot survive for the long period of time. All the stakeholders of the bank put pressure on the bank management to earn profit for their own sake. Without profit these stakeholders cannot be satisfied and without them bank cannot exists. So, bank wants to invest all of its funds in those sectors which ensure higher return. Further more, there is always positive attitude of depositors and other lenders towards the highly profitable banks. As a result, bank can acquire funds easily and can spend in their transactions.

Profit is a reward for risk taking. Profit for a bank is the difference between borrowing rate of interest and lending rate of interest. Generally, an interest rate is the composite of liquidity risk premium, default risk premium, inflation risk premium and risk free rate.

Investments on liquid assets are free from liquidity risk and default risk. So, interest rates or rate of return from such investment are comparatively very low. Banks wants to invest on those assets which ensures higher return rate. However, they cannot escape from the investment on liquid assets. So, appropriate investment portfolio which ensures both liquidity and profitability is essential.

2.1.5 Principle of Profitability

Commercial banks are the profit-oriented business organizations. They are established by issue of shares to general pubic, who purchase shares to earn profit in terms of dividends. Therefore, profitability should be the cardinal principle for making investment. According to principle of profitability, banks should invest their funds in such sectors, which ensures higher rate of return. Banks must earn sufficient profits to meet all expenses for daily administration, expansion and growth as well as payment of dividend to shareholders. That is why; it should invest in profitable sectors, which assure a fair and stable return on the funds invested.

Banks can either invest their funds in securities or advance loans to productive sectors to generate profit. The earning capacity of securities and share depends upon the interest rate, the dividend rate, and the tax benefits they carry. It is largely, the government securities that carry the exemption of taxes. The bank should invest more in such tax-free securities. But banks should not invest in the share of such new companies. New companies also carry tax exemption. This is because shares of new companies are not considered as safe investments.

In loan sectors, bank should grant loans to those sectors generating high rate of return. Still they cannot neglect the risk and liquidity factors. Higher return involves higher risk, thus, there should be a proper check and balance between risk and return for investment. Bank should select the loan proposal bearing high return with proportionately low risk.

2.1.6 Trade-off between Liquidity and Profitability

For a bank, the words liquidity and profitability come again and again. There is no possibility of profitability without liquidity. Also, there is no growth in liquidity without profitability. These are complement to each other. But these two also are opponent to each other. If there is high liquidity in bank, the bank can't gain profit. Because, most part of the liquidity is reserved in the bank, it doesn't give profit to the bank. The bank can't invest the amount. It is not possible to hope profitability without investment.

For profitability, the bank has to keep liquidity low in the bank, invest the cash fund, it can gain profit after some time but it can invite a great accident to the bank. If there is no maintenance of liquidity in the bank as a balance form, the bank can't carry out its banking transaction. Different obstructions may come to banking transaction, not only the bank losses, its business, but also destroys the reputation of bank. Eventually, it becomes matter of great loss for the investors, creditors and the nation who invested the amount on it.

Of all fundamental and sound lending principles of the investment policy, the principality of liquidity and profitability are very much crucial. In the lack of liquidity the bank can't give payment to the depositors in the time of their demand, and can't pay the loan to the creditors. The bank's daily work can't be run. The bank, under the law can't keep and maintain the capital funds. Not only this much, the bank also becomes unable to face any economic rise and fall occurring in coming days. So, to keep liquidity is very important. If high liquidity is harmful to the bank, liquidity crisis too is malignant to the bank. To be free from both of these two conditions, the bank should be able to maintain balance of liquidity.

Similarly, the bank should keep in balance the principle of profitability. If there remains high liquidity in the bank, the bank will be successful in its goal. The commercial banks always are intensified with the concept of gaining profit. So, they are eager to invest in

the profitable sectors. To gain much profit, they should be able to flow long term loan, short term and mid term loan which brings profit to the bank.

"The bank always follows the principle of profitability more carefully. Sometimes, the bank, with the view point of gaining profit and safety, invests in the sectors that are considered less important, from which it can earn much profit or loss. This is a matter which depends on time and situation. It is very difficult for the bank to discharge both of these function together, to keep liquidity and earn profit are compulsory for the bank. But if the bank without carrying both these principles moves forward, it becomes unsuccessful in its goal. The bank should not forget these two principles all the time. It should be able to maintain these principles in balance all the time. The bank should maintain understanding between these two principles.

If the bank attempts to run its transactions ignoring these two principles, certainly the bank will bear an economic disaster. Hence, the bank gives emphasis upon the necessity of internal co-ordination between liquidity and profitability due to following reasons:

a) Liquidity is necessary to make payment of all sorts of deposits.
b) Liquidity is necessary to save the bank from the economic rise and fall.
c) The bank should not keep high (much) liquidity to gain profit.
d) In the lack of profitability, the bank can't be operated.
e) Also, if there is liquidity crisis in the bank, it can't be run.
f) Also, the bank should earn much profit to pay the shareholders, creditors and the employees of the bank.
g) Also, for competition, the bank should gain profit.
h) The bank can't manage its transactions without gaining profit.

With the above mentioned reasons, the liquidity and the profitability have their peculiar importance in the bank. So, from business point of view, it is necessary to maintain balance, between principalities of liquidity and profitability."(Bhandari, 2003:164)

The importance of liquidity and profitability in a bank is paramount. They are recognized as two wheels of a cart because in the absence of any of them, the bank cannot forgo ahead. However, there is a practice of treating them as antagonistic to each other because liquidity is maintained at the cost of profitability and vice-versa.

Similarly, a bank always puts in efforts to maximize its profitability. This is so because its shareholders expect fair rate of return, depositors expect better rate of interest and employees expect handsome salary and bonus. If the bank cannot satisfy either of these parties then the success of the bank is always questioned.

2.2 Review of Related Studies

Various studies have been conducted in different aspect of commercial banks and JVBs. The conclusion of the previous studies on the different aspects of JVBs is relevant to this study. Thus, the studies of previous articles, journals and thesis are reviewed in this regard.

Review of Journal and Articles

Kennon.J, (2005), Bizfinance.about.com**,** in the article "*The Importance of Liquidity and Liquid Assets; A Lesson from September 11th*" After the September 11th terrorist attacks, the American financial system was shut down for four days. With stock exchanges closed, investors learnt the importance of liquidity after they temporarily lost access to cash and investments. As we reflect on the tragedy, investors should remember one important lesson: at least some portion of our net worth should be liquid.

The term liquidity refers to how fast something can be turned into cold, hard cash. Liquid assets are those that are thought to be turned to cash immediately. These are the most liquid assets (meaning we can immediately spend them), but the least safe. On the other end of the scale are assets such as real estate, which can take months or even years to convert into cash.

In most cases, depositing the money in a bank is considered extremely safe. America's banks have not be frozen since 1933 when Roosevelt declared a "banking holiday" which

lasted three days, and it seems relatively unlikely such an event would happen again in the near future. Money market funds can cause problems because, we may lose access to our cash if the financial markets shut down (which is precisely what happened to many investors on September 11th). For emergency purposes, we should not consider stocks, bonds, mutual funds, government treasuries, annuities, or insurance policies as liquid assets. In addition to normal market fluctuations, these investments may become completely illiquid if the exchanges are closed.

Even if we don't own any investments, we still need a cash reserve. Once Manhattan was shut down, many businesses could not operate. In some cases, employees were not paid for several weeks, leaving them without a source of income. What if there was a tragedy or extraordinary event in our area and we suddenly couldn't report to work? Taking the scenario one step further, what if such an event caused our company to run into tough financial times and it either closed its doors or started lying off most of the work force? How would we survive? If we had realized the importance of liquidity, we would be able to stay afloat for at least several months using our cash reserves.

The article entitled " *The Efficiency of Liquidity Monitoring and Forecasting Framework the Nepal Rastra Bank in the Context of Liquidity Management in the Nepalese Banking and Financial* System" by Shrestha in 2007 has stated liquidity management as the part of risk management framework of financial services industry. He found taking high liquidity risk as well as high credit risk are two main factors that cause banks to fail. Although high liquidity risk alone is not likely to cause banks failures, a liquidity crisis usually signals a need for change. The article concluded proper liquidity management ensures that banks and financial institutions' financial commitments and obligations are met. Maintaining adequate liquidity also helps in avoiding forced sale of assets. The need for bank liquidity stems from seasonal, cyclical trend and short-term irregular movements in deposits and loans. The different sources available to meet these liquidity needs were identified and grouped into asset and liability liquidity sources. The treasury manager must consider the purpose of the liquidity need, the length of time for which funds are needed, the access to liability

markets, the cost and the characteristics of various liquidity sources and interest rate forecasts.

Walt, J. (2008) in the article "*Sound Practices for Managing Liquidity in Banking Organizations" attributed Liquidity, or the ability to fund increases in assets and meet* obligations as they come due, is crucial to the ongoing viability of any banking organization. Sound liquidity management can reduce the probability of serious problems. Indeed, the importance of liquidity transcends the individual bank, since a liquidity shortfall at a single institution can have system wide repercussions. For this reason, the analysis of liquidity requires bank management not only to measure the liquidity position of the bank on an ongoing basis but also to examine how funding requirements are likely to evolve under various scenarios, including adverse conditions.

Dr Khatiwoda.Y, *Annapurna Post (2010*), the governor of Nepal Rastra Bank accused commercial banks, "At present situation Nepalese banking sector is facing liquidity problem due to their own causes" such as high investment on unproductive sector i.e. real state, involve in competition to increase market share and in bonus distribution" he adds "directors of commercial banks creates big problem but the situation is in controllable, NRB is going to make policy to solve it".

Review of Thesis

Gumanju (2004), conducted the Master's thesis entitled *"A Comparative Study of Financial Performance Analysis of HBL and NIB"*, with the general objective of examining and evaluating the financial performance of Himalayan Bank Limited (HBL) and Nepal Investment Bank (NIB) concludes the findings such as,

- The liquidity position of NIB is better than HBL,
- The analysis of leverage ratio shows that HBL has higher ability in utilizing debts than NIB in terms of total debt to total equity, total assets and total capital ratio,
- The profitability position of NIB is better than HBL in terms of ROA,
- The EPS and DPS of HBL are better than NIB,

- The correlation co-efficient showed the positive relationship between total debt and net profit of HBL and NIB, etc.

On the basis of analysis and evaluation of various financial and statistical tools, he recommended that both the banks should maintain standard current ratio. Moreover, he also suggested that both the banks should improve their capacity by improving effective organization structure and controlling capital structure and so on.

Paudel(2006) carried out the research work on *"Liquidity Management of Commercial Banks in Nepal with reference to Bank of Kathmandu (BOK), Nepal Industrial and Commercial Bank (NIC), HBL, EBL and NABIL"*, with the objective of examining and analyzing the liquidity position and its management in Nepalese commercial banks has investigated the findings such as,

- The liquidity position of NIC is strong, EBL is poor and BOK, HBL and NABIL are moderate in terms of cash and bank balance to current deposit ratio,
- The liquidity position of EBL, NIC and BOK are proportionately better than NABIL and HBL in terms of short-term investment to total investment ratio,
- The efficient deposit utilization in investment of NABIL is good, BOK is poor and NIC, HBL and EBL are moderate and so on.

Dhungana (2006) made the thesis report entitled "*Liquidity Position of Commercial Banks of Nepal With reference to BOK, HBL, Standard Chartered Bank (SCB), Nepal Bank Limited (NBL), NIB and EBL"*, with the objective of examining the relationship between liquidity and profitability has concluded the findings such as,

- The banks under study are maintaining very high level of liquidity than the rate imposed by the NRB,
- Saving and fixed deposits are in higher proportion as the major sources of funds for each bank,
- There is positive correlation between change in deposit and change in total liquid fund of the banks and so on.

Shrestha (2007) researched the Master's thesis on *"Performance Measurement of Joint Venture Banks in Nepal with reference to EBL, SCB, Nepal State Bank of India (NSBI) and NABIL"*. The main objective of his study was to access the investment policy and strategies followed by the banks under study. The major findings from the study includes,

- SCB has the highest mean current ratio whereas, NABIL has the poorest,
- NABIL has maintained highest cash and bank balance to total deposit ratio among all the banks under study,
- The condition of the entire banks are moderate to maintain investment to total deposit ratio,
- EBL has the highest earning power capacity than the other banks under study etc.

With the analysis and evaluation of various financial and statistical tools, he recommended that all the banks under study should collect more amounts of deposits through variety of deposit schemes and facilities. Moreover, he also suggested EBL to keep wide vision in investment. Further, he strongly recommended the banks to invest its more funds in shares and debentures.

Tamang (2009) conducted this Master's thesis entitled *"Financial Performance Analysis of Commercial Banks of Nepal with reference to NIB and NABIL"*, with the objective to measure the operating efficiency, stability and profitability of NIB and NABIL along with their financial strength and weakness concludes the findings such as,

- The liquidity position of NIB is better than that of NABIL,
- NABIL has utilized more debt than NIB,
- The profitability ratio of NABIL is better than the of NIB in terms of ROA,
- The EPS and DPS of NABIL are better than that of NIB,
- There is positive correlation between total debt and net profit for both the banks etc.

On the basis of his findings, he recommended that both the banks should review their overall capital structure and investment portfolio to make better mix in capital structure.

Moreover, he also suggested that both the banks should also give due consideration in improving their liquidity position.

Karki (2010) made thesis report on "*Liquidity and Profitability Position of Commercial Banks of Nepal*" which included SCBL, NABIL, HBL, EBL; NIBL with the objective to examine the liquidity and profitability position of the commercial banks of Nepal. The thesis work investigated following findings

- The liquid asset of SCBL is highest among the above mentioned banks.
- Liquid assets maintained by NABIL are higher than that of EBL.
- In terms of cash reserve ratio liquidity position of NIBL is most satisfactory.
- The average net profit made by SCBL is highest. In terms of net profit margin SCBL is most efficient.

According to the thesis it would be better if EBL increases the liquid assets considering the short-term liabilities requirement. NABIL and EBL should be careful enough while maintaining CRR, and thus should not jeopardize the credibility of the bank. Similarly the banks should reengineer the portfolio of its investment to achieve higher profit.

2.3 Research Gap

The relationship between liquidity and profitability of joint ventures banks in Nepal has been conducted by few researchers. However the comparative study between EBL HBL and NABIL has not been carried out till date. The research has taken into consideration the Liquidity and Profitability Position of Commercial Banks of Nepal which included SCBL, NABIL, HBL, EBL; NIBL on the basis of research conducted by Lok Bahadur Karki of Shanker Dev Campus. In global context various related research between banks of different nations has been taken into consideration.

The previous research is only limited to financial and statistical analysis of commercial banks of Nepal. The previous researchers has been incomplete to show the impact of profitability over the maintained liquidity it has only explained the trend that has been established between the liquidity and profitability, it has become incomplete to explain

the impact over the operational efficiency and the specific problems faced by the banks due to conflicting impact of profitability over liquidity. Therefore, this research is broader and is aimed to analyze the impact of profitability and liquidity by analyzing their trends and using hypothesis to draw the effective conclusion.

CHAPTER-III
RESEARCH METHODOLOGY

3.1 Introduction

In the modern world, research has become an indispensable in all spheres of human activity. Research is essentially systematic inquiry seeking facts through objectives verifiable methods in order to discover the relationship among them and to deduce from them broad principles or laws. It is really a method of critically thinking by defining and redefining problems, formulating hypothesis or suggested solution, collecting, organizing and evaluating data, making deductions and making conclusions to determine whether they fit the formulated hypothesis.

Research is a systematic method to find out the solution to a problem where as research methodology refers to various sequential steps to be adopted by a research in studying a problem with certain objectives in view. In other words, research methodology describes the methods, techniques and process applied in the entire aspects of the study. It is a sequential procedure and method to be adopted in a systematic study.

It has been clear that research methodology is a systematic and scientific method of identifying problems, collecting facts and information tabulating and recording the data, setting hypothesis, analyzing the facts and researching certain conclusion with a view of findings answer to the problems. In fact, research methodology is one of the crucial aspects of the thesis writing. So the presented chapters outline the entire research methodology used and followed in this study.

3.2 Research Design

Research design refers to the conceptual structure within which the research is conducted. It is the plan, structure and strategy of investigation conceived so as to obtain a number of research questions and to control variance. It is essential for the whole study and helps in finding out deficiency in expectation of the starting of work. The research design is the outline of a plan to test the hypothesis and should include all the procedures that follow. It is said that the formidable problem that follows in task of defining the research is the preparation of design of the research project, popularly known as research design. Basically, the research design has two purposes. The first purpose is to answer the research question or test the research hypothesis. The second purpose of research design is to control variance.

"Thus, a research design is a plan for the collection and analysis of data. It presents a series of guideposts to enable the researcher to progress in the right direction in order to achieve the goal. The design may be a specific presentation of the various steps in the research process. These steps include the selection of a research problem, presentation of the problem, formulation of hypothesis, conceptual clarity, Methodology, survey of literature and documentation, bibliography, data collection, testing of the hypothesis, interpretation, presentation and report writing. Generally, a common research design possesses the five basic elements viz. (i) Selection of problem (ii) Methodology (iii) Data gathering (iv) Data analysis and (v) Report writing." (Joshi, 2008:12)

"Research design is needed because it facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible yielding maximum information with minimal expenditure of effort, time and money. Research design stands for advance planning of the methods to be adopted for collecting the relevant data and the techniques to be used in their analysis, keeping in view the objective of the research and the availability of the staff, time and money. Research design, in fact, has a great bearing on the reliability of the results arrived at and as such constitutes the firm foundation of the entire edifice of the research work." (Kothari, 1999:40)

The main objective of this study is to analyze and evaluate the relationship between liquidity and profitability position of the selected JVBs and provide suggestions on the basis of the evaluation. To accomplish this objective, analytical and descriptive research design has been adopted. It tries to describe and analyze all these facts that have been collected for the purpose of the study.

In this research, the trade off between liquidity and profitability positions of the JVBs is analyzed. Mostly the secondary data have been used for the research study. The data are collected from the various websites, annual reports of the respective banks, personal visits opinion survey etc. Hence, the research design is made by collecting the informations from the different source and data have been tabulated and analyzed by using various financial and statistical tools. The financial tools include liquidity and profitability ratios. Similarly, the statistical tools include average or mean, standard deviation, coefficient of variation, trend ANOVA. This study tries to make comparison and establishes relationship between two or more variables. At the end, summary, conclusion and recommendations are set for the purpose of the study.

3.3 Population and Sample

The term "population" used in statistics denotes the aggregate from which the sample is to be taken and the term "sample" is that part of the population, which we select for the purpose of investigation. Population refers not only to people but the totality of all observations that have been selected for the study. Population is also known as universe. Sample refers to a part chosen from the population. Thus, in statistics, population means whole and the sample means the part of the whole.

Since, this study is focused on the JVBs, thus, here the population encompasses all the JVBs functioning its operation within the country. Since, study of whole population may not be effective due to several factors, thus, sampling becomes essential to draw inference for the population. So, among all the JVBs, three JVBs have been selected

randomly as sample, viz. Everest Bank Limited, Himalayan Bank Limited and NABIL Bank Limited. Here the sample comprises fifty percentage of the total population.

3.4 Sources of Data

Analysis of data means to study the tabulated material in order to determine inherent facts or meanings. It involves breaking down the existing complex factors into simpler parts and putting them together in new arrangements for interpretation. A plan of analysis should be prepared in advance before the actual collection of the material. A preliminary analysis plan for investigation process requires detailed information about similarities, differences, trends, outstanding factors etc.

This research would include both primary and secondary data. Data collected by the researcher or through agent for the first time from related field and possessing original character are known as primary data. Primary data are also called first source. On the other hand, data collected by come one else, used already and are made available to other in the form of published statistics are known as secondary data. Once primary data have been used, it loses its primary characteristics and becomes secondary. The difference between primary and secondary data is a matter of relativity. Primary data are generally used in those cases where the secondary data do not provide an adequate basis for analysis. In certain cases, both data may be employed.

3.5 Data Collection Techniques

Once the purpose of statistical investigation has defined, the next step is the collection of the data that are relevant for analysis in a meaningful manner. Thus, collection of data is considered as an integral part of the research activity. In this regard, the annual report (i.e. financial statement of the concerned fiscal years have been collected from the respective banks. Moreover, several books, journals, articles and magazines, and various websites have also been referred for the information.

3.6 Data Analysis Tools

The collected data will be analyzed with the help of different financial and statistical tools.

