# *IMPACT OF DEPOSIT & INVESTMENT TO PROFITABILITY OF NEPALESE COMMERCIAL BANKS*

***(With Reference To EBL & HBL)***

**A Thesis Proposal**

**Submitted To**

**Birendra Multiple Campus**

**Bharatpur**


**Submitted By**

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**In the Partial Fulfillment of the Requirement for the**

**Master of Business Studies (MBS)**

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***(With Reference To EBL & HBL)***

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

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# DECLARATION

I, hereby, declare that the work reported in this thesis entitled ***"Impact Of Deposit & Investment To Profitability Of Nepalese Commercial Banks (With Reference To EBL & HBL)"*** submitted to office of the Dean, Faculty of Management, Tribhuvan University, is my original work done for the partial fulfillment of the requirement for the Masters of Business Studies (MBS) under the supervision of **Mr. Sushil Dahal**of Birendra Multiple Campus, Bharatpur.

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# ABBREVIATIONS

| | |
|---|---|
| ABBS | Any Branch Banking System |
| ATM | Automated Teller Machine |
| B.S | Bikram Sambat |
| BOKL | Bank of Kathmandu Limited |
| CAR | Capital Adequacy Ratio |
| CPI | Consumer Price Index |
| CV | Coefficient of Variation |
| EBL | Everest Bank Limited |
| FD | Fixed Deposit |
| FY | Fiscal Year |
| GDP | Gross Domestic Product |
| Govt. | Government |
| HBL | Himalayan Bank Limited |
| LC | Letter of Credit |
| LTD | Limited |
| MBA | Masters' of Business Administration |
| MBS | Masters' of Business Studies |
| Misc. | Miscellaneous |
| NEPSE | Nepal Stock Exchange |
| NRB | Nepal Rastra Bank |
| P.E | Probable Error |
| PNB | Panjabi National Bank |
| SCBNL | Standard Chartered Bank Nepal Limited |
| SD | Standard Deviation |
| SEBON | Securities Board of Nepal |
| T. U. | Tribhuwan University |

# CHAPTER - I

# INTRODUCTION

## 1.1 Background of the Study

An arrangement whereby an individual or organization may place cash for the safekeeping in a bank,discount house or financial institution is known as deposit. Deposit is nothing but it is a type of asset. It isunderstood that the institution may invest the cash and pay the depositor a specified amount of interest andthat the depositor can reclaim the full value of the account according to the agreed upon proceduresgoverning the account. The account holder retains rights to their deposit, although restrictions placed onaccess depend upon the terms and conditions of the account and the provider. The deposit account wouldbe shown as a liability owed by the bank to its customer. Depositsas the amount deposited in a current, saving or fixed accounts of a bank or financial institution. Thedeposits are subject to withdrawals by means of cheque on a short notice by customers. There are severalrestrictions on these deposits, regarding the amount of deposit, numbers of withdrawal etc. they are usedmore as investments and hence they earn some interest. The rate of interest varies depending on the natureof the deposits. The bank attracts deposits from customers by offering different rates of interest anddifferent kinds of facilities.

Though the banks pay an important role in influencing the customer to save and open deposit account withit, it is ultimately the customer who decides where s/he should deposit his surplus funds in current depositaccount, saving deposit or fixed/time deposit account. Bank deposits arise in two ways. When the bankerreceives cash, it credits the customer's account, it is known as a primary or a simple deposit. Peopledeposit cash in the banking system and thereby convert one form of money, cash into another form, bankmoney. They prefer to keep their money in deposit account and issue cheques against them to theircreditors. Deposits also arise when customers are granted accommodation in the form of loans. Of course,there is nothing that prevents the borrower from withdrawing the entire amount of borrowing in cash butquite often s/he retains the amount with the bank as deposit (Bhandari, 2003).

Investment is primary factor for economic development of any country. Investment refers to asusing present money to get long term benefit. Investment in its broadest sense means the sacrificeof current money for future money. Two different attributes are generally involved time and risk.The sacrifice takes place in the present and is certain. The reward or result of sacrifice comes laterand the magnitude is generally uncertain. Time and risk are predominates for investment. Such asInvestment in government bonds time is predominates whereas in common stock time and riskboth are important.

Investment also refers to the expenditure of funds for capital goods such as factories, farm,equipment, livestock and machinery. Capital goods are used to produce other goods or services.The main source of investment is saving. A distinction is often made between investments andsaving. Saving is defined as forgone consumption; investment is restricted to real investment ofthe sort that increases national output in the future. This definition classified investment as realand financial investments. Real investment generally involves some kind of tangible assets suchas land, machinery, or factories. Financial investment involves contracts written on pieces ofpaper, such as common stock and bonds.