Financial Tools

Financial tools are those which are used for the analysis and interpretation of financial data. Here in this study, the financial tools will include:

(A) Liquidity Ratio

(B) Profitability Ratio

(A) Liquidity Ratio

Bank is an institution which deals with money. Cash is the most liquid fund and it is considered as the defense of banks. The bank should maintain certain amount of cash in order to meet its cash requirements of the depositors. The structure of cash will be in the form of cash in it vault and the cash kept in other banks as well as in central bank of the country. The central bank, NRB also directs all the commercial banks to maintain certain percentage of cash and bank balance for the purpose of maintenance of 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. Current ratio establishes a relationship between current assets and current liabilities. It is calculated as under.

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

Current assets include cash and those assets which can be converted into cash within a year, such as cash and bank balance, money at call and short notice, and other assets. Whereas, all obligations maturing within a year are included in current liabilities. Current liabilities include bills payable and other liabilities.

As a conventional rule, a current ratio of 2 to 1 or more is considered satisfactory. This rule is based on the logic that in a worse situation even if the value of current assets becomes half, the firm will be able to meet its obligation. The current ratio represents a margin of safety for creditors. The higher the current ratio, the greater the margin of safety; the larger the amount of current assets in relation to current liabilities, the more the firm's ability to meet its current obligations.

"However, an arbitrary standard of 2 to 1 should not be followed blindly. Firms with less than 2 to 1 current ratio may be doing well, while firms with 2 to 1 or even higher current ratios may be struggling to meet their obligations. This is so because the current ratio is a test of quantity, not quality. The current ratio measures only 'total rupees' worth of current assets and 'total rupees' worth of current liabilities. It does not measure the quality of assets. Liabilities are not subject to any fall in value; they have to be paid. But current assets can decline in value. It the firm's current assets consist of doubtful and slow-paying debtors or slow-moving and obsolete stock of goods, then the firm's ability to pay bills is impaired; its short-term solvency is threatened. Thus, too much reliance should not be placed on the current ratio; further investigations about the quality of the items of current assets are necessary. However, the current ratio is crude-and quick measure of the firm's liquidity." (Pandey: 2000:114)

(b) 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 value. Cash is the most liquid asset. Other assets which are considered to be relatively liquid and included in quick assets are debtors and bills receivables and marketable securities. Inventories are considered to be less liquid. Inventories normally require some time for realizing into cash; their value also has a tendency to fluctuate. Thus, quick asset equals current assets minus pre-paid and inventories. The quick ratio is found out by dividing quick assets by current liabilities.

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

Generally, a quick ratio of 1 to 1 is considered to represent a satisfactory current financial condition. Although quick ratio is a more penetrating test of liquidity than the current ratio, yet it should be used cautiously. A quick ratio of 1 to 1 more does not necessarily imply sound liquid position. It should be remembered that all debtors may not be liquid, and cash may be immediately needed to pay operating expenses. It should also be noted that inventories are not absolutely non-liquid. To a measurable extent, inventories are available to meet current obligations. Thus, a company with a high value of quick ratio can suffer from the shortage of funds if it has slow-paying, doubtful and long-duration outstanding debtors. On the other hand, a company with a low value of quick ratio may really be prospering and paying its current obligation in time if it has been turning over its inventories efficiently. Nevertheless, the quick ratio remains an important index of the firm's liquidity.

(c) Cash and Bank Balance to Current Deposit Ratio

This ratio is designed to measure the bank's ability to meet the immediate obligations. It is employed to measure whether cash and bank balance is sufficient to cover its current calls margin including deposits. Current deposit must be paid when depositors demand their deposit. The higher ratio indicates the bank is in high liquid and the lower ratio indicates the bank is in less liquid. This ratio is computed by:

$$\textit{Cash and Bank Balance to Current Deposit Ratio} = \frac{\textit{Cash and Bank Balance}}{\textit{Current Deposit}}$$

(d) Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance to total deposit ratio measures the availability of bank highly liquid funds to meet its unanticipated calls on different types of deposits. This ratio indicates the ability of banks funds to cover their saving, fixed call and other deposit. This ratio also access that what proportion of cash and bank balance remains with the bank. This ratio is computed by:

$$\textit{Cash and Bank Balance Total Deposit Ratio} = \frac{\textit{Cash and Bank Balance}}{\textit{Total Deposit}}$$

(B) Profitability Ratio

Each and every firm has been established to earn profit by fulfilling human needs and wants. Profit is a kind of fuel for business enterprise or firms. Without profit no firm can survive. Therefore, profit is essential for a firm's survival and future growth. Hence, management of the firm is interested in the operating efficiency of the firm. Profitability ratio is one of the important indicators of operating efficiency. One of the focus of commercial banks is to be enough profitable so as to meet a variety of objectives like achieving a desirable liquidity position, meet fixed interest obligation, overcome the future contingencies, explicit hidden investment opportunities, encourage branch expansion etc. Profitability ratio, as a matter of fact, is the best indicator of overall efficiency of the bank.

(a) Net Profit Ratio

Net profit ratio shows the relationship between net profit and operating income. The purpose of net profit is to show the overall profitability i.e., efficiency of the bank. Higher the net profit ratio, the better it is considered. This ratio is also useful in making inter-firm comparison of the profitability. New profit ratio is computed as under:

$$Net\ Profit\ Ratio = \frac{Net\ Profit}{Operating\ Income}$$

Where,

Operating Income = Interest Income + commission and Discount + Exchange Gain

(b) Return on Equity (ROE)

Equity shareholders are the real owners of a company and are the risk-bearers and are entitled to total profits earned by the company after preference dividend. Return on equity relates the profitability of a company to equity shareholders' equity. ROE measures the company's profitability in terms of return to equity shareholders. It is calculated as under:

$$ROE = \frac{Net\ Profit\ After\ Tax}{Shareholder's\ Equity}$$

Where, Shareholder's Equity = Share Capital + Reserve & Surplus

(c) Return on Total Assets (ROA)

Return on total assets or simply return on assets, measures the productivity of the assets. It is measured in terms of relationship between net profit and assets. "This ratio judges the effectiveness in using the total fund supplied by the owners and creditors. Higher ratio shows the higher return on the assets used in the business thereby, indicating effective use of the resources available and vice-versa." (Munankarmi, 2000:3.37)

ROA is calculated as under;

$$ROA = \frac{Net\ Profit\ after\ Tax}{Total\ Assets}$$

Here, total assets include "both fixed and current assets. However, assets that is not productive like goodwill should be excluded. It is needless to add that fictitious assets and accumulated loss shown on the assets side are also excluded in this case. Here investments are included as they are productive, in the sense that they are capable of earning interest." (Sharma, 1998:260)

(d) Return on Capital Employed (ROCE)

Return on capital employed is an overall profitability ratio. This ratio establishes relationship between profit earned and capital employed ROCE indicates the overall return on the capital employed in the business. It points out whether the capital employed is being profitably and efficiently used in the business or not. Higher the ratio better is the profit earning capacity of the enterprise. ROCE is calculated as under.

$$ROCE = \frac{Net\ Profit\ after\ Tax}{Capital\ Employed}$$

Where, Capital Employed = Shareholder's Equity + Debenture & Bonds + Loan & Borrowings

(e) Earning Per Share (EPS)

Earning per share is the ratio, which is calculated to assess the availability of total profits per share. It is a very important ratio for equity shareholders to assess the return on equity share. More the EPS better is the performance of the company.

The increasing tendency of EPS enhances the possibility of more dividend and bonus shares. EPS only shows how much 'theoretically' belongs to the ordinary shareholders. It does not reveal how much is paid to the owners as dividends nor how much of the earnings are retained in the business.

It is calculated as under:

$$EPS = \frac{Net\ Profit\ after\ Preference\ Dividend}{Number\ of\ Equity\ Shares}$$

(f) Dividend Per Share (DPS)

Dividend per share measures the dividend distributed among the equity shareholders on a per share basis. The objective of computing this ratio is to know what an equity shareholder by way of dividend exactly receives. There are two components of this ratio; Amount of earnings, distributed as dividend and, number of equity shares. DPS should not be taken at its face value as the increased DPS may not be reliable measure of the profitability as the equity base may have increased due to increased retention without any change in the number of outstanding shares.

It is calculated as under:

$$DPS = \frac{Dividend\ paid\ to\ Shareholders}{Number\ of\ Equity\ Shares}$$

(g) Dividend pay-out Ratio

Dividend pay-out ratio measures the profit distributed on dividends out of earning per share. The main purpose to calculate this ratio is to find out the amount of dividend paid out of EPS. "If the dividend pay out ratio is subtracted from 100, it will give what

percentage share of the net profits are retained in the business." (Khan and Joshi, 2003:107)

It is calculated as under:

$$Dividend\ pay-out\ Ratio = \frac{DPS}{EPS}$$

(h) Earning Yield Ratio

Earning yield ratio shows the relationship between earning per share and market value of share. "In general, higher ratio tells the story of success and lower ratio signifies the insufficiency of return on investment made on shares as compared to market price." (Wagle and Dahal, 2008:10.18) It is calculated as under:

$$Earning\ Yield\ Ratio = \frac{EPS}{MPS}$$

(i) Dividend Yield Ratio

Dividend yield ratio shows the relationship between dividend per share (DPS) and Market value per share (MPS). This ratio is closely related to EPS and DPS. Higher market value leads to decrease the ratio and vice-versa. It is calculated as under:

$$Dividend\ Yield\ Ratio = \frac{DPS}{MPS}$$

Statistical Tools

Statistical tools are the measures or the instruments to analyze the collected data from the different sources. In statistics, there are numerous statistical tools to analyze the data of various natures. In this study, the following statistical tools have been used to analyze the data:

(a) Average ($\bar{X}$)

The term 'average' is referred as a measure of central tendency. The average is the measure, which condense a huge data into a single value, which represents the entire data and generally located at the central part. There are different types of averages but only arithmetic mean is used for this study. Arithmetic mean is the most popular and

frequently used measure of central tendency. It is the sum of all observations to the number of observations.

Arithmetic mean of a given set of observations is their sum divided by the number of observations. In general, if X_1, X_2……X_n are the given N observations, then their arithmetic mean, denoted by $\bar{X}$ is given by,

$$\bar{X}=\frac{X_1+X_2+\cdots\ldots+X_n}{N} \text{ or } \frac{\sum X}{N}$$

Where,

$\sum X$ = Sum of the observations, and

N = Number of Years

(b) Standard Deviation

"Standard deviation is the square root of the arithmetic average of the squares of the deviations measured from the mean. Thus, in the calculation of standard deviation, first the arithmetic average is calculated and the deviation of various items from the arithmetic average are squared. The squared deviations are totaled and the sum is divided by the number of items. The square root of the resulting figure is the standard deviation of the series."(Elhance and B.M. Agarwal, 2000: 9.25) The standard deviation is conventionally represented by the Greek letter sigma (σ). If X1, X2, ……Xn is a set of N observations then, standard deviation is given by,

$$\sigma = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$\sum(X-\bar{X})$= Sum of the squares of the deviations measured from mean, and

N = Number of Observations

(c) Coefficient of Variation (C.V.)

Coefficient of variation is computed for comparing the variability of two distributions. A distribution with smaller C.V. is said to be more homogeneous or uniform or less variable than the other, and the series with greater C.V. is said to be more heterogeneous or more variable than the other. It is computed as under.

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

(d) Trend Analysis

A general tendency of the time series data to increase or decrease or stagnate during a long period of time is called the secular trend or simple trend. Trend is the general, smooth, long-term average tendency. "It is not necessary that the increase or decline should be in the same direction throughout the given period. It may be possible that different tendencies of increase, decrease or stability are observed in different sections of time. However, the overall tendency may be upward, downward or stable. Such tendencies are the result of the forces which are more or less constant for a long time or which change very gradually and continuously over a long period of time. Such as the change in the population, tastes, habits and customs of the people in a society, and so on. They operate in a evolutionary manner and do not reflect sudden changes." (Gupta, 2001:510)

The study of the data over a long period of time enables to have a general idea about the pattern of the behavior of the phenomenon under consideration. By isolating trend values from the given time series, the short-term and irregular movements can be studied. Moreover, trend analysis enables to compare two or more time series over different periods of time and draws important conclusions about them. Least square is one of the best ways of obtaining the trend values. The principle of least squares provide an analytical or mathematical device to obtain an objective fit to the trend of the given time series.

The equation of a straight line is Y = a + bX, where a and b are constants

(e) Coefficient of correlation (r)

The correlation is a statistical tool which studies the relationship between two variables and correlation analysis involves methods and techniques used for studying and measuring the extent of the relationship between the two variables.

Correlation analysis enables to have an idea about the degree and direction of the relationship between the two variables under study.

However, it fails to reflect upon the cause and effect relationship between the variables. The coefficient of correlation, denoted by r is computed as under:

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

(f) Regression Analysis

The literal or dictionary meaning of the regression is moving backward or going back or the return to the average value. Regression analysis is the technique of studying how the variations on one series are related to variation in another series. It determines the nature and strength of relationship between two variables. Thus, regression is the estimation of unknown values or prediction of one variable from known values of other variables. The regression analysis confined to the study of only two variables at a time is called simple regression.

"The know value which is used for prediction (or estimation), is called independent (or regressor or predictor or explanator) variable and the unknown value which is to be estimated (or predicted by known value is called dependent (or regressed or explained) variable."(Sharma and Chaudhary, 2009:426)

A line fitted to a set of data points to estimate the relationship between two variables is called regression line. A line fitted by the method of least square is the line of best fit. A line of regression gives the best estimate of one unknown variable for any given value of the other variable.

(g) Hypothesis

Hypothesis is the assumption about the population parameter then its validity is tested. "It may or may not be found valid on verification. The act of verification involves testing the validity of such assumption which, when undertaken on the basis of sample evidence, is called statistical hypothesis or testing of hypothesis or test of significance. In other

words, a procedure to assess the significance of a statistic or difference between two independent statistics is known as test of significance." (Sharma and Chaudhary, 2009:332)

The test of hypothesis finds out whether it deserves the acceptance or rejection of the hypothesis. The main goal of testing of hypothesis is to test the characteristics of hypothesized population parameter based on sample information whether the difference between the population parameter and sample statistic is significant or not. There are two types of hypothesis namely, Null hypothesis and Alternative hypothesis. The hypothesis of no difference is called null hypothesis denoted by H_o and a complementary hypothesis against the null hypothesis is called alternative hypothesis denoted by H_1.

In this study, in order to test whether the sample correlation coefficient is significant of any correlation between the variables in the population, t-test for significance of an observed sample correlation coefficient is applied.

(h) ANOVA

To test the homogeneity of several means, the analysis of variance (ANOVA) is a powerful statistical tool for tests of significance to evaluate difference among the parameters of several groups. In other words, ANOVA is a statistical technique specially designed to test whether the means of more than two qualitative populations are equal. It provides a technique to make inferences about whether all the samples have come from the same normal population having the same mean.

There are two types of ANOVA namely, one way ANOVA and, two way ANOVA. Under one way ANOVA, the influence of only one factor or variable is studied whereas, in two ways ANOVA, the effect of two factors or variables are studied simultaneously. Under this study, one way ANOVA is only used for the purpose of analysis and evaluation.

CHAPTER – IV
PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

This chapter entitled "Presentation and Analysis of Data" is a crucial chapter and has been organized to present the result and analyze them accordingly. The basic objective of this study is to observe and analyze the trade off between liquidity and profitability position of Everest Bank Limited (EBL), Himalayan Bank Limited (HBL) and NABIL Bank Limited (NABIL). The presentation and analysis of data in this study have been done through the help of financial statements of the year from FY 2061/62 to FY 2065/66.

This chapter provides a mechanism for meeting the basic objectives as stated earlier in the first chapter of the study. The study has followed the methodology as described in the third chapter in order to attain the objectives. Data collected for the analysis of trade off between liquidity and profitability position of EBL, HBL and NABIL are presented in the form of tabular and diagrammatic form and are analyzed with the help of widely accepted tools of financial ratios. But it is notable that all types of financial ratios are not studied under this chapter. Only those ratios are calculated, analyzed and presented which are very significant to pasteurize the study. Moreover, statistical tools such as, average mean, standard deviation, co-efficient of variation, trend analysis, correlation co-efficient, regression analysis, hypothesis (t-test) and ANOVA test have been used to analyze the data.

A bank basically deals with two conflicting goals namely, liquidity are profitability. Managers of bank can obtain the trade off between liquidity and profitability by following the method of cash planning, managing cash flow, managing optimum cash level and investing idle funds in shiftable assets. Since, liquidity and profitability both are important aspect for the bank, thus, bank can't ignore any of them, In fact, the bank should go side by side with both the concept.

A balance should always be maintained between liquidity and profitability hence, the bank should follow certain principles of liquidity and profitability.

4.2 Liquidity Ratio

(a) Current Ratio

Current ratio establishes the relationship between current assets and current liabilities. It is computed as under:

Table 4.1

Current Ratios of JVB

Year	Current Assets	Current Liabilities	Ratio
Everest Bank Limited (EBL)			
2061/62	678,800,000	571,600,000	1.19%
2062/63	1,380,180,824	744,421,364	1.85%
2063/64	1,070,415,930	864,350,232	1.24%
2064/65	1,826,274,386	502,208,064	3.64%
2065/66	1,797,935,344	894,031,398	2.01%
Average Mean			1.99%
Standard Deviation			0.89
Co-efficient of Variation			44.73%
Himalayan Bank Limited (HBL)			
2061/62	2,282,759,669	660,930,891	3.45%
2062/63	2,948,068,814	638,871,727	4.61%
2063/64	3,218,410,314	768,519,769	4.19%
2064/65	3,099,161,645	556,351,142	5.57%
2065/66	3,240,624,449	698,737,519	4.64%
Average Mean			4.49%
Standard Deviation			0.69
Co-efficient of Variation			15.37%
NABIL Bank Limited (NABIL)			
2061/62	1,754,204,096	559,097,823	3.14%
2062/63	2,523,582,299	839,315,319	3.01%
2063/64	2,381,419,027	915,112,220	2.60%
2064/65	1,841,148,491	837,105,689	2.20%
2065/66	2,909,808,670	934,375,511	3.11%
Average Mean			2.81%
Standard Deviation			0.36
Co-efficient of Variation			12.82%

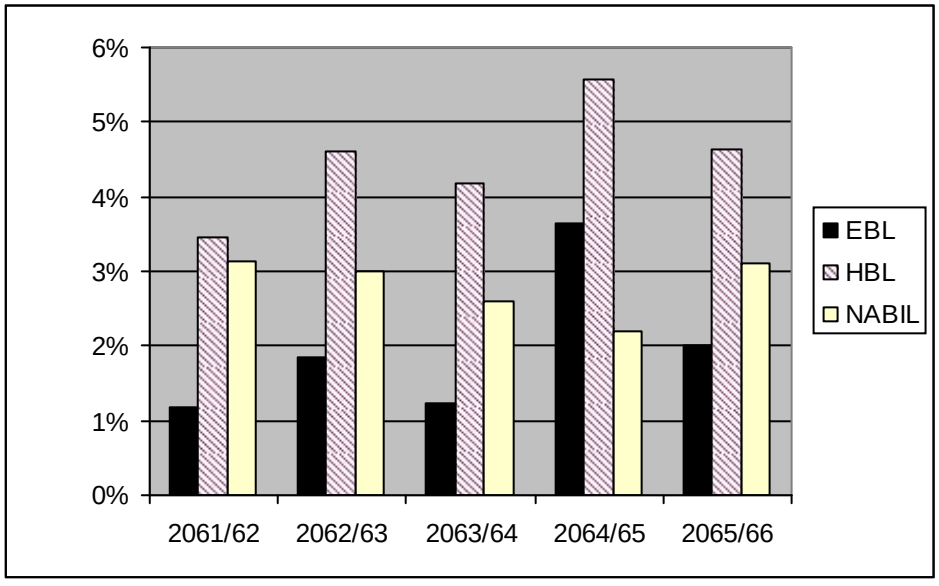
Sources: Annual Reports of EBL, HBL and NABIL Bank

The table shows that the current ratio of EBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 1.19%, 1.85%, 1.24%, 3.64% and 2.01% respectively. Its average current ratio is 1.99%, Standard deviation is 0.89 and Co-efficient of variation is 44.73%.The current ratio of HBL in the 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 3.45%, 4.61%, 4.19%, 5.57% and 4.64% respectively. Its average current ratio is 4.49%, Standard deviation is 0.69 and co-efficient of variation is 15.37% Similarly.The current ratio of NABIL in the 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 3.14%, 3.01%, 2.60%, 2.20% and 3.11% respectively. Its average current ratio is 2.81%, standard deviation is 0.36 and co-efficient of variation is 12.82%.