Profitability is a deviation of the term profit, which explains the ability to make theprofit. Profit is primary a measuring rod of a success of a business enterprises. Profitis essential for the survival of the business. It is the difference between revenuegenerated and expenses occurred over the period of time  but the term profit hasseveral different interpretations. It is a basic test of the performance of any businessconcern. Without profit a firm could not attract the outside capital. Moreover, theowners and creditors would become concerned about the company's future andattempt to recover their funds. Owner creditors and management pay close attentionfor boosting profit due to the great importance placed on earning the market place.Profitability is a technical term, used to compare performances analysis of differenttrading systems or different investments within one system. This is computed for eachsystem or investments being compared over the same period long enough to

includesignificant "ups" and "downs". So analysis of the profitability of the business is veryessential which can be used to measure the overall efficiency of the business.

Profitability of the business can be analyzed through the financial analysis whichrefers to the assessment of the viability and stability of the business.Profitability of a company is usually based on the income statement. A properlyconducted profitability analysis provides invaluable evidence concerning the earningspotential of a company and the effectiveness of management. While analyzingprofitability different profitability ratios are calculated. Profitability ratios provide adefinitive evaluation of the overall effectiveness of management based on the returnsgenerated on sales and investment. The most widely used profitability measurementsare profit margin on sales, return-on-investment ratios, and earnings per share.The present study is on the impact of deposit and investment on profitability of the commercial banks.

## 1.2 Statement of the Problem

In developing countries like Nepal commercial banks have been facing severalchallenges, some of them are arising from lack of smooth functioning of the economy,some of them are arising due to confused policy and many of them are arising due todefault of the borrower. Liberalization in the economy has produced some degree ofopportunities and more than it had created chaos and uncertainty. The liberalization offinancial sector demands a new technology of lending to cope with the risky pressures onthe profitability of the banks and financial sector institutions.This study has tried to answer the following research questions.

1. What is the impact of deposit and investment on profitability?
2. What is the position of sample banks regarding and deposit collection, mobilization, investment and profitability?
3. What are the investment sectors of selected sample banks?

## 1.3 Objectives of the Study

The main objective of the present study is to analyze the Impact of deposit &investment on profitability of EBL & HBL and comparison of such betweenthemselves. The study focuses whether it isbackward or forward in investing its fund efficiently in industry average. The specificobjectives of the study are given below.

1. To evaluate the impact of deposit &investment onprofitability.
2. To find out the trend of deposit, investment and profitability of sample banks.
3. To analyze the sector wise investment of sample banks.

## 1.4 Significance of the Study

The present study is to find out the deposit, investment and its impact on profitability of the commercial bank in Nepal. Any bank can perform its lending behavior only when it has sufficientamount to lend it. So first, it should be able to collect sufficient amount in the form ofdeposits from different sectors.As the research done in any field there are several key factors thatcannot be avoided, in which significance of study also occurs. Mainly thisstudy covers the deposit and credit position of commercial banks, so ithelps to reveal the financial position of banks and study occupies animportant role in the series of the studies on commercial banks. Thesignificances of the study are as follows.

1. Important to know how well the bank is utilizing its deposits.
2. Important to policy formulator and also be useful for academicprofessionals, students particularly those involves in commerce,CA and financial institutions to formulate policies and plans on thebasis of the performance of the bank.
3. This study will be helpful to management of the selected commercial bank of Nepalto make effective profit planning strategy for future. This also will bevaluable forresearcher, students who want to investigate into the investment and profitability of the selectedcommercial bank of Nepal. It will also be important to the bank, investors andstakeholders concerned.

4. The study enlightens the shareholders, depositors, creditors, NRB, Tax officeetc. about the financial performance of the bank.
5. The financial agencies including stock exchanges and stock traders interestedin the performance of the bank as well as the customer, depositor and debtorscan identify the better bank to deal with in terms of profitability, safety andliquidity.

## 1.5 Limitations of the Study

This is simply a partial requirement of MBS program. There are some limitations, whichweaken the generalization e.g. inadequate coverage of industries, period taken, reliabilityof statistical tools used and their variations. The following are the major limitations of the present studies.

1. This study is concern only with the deposit, investment and profitability of Sample banks.
2. The whole study is based on the secondary data collected from the banks.
3. The study covers the analysis of only five years period from fiscal year 2065/66 to2069/70 and analysis is concerned in some managerial, financial andaccounting aspects and it does not cover the whole areas of the subjectedbanks.
4. Some of statistical as well as financial tools of comparison and analysisshould be used in the study. Hence, the drawbacks and weakness of thosetools may have an adverse effect on the outcome of the study.