Similarly, the figure also shows that the higher average current ratio of HBL shows that it has good liquidity within the bank in terms of current ratio as compared to EBL and NABIL. On the other hand, the lower C.V. of NABIL shows that it is more consistent in maintaining the funds within the bank than EBL and HBL.

Figure 4.1

Current Ratios of JVB



b) Quick Ratio

Quick ratio establishes the relationship between quick assets and current liabilities. It is computed as under:

Table 4.2

Quick Ratio of JVB

Year	Quick Assets	Current Liabilities	Ratio
Everest Bank Limited (EBL)			
2061/62	677,000,000	571,600,000	1.18%
2062/63	1,378,364,863	744,421,364	1.85%
2063/64	1,069,230,791	864,350,232	1.24%
2064/65	1,824,973,601	502,208,064	3.63%
2065/66	1,795,507,239	894,031,398	2.01%
Average Mean			1.98%
Standard Deviation			0.89
Co-efficient of Variation			44.95%
Himalayan Bank Limited (HBL)			
2061/62	2,272,624,746	660,930,891	3.44%
2062/63	2,935,954,129	638,871,727	4.60%
2063/64	3,204,210,867	768,519,769	4.17%
2064/65	3,086,462,057	556,351,142	5.55%
2065/66	3,227,005,153	698,737,519	4.62%
Average Mean			4.48%
Standard Deviation			0.69
Co-efficient of Variation			15.41%
NABIL Bank Limited (NABIL)			
2061/62	1,740,572,603	559,097,823	3.11%
2062/63	2,509,926,543	839,315,319	2.99%
2063/64	2,364,533,344	915,112,220	2.58%
2064/65	1,824,645,316	837,105,689	2.18%
2065/66	2,895,313,644	934,375,511	3.10%
Average Mean			2.79%
Standard Deviation			0.36
Co-efficient of Variation			12.91%

Sources: Annual Reports of EBL, HBL and NABIL Bank

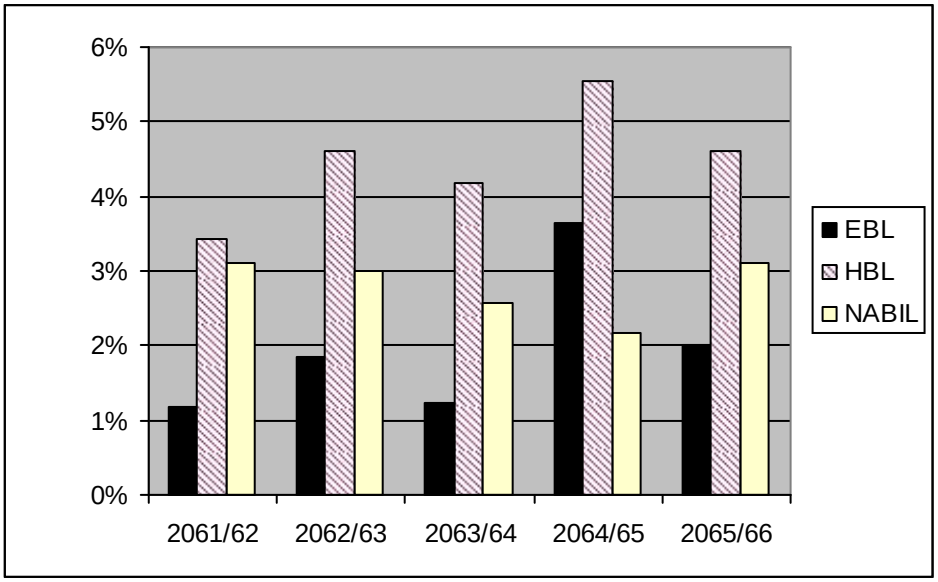
From the computation it can be seen that the quick ratio of EBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 1.18%, 1.85%, 1.24%, 3.63% and 2.01% respectively. Its average quick ratio is 1.98%, Standard deviation is 0.89 and Co-efficient of variation is 44.95%.The quick ratio of HBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 3.44%, 4.60%, 4.17%, 5.55% and 4.62% respectively. Its average quick ratio is 4.48%, Standard deviation is 0.69 and co-efficient of variation is 15.41%.The quick ratio of NABIL in the FY 2061/62, FY

2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 3.11%, 2.99%, 2.58%, 2.18% and 3.10% respectively. Its average quick ratio is 2.79%, standard deviation is 0.36 and co-efficient of variation is 12.91%.

The figure also indicates that higher average quick ratio of HBL shows that it has good liquidity within the bank in terms of quick ratio as compared to EBL and NABIL. On the other hand, the lower C.V. of NABIL shows that it is more consistent in maintaining the funds within the bank than EBL and HBL.

Figure 4.2

Quick Ratio of JVB



(c) Cash and Bank Balance to Current Deposit Ratio

Cash and bank balance to current deposit ratio establishes the relationship between cash & bank balance and current deposits. It is computed as under:

Table 4.3

Cash and Bank Balance to Current Deposit Ratio

Year	Cash and Bank Balance	Current Deposit	Ratio
Everest Bank Limited (EBL)			
2061/62	592,700,000	500,000,000	118.54%
2062/63	1,139,568,776	562,394,744	202.63%
2063/64	631,804,931	719,755,865	87.78%
2064/65	1,049,989,208	1,025,025,340	102.44%
2065/66	1,552,967,494	1,145,794,695	135.54%
Average Mean			129.39%
Standard Deviation			39.94
Co-efficient of Variation			30.87%
Himalayan Bank Limited (HBL)			
2061/62	1,264,671,798	2,634,369,951	48.01%
2062/63	1,979,208,996	3,540,851,170	55.90%
2063/64	2,001,184,221	4,145,447,916	48.28%
2064/65	2,014,470,957	5,045,160,928	39.93%
2065/66	1,717,352,336	5,028,150,556	34.16%
Average Mean			45.26%
Standard Deviation			07.50
Co-efficient of Variation			16.57%
NABIL Bank Limited (NABIL)			
2061/62	1,051,819,849	2,703,818,737	38.91%
2062/63	1,144,767,483	3,034,002,537	37.74%
2063/64	970,486,543	2,688,966,557	36.10%
2064/65	559,380,614	2,799,184,977	19.99%
2065/66	630,238,588	2,910,589,772	21.66%
Average Mean			30.88%
Standard Deviation			8.28
Co-efficient of Variation			26.82%

Sources: Annual Reports of EBL, HBL and NABIL Bank

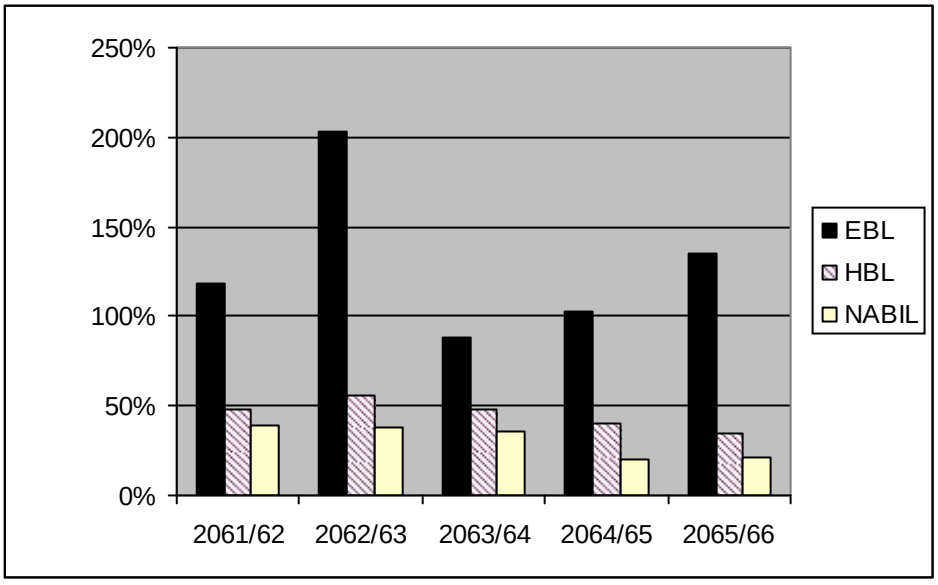
The relation between cash and bank balance to current deposit ratio of three JVBs can be seen from the table no 4.3. The cash and bank balance to current deposit ratio of EBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 118.54%, 202.63%, 87.78%, 102.44% and 135.44% respectively. Its average cash & bank to current deposit ratio is 129.39%, Standard deviation is 39.94 and Co-efficient of variation is 30.87%.The cash & bank balance to current of HBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 48.01%, 55.90%, 48.28%, 39.93% and 34.16% respectively. Its average cash & bank balance to current deposit ratio is 45.26%, Standard deviation is 7.50 and co-efficient of variation is 16.57%.The cash & bank balance to current deposit ratio of NABIL in the FY 2061/62, FY 2062/63, FY 2063/64,

FY 2064/65, and FY 2065/66 are 38.91%, 37.74%, 36.10%, 19.99% and 21.66% respectively. Its average cash & bank balance to current deposit ratio is 30.88%, standard deviation is 8.28 and co-efficient of variation is 26.82%.

Similarly the figure 4.3 depicts that higher average cash & bank balance to current deposit ratio of EBL shows that it is comparatively in better position to pay the customers current deposits as compared to HBL and NABIL. However, the lower C.V. of HBL reveals that it is more consistent in maintaining the cash and bank balance to pay the current deposits of the customers.

Figure 4.3

Cash and Bank Balance to Current Deposit Ratio



(d) Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance to total deposit ratio establishes the relationship between cash & bank balance and total deposits. It is computed as under:

Table 4.4

Cash and Bank Balance to Total Deposit Ratio

Year	Cash and Bank Balance	Total Deposit	Ratio
Everest Bank Limited (EBL)			
2061/62	592,700,000	5,466,610,000	10.84%
2062/63	1,139,568,776	6,694,963,060	17.03%
2063/64	631,804,931	8,063,902,086	07.84%
2064/65	1,049,989,208	10,097,690,989	10.40%
2065/66	1,552,967,494	13,802,444,988	11.26%
Average Mean			11.47%
Standard Deviation			3.02%
Co-efficient of Variation			26.33%
Himalayan Bank Limited (HBL)			
2061/62	1,264,671,798	18,619,375,077	6.79%
2062/63	1,979,208,996	21,007,379,489	9.43%
2063/64	2,001,184,221	22,010,332,984	9.10%
2064/65	2,014,470,957	24,814,011,984	8.12%
2065/66	1,717,352,336	26,490,851,640	6.49%
Average Mean			7.99%
Standard Deviation			1.18
Co-efficient of Variation			14.77%
NABIL Bank Limited (NABIL)			
2061/62	1,051,819,849	15,506,428,215	6.79%
2062/63	1,144,767,483	13,447,661,064	8.52%
2063/64	970,486,543	14,119,032,115	6.88%
2064/65	559,380,614	14,586,608,707	3.84%
2065/66	630,238,588	19,347,399,440	3.26%
Average Mean			5.86%
Standard Deviation			1.99
Co-efficient of Variation			33.96%

Sources: Annual Reports of EBL, HBL and NABIL Bank

The above table illustrates the cash and bank balance of different years and its proportion with regards to total deposit. The table shows that the cash & bank balance to total deposit ratio of EBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 10.84%, 17.03%, 7.84%, 10.40% and 11.26 % respectively. Its average cash & bank balance to total deposit ratio is 11.47%, standard deviation is 3.02 and co-efficient of variation is 26.33%.

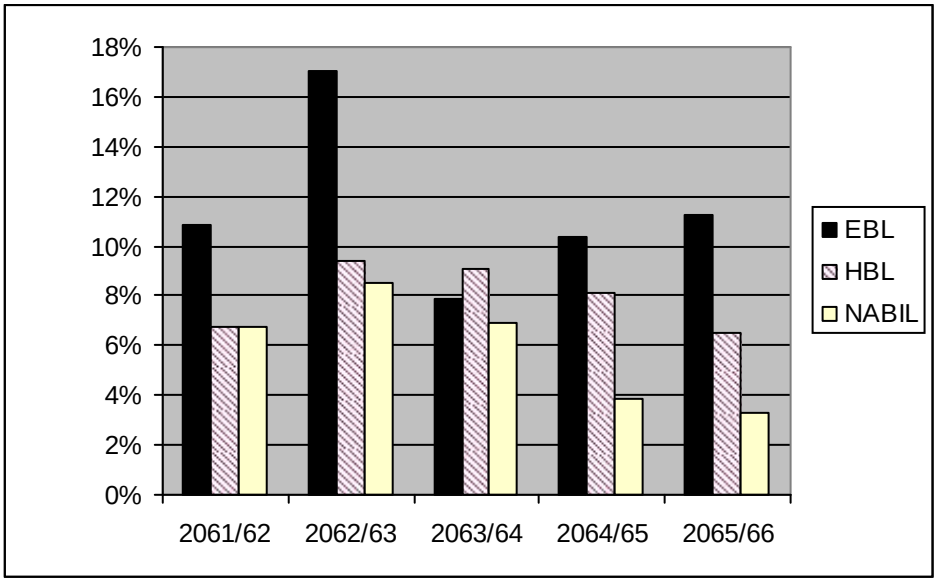
The cash & bank balance to total deposit ratio of HBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 6.79%, 9.43%, 9.10%, 8.12% and 6.49 % respectively. Its average cash & bank balance to total deposit ratio is 7.99%, standard deviation is 1.18 and co-efficient of variation is 14.77%.The cash & bank balance to total

deposit ratio of NABIL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 6.79%, 8.52%, 6.88%, 3.84% and 3.26 % respectively. Its average cash & bank balance to total deposit ratio is 5.86%, standard deviation is 1.99 and co-efficient of variation is 33.96%.

The figure 4.4 also illustrates that the higher average cash & bank balance to total deposit ratio of EBL shows that it has been maintaining comparatively high cash and bank balance from the total deposit as compared to HBL and NABIL. However, the lower C.V. of HBL reveals that it is more consistent in maintaining the cash and bank balance from total deposit.

Figure 4.4

Cash and Bank Balance to Total Deposit Ratio



4.3 Profitability Ratio

(a) Net Profit Ratio

Net profit ratio establishes the relationship between net profit and operating income. It is computed as under:

Table 4.5
Net Profit Ratios of JVB

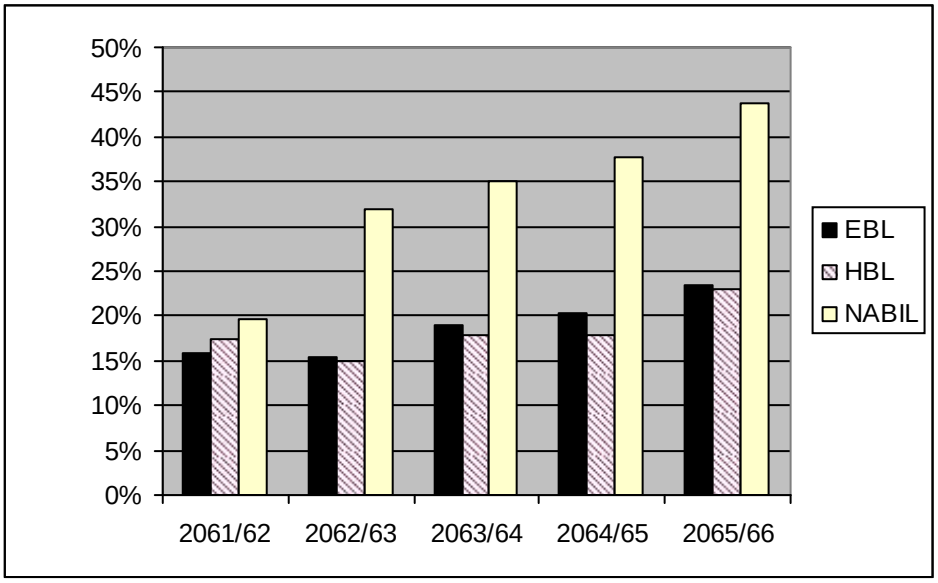
Year	Net Profit	Operating Income	Ratio
Everest Bank Limited (EBL)			
2061/62	85,300,000	540,900,000	15.77%
2062/63	94,180,428	613,885,295	15.34%
2063/64	143,566,683	759,373,715	18.91%
2064/65	168,214,611	824,505,685	20.41%
2065/66	237,290,936	1,014,648,371	23.39%
Average Mean			18.76%
Standard Deviation			2.99
Co-efficient of Variation			15.94%
Himalayan Bank Limited (HBL)			
2061/62	235,023,510	1,355,303,626	17.34%
2062/63	212,128,485	1,413,393,757	15.01%
2063/64	263,053,495	1,482,243,421	17.75%
2064/65	308,275,171	1,716,584,952	17.96%
2065/66	457,457,696	1,990,051,825	22.99%
Average Mean			18.21%
Standard Deviation			2.61
Co-efficient of Variation			14.34%
NABIL Bank Limited (NABIL)			
2061/62	271,638,612	1,388,740,482	19.56%
2062/63	416,235,811	1,306,353,152	31.87%
2063/64	455,311,222	1,297,515,606	35.10%
2064/65	520,114,085	1,382,002,187	37.63%
2065/66	635,262,349	1,448,292,413	43.86%
Average Mean			33.60%
Standard Deviation			8.05
Co-efficient of Variation			23.96%

Sources: Annual Reports of EBL, HBL and NABIL Bank

According to the table 4.5 and figure 4.5, the higher average net profit ratio of NABIL shows that it has been earning high rate of profit continuously in the successive fiscal years as compared to EBL and HBL. However, the lower C.V. of HBL reveals that it is more consistent in earning the profit than EBL and NABIL.

Figure 4.5

Net Profit Ratios of JVB



(b) Return on Equity (ROE)

Return on equity establishes the relationship between net profit after tax and shareholder's equity. It is computed as under:

Table 4.6

ROE of EBL, HBL and NABIL Banks

Year	Net Profit after Tax	Shareholder's Equity	Ratio
Everest Bank Limited (EBL)			
2061/62	85,300,000	582,800,000	14.64%
2062/63	94,180,428	612,824,701	15.37%
2063/64	143,566,683	680,318,543	21.11%
2064/65	168,214,611	832,617,365	20.20%
2065/66	237,290,936	962,808,301	24.65%
Average Mean			19.19%
Standard Deviation			3.74
Co-efficient of Variation			19.49%
Himalayan Bank Limited (HBL)			
2061/62	235,023,510	858,114,868	27.39%
2062/63	212,128,485	1,063,132,203	19.96%
2063/64	263,053,495	1,324,166,357	19.87%
2064/65	308,275,171	1,541,746,461	20.00%
2065/66	457,457,696	1,766,175,616	25.90%
Average Mean			22.62%
Standard Deviation			03.32
Co-efficient of Variation			14.68%
NABIL Bank Limited (NABIL)			
2061/62	271,638,612	1,146,428,294	23.70%
2062/63	416,235,811	1,314,187,456	31.68%
2063/64	455,311,222	1,481,682,303	30.73%
2064/65	520,114,085	1,657,638,305	31.38%
2065/66	635,262,349	1,874,994,417	33.88%
Average Mean			30.27%
Standard Deviation			3.45
Co-efficient of Variation			11.40%

Sources: Annual Reports of EBL, HBL and NABIL Bank

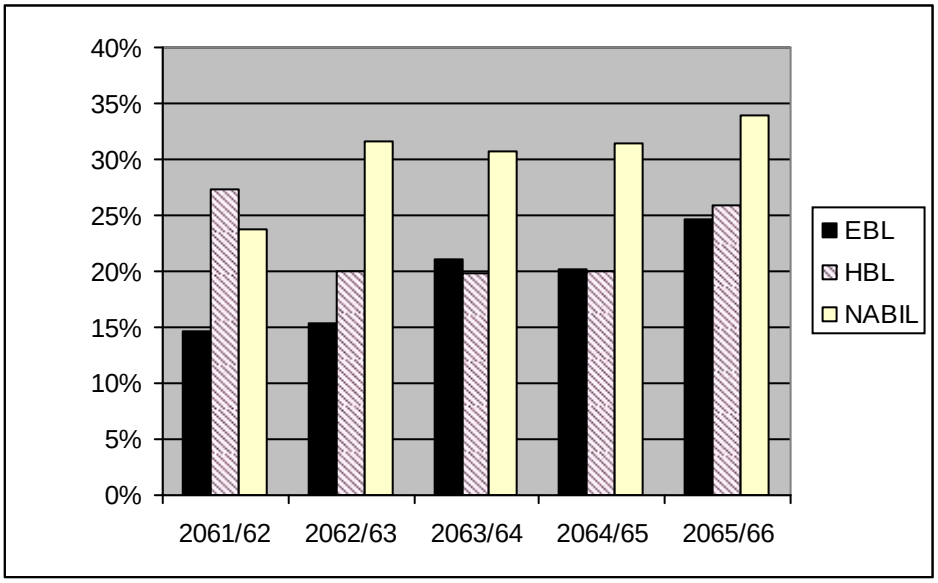
The above table depicts that the ROE of EBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 14.64%, 15.37%, 21.11%, 20.20% and 24.65% respectively. Its average ROE is 19.19%, standard deviation is 3.74 and co-

efficient of variation is 19.49%. The ROE of HBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 27.39%, 19.96%, 19.87%, 20.00% and 25.90% respectively. Its average ROE is 22.62%, standard deviation is 3.45 and co-efficient of variation is 14.68%. The ROE of NABIL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 23.70%, 31.68%, 30.73%, 31.38% and 33.88% respectively. Its average ROE is 30.27%, standard deviation is 3.45 and co-efficient of variation is 11.40%.

The figure also indicates that the higher average ROE of NABIL reveals that NABIL has been efficiently utilizing the owners' investment comparatively better than EBL and HBL. Moreover, the lower C.V. of NABIL also suggests that it is more consistent in utilizing the owners' investment efficiently.

Figure 4.6

ROE of EBL, HBL and NABIL Banks



(c) Return on Assets (ROA)

Return on assets establishes the relationship between net profit after interest and total assets. It is computed as under:

Table 4.7

ROA of EBL, HBL and NABIL Banks

Year	Net Profit after Tax	Total Assets	Ratio
Everest Bank Limited (EBL)			
2061/62	85,300,000	6,607,180,000	1.30%
2062/63	94,180,428	8,052,209,125	1.17%
2063/64	143,566,683	9,608,570,861	1.49%
2064/65	168,214,611	11,732,516,418	1.43%
2065/66	237,290,936	15,959,284,687	1.37%
Average Mean			1.41%
Standard Deviation			0.12
Co-efficient of Variation			8.75%
Himalayan Bank Limited (HBL)			
2061/62	235,023,510	20,672,433,854	1.14%
2062/63	212,128,485	23,355,223,128	0.91%
2063/64	263,053,495	24,762,024,991	1.06%
2064/65	308,275,171	27,418,157,873	1.12%
2065/66	457,457,696	29,460,389,672	1.55%
Average Mean			1.16%
Standard Deviation			0.22
Co-efficient of Variation			18.97%
NABIL Bank Limited (NABIL)			
2061/62	271,638,612	17,629,252,392	1.54%
2062/63	416,235,811	16,562,624,992	2.52%
2063/64	455,311,222	16,745,486,638	2.72%
2064/65	520,114,085	17,064,082,093	3.05%
2065/66	635,262,349	22,329,971,078	2.84%
Average Mean			2.53%
Standard Deviation			0.53
Co-efficient of Variation			20.95%

Sources: Annual Reports of EBL, HBL and NABIL Bank

From the table 4.7, it has been found that the ROA of EBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 1.30%, 1.17%, 1.49%, 1.43%

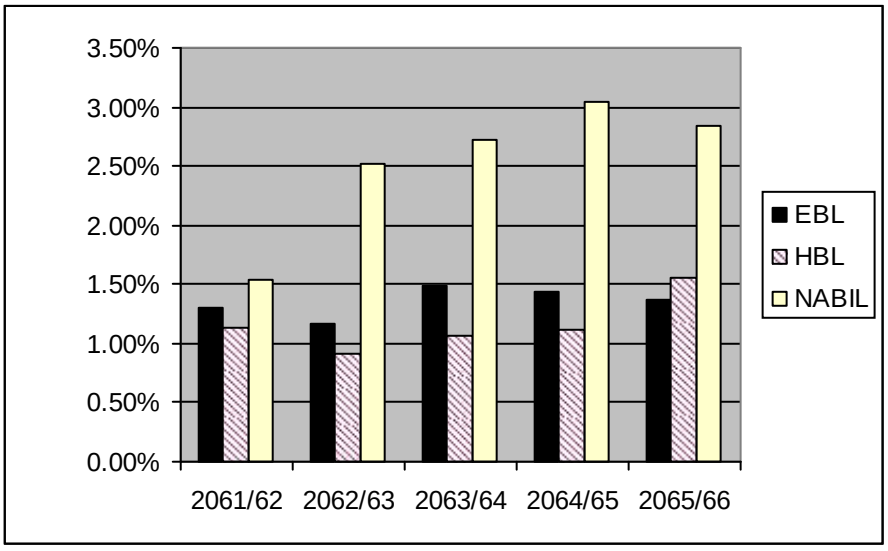
and 1.48% respectively. Its average ROA is 1.37%, Standard deviation is 0.12 and co-efficient of variation is 8.75%.

The ROA of HBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 1.14%, 0.91%, 1.06%, 1.12% and 1.55% respectively. Its average ROA is 1.16%, standard deviation is 0.22 and co-efficient of variation is 18.97%. The ROA of NABIL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 1.54%, 2.52%, 2.72%, 3.05% and 2.84% respectively. Its average ROA is 2.53%, standard deviation is 0.53 and co-efficient of variation is 20.95%.

In addition to that, fig 4.7 also illustrates the higher average ROA of NABIL reveals that NABIL has been able to utilize its overall resources in efficient way in comparison with EBL and HBL. The high ratio also reflects the successes of NABIL's management. However, the lower C.V. of EBL suggests that EBL is more consistent in utilizing the overall resources efficiently.

Figure 4.7

ROA of EBL, HBL and NABIL Banks



(d) Return on Capital Employed (ROCE)

Return on capital employed establishes the relationship between net profit after interest and capital employed. It is computed as under:

Table 4.8

ROCE of EBL, HBL and NABIL Banks

Year	Net Profit after Interest	Capital Employed	Ratio
Everest Bank Limited (EBL)			
2061/62	85,300,000	664,600,000	12.84%
2062/63	94,180,428	612,824,701	15.37%
2063/64	143,566,683	680,318,543	21.11%
2064/65	168,214,611	1,132,617,365	14.85%
2065/66	237,290,936	1,262,808,301	18.79%
Average Mean			16.95%
Standard Deviation			3.18
Co-efficient of Variation			18.77%
Himalayan Bank Limited (HBL)			
2061/62	235,023,510	1,392,127,886	16.89%
2062/63	212,128,485	1,708,971,912	12.42%
2063/64	263,053,495	1,983,172,238	13.27%
2064/65	308,275,171	2,047,794,747	15.06%
2065/66	457,457,696	2,270,800,513	20.15%
Average Mean			15.56%
Standard Deviation			02.76
Co-efficient of Variation			17.74%
NABIL Bank Limited (NABIL)			
2061/62	271,638,612	1,563,726,354	17.38%
2062/63	416,235,811	2,275,648,609	18.29%
2063/64	455,311,222	1,711,342,303	26.61%
2064/65	520,114,085	1,674,700,985	31.06%
2065/66	635,262,349	2,048,196,127	31.02%
Average Mean			24.87%
Standard Deviation			5.98
Co-efficient of Variation			24.05%

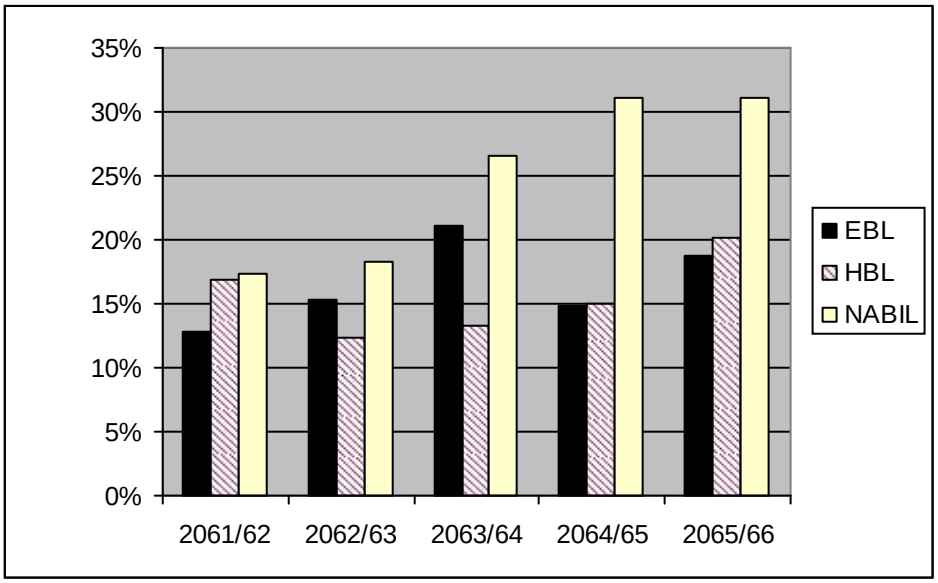
Sources: Annual Reports of EBL, HBL and NABIL Bank

From the above computation the ROCE of EBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 12.84%, 15.37%, 21.11%, 14.85% and 18.79% respectively. Its average ROCE is 16.95%, standard deviation is 3.18 and co-efficient of variation is 18.77%. The ROCE of HBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 16.89%, 12.42%, 13.27%, 15.06% and 20.15% respectively. Its average ROCE is 15.56%, standard deviation is 2.76 and co-efficient of variation is 17.74%. The ROCE of NABIL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 17.38%, 18.29%, 26.61%, 31.06% and 31.02% respectively. Its average ROCE is 24.87%, standard deviation is 5.98 and co-efficient of variation is 24.05%.

Likewise from the figure 4.8, the higher average ROCE of NABIL reveals that NABIL have been utilizing the available resources supplied by the owners and creditors more efficiently that EBL and HBL. However, the lower C.V. of HBL suggests that HBL is more consistent in utilizing the available resources.

Figure 4.8

ROCE of EBL, HBL and NABIL Banks



(e) Earning Per Share (EPS)

Earning per share establishes the relationship between net profits after preference dividend and number of equity shares. It is computed as under:

Table 4.9

EPS of EBL, HBL and NABIL Banks

Year	Net Profit after Preference Dividend	No. of Equity Shares	Rs.
Everest Bank Limited (EBL)			
2061/62	85,300,000	2,593,186	32.89
2062/63	94,180,428	3,150,000	29.9
2063/64	143,566,683	3,150,000	45.58
2064/65	155,614,611	3,150,000	49.4
2065/66	244,690,936	3,780,000	59.4
Average Mean			43.4
Standard Deviation			10.8
Co-efficient of Variation			25.0
Himalayan Bank Limited (HBL)			
2061/62	235,023,510	3,900,000	60.2
2062/63	212,128,485	4,290,000	49.4
2063/64	263,053,495	5,362,500	49.0
2064/65	308,275,171	6,435,000	47.91
2065/66	457,457,696	7,722,000	59.24
Average Mean			53.18
Standard Deviation			05.40
Co-efficient of Variation			10.16
NABIL Bank Limited (NABIL)			
2061/62	271,638,612	4,916,544	55.25
2062/63	416,235,811	4,916,544	84.66
2063/64	455,311,222	4,916,544	92.61
2064/65	520,114,085	4,916,544	105.79
2065/66	635,262,349	4,916,544	129.21
Average Mean			93.50
Standard Deviation			24.36
Co-efficient of Variation			26.06

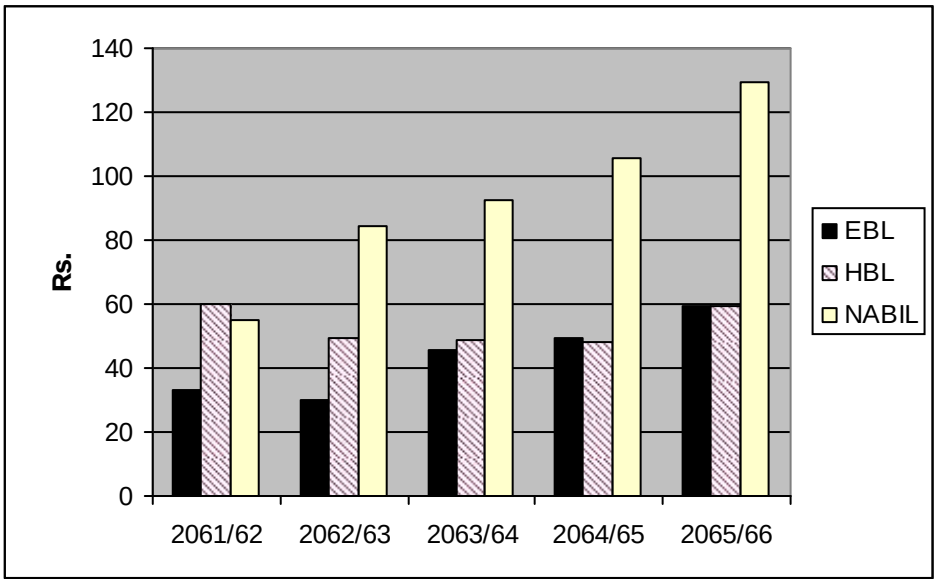
Sources: Annual Reports of EBL, HBL and NABIL Bank

The above table illustrates that the EPS of EBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are Rs. 32.89, Rs. 29.90, Rs. 45.58, Rs. 49.40 and Rs. 59.44 respectively. Its average EPS is Rs. 43.44, standard deviation is 10.87 and co-efficient of variation is 25.03%. The EPS of HBL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are Rs. 60.26, Rs. 49.45, Rs. 49.05, Rs. 47.91 and Rs. 59.24 respectively. Its average EPS is Rs. 53.18, standard deviation is 5.40 and co-efficient of variation is 10.16%. The EPS of NABIL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are Rs. 55.25, Rs. 84.66, Rs. 92.61, Rs. 105.79 and Rs. 129.21 respectively. Its average EPS is Rs. 93.50, standard deviation is 24.36 and co-efficient of variation is 26.06%.

The figure 4.9 also depicts that the higher average EPS of NABIL, which reveals that NABIL's shareholders can get higher amount on every share held than EBL's and HBL's shareholders. However, the lower C.V. of HBL suggests that HBL is more consistent in earning per share than NABIL and EBL.

Figure 4.9

EPS of EBL, HBL and NABIL Banks



(f) Dividend per Share (DPS)

Dividend per share establishes the relationship between dividend paid to shareholders and number of equity shares. It is computed as under:

Table 4.10

DPS of EBL, HBL and NABIL Banks

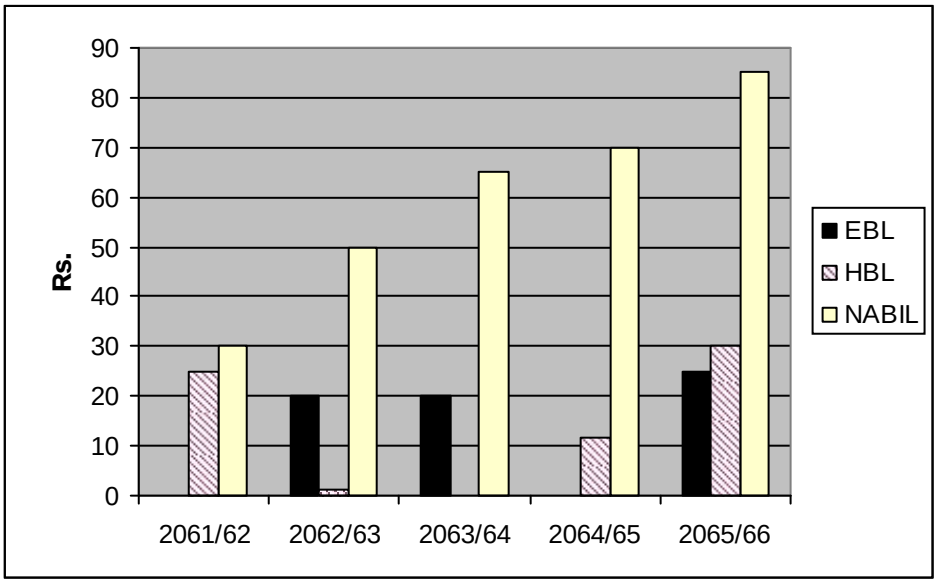
Year	Dividend paid to Shareholder's	No. of Equity Shares	Rs.
Everest Bank Limited (EBL)			
2061/62	…….....	2,593,186	……
2062/63	63,000,000	3,150,000	20
2063/64	63,000,000	3,150,000	20
2064/65	……	3,150,000	…….
2065/66	94,500,000	3,780,000	25
Average Mean			13
Standard Deviation			10.77
Co-efficient of Variation			82.8
Himalayan Bank Limited (HBL)			
2061/62	97,500,000	3,900,000	25.00
2062/63	5,662,800	4,290,000	01.32
2063/64	…….	5,362,500	……
2064/65	74,517,300	6,435,000	11.58
2065/66	231,660,000	7,722,000	30.00
Average Mean			13.58
Standard Deviation			12.16
Co-efficient of Variation			89.55
NABIL Bank Limited (NABIL)			
2061/62	147,496,320	4,916,544	30
2062/63	245,827,200	4,916,544	50
2063/64	319,575,360	4,916,544	65
2064/65	344,158,080	4,916,544	70
2065/66	417,906,240	4,916,544	85
Average Mean			60
Standard Deviation			18.71
Co-efficient of Variation			31.19

Sources: Annual Reports of EBL, HBL and NABIL Bank

From the above comparative table and figure no 4.10, the higher average DPS of NABIL signifies that NABIL is more successful to win the confidence of the investors. This means NABIL can sell its shares more easily than those shares of EBL and HBL. Moreover, the lower C.V. of NABIL also suggests that it is more consistent in distributing the dividend to its shareholders than EBL and HBL.

Figure 4.10

DPS of EBL, HBL and NABIL Banks



(g) Dividend Pay-out Ratio

Dividend pay-out ratio establishes the relationship between dividend per share (DPS) and earning per share (EPS).

Table 4.11

Dividend pay-out Ratio

Year	DPS	EPS	Ratio
Everest Bank Limited (EBL)			
2061/62	…….	32.89	……..
2062/63	20	29.90	66.89%
2063/64	20	45.58	43.88%
2064/65	……..	49.40	……
2065/66	25	59.44	42.06%
Average Mean			30.57%
Standard Deviation			26.45
Co-efficient of Variation			86.53%
Himalayan Bank Limited (HBL)			
2061/62	25.00	60.26	41.49%
2062/63	10.32	49.45	20.87%
2063/64	……	49.05	…….
2064/65	11.58	47.91	24.17%
2065/66	30.00	59.24	50.64%
Average Mean			27.43%
Standard Deviation			17.56
Co-efficient of Variation			64.02%
NABIL Bank Limited (NABIL)			
2061/62	30	55.25	54.30%
2062/63	50	84.66	59.06%
2063/64	65	92.61	70.19%
2064/65	70	105.79	66.17%
2065/66	85	129.21	65.78%
Average Mean			63.10%
Standard Deviation			5.62
Co-efficient of Variation			8.91%

Sources: Annual Reports of EBL, HBL and NABIL Bank

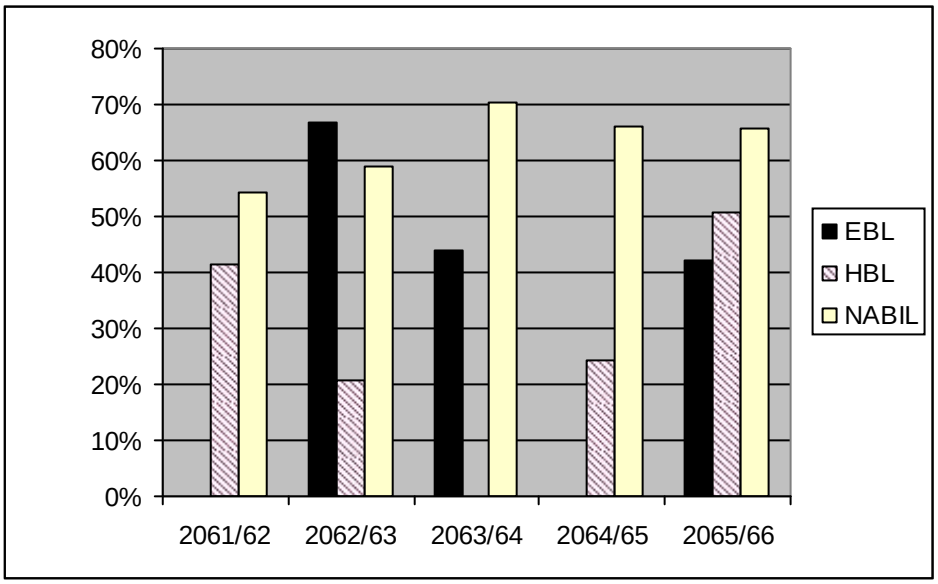
The above table indicates that the dividend pay-out ratio of EBL in the FY 2062/63, FY 2063/64 and FY 2065/66 are 66.89%, 43.88% and 42.06% respectively. Since, EBL did

not distribute any dividend in the FY 2061/62 and FY 2064/65, so its dividend pay-out ratio is nil under such periods. Its average dividend pay-out ratio is 30.57%, standard deviation is 26.45 and co-efficient of variation is 86.53%. The dividend pay-out ratio of HBL in the FY 2061/62, FY 2062/63, FY 2064/65 and FY 2065/66 are 41.49%, 20.87%, 24.17% and 50.64% respectively. Since, HBL did not distribute any dividend in the FY 2063/64, so its dividend pay-out ratio is nil in such period. Its average dividend pay-out ratio is 27.43%, standard deviation is 17.56 and co-efficient of variation is 64.02%. The dividend pay-out ratio of NABIL in the FY 2061/62 FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 54.30%, 59.06%, 70.19%, 66.17% and 65.78% respectively. Its average dividend pay-out ratio is 63.10%, standard deviation is 5.62 and co-efficient of variation is 8.91%.