## 1.6 Organization of the Study

The whole study comprised of the five different consecutive parts as mentioned below:

**Chapter I: Introduction**

This chapter comprises of general background, focus of the study, brief profile of thebanks under study, significance of the study, objectives of the study, limitations of thestudy and organization of the study.

**Chapter II: Review of the Literature**

This part deals with the reviewing of the various literatures, definitions and concept ofinvestment and profitability. This also consists of the review of the related studies, journals, articlesand review of books concerned to investment and profitability

**Chapter III: Research Methodology**

This part consists of the research design, total population and sample of the study, natureand sources of the data, data collection procedures and the analytical tools and techniquesused in the study.

**Chapter IV: Presentation and Analysis of Data**

This part constitutes the tabular and graphical representation of the collected data, theirinterpretation and analysis using various financial as well as statistical tools. Apart fromit, summary of the major findings are also presented at the end of the chapter.

**Chapter V: Summary, Conclusion and Recommendation**

This chapter contains the summary of the whole study and relevant conclusions weredrawn based on the study. A suitable set of recommendations were made at the end of thechapter.

Finally an extensive appendices and bibliography are presented at the end of this study.

# CHAPTER - II

# REVIEW OF LITERATURE

This chapter is concerned with review of literature relevant to the Deposit investment & Profit. The purpose of reviewing of literature is to develop some expertise in one's area, to see what new contribution has made and to receive some ideas for developing a research design. Thus, previous studies cannot be ignored as they provide the foundation of the present study. This chapter highlights the literature that is available in concerned subject as to my knowledge, research work, and relevant study on this topic, review of journals and articles and review of thesis work performed previously.

## 2.1 Conceptual Framework

### 2.1.1 Concept of Deposit

Deposit is the sum of money lodged with a bank, discount house or otherfinancial institution (Shrestha & Bhandari, 2059). Deposit isnothing more than the assets of an individual which is given to the bankfor safe-keeping with an obligation to get something (interest) from it. Toa bank these deposits are liabilities. Commercial bank Act 2031 (1974)defines "Deposits" as the amount deposited in a current, savings or fixedaccounts of a bank or financial institution (Bhandari, 2003). Thedeposits are subject to withdrawals by means of cheque on a short noticeby customers. There are several restrictions on these deposits, regardingthe amount of deposit, number of withdrawal etc. These are consideredmore as investments and hence they earn some interest. The rate ofinterest varies depending on the nature of the deposits. The bankattracts deposits from customers by offering different rates of interestand different kinds of facilities. Though the bank plays an important rolein influencing the customer to save and open deposit accounts with it, itis ultimately the customer who decides whether s/he should deposit hissurplus funds in current deposit a/c, saving deposits or fixed/timedeposit a/c. Bank deposits arise in two ways. When the banker receivescash, it credits the customer's account, it is known as a primary or asimple deposit. People deposit cash in the banking system and therebyconvert one form of

money, cash, into another form, bank money. Theyprefer to keep their money in deposit accounts and issue cheques againstthem to their creditors. Deposits also arise when customers are grantedaccommodation in the form of loans. When a bank grants a loan to acustomer it doesn't usually pay cash but simply credits the customersaccount with the amount of loan. Of course, there is nothing thatprevents the borrower from withdrawing the entire amount of borrowingin cash but quite often s/he retains the amount with the bank asdeposit.

### 2.1.2 Deposit Collection

For a commercial banks deposit is the most important source of the liquidity. For,banks financial strength it is treated as a barometer. In the word of Eugene, Abanks deposits are the amount that it owes to its customers. Deposit is thelifRBBood of the commercial bank. Though the constitution the great bulk of bankliabilities, the success of a bank greatly depends upon the extent to which it mayattract more and more deposit. The volume of funds that management will use forcreating income through loans and investment is determined largely by the bank'spolicy governing deposits. In other words when the policy is restrictive, thegrowth of bank is restarted or accelerated with the liberalization in the depositpolicy. In banking business, the volume of credit extension much depends uponthe deposit base of a bank. The deposit creating powers of commercial banksforces to raise the assets along with the liability side of the balance sheet. In otherwords, assets give rise to liabilities. Traditionally, the deposit structure of acommercial bank wal thought to be determined by the depositors and not bu bankmanagement. There are regular changes on this view in the modern bankingindustry. Thus banks have evolved from relatively passive acceptors of deposits toactive bidders for funds. Deposits are one of the aspects of the bank liabilities thatmanagement has been influencing through deliberate action (Baidhya, 1999).

For accounting and analyzing purpose, deposits are categorized mainly in threeheading.

### 2.1.2.1Current Deposit

A current deposit is a running account with amounts being paid into anddrawn out of the account continuously. These accounts are also calleddemand deposits or demand liabilities since the banker is under anobligation to pay money in such deposits