Furthermore, the figure also depicts that the higher average dividend pay-out ratio of NABIL states that it has paid out higher percentage of net profit as dividend to its equity holders than EBL and HBL. Moreover, the lower C.V. of NABIL also suggests that it is more consistent in distributing the dividend to its shareholders.

Figure 4.11

Dividend pay-out Ratio



(h) Earning Yield Ratio

Earning yield ratio establishes the relationship between earning per share (EPS) and market price per share (MPS). It is computed as under:

Table 4.12

Earning Yield Ratios of JVB

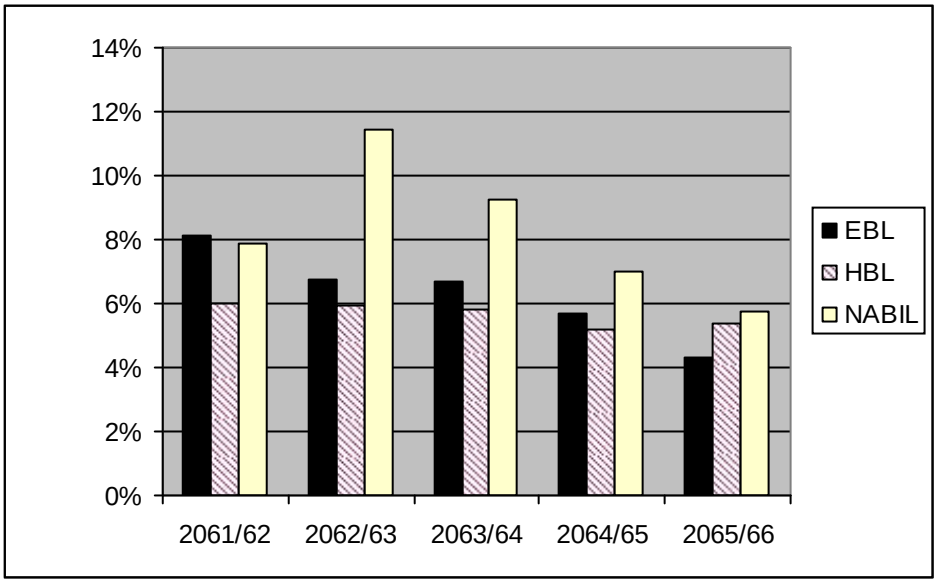
Year	EPS	MPS	Ratio
Everest Bank Limited (EBL)			
2061/62	32.89	405	8.12%
2062/63	29.90	445	6.72%
2063/64	45.58	680	6.71%
2064/65	49.40	870	5.68%
2065/66	59.44	1379	4.31%
Average Mean			6.31%
Standard Deviation			1.27
Co-efficient of Variation			20.13%
Himalayan Bank Limited (HBL)			
2061/62	60.26	1000	6.03%
2062/63	49.45	836	5.92%
2063/64	49.05	840	5.84%
2064/65	47.91	920	5.21%
2065/66	59.24	1100	5.39%
Average Mean			5.68%
Standard Deviation			0.32
Co-efficient of Variation			5.64%
NABIL Bank Limited (NABIL)			
2061/62	55.25	700	7.90%
2062/63	84.66	740	11.44%
2063/64	92.61	1000	9.27%
2064/65	105.79	1505	7.03%
2065/66	129.21	2240	5.77%
Average Mean			8.28%
Standard Deviation			1.95
Co-efficient of Variation			23.55%

Sources: Annual Reports of EBL, HBL and NABIL Bank

The table 4.12 and figure 4.12 also show that the earning yield ratio of EBL, HBL and NABIL from the FY 2061/62, to FY 2065/66. where the higher average earning yield ratio of NABIL reveals that NABIL is comparatively yielding earning more than EBL and HBL. However, the lower C.V. of HBL suggests that HBL is more consistent in earning yield ratio than NABIL and EBL.

Figure 4.12

Earning Yield Ratios of JVB



(i) Dividend Yield Ratio

Dividend yield ratio establishes the relationship between dividend per share (DPS) and market price per share (MPS). It is computed as under:

Table 4.13

Dividend Yield Ratios of JVB

Year	DPS	MPS	Ratio
Everest Bank Limited (EBL)			
2061/62	….....	405	……..
2062/63	20	445	4.50%
2063/64	20	680	2.95%
2064/65	…….	870	……..
2065/66	25	1379	3.05%
Average Mean			2.10%
Standard Deviation			1.8
Co-efficient of Variation			85.72%
Himalayan Bank Limited (HBL)			
2061/62	25.00	1000	2.50%
2062/63	10.32	836	1.23%
2063/64	……	840	……..
2064/65	11.58	920	1.26%
2065/66	30.00	1100	2.73%
Average Mean			1.54%
Standard Deviation			1.00
Co-efficient of Variation			64.93%
NABIL Bank Limited (NABIL)			
2061/62	30	700	4.29%
2062/63	50	740	6.76%
2063/64	65	1000	6.50%
2064/65	70	1505	4.65%
2065/66	85	2240	3.79%
Average Mean			5.20%
Standard Deviation			1.20
Co-efficient of Variation			23.08%

Sources: Annual Reports of EBL, HBL and NABIL Bank

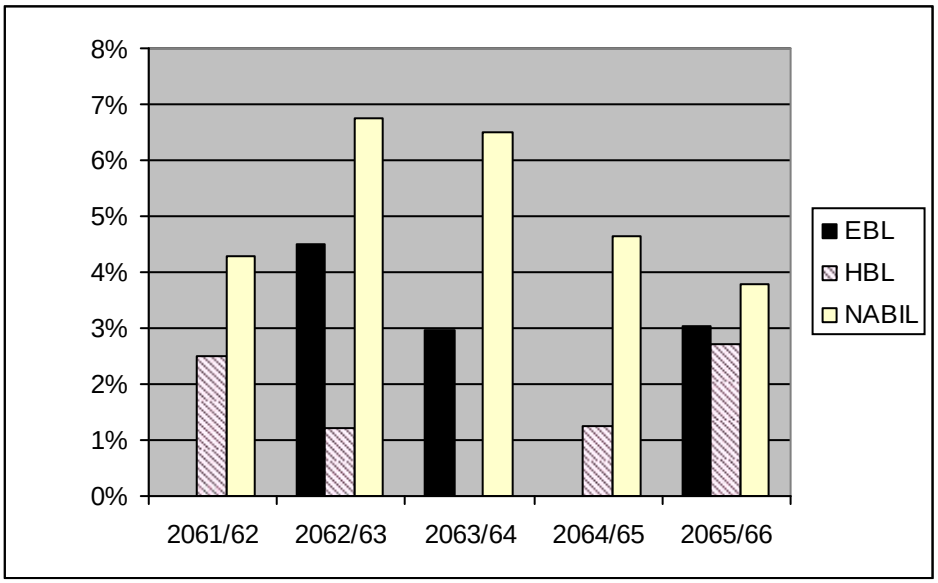
From the above computed table, the dividend yield ratio of EBL in the FY 2062/63, FY 2063/64 and FY 2064/65 are 4.50%, 2.95% and 3.05% respectively. Since, EBL did not

distribute any dividend in the FY 2061/62 and FY 2064/65, so its dividend yield ratio is nil under such periods. Its average dividend yield ratio is 2.10%, standard deviation is 1.8 and co-efficient of variation is 85.72%. The dividend yield ratio of HBL in the FY 2061/62, FY 2062/63, FY 2062/64 and FY 2065/66 are 2.5%, 1.23%, 1.26% and 2.73% respectively. Since, HBL did not distribute any dividend in the FY 2063/64, so its dividend yield ratio is nil in such period. Its average dividend yield ratio is 1.54%, standard deviation is 1.14 and co-efficient of variation is 64.93%. The dividend yield ratio of NABIL in the FY 2061/62, FY 2062/63, FY 2063/64, FY 2064/65, and FY 2065/66 are 4.29%, 6.76%, 6.50%, 4.65% and 3.79% respectively. Its average dividend yield ratio is 5.20%, standard deviation is 1.20 and co-efficient of variation is 23.08%.

The figure also shows that the higher average dividend yield ratio of NABIL states it yields more dividend than EBL and HBL. Moreover, the lower C.V. of NABIL also suggests that it is more consistent in dividend yield ratio than EBL and HBL.

Figure 4.13

Dividend Yield Ratios of JVB



4.4 Trend Analysis

Trend analysis enables to have a general idea about the pattern of the behavior of the phenomenon under consideration.

(a) Trend Values (Y_c) of EPS by Least Square Method

Table 4.14

Trend Value of EPS

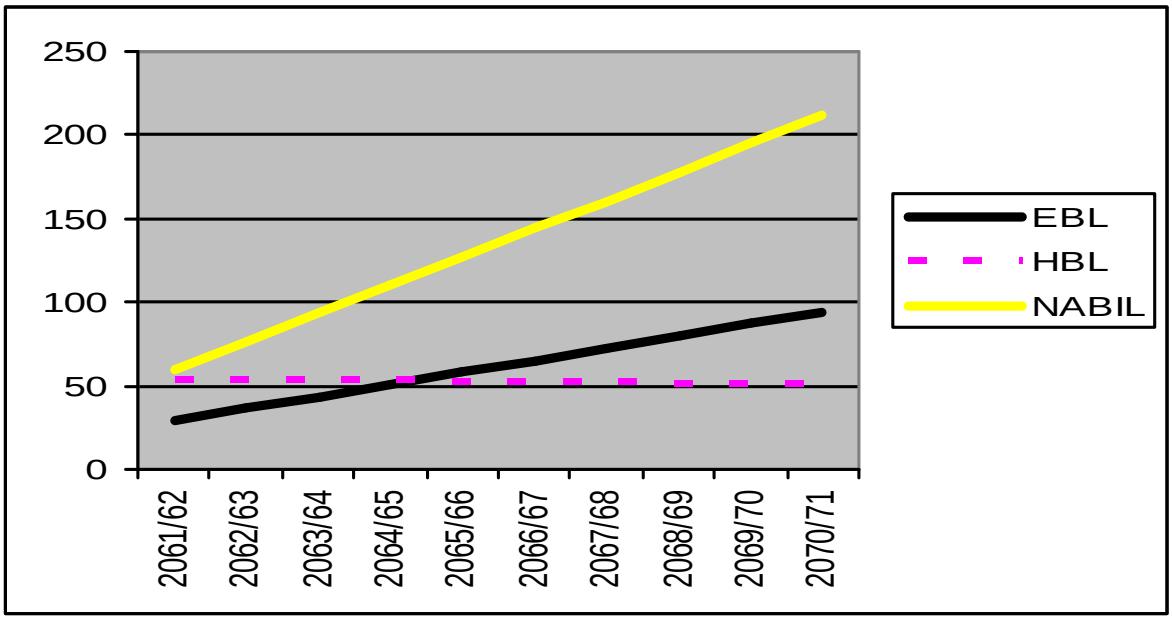
Year	Banks		
	EBL	**HBL**	**NABIL**
2061/62	28.92	53.90	59.68
2062/63	36.18	53.54	76.59
2063/64	43.44	53.18	93.50
2064/65	50.70	52.82	110.41
2065/66	57.96	52.46	127.32
2066/67	65.22	52.10	144.23
2067/68	72.48	51.74	159.62
2068/69	79.74	51.38	178.05
2069/70	87.00	51.02	194.96
2070/71	94.26	50.66	211.87

Source: Appendix 1, 2 and 3

From the table 4.14 and figure 4.14 it is shown that the EPS of EBL is in the increasing trend in the successive fiscal years. It has increased from Rs. 28.92 in FY 2061/62 to Rs. 94.26 in the FY 2070/71. Whereas, the table shows that the EPS of HBL is in the declining trend in the successive fiscal years. It has declined from Rs. 53.90 in FY 2061/62 to Rs. 50.66 in the FY 2070/71. On the other hand, NABIL has an increasing trend of EPS in the successive fiscal years. It has increased from Rs. 59.68 in FY 2061/62 to Rs. 211.87 in the FY 2070/71.

Figure 4.14

Trend Value of EPS



(b) Trend Values (Yc) of Net Profit by Least Square Method

Table 4.15

Trend Value of Net Profit

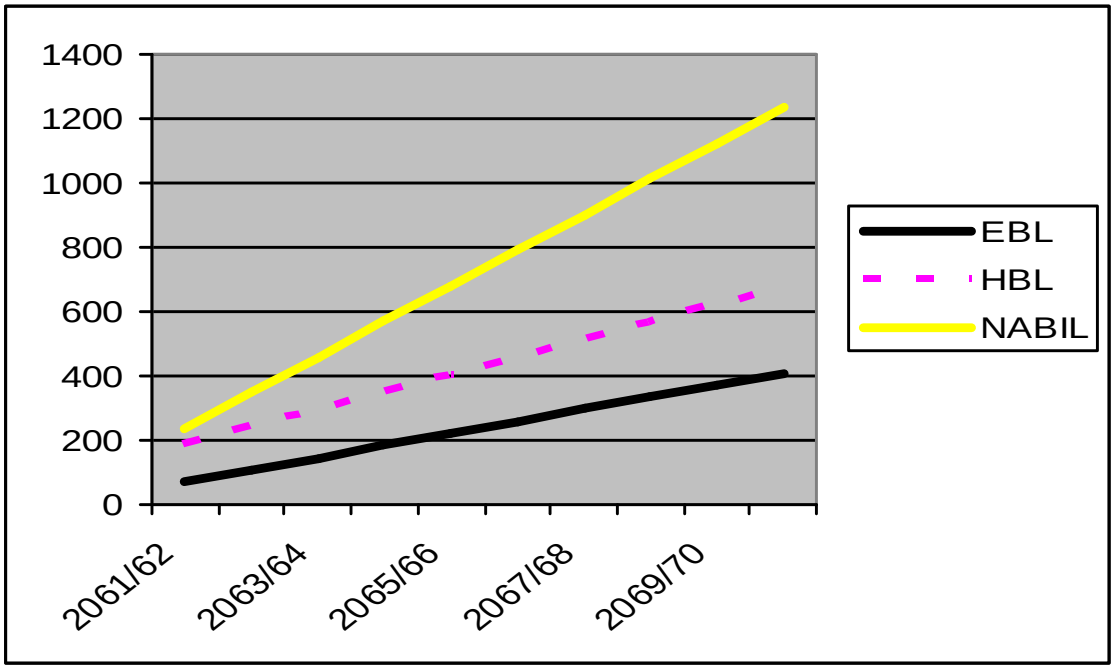
Year	Banks		
	EBL	HBL	NABIL
2061/62	70.11	186.99	238.75
2062/63	107.91	241.09	349.23
2063/64	145.71	295.19	459.71
2064/65	183.51	349.29	570.19
2065/66	221.31	403.39	680.67
2066/67	259.11	457.49	791.15
2067/68	296.61	511.59	901.63
2068/69	334.71	565.69	1012.11
2069/70	372.51	619.79	1122.59
2070/71	410.31	673.89	1233.07

Source: Appendix 4, 5 and 6

The above table clearly indicates that the net profit of EBL is in the increasing trend in the successive fiscal years. It has increased from Rs. 70.11 in FY 2061/62 to Rs. 410.31 in the FY 2070/71. Whereas, the table showed that the net profit of HBL is also in the increasing trend in the successive fiscal years. It has increased from Rs. 186.99 in FY 2061/62 to Rs. 673.89 in the FY 2070/71. On the other hand, NABIL has also an increasing trend of net profit in the successive fiscal years. It has increased from Rs. 238.75 in FY 2061/62 to Rs. 1233.07 in the FY 2070/71.

Figure 4.15

Trend Value of Net Profit



4.5 Correlation Co-efficient (r)

Correlation analysis deals to determine the degree of relationship between two or more variables. In correlation analysis, only one variable is treated as dependent and one or more variables are treated as independent. The correlation coefficient between two variables X and Y, denoted by r, is a numerical measure of linear relationship between them. In this study, total deposits of banks are treated as independent variable whereas, cash and bank balance and, net profit are treated as dependent variables.

(a) Correlation Co-efficient between Total Deposit and Cash & Bank Balance

The correlation co-efficient between total deposit (X) an independent variable and cash and bank balance (Y) a dependent variable is to measure the degree of relationship between the two variables.

Table 4.16

Correlation Co-efficient between Total Deposit and Cash & Bank Balance

Banks	**r**	**r^2**
EBL	0.80	64.00%
HBL	0.47	22.09%
NABIL	-0.55	30.25%

Source: Appendix 7, 8 and 9

The table no 4.16 depicts that EBL has high degree of positive correlation, HBL has low degree of positive correlation and NABIL has negative correlation between total deposit and cash and bank balance. Moreover, the coefficient of determinants (r^2) of EBL, HBL and NABIL are 64%, 22.09% and 30.25% respectively.

(b) Correlation Co-efficient between Total Deposit and Net Profit

The correlation co-efficient between total deposit (X) and independent variable and net profit (Y) a dependent variable is to measure the degree of relationship between the two variables.

Table 4.17
Correlation Co-efficient between Total Deposit and Net Profit

Banks	r	r^2
EBL	0.99	98.01%
HBL	0.87	75.69%
NABIL	0.57	32.49%

Source: Appendix 10, 11 and 12

From the computation it has been found that EBL and HBL have high degree of positive correlation whereas NABIL has low degree of positive correlation between total deposit and profit. Moreover, the coefficient of determinants (r^2) of EBL, HBL and NABIL are 98.01%, 75.69% and 32.49% respectively.

4.6 Regression Analysis

Regression analysis is the technique of studying how the variations in one series are related to variations in another series. As simple regression consists two variables only, one of Y on X and the other of X on Y. But in this study only Y on X is considered. The line of regression of Y on X is used to estimate (or predict) the value of dependent variable Y for any given value of independent variable X. In another words, the regression equation of Y on X is used to describe the change in the value of Y for given change in the value of X.

(a) Regression equation of Cash and Bank Balance on Total Deposit

The regression equation of cash and bank balance (Y) on total deposit (X) is used to describe the change in the value of cash and bank balance for given change in the value of total deposit.

Table 4.18

Regression equation of Cash and Bank Balance on Total Deposit

Banks	Regression Equation
EBL	Y = 133.84 + 0.0974X
HBL	Y = 699.84 + 0.0485X
NABIL	Y = 1823.15 – 0.0618X

Source: Appendix 13, 14 and 15

The regression equation of cash and bank balance (Y) on total deposit (X) of EBL is Y = 133.84 + 0.0974X, HBL is Y = 699.84 + 0.0485X and NABIL is Y = 1823.15 – 0.0618X.

(b) Regression equation of Net Profit on Total Deposit

The regression equation of net profit (Y) on total deposit (X) is used to describe the change in the value of net profit for given change in the value of total deposit.

Table 4.19

Regression equation of Net Profit on Total Deposit

Banks	**Regression Equation**
EBL	Y = -19.32 + 0.0187X
HBL	Y = -319.22 + 0.0272X
NABIL	Y = -46.99 + 0.0329X

Source: Appendix 16, 17 and 18

The regression equation of net profit (Y) on total deposit (X) of EBL is Y = -19.32 + 0.0187X, HBL is Y = -319.22 + 0.0272X and NABIL is Y = -46.99 + 0.0329X. according to table no 4.19.

4.7 Hypothesis (t-test)

Hypothesis test is one of the important aspects of the theory of decision making. It consists of decision rules required for drawing probabilistic inferences about the population parameters. The testing of hypothesis enables to find out whether it deserves the acceptance or rejection of the hypothesis.

(a) T-test of Correlation Co-efficient between Total Deposit and Cash & Bank Balance

In order to test whether the correlation co-efficient between total deposit and cash and bank balance is significant or not, t-test is applied.

Table 4.20

T-test of correlation Co-efficient between Total Deposit and Cash & Bank Balance

Banks	**t_{cal}**	**t_{tab}**	**Remarks**
EBL	2.32	3.182	$t_{cal} < t_{tab}$: Insignificant
HBL	0.92	3.182	$t_{cal} < t_{tab}$: Insignificant
NABIL	-1.14	3.182	$t_{cal} < t_{tab}$: Insignificant

Source: Appendix 19, 20 and 21

The table indicates that under all the cases i.e. EBL, HBL and NABIL the calculated value of t (t_{cal}) is less than the tabulated value of t (t_{tab}) thus, it is insignificant which means that the variables are uncorrelated in the population i.e. r is insignificant of correlation in the population.

(b) T-test of correlation Co-efficient between Total Deposit and Net Profit

In order to test whether the correlation co-efficient between total deposit and net profit is significant or not, t-test is applied.

Table 4.21

T-test of correlation Co-efficient between Total Deposit and Net Profit

Banks	**t_{cal}**	**t_{tab}**	**Remarks**
EBL	12.27	3.182	$t_{cal} > t_{tab}$: Significant
HBL	3.08	3.182	$t_{cal} < t_{tab}$: Insignificant
NABIL	1.21	3.182	$t_{cal} < t_{tab}$: Insignificant

Source: Appendix 22, 23 and 24

According to the table no 4.21, for EBL, the calculated value of t(t_{cal}) is greater than the tabulated value of t (t_{tab}) thus, it is significant which means that the variables are correlated in the population i.e. r is significant of correlation in the population.

But under HBL and NABIL, the calculated value of t(t_{cal}) is less than the tabulated value of t (t_{tab}) thus, it is insignificant which means that the variables are uncorrelated in the population i.e. r is insignificant of correlation in the population.

4.8 ANOVA

The analysis of variance (ANOVA) is a powerful statistical tool for tests of significance to evaluate differences among the parameters of several groups.

(a) One – way ANOVA Test of EPS of EBL, HBL and NABIL

In order to test whether there is significant difference between EPS of EBL, HBL and NABIL or not, one-way ANOVA is applied.

Table 4. 22

One-way ANOVA Test of EPS

F_{cal}	F_{tab}	Remarks
108.89	3.89	$F_{cal} > F_{tab}$: Significant

Source: Appendix 25 and 26

The table shows that, the calculated value of F (F_{cal}) is greater than the tabulated value of F (F_{tab}) thus; it is significant which means that there is significance difference between 3 EPS of these 3 JVBs.

(b) One-way ANOVA Test of Current Ratio of EBL, HBL and NABIL

In order to test whether there is significant difference between Current Ratio of EBL, HBL and NABIL or not, one-way ANOVA is applied.

Table 4.23

One-way ANOVA Test of Current Ratio

F_{cal}	F_{tab}	Remarks
135.40	3.89	$F_{cal} > F_{tab}$: Significant

Source: Appendix 27 and 28

The table shows that, the calculated value of F (F_{cal}) is greater than the tabulated value of F (F_{tab}) thus, it is significant which means that there is significance difference between 3 Current Ratio of these 3 JVBs.

4.9 SWOT Analysis

It is an analysis of organization's Strengths, Weaknesses, Opportunities and Threats in order to identify a strategic niche that the organization can exploit. The SWOT analysis serves as the starting point of strategic plan formulation. Thus, an attempt has been made regarding SWOT analysis of 3 JVBs under study.

(a) Strengths

Strengths are inherent capacity which organization can use to gain advantage over its competitors. They come from technology, structure, and people. It is inherent capacity which can be used to gain strategic advantage over competitors. The main strength of all the 3 JVBs under study is that their employees are highly motivated, trained and equipped with modern and latest technologies. The general working environments and, the services and facilities provided by these banks are highly appreciable. In fact, these banks under study are the icons of the nation in the field of financial institutions. EBL, HBL and NABIL all these 3 JVBs have maintained a proper balance between liquidity and profitability, which also adds in their advantage. These banks goodwill and prestige are so high that any one can trust blindly simply in their names only. Moreover, all the financial and statistical ratios and tools used, applied and tested also suggests the same. Thus, all these subjects may be regarded as one of the major strengths of EBL, HBL and NABIL.

(b) Weaknesses

Weaknesses are internal to organization. It is also related to internal environment of the organization. It is inherent limitation which creates a strategic disadvantage over competitors. In the present context, these banks are found depending upon their reward and gift schemes to attract the customer's deposits. Such programs may affect negatively. Apart from it, these JVBs under study highly focuses their banking transactions in urban and central areas only. Moreover, inconsistent dividend pay-out ratio is also one of their main disadvantages. Furthermore, maintaining high liquidity than standard rate, focusing more on only and only on profit, under utilizing the owner's, shareholder's and creditors

fund, lack of efficient management on some aspect also adds in their disadvantages. Thus all thee subjects may be regarded as the weaknesses of EBL, HBL and NABIL.

(c) Opportunities

Opportunities come from external environment such as political, economic, technological, socio cultural forces. It is favorable condition in the environment. The end of conflict between Maoists and the government may be regarded as the favorable environment for the financial institutions. Moreover, the changing policies of the government and the central bank have also spread diversified opportunities for these banks under study. The development of infrastructures, transportation and communications etc. in the rural areas by the government are the opportunities for these JVBs to operate their banking transactions in such areas. Moreover, having high liquidity within the bank and having high deposits of customers in their vault, these JVBs under study are always in a better position to make some huge investments in productive and profitable sectors. Thus, all these subjects add as opportunities of EBL, HBL and NABIL.

(d) Threats

Threats are also related to external environment. It is an unfavorable condition in the environment. The political instability and emerging of violence and nuisance within the country has negatively affected and threatened the financial institutions. Moreover, the rapid growth and emergence of different kinds of financial institutions such as, banks, development banks, finance companies, co-operative organizations are seen as the competitors for these 3 JVBs under study. However, the banks established under foreign joint investment are giving big challenges to these JVBs. In this era of cut-throat competition, a minor mistake or policy below the standard than other banks may cost high for these banks. Moreover, the adoption of new and modern technologies, using systematic and scientific work procedures, better and increasing the services and facilities by other banks etc. also creates a kind of threats for EBL, HBL and NABIL.

4.10 Major Findings of the Study

- The average current ratio of EBL, HBL and NABIL are 1.99%, 4.49% and 2.81% respectively. Moreover, the C.V. of such banks is 44.73%, 15.37% and 12.79% respectively. It shows that NABIL is more consistent in maintaining the current ratio among the other two banks.
- The average quick ratio of EBL, HBL and NABIL are 1.98%, 4.48% and 2.79% respectively. It shows that HBL is in a better position of liquidity in terms of quick ratio as compared to EBL and NABIL whereas; the position of EBL seems to be week on such regard.
- The average cash and bank balance to current deposit ratio of EBL, HBL and NABIL are 129.39%, 45.26% and 30.88% respectively. The high mean ratio of cash & bank balance to current deposit of EBL indicates the sound liquidity position of the bank than that of HBL and NABIL.
- The average mean ratio of cash and bank balance to total deposit of EBL, HBL and NABIL are 11.47%, 7.99% and 5.86% respectively. It reveals that EBL has maintained adequate cash and bank balance to meet the unexpected as well as heavy withdrawal of deposits.
- The average net profit ratio of EBL, HBL and NABIL are 18.76%, 18.21% and 33.60% respectively. It shows that NABIL is comparatively earning higher rate of profit than EBL and HBL.
- The average ROE of EBL, HBL and NABIL are 19.19%, 22.62% and 30.27% respectively. It reveals that NABIL has been efficiently utilizing the owners' investment comparatively better than EBL and HBL.
- The average ROA of EBL, HBL and NABIL are 1.41%, 1.16% and 2.53% respectively. The higher mean ratio of NABIL states that NABIL has been able to utilize its overall resources in efficient way in comparison with EBL and HBL during the study period. The high ratio also reflects the successes of NABIL's management.

- The average ROCE of EBL, HBL and NABIL are 16.95%, 15.56% and 24.87% respectively. The higher mean ratio of NABIL reveals efficient utilization of available resources supplied by the owners and creditors.
- The average mean of EPS of EBL, HBL and NABIL are Rs. 43.44, Rs. 53.18 and Rs. 93.50 respectively. The higher EPS of NABIL means NABIL's shareholders can get higher amount on every share held.
- The average DPS of EBL, HBL and NABIL are Rs. 13, Rs. 13.58 and Rs. 60 respectively. The higher mean DPS of NABIL signifies that NABIL is more successful to win the confidence of the investors. This means NABIL can sell its shares more easily than those shares of EBL and HBL.
- The average dividend pay-out ratio of EBL, HBL and NABIL are 30.57%, 27.43% and 63.10% respectively. The high dividend pay-out ratio of NABIL means high percentage of net profit is paid out as dividend to the equity holders.
- The average earning yield ratio of EBL, HBL and NABIL are 6.31%, 5.68% and 8.28% respectively. Moreover, the C.V. of such banks are 20.13%, 5.64% and 23.55% respectively. HBL with lower C.V. is more consistent in earning yield ratio whereas; NABIL with high C.V. seems less consistent.
- The average mean dividend yield ratio of EBL, HBL and NABIL are 2.10%, 1.54% and 5.20% respectively. Moreover, the C.V. of such banks are 85.72%, 64.93% and 23.08% respectively. On the basis of C.V., NABIL seems to be more consistent than EBL and HBL.
- The trend analysis of EPS of EBL, HBL and NABIL shows that EBL and NABIL have an increasing trend whereas, HBL has a declining trend. Moreover, NABIL increasing trend of EPS seems better than EBL.
- The trend analysis of net profit of EBL, HBL and NABIL shows that all these 3 JVBs have an increasing trend. However, NABIL increasing trend of net profit is better than EBL and HBL.
- The correlation co-efficient between total deposit and cash & bank balance of EBL, HBL and NABIL are 0.80, 0.47 and -0.55 respectively.

- It shows that EBL has high degree of positive relationship, HBL has low degree of positive relationship and NABIL has negative relationship between total deposit and cash & bank balance.
- The correlation co-efficient between total deposit and net profit of EBL, HBL and NABIL are 0.99, 0.87 and 0.57 respectively. It shows that there exists high degree of positive relationship between total deposit and net profit in EBL and HBL, whereas moderate degree of relationship exists in NABIL.
- The calculation of t-test showed that the correlation co-efficient between total deposit and cash & bank balance are insignificant under all the JVBs under study.
- The calculation of t-test showed that the correlation co-efficient between total deposit and net profit are insignificant under HBL and NABIL whereas, it showed significant under EBL.
- The one-way ANOVA test of EPS of EBL, HBL and NABIL shows that there is significant difference between 3 EPS of these 3 JVBs.
- The one-way ANOVA test of Current Ratio of EBL, HBL and NABIL shows that there is significant difference between 3 Current Ratio of these 3 JVBs.
- Simply looking on the investment report of these 3 JVBs under study, it is found that these banks invest their funds in government treasury bills, government securities, foreign banks and in corporate shares. However, the most interesting point to be noted here is that these JVBs invests less than 1% of their funds in corporate shares.
- The analysis of different financial and statistical tools clearly shows that NABIL is best, healthier and sound bank than EBL and HBL on almost every aspect of the study. It reveals that NABIL has maintained a proper balance between liquidity and profitability. Due to the proper equilibrium between the liquidity and profitability, NABIL has clearly dominated the race as compared of EBL and HBL. But it does not imply that EBL and HBL have failed to maintain the proper balance between liquidity and profitability. The have also tried their best in their own way in maintaining the proper equilibrium between the liquidity and profitability but comparatively less or below than NABIL.

CHAPTER – V

SUMMARY, CONCLUSION & RECOMMENDATIONS

5.1 Summary

The institutions, engaged in financial activities are known as commercial banks. Commercial banks are the real intermediaries who transfer savings from the savers to the borrowers so that the money can be used in productive sectors. These financial institutions help to integrate every financial activity of the community. They offer financial support to all types business through providing various types of loan and other financial services. Commercial banks have macro level involvement for economic development of any country.

This study has been prepared to know about the trade off between liquidity and profitability position of EBL, HBL and NABIL. The liquidity and profitability are two major components for a bank to achieve its objectives. If there is high liquidity in bank, the bank can't gain profit. Because, most part of the liquidity is reserved in the bank, it doesn't give profit to the bank. The bank can't invest the amount. For profitability, the bank has to keep liquidity low in the bank, invest the cash fund, it can gain profit after some time but it can invite a great accident to the bank. If there is no maintenance of liquidity in the bank as a balance form, the bank can't carry out its baking transactions. The principality of liquidity and profitability are very much crucial for smooth operation of bank.

In the first chapter, the background and subject matter of the study consisting statement of the problem, significance and limitations of the study has been dealt. In the second chapter, the relevant review of literature has been made in terms of theoretical background of banking principles as well journals, articles and previous thesis have been reviewed. Third chapter deals with the research methodology that has been used to evaluate the liquidity and profitability position of JVBs under study. In the fourth

chapter, the data and information are presented, analyzed and interpreted by the help of financial and statistical tools. Finally, in the fifth and last chapter, summary, conclusion and recommendations have been made regarding the entire study.

For the purpose of analysis and evaluation, different financial and statistical tools have been used. Here, financial tools include liquidity ratio and profitability ratio whereas, statistical tools include average mean, standard deviation, co-efficient of variation, trend analysis, correlation co-efficient, regression analysis, hypothesis (t-test) and ANOVA test. The liquidity ratios includes current ratio, quick ratio, cash and bank balance to current deposit ratio, cash and bank balance to total deposit ratio. These ratios help to analyze and evaluate the liquidity position of banks. Similarly, the profitability ratios such as net profit ratio, return on equity, return on total assets, return on capital employed, earning per share, and dividend per share, dividend pay-out ratio, earning yield ratio assist to analyze and evaluate the profitability position of banks. In addition to that the trend analysis of net profit, trend analysis of EPS enable to have general idea about the pattern of the behavior of net profit and EPS.

Correlation analysis such as correlation co-efficient between total deposit and cash and bank balance and correlation co-efficient between total deposit and net profit deals to determine the degree of relationship between two variables. Furthermore, the regression equation of cash and bank balance on total deposit is used to describe the change in the value of cash and bank balance for given change in the value of total deposit. Similarly, the regression equation of net profit on total deposit is used to describe the change in the value of net profit for given change in the value of total deposit. T-test has been conducted in order to test the significance of correlation co-efficient between total deposit and cash& bank balance and correlation co-efficient between total deposit and net profit. In order to test whether there is significant difference between EPS of EBL, HBL and NABIL and significant difference between current ratio EPS of EBL, HBL and NABIL of or not one-way ANOVA has been applied.

The data that have been analyzed by such financial and statistical tool includes from FY 2061/62 to FY 2065/66. This study is mainly conducted on the basis of secondary data. Therefore, the study has inherent limitation of the secondary data. All the information gathered through primary sources has been assumed to true and correct. The authenticity of the study depends on the authenticity of the data provided and collected. For the systematic analysis of study, chapter plan have been made.

Basically, the entire research work has focused on the comparative study on relationship between liquidity and profitability of Nepalese joint venture banks. Every organization has to analyze its financial performance in the every step of its operation, promotion, and expansion. There should be an appropriate equilibrium between the earning and non-earning assets. Commercial banks are always guided by the objective of profitability. In this study attempts are made to get knowledge about the relationship between liquidity and profitability, operational efficiency of the management, efficient use of total assets by the management etc. by identifying the strengths and weakness of the three respective banks.

The growth of financial sector in Nepal is much better compared to the other sectors in the country. There are a sizeable number of commercial banks, development banks, finance companies and co-operatives operating in the country although bulk of the loan and deposit portfolio remains with private sector commercial banks. The concentration of private banks has been more in urban areas than rural parts of the country. Some of the valid reasons for private banks not going into suburbs and rural parts of the country could be lack of collateral, lack of information, lack of quality manpower, lack of knowledge and skills, lack of efficient management and lack of formal education of promotors, lack of technology etc. Digging deeper into the loan portfolios of private banks, one can easily make out that the primary focus has been on big size corporate loans. Only a small portion of the loan portfolios could be seen to have been going to the small and medium sized enterprises, popularly known as SMEs.

5.2 Conclusion

Liquidity is the most sensible and crucial aspect of the bank, which is often compared to lifeblood of the human being. Lack of adequate liquidity is often one of the first signs that a bank is in serious financial trouble and lead to the loss of public faith upon banks. Thus, ensuring adequate liquidity is a never-ending problem for the bank management that will always have significant implications for the bank's profitability. On the basis of the study, the liquidity position of HBL is comparatively better than EBL and NABIL according to current ratio and quick ratio. Whereas, on the basis of cash and bank balance to current deposit ratio and cash and bank balance to total deposit ratio, the liquidity position of EBL seems to be more sound than HBL and NABIL. The average net profit ratio, ROE, ROA, ROCE, EPS, and DPS, Dividend pay-out Ratio, Earning Yield Ratio and Dividend Yield Ratio of NABIL are comparatively better than EBL and HBL. It clearly shows that NABIL is a far better bank than EBL and HBL in almost every aspect that have been analyzed and evaluated in the study. The trend analysis of EPS of EBL, HBL and NABIL shows that EBL and NABIL have an increasing trend of EPS in the past, present and future. Whereas, HBL has a declining trend of EPS from the FY 2061/62 to FY 2070/71. On the other hand, the trend analysis of net profit ratio of all these 3 JVBs has an increasing trend. But when compared among these 3 JVBs, both the trend i.e. EPS and net profit, shows that NABIL have a better increasing trend. The correlation co-efficient between total deposit and cash & bank balance of EBL, HBL and NABIL are such that EBL has high degree of positive relationship, HBL has low degree of positive relationship and NABIL has negative relationship. Moreover, there exists high degree of positive relationship between total deposit and net profit in EBL and HBL, whereas moderate degree of relationship exists in NABIL. The t-test of total deposit and cash and bank balance of all the JVBs under study are insignificant. However, the t-test of total deposit and net profit of HBL and NABIL are insignificant whereas, EBL is significant. The analysis of one-way ANOVA test of EPS of EBL, HBL and NABIL clearly shows that all these 3 JVBs differ significantly in terms of EPS. Moreover, the analysis of same test of current ratio of these 3 JVBs also shows that these banks also differ in terms of current ratio.

Although the banks are reporting of steady profits, the banks have tendency to conceal bad loans by restructuring them to show good performance. In order to check such practice, the central bank has announced a new measure in its monetary policy. The JVBs are found superior than other local commercial banks operating within the country. The JVBs are fully equipped with all kinds of modern and latest technologies.

5.2 Recommendations

There is a direct effect of current state of political instability of our country in the field of commercial and financial sector. Due to the violating environment in the country, people have not been able to mobilize and utilize the resources. Most of the commercial banks have been struggling against the economic crisis. Despite such conditions, it is found that the JVBs under this study are running on profit for the period 2003/04 to 2008/09A.D. Thus, all these JVBs should be appreciated for their banking transactions inspire of the present critical situation.

- Since, the average current ratio and quick ratio of EBL is comparatively lower than the other 2 JVBs under study, and below the standard rate as well, so EBL is strongly suggested to increase its liquidity position in terms of current and quick ratio so that it can be able to meet the demand of the customers when required.
- The coefficient of variation (C.V.) of EBL in terms of cash & bank balance to current deposit and total deposit are high. It implies that EBL is less consistent in maintaining the cash and bank balance from the deposits. Thus, EBL is advised to be more consistent under this regard.
- Nepalese shareholders are very much concerned about the payment of cash dividend by the banks. So, the banks are suggested to pay the cash dividend consistently. Hence, the bank especially EBL with having high C.V. is recommended to maintain consistent dividend policy.
- The trend analysis of EPS of HBL clearly shows that HBL has a declining trend of EPS. Thus, HBL is strongly suggested to pay due consideration in this regard, so that it can take the necessary steps to overcome the declining trend of EPS.

- The banks are found that the saving from the rural communities are neglected, without which they can't contribute much to the economic development of the country. Thus, these JVBs under study are suggested to open their branches in the rural areas too and provide their services which will consequently be helpful for the upliftment of the nation.
- Since, Nepal have fixed exchange rate regime with India, thus, it is suggested to the entire financial institutions within the country including these 3 JVBs under study to control the credit and maintain the inflation rate in a limit because at the present scenario of inter-relation between Nepali economy with India's, Nepal would lose if it floats its currency.
- The bank should give continuity in providing both conceptual and practical training to the staff to enhance their knowledge, skill and competency level. The bank should remain consistently vigilant in enhancing their moral and motivation. Similarly, the bank should enhance effectiveness, efficiency and proper co-ordination of its departmental tasks by continuously reviewing its structural design in accordance with the need of the changing time and situation.
- All these JVBs under study are suggested to concentrate more on their performance, business growth rate, asset quality and governance practices. Apart from these, market reputation, diversified service range and rate of shareholders should also be taken into account by the banks so, that it not only be beneficial for the bank but will also play a vital criteria or tool in regarding a reward as one of the best bank of the nation.
- The study may be helpful to fulfill the gap of proper research about the relationship between liquidity and profitability. It may provide the knowledge about liquidity management in Nepalese commercial banks and their profitability position. This research covers the existing liquidity management practice, existing liquidity position and its trend, factors affecting the liquidity and profitability. It also provides different banking tools for liquidity management as well as for profitability position, so other researcher may make their study wider by selecting different topic such as credit position, stock position, and right share issues,

impact of liquidity and profitability in share price etc with the help of this study. Similarly one can select other financial institutions as well as other companies like manufacturing companies, other service companies for study. For the further study and analysis, this study may be guideline to other researchers.

APPENDIX 1

Calculation of Trend Value of EPS of EBL by Least Square Method

Years (t)	**EPS (Y)**	**t-2063/64 (X)**	**XY**	**X^2**	**Trend Value (Yc)**
2061/62	32.89	-2	-65.78	4	**28.92**
2062/63	29.90	-1	-29.90	1	**36.18**
2063/64	45.58	0	0	0	**43.44**
2064/65	49.40	1	49.40	1	**50.70**
2065/66	59.44	2	118.88	4	**57.96**
n = 5	**$\sum Y = 217.21$**	**$\sum X=0$**	**$\sum XY = 72.60$**	**$\sum X^2=10$**	

Let the trend line be given by the equation,
$Yc = a + bX$……. Equation 1
Its normal equations are,
$\sum Y = na + b \sum X$ …….Equation 2
$\sum XY = a \sum X + b \sum X^2$ ……...Equation 3

Putting the respective value in equation 2, we have
$217.21 = 5a + b (0)$
Or, $5a = 217.21$
Or, $a = 43.44$

Again, putting the respective value in equation 3, we have
$72.60 = a(0) + 10b$
Or, $10b = 72.60$
Or, $b = 7.26$

Now, substituting the value of **a** and **b** in equation 1, we have
$Yc = a + bX$
Or, $Yc = 43.44 + 7.26X$

Estimated Trend Values of EPS of EBL in the Future Years

Year:	2066/67	2067/68	2068/69	2069/70	2070/71

Yc:	65.22	72.48	79.74	87.00	94.26

APPENDIX 2

Calculation of Trend Value of EPS of HBL by Least Square Method

Years (t)	**EPS (Y)**	**t-2063/64 (X)**	**XY**	**X^2**	**Trend Value (Yc)**
2061/62	60.26	-2	-120.52	4	**53.90**
2062/63	49.45	-1	-49.45	1	**53.54**
2063/64	49.05	0	0	0	**53.18**
2064/65	47.91	1	47.91	1	**52.82**
2065/66	59.24	2	118.48	4	**52.46**
n = 5	**$\sum Y$ = 265.91**	**$\sum X$=0**	**$\sum XY$ = -3.58**	**$\sum X^2$=10**	

Let the trend line be given by the equation,
$Yc = a + bX$……. Equation 1
Its normal equations are,
$\sum Y = na + b \sum X$ …….Equation 2
$\sum XY = a \sum X + b \sum X^2$ ……...Equation 3

Putting the respective value in equation 2, we have
$265.91 = 5a + b(0)$
Or, $5a = 265.91$
Or, $a = 53.18$

Again, putting the respective value in equation 3, we have
$-3.58 = a(0) + 10b$
Or, $10b = -3.58$
Or, $b = -0.36$

Now, substituting the value of **a** and **b** in equation 1, we have
$Yc = a + bX$
Or, $Yc = 53.18 – 0.36X$

Estimated Trend Values of EPS of HBL in the Future Years

Year:	2066/67	2067/68	2068/69	2069/70	2070/71
Yc:	52.10	51.74	51.38	51.02	50.66

APPENDIX 3

Calculation of Trend Value of EPS of NABIL by Least Square Method

Years (t)	**EPS (Y)**	**t-2063/64 (X)**	**XY**	**X^2**	**Trend Value (Yc)**
2061/62	55.25	-2	-110.50	4	**59.68**
2062/63	84.66	-1	-84.66	1	**76.59**
2063/64	92.61	0	0	0	**93.50**
2064/65	105.79	1	105.79	1	**110.41**
2065/66	129.21	2	258.42	4	**127.32**
n = 5	**$\sum Y = 467.52$**	**$\sum X=0$**	**$\sum XY = 169.05$**	**$\sum X^2=10$**	

Let the trend line be given by the equation,
$Yc = a + bX$……. Equation 1
Its normal equations are,
$\sum Y = na + b \sum X$ …….Equation 2
$\sum XY = a \sum X + b \sum X^2$ ……...Equation 3

Putting the respective value in equation 2, we have
$467.52 = 5a + b (0)$
Or, $5a = 467.52$
Or, $a = 93.50$

Again, putting the respective value in equation 3, we have
$169.05 = a(0) + 10b$
Or, $10b = 169.05$
Or, $b = 16.91$

Now, substituting the value of **a** and **b** in equation 1, we have
$Yc = a + bX$
Or, $Yc = 93.50 + 16.91X$

Estimated Trend Values of EPS of NABIL in the Future Years

Year:	2066/67	2067/68	2068/69	2069/70	2071/72
Yc:	144.23	159.62	178.05	194.96	211.87

APPENDIX 4

Calculation of Trend Value of Net Profit of EBL by Least Square Method

Years (t)	**Net Profit (Y)**	**t-2063/64 (X)**	**XY**	**X^2**	**Trend Value (Yc)**
2061/62	85.30	-2	-170.60	4	**70.11**
2062/63	94.18	-1	-94.18	1	**107.91**
2063/64	143.57	0	0	0	**145.71**
2064/65	168.21	1	168.21	1	**183.51**
2065/66	237.29	2	474.58	4	**221.31**
n = 5	**$\sum Y = 728.55$**	**$\sum X=0$**	**$\sum XY = 378.01$**	**$\sum X^2=10$**	

Let the trend line be given by the equation,
$Yc = a + bX$……. Equation 1
Its normal equations are,
$\sum Y = na + b \sum X$ …….Equation 2
$\sum XY = a \sum X + b \sum X^2$ ……...Equation 3

Putting the respective value in equation 2, we have
$728.55 = 5a + b (0)$
Or, $5a = 728.55$
Or, $a = 145.71$

Again, putting the respective value in equation 3, we have
$378.01 = a(0) + 10b$
Or, $10b = 378.01$
Or, $b = 37.80$

Now, substituting the value of **a** and **b** in equation 1, we have
$Yc = a + bX$
Or, $Yc = 145.71 + 37.80X$

Estimated Trend Values of Net Profit of EBL in the Future Years

Year:	2066/67	2067/68	2068/69	2069/70	2070/71
Yc:	259.11	296.61	334.71	372.51	410.31

APPENDIX 5

Calculation of Trend Value of Net Profit of HBL by Least Square Method

Years (t)	**Net Profit (Y)**	**t-2063/64 (X)**	**XY**	**X^2**	**Trend Value (Yc)**
2061/62	235.02	-2	-470.01	4	**186.99**
2062/63	212.13	-1	-212.13	1	**241.09**
2063/64	263.05	0	0	0	**295.19**
2064/65	308.28	1	308.28	1	**349.29**
2065/66	457.46	2	914.92	4	**403.39**
n = 5	**$\sum Y = 1475.94$**	**$\sum X=0$**	**$\sum XY = 541.03$**	**$\sum X^2=10$**	

Let the trend line be given by the equation,
$Yc = a + bX$……. Equation 1
Its normal equations are,
$\sum Y = na + b \sum X$ …….Equation 2
$\sum XY = a \sum X + b \sum X^2$ ……...Equation 3

Putting the respective value in equation 2, we have
$1475.94 = 5a + b (0)$
Or, $5a = 1475.94$
Or, $a = 295.19$

Again, putting the respective value in equation 3, we have
$541.03 = a(0) + 10b$
Or, $10b = 541.03$
Or, $b = 54.10$

Now, substituting the value of **a** and **b** in equation 1, we have
$Yc = a + bX$
Or, $Yc = 295.19 + 54.10X$

Estimated Trend Values of Net Profit of HBL in the Future Years

Year:	2066/67	2067/68	2068/69	2069/70	2070/71
Yc:	457.49	511.59	565.69	619.79	673.89

APPENDIX 6

Calculation of Trend Value of Net Profit of NABIL by Least Square Method

Years (t)	**Net Profit (Y)**	**t-2063/64 (X)**	**XY**	**X^2**	**Trend Value (Yc)**
2061/62	271.64	-2	-269.64	4	**238.75**
2062/63	416.24	-1	-416.24	1	**349.23**
2063/64	455.31	0	0	0	**459.71**
2064/65	520.11	1	520.11	1	**570.19**
2065/66	635.26	2	1270.52	4	**680.67**
n = 5	**$\sum Y = 2298.56$**	**$\sum X=0$**	**$\sum XY = 1104.75$**	**$\sum X^2=10$**	

Let the trend line be given by the equation,
$Yc = a + bX$……. Equation 1
Its normal equations are,
$\sum Y = na + b \sum X$ …….Equation 2
$\sum XY = a \sum X + b \sum X^2$ ……...Equation 3

Putting the respective value in equation 2, we have
$2298.56 = 5a + b (0)$
Or, $5a = 2298.56$
Or, $a = 459.71$

Again, putting the respective value in equation 3, we have
$1104.75 = a(0) + 10b$
Or, $10b = 1104.75$
Or, $b = 110.48$

Now, substituting the value of **a** and **b** in equation 1, we have

Yc = a + bX
Or, Yc = 459.71 + 110.48X

Estimated Trend Values of Net Profit of NABIL in the Future Years

Year:	2066/67	2067/68	2068/69	2069/70	2070/71
Yc:	791.15	901.63	1012.11	1122.59	1233.07

APPENDIX 7

Correlation Co-efficient between Total Deposit (X) and Cash & Bank Balance (Y) of Everest Bank Limited (EBL)

Years	**X**	**Y**	**X^2**	**Y^2**	**XY**
2061/62	5466.61	592.70	29883824.89	351293.29	3240059.75
2062/63	6694.96	1139.57	44822489.40	1298619.79	7629375.57
2063/64	8063.90	631.80	65026483.21	399171.24	5094772.02
2064/65	10097.69	1049.99	101963343.30	1102479.01	10602473.52
2065/66	13802.44	1552.97	190507350.06	2411715.82	21434775.25
N = 5	**44125.60**	**4967.03**	**432203490.86**	**5563279.15**	**48001456.11**

We have,

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

$$r = \frac{5 \times 48001456.11 - 44125.60 \times 4967.03}{\sqrt{5 \times 432203490.86 - (44125.60)^2}\sqrt{5 \times 5563279.15 - (4967.03)^2}}$$

$$r = \frac{240007280.55 - 219173178.97}{\sqrt{2161017454 - 1947068575.36}\sqrt{27816395.75 - 24671387.02}}$$

$$r = \frac{20834101.58}{\sqrt{213948878.64}\sqrt{3145008.73}}$$

$$r = \frac{20834101.58}{14626.99 \times 1773.42}$$

$$r = \frac{20834101.58}{25939796.61}$$

$$r = 0.80$$

$$\therefore Co - efficient\ of\ determination\ (r^2) = (0.80)^2 = 0.64\ i.e. 64\%$$

APPENDIX 8

Correlation Co-efficient between Total Deposit (X) and Cash & Bank Balance (Y) of Himalayan Bank Limited (HBL)

Years	X	Y	X^2	Y^2	XY
2061/62	18,619.38	1264.67	346681311.58	1599390.21	23547371.31
2062/63	21007.38	1979.21	441310014.46	3917272.23	41578016.57
2063/64	22010.33	2001.18	484454626.71	4004721.39	44046632.19
2064/65	24814.01	2014.47	615735092.28	4058089.38	49987078.73
2065/66	26490.85	1717.35	701765133.72	2949291.02	45494061.25
N = 5	**112941.95**	**8976.88**	**2589946178.75**	**16528764.23**	**204653160.05**

We have,

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

$$r = \frac{5 \times 204653160.05 - 112941.95 \times 8976.88}{\sqrt{5 \times 2589946178.75 - (112941.95)^2}\sqrt{5 \times 16528764.23 - (8976.88)^2}}$$

$$r = \frac{1023265800.25 - 1013866332.11}{\sqrt{12949730893.75 - 12755884069.85}\sqrt{82643821.15 - 80584374.54}}$$

$$r = \frac{9399468.14}{\sqrt{193846823.90}\sqrt{2059446.61}}$$

$$r = \frac{9399468.14}{13922.89 \times 1435.08}$$

$$r = \frac{9399468.14}{19980460.98}$$

$$r = 0.47$$

$$\therefore Co - efficient\ of\ determination\ (r^2) = (0.47)^2 = 0.2209\ i.e. 22.09\%$$

APPENDIX 9

Correlation Co-efficient between Total Deposit (X) and Cash & Bank Balance (Y) of NABIL Bank Limited (NABIL)

Years	X	Y	X^2	Y^2	XY
2061/62	15506.43	1051.82	240449371.34	1106325.31	16309973.20
2062/63	13447.66	1144.77	180839559.48	1310498.35	15394477.74
2063/64	14119.03	970.49	199347008.14	941850.84	13702377.43
2064/65	14586.61	559.38	212769191.29	312905.99	8159457.90
2065/66	19347.40	630.24	374321886.76	397202.46	12193595.38
N = 5	**77007.13**	**4356.70**	**1207727019.01**	**4068782.95**	**65759791.65**

We have,

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

$$r = \frac{5 \times 65759791.65 - 77007.13 \times 4356.70}{\sqrt{5 \times 1207727019.01 - (77007.13)^2}\sqrt{5 \times 4068782.95 - (4356.70)^2}}$$

$$r = \frac{328798958.25 - 335496963.27}{\sqrt{6038635085.05 - 5930098070.83}\sqrt{20343914.75 - 18980834.89}}$$

$$r = \frac{-6698005.02}{\sqrt{108537014.22}\sqrt{1363079.86}}$$

$$r = \frac{-6698005.02}{10418.11 \times 1167.51}$$

$$r = \frac{-6698005.02}{12163247.61}$$

$$r = -0.55$$

$$\therefore Co-efficient\ of\ determination\ (r^2) = (-0.55)^2 = 0.3025\ i.e. 30.25\%$$

APPENDIX 10

Correlation Co-efficient between Total Deposit (X) and Net Profit (Y) of Everest Bank Limited (EBL)

Years	X	Y	X^2	Y^2	XY
2061/62	5466.61	85.30	29883824.89	7276.09	466301.83
2062/63	6694.96	94.18	44822489.40	8869.87	630531.33
2063/64	8063.90	143.57	65026483.21	20612.34	1157734.12
2064/65	10097.69	168.21	101963343.30	28294.60	1698532.43
2065/66	13802.44	237.29	190507350.06	56306.54	3275180.99
N = 5	**44125.60**	**728.55**	**432203490.86**	**121,359.44**	**7228280.70**

We have,

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

$$r = \frac{5 \times 7228280.70 - 44125.60 \times 728.55}{\sqrt{5 \times 432203490.86 - (44125.60)^2}\sqrt{5 \times 121359.44 - (728.55)^2}}$$

$$r = \frac{36141403.50 - 32147705.88}{\sqrt{21610174.54 - 1947068575.36}\sqrt{606797.20 - 530785.10}}$$

$$r = \frac{3993697.62}{\sqrt{213948878.64}\sqrt{76012.10}}$$

$$r = \frac{3993697.62}{14626.99 \times 275.70}$$

$$r = \frac{3993697.62}{4032661.14}$$

$$r = 0.99$$

$$\therefore Co - efficient\ of\ determination\ (r^2) = (0.99)^2 = 0.9801\ i.e. 98.01\%$$

APPENDIX 11

Correlation Co-efficient between Total Deposit (X) and Net Profit (Y) of Himalayan Bank Limited (HBL)

Years	X	Y	X^2	Y^2	XY
2061/62	18,619.38	235.02	346681311.58	55234.40	4375926.69
2062/63	21007.38	212.13	441310014.46	44999.14	4456295.52
2063/64	22010.33	263.05	484454626.71	69195.30	5789817.31
2064/65	24814.01	308.28	615735092.28	95036.56	7649663.08
2065/66	26490.85	457.46	701765133.72	209269.65	12118504.24
N = 5	**112941.95**	**1475.94**	**2589946178.75**	**473735.05**	**34390206.84**

We have,

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

$$r = \frac{5 \times 34390206.84 - 112941.95 \times 1475.94}{\sqrt{5 \times 2589946178.75 - (112941.95)^2}\sqrt{5 \times 473735.05 - (1475.94)^2}}$$

$$r = \frac{17195103420 - 166695541.68}{\sqrt{12949730893.75 - 12755884069.85}\sqrt{2368675.25 - 2178398.89}}$$

$$r = \frac{5255492.52}{\sqrt{193846823.90}\sqrt{190276.36}}$$

$$r = \frac{5255492.52}{13922.89 \times 436.21}$$

$$r = \frac{5255492.52}{6073303.85}$$

$$r = 0.87$$

$$\therefore Co - efficient\ of\ determination\ (r^2) = (0.87)^2 = 0.7569\ i.e. 75.69\%$$

APPENDIX 12

Correlation Co-efficient between Total Deposit (X) and Net Profit (Y) of NABIL Bank Limited (NABIL)

Years	X	Y	X^2	Y^2	XY
2061/62	15506.43	271.64	240449371.34	73788.29	4212166.65
2062/63	13447.66	416.24	180839559.48	173255.74	5597453.99
2063/64	14119.03	455.31	199347008.14	207307.20	6428535.55
2064/65	14586.61	520.11	212769191.29	270514.41	7586641.73
2065/66	19347.40	635.26	374321886.76	403555.27	12290629.32
N = 5	**77007.13**	**2298.56**	**1207727017.01**	**1128420.91**	**36115427.24**

We have,

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

$$r = \frac{5 \times 36115427.24 - 77007.13 \times 2298.56}{\sqrt{5 \times 1207727017.01 - (77007.13)^2}\sqrt{5 \times 1128420.91 - (2298.56)^2}}$$

$$r = \frac{180577136.20 - 177005508.73}{\sqrt{6038635085.05 - 5930098070.83}\sqrt{5642104.55 - 5283378.07}}$$

$$r = \frac{3571627.47}{\sqrt{108537014.22}\sqrt{358726.48}}$$

$$r = \frac{3571627.47}{10418.11 \times 598.94}$$

$$r = \frac{3571627.47}{6239822.80}$$

$$r = 0.57$$

$$\therefore Co - efficient\ of\ determination\ (r^2) = (0.57)^2 = 0.3249\ i.e.\ 32.49\%$$

APPENDIX 13

Regression Equation of Cash and Bank Balance (Y) on Total Deposit (X) of EBL

Let the regression equation of Y on X be,
Y = a + bX ……Equation 1
Where,
Y is dependent variable, a and b are constant, and X is independent variable.

Then, two normal equations estimating a and b are,
∑Y = na + b ∑X ……..Equation 2
∑XY = a ∑X + b $\sum X^2$ ……Equation 3

$\sum X$	$\sum X^2$	$\sum Y$	$\sum XY$	N
44125.60	432203490.86	4967.03	48001456..11	5

Source: Appendix 7

Putting the respective value in equation 2 and 3, we have
4967.03 = 5a + 44125.60b ……..Equation 4
48100145.11 = 44125.6a + 432203490.86b …….Equation 5

Multiplying equation 4 by 8825.12 and equation 5 by 1 then subtracting equation 5 from equation 4, we have
43834635.79 = 44125.6a + 389413715.07b
48001456.11 = 44125.6a + 432203490.86b
\- - -
4166820.32 =42789775.79b
Or, b = 0.0974

Putting the value of b in equation 4, we have
4967.03 = 5a + 44125.6 (0.0974)
Or, a = 133.84

Now, substituting the value of **a** and **b** in equation 1, we have
Y = 133.84 + 0.0974X
This is the estimated regression equation of Cash and Bank Balance (Y) on Total Deposit (X) of EBL.

APPENDIX 14

Regression Equation of Cash and Bank Balance (Y) on Total Deposit (X) of HBL

Let the regression equation of Y on X be,
Y = a + bX …….Equation 1
Where,
Y is dependent variable, a and b are constant, and X is independent variable.

Then, two normal equations estimating a and b are,
$\sum Y = na + b \sum X$ ……..Equation 2

$\sum XY = a \sum X + b \sum X^2$ …….Equation 3

$\sum X$	$\sum X^2$	$\sum Y$	$\sum XY$	N
112941.95	2589946178.75	8976.88	204653160.05	5

Source: Appendix 8

Putting the respective value in equation 2 and 3, we have
8976.88 = 5a + 112941.95b ……..Equation 4
204653160.05 = 112941.95a + 2589946178.75b ……Equation 5

Multiplying equation 4 by 22588.39 and equation 5 by 1 then subtracting equation 5 from equation 4, we have
202773266.42 = 112941.95a + 2551176813.96b
204653160.05 = 112941.95a + 2589946178.75b
\- - -
1879893.63 =38769364.79b
Or, b = 0.0485

Putting the value of b in equation 4, we have
8976.88 = 5a + 112941.95 (0.0485)
Or, a = 699.84

Now, substituting the value of **a** and **b** in equation 1, we have
Y = 699.84 + 0.0485X
This is the estimated regression equation of Cash and Bank Balance (Y) on Total Deposit (X) of HBL.

APPENDIX 15

Regression Equation of Cash and Bank Balance (Y) on Total Deposit (X) of NABIL

Let the regression equation of Y on X be,
Y = a + bX …….Equation 1
Where,
Y is dependent variable, a and b are constant, and X is independent variable.

Then, two normal equations estimating a and b are,
$\sum Y = na + b \sum X$ ……..Equation 2
$\sum XY = a \sum X + b \sum X^2$ …….Equation 3

$\sum X$	$\sum X^2$	$\sum Y$	$\sum XY$	N
77007.13	1207727017.01	4356.7	65759791.65	5

Source: Appendix 9

Putting the respective value in equation 2 and 3, we have
4356.7 = 5a + 77007.13b ……..Equation 4
65759791.65 = 77007.13a + 1207727017.01b …….Equation 5

Multiplying equation 4 by 15401.43 and equation 5 by 1 then subtracting equation 5 from equation 4, we have
67099410.08 = 77077.13a + 1186019922.19b
65759791.65 = 77077.13a + 1207727017.01b
\- - -
1339618.43 =-21707094.82b
Or, b = -0.0618

Putting the value of b in equation 4, we have
4967.03 = 5a + 770077.13 (-0.0618)
Or, a = 1823.15

Now, substituting the value of **a** and **b** in equation 1, we have
Y = 1823.15 – 1.0618X
This is the estimated regression equation of Cash and Bank Balance (Y) on Total Deposit (X) of NABIL.

APPENDIX 16

Regression Equation of Net Profit (Y) on Total Deposit (X) of EBL

Let the regression equation of Y on X be,
Y = a + bX …….Equation 1
Where,
Y is dependent variable, a and b are constant, and X is independent variable.

Then, two normal equations estimating a and b are,
$\sum Y = na + b \sum X$ ……..Equation 2
$\sum XY = a \sum X + b \sum X^2$ …….Equation 3

$\sum X$	$\sum X^2$	$\sum Y$	$\sum XY$	N
44125.60	432203490.86	728.55	7228280.70	5

Source: Appendix 10

Putting the respective value in equation 2 and 3, we have
728.55 = 5a + 44125.60b ……..Equation 4
7228280.7 = 44125a + 4322.3490.86b …….Equation 5

Multiplying equation 4 by 8825.12 and equation 5 by 1 then subtracting equation 5 from equation 4, we have
6429541.18 = 44125.6a + 389413715.07b
7228280.70 = 44125.6a + 432203490.86b
\- - -
798739.53 =42789775.73b
Or, b = 0.0187

Putting the value of b in equation 4, we have
728.55 = 5a + 44125.6 (0.0187)
Or, a = -19.32

Now, substituting the value of **a** and **b** in equation 1, we have
Y = -19.32 – 0.0187X
This is the estimated regression equation of Net Profit (Y) on Total Deposit (X) of EBL.

APPENDIX 17

Regression Equation of Net Profit (Y) on Total Deposit (X) of HBL
Let the regression equation of Y on X be,
Y = a + bX ……Equation 1
Where,

Y is dependent variable, a and b are constant, and X is independent variable.

Then, two normal equations estimating a and b are,
$\sum Y = na + b \sum X$ ……..Equation 2
$\sum XY = a \sum X + b \sum X^2$ ……Equation 3

$\sum X$	$\sum X^2$	$\sum Y$	$\sum XY$	N
112941.95	2589946178.75	1475.94	34390206.84	5

Source: Appendix 11

Putting the respective value in equation 2 and 3, we have
1475.94 = 5a + 112941.95b ……..Equation 4
34390206.84 = 112941.95a + 2589946178.75b ……Equation 5

Multiplying equation 4 by 22588.39 and equation 5 by 1 then subtracting equation 5 from equation 4, we have
33339108.34 = 112941.95a + 2551176813.96b
34390206.84 = 112941.95a + 2589946178.75b
\- - -
1051098.50 =38769364.79b
Or, b = 0.0272

Putting the value of b in equation 4, we have
1475.94 = 5a + 112941.95 (0.0272)
Or, a = -319.22

Now, substituting the value of **a** and **b** in equation 1, we have
Y = -319.22 – 0.0272X
This is the estimated regression equation of Net Profit (Y) on Total Deposit (X) of HBL.

APPENDIX 18

Regression Equation of Net Profit (Y) on Total Deposit (X) of NABIL

Let the regression equation of Y on X be,
Y = a + bX …….Equation 1
Where,
Y is dependent variable, a and b are constant, and X is independent variable.

Then, two normal equations estimating a and b are,
$\sum Y = na + b \sum X$ ……..Equation 2
$\sum XY = a \sum X + b \sum X^2$ …….Equation 3

$\sum X$	$\sum X^2$	$\sum Y$	$\sum XY$	N
77007.13	1207727017.01	2298.56	36115427.24	5

Source: Appendix 12

Putting the respective value in equation 2 and 3, we have
2298.56 = 5a + 77007.13b ……..Equation 4
36115427.24 = 77007.13a + 1207727017.01b …….Equation 5

Multiplying equation 4 by 15401.43 and equation 5 by 1 then subtracting equation 5 from equation 4, we have
35401110.94 = 77077.13a + 1186019922.19b
36115427.24 = 77077.13a + 1207727017.01b
- - -
714316.30 =21707094.82b
Or, b = 0.0329

Putting the value of b in equation 4, we have
2298.56 = 5a + 770077.13 (0.0329)
Or, a = -46.99

Now, substituting the value of **a** and **b** in equation 1, we have
Y = -46.99 – 0.0329X
This is the estimated regression equation of Net Profit (Y) on Total Deposit (X) of NABIL.

APPENDIX 19

T-test of Correlation Co-efficient between Total Deposit and Cash and Bank Balance of Everest Bank Limited (EBL)

Step 1 Null Hypothesis H_0: P = 0

There is no significance difference between correlations in the population.

Step 2 Alternative Hypothesis H_1: P ≠ 0

There is significance difference between correlation in the population.

Step 3 Test Statistics under H_0

$$t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

$$= \frac{0.80}{\sqrt{1-0.64}} \times \sqrt{5-2}$$

$$= \frac{0.80}{\sqrt{0.36}} \times \sqrt{3}$$

$$= \frac{0.80}{0.60} \times 1.73$$

$$= 1.33 \times 1.73$$

$$= 2.32$$

Step 4 Critical Values under H_1

The tabulated value of t for d.f. = 5.2 = 3 at 5% level of significance due to two tailed test is given by,

t_{tab} = 3.182

Step 5 Decision

Since, $t_{cal} < t_{tab}$ thus, H_0 is accepted, which means that the variables in the population are uncorrelated i.e. r is insignificant of correlation in the population.

APPENDIX 20

T-test of Correlation Co-efficient between Total Deposit and Cash and Bank Balance of Himalayan Bank Limited (HBL)

Step 1 Null Hypothesis H_0: P = 0

There is no significance difference between correlations in the population.

Step 2 Alternative Hypothesis H_1: P ≠ 0

There is significance difference between correlations in the population.

Step 3 Test Statistics under H_0

$$t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

$$= \frac{0.47}{\sqrt{1-0.22}} \times \sqrt{5-2}$$

$$= \frac{0.47}{\sqrt{0.78}} \times \sqrt{3}$$

$$= \frac{0.47}{0.88} \times 1.73$$

$$= 0.53 \times 1.73$$

$$= 0.92$$

Step 4 Critical Values under H_1

The tabulated value of t for d.f. = 5.2 = 3 at 5% level of significance due to two tailed test is given by,

t_{tab} = 3.182

Step 5 Decision

Since, $t_{cal} < t_{tab}$ thus, H_0 is accepted, which means that the variables in the population are uncorrelated i.e. r is insignificant of correlation in the population.

APPENDIX 21

T-test of Correlation Co-efficient between Total Deposit and Cash and Bank Balance of NABIL Bank Limited

Step 1 Null Hypothesis H_0: P = 0

There is no significance difference between correlations in the population.

Step 2 Alternative Hypothesis H_1: P ≠ 0

There is significance difference between correlations in the population.

Step 3 Test Statistics under H_0

$$t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

$$= \frac{-0.55}{\sqrt{1-0.30}} \times \sqrt{5-2}$$

$$= \frac{-0.55}{\sqrt{0.70}} \times \sqrt{3}$$

$$= \frac{-0.55}{0.84} \times 1.73$$

$$= -0.66 \times 1.73$$

$$= -1.14$$

Step 4 Critical Values under H_1

The tabulated value of t for d.f. = 5.2 = 3 at 5% level of significance due to two tailed test is given by,

t_{tab} = 3.182

Step 5 Decision

Since, $t_{cal} < t_{tab}$ thus, H_0 is accepted, which means that the variables in the population are uncorrelated i.e. r is insignificant of correlation in the population.

APPENDIX 22

T-test of Correlation Co-efficient between Total Deposit and Net Profit of Everest Bank Limited (EBL)

Step 1 Null Hypothesis H_0: P = 0

There is no significance difference between correlations in the population.

Step 2 Alternative Hypothesis H_1: P ≠ 0

There is significance difference between correlations in the population.

Step 3 Test Statistics under H_0

$$t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

$$= \frac{0.99}{\sqrt{1-0.98}} \times \sqrt{5-2}$$

$$= \frac{0.99}{\sqrt{0.02}} \times \sqrt{3}$$

$$= \frac{0.99}{0.14} \times 1.73$$

$$= 7.07 \times 1.73$$

$$= 12.27$$

Step 4 Critical Values under H_1

The tabulated value of t for d.f. = 5.2 = 3 at 5% level of significance due to two tailed test is given by,

t_{tab} = 3.182

Step 5 Decision

Since, $t_{cal} < t_{tab}$ thus, H_0 is accepted, which means that the variables in the population are correlated i.e. r is significant of correlation in the population.

APPENDIX 23

T-test of Correlation Co-efficient between Total Deposit and Net Profit of Himalayan Bank Limited (HBL)

Step 1 Null Hypothesis H_0: P = 0

There is no significance difference between correlations in the population.

Step 2 Alternative Hypothesis H_1: P ≠ 0

There is significance difference between correlations in the population.

Step 3 Test Statistics under H_0

$$t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

$$= \frac{0.87}{\sqrt{1-0.76}} \times \sqrt{5-2}$$

$$= \frac{0.87}{\sqrt{0.24}} \times \sqrt{3}$$

$$= \frac{0.87}{0.49} \times 1.73$$

$$= 1.78 \times 1.73$$

$$= 3.08$$

Step 4 Critical Values under H_1

The tabulated value of t for d.f. = 5.2 = 3 at 5% level of significance due to two tailed test is given by,

t_{tab} = 3.182

Step 5 Decision

Since, $t_{cal} < t_{tab}$ thus, H_0 is accepted, which means that the variables in the population are uncorrelated i.e. r is insignificant of correlation in the population.

APPENDIX 24

T-test of Correlation Co-efficient between Total Deposit and Net Profit of NABIL Bank Limited (NABIL)

Step 1 Null Hypothesis H_0: P = 0

There is no significance difference between correlations in the population.

Step 2 Alternative Hypothesis H_1: P ≠ 0

There is significance difference between correlations in the population.

Step 3 Test Statistics under H_0

$$t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

$$= \frac{0.57}{\sqrt{1-0.32}} \times \sqrt{5-2}$$

$$= \frac{0.57}{\sqrt{0.68}} \times \sqrt{3}$$

$$= \frac{0.57}{0.82} \times 1.73$$

$$= 0.70 \times 1.73$$

$$= 1.21$$

Step 4 Critical Values under H_1

The tabulated value of t for d.f. = 5.2 = 3 at 5% level of significance due to two tailed test is given by,

t_{tab} = 3.182

Step 5 Decision

Since, $t_{cal} < t_{tab}$ thus, H_0 is accepted, which means that the variables in the population are uncorrelated i.e. r is insignificant of correlation in the population.

APPENDIX 25

One-way ANOVA Test of EPS of EBL, HBL and NABIL

Year	EBL (X_1)	HBL (X_2)	NABIL (X_3)	X_1^2	X_2^2	X_3^2
2061/62	32.89	60.26	55.25	1081.75	3631.27	3052.56
2062/63	29.90	49.45	84.66	894.01	2445.30	7167.32
2063/64	45.58	49.05	92.61	2077.54	2405.90	8576.61
2064/65	49.40	47.91	105.79	2440.36	2295.37	11191.52
2065/66	59.44	59.24	129.21	3533.11	3509.38	16695.22
N = 15	217.21	265.91	467.52	10026.77	14287.22	46683.23

Total = $\sum X_1 + \sum X_2 + \sum X_3$

= 217.21 + 265.91 + 467.52

= 950.64

Correlation Factor (CF) = $\frac{Total}{N} = \frac{950.64}{15} = 63.38$

Sum of Square due to Total (SST) = $\sum X_1^2 + \sum X_2^2 + \sum X_3^2 - CF$

= 10026.77 + 14287.22 + 46683.23 – 63.38

= 70933.84

$$Sum\ Square\ due\ to\ Column\ (SST) = \frac{(\sum X)^2}{n_1} + \frac{(\sum X_2)^2}{n_2} + \frac{(\sum X_3)^3}{n_3} - CF$$

$$\frac{(217.21)^2}{5} + \frac{(265.91)^2}{5} + \frac{(467.52)^3}{5} - 63.38$$

= 9436.04 + 14141.63 + 43714.99 – 63.38

= 67229.28

Sum Square due to Error (SSE) = SST – SSC

= 70933.84 – 67229.28

= 3704.56

APPENDIX 26

Step 1 Null Hypothesis (H_0): $\mu_1 = \mu_2 = \mu_3$

There is no Significance difference between 3 EPS.

Step 2 Alternative Hypothesis (H_0): $\mu_1 \neq \mu_2 \neq \mu_3$

There is significance difference between 3 EPS.

Step 3 Test Statistics under H_0

Source of Variation	**Sum Square**	**d.f.**	**Mean Sum Square**	**F Ratio**
Due to Column	SSC = 67229.28	C-1 = 3-1 = 2	MSC = 33614.64	F_{cal} = 108.89
Due to Error	SSE = 3704.56	N-C = 15-3 = 12	MSE = 308.71	

Calculations

$$MSC = \frac{SSC}{C-1} = \frac{67229.28}{2} = 33614.64$$

$$MSE = \frac{SSE}{N-C} = \frac{3704.56}{12} = 308.71$$

$$F_{cal} = \frac{MSC}{MSE} = \frac{33614.64}{308.71} = 108.89$$

Step 4 Critical Value under H_1

The tabulated value of F for degree of freedom (d.f.) 2, 12 at 5% level of significance is given by,

F_{tab} = 3.89

Step 5 Decision

Since, $F_{cal} > F_{tab}$, thus H_1 is accepted, which means there is significance difference between 3 EPS.

Note: Here, C denotes Number of Sampled Columns i.e. 3 (EBL, HBL and NABIL)

APPENDIX 27

One-way ANOVA Test of Current Ratio of EBL, HBL and NABIL

Year	EBL (X_1)	HBL (X_2)	NABIL (X_3)	X_1^2	X_2^2	X_3^2
2061/62	1.19	3.45	3.14	1.42	11.90	9.86
2062/63	1.85	4.61	3.01	3.42	21.25	9.06
2063/64	1.24	4.19	2.60	1.54	17.56	6.76
2064/65	3.64	5.57	2.20	13.25	31.02	4.84
2065/66	2.01	4.64	3.11	4.04	21.53	9.67
N = 15	**9.93**	**22.46**	**14.06**	**23.67**	**103.26**	**40.19**

Total = $\sum X_1 + \sum X_2 + \sum X_3$

= 9.93 + 22.46 + 14.06

= 46.45

Correlation Factor (CF) = $\frac{Total}{N} = \frac{46.45}{15} = 3.10$

Sum Square due to Total (SST) = $\sum X_1^2 + \sum X_2^2 + \sum X_3^2 - CF$

= 23.67 + 103.26 + 40.19 – 3.10

= 164.02

$$Sum\ Square\ due\ to\ Column\ (SST) = \frac{(\sum X)^2}{n_1} + \frac{(\sum X_2)^2}{n_2} + \frac{(\sum X_3)^3}{n_3} - CF$$

$$\frac{(9.93)^2}{5} + \frac{(22.46)^2}{5} + \frac{(14.06)^3}{5} - 3.10$$

= 19.72 + 100.89 + 39.54 – 3.10

= 157.05

Sum Square due to Error (SSE) = SST – SSC

= 164.02 – 157.05

= 6.97

APPENDIX 28

Step 1 Null Hypothesis (H_0): $\mu_1 = \mu_2 = \mu_3$

There is no Significance difference between 3 Current Ratio.

Step 2 Alternative Hypothesis (H_0): $\mu_1 \neq \mu_2 \neq \mu_3$

There is significance difference between 3 Current Ratio.

Step 3 Test Statistics under H_0

Source of Variation	**Sum Square**	**d.f.**	**Mean Sum Square**	**F Ratio**
Due to Column	SSC = 157.05	C-1 = 3-1 = 2	MSC = 78.53	F_{cal} = 135.40
Due to Error	SSE = 6.97	N-C = 15-3 = 12	MSE = 0.58	

Calculations

$$MSC = \frac{SSC}{C-1} = \frac{157.05}{2} = 78.53$$

$$MSE = \frac{SSE}{N-C} = \frac{6.97}{12} = 0.58$$

$$F_{cal} = \frac{MSC}{MSE} = \frac{78.53}{0.58} = 135.40$$

Step 4 Critical Value under H_1

The tabulated value of F for degree of freedom (d.f.) 2, 12 at 5% level of significance is given by,

F_{tab} = 3.89

Step 5 Decision

Since, $F_{cal} > F_{tab}$, thus H_1 is accepted, which means there is significance difference between 3 EPS.

Note: Here, C denotes Number of Sampled Columns i.e. 3 (EBL, HBL and NABIL)

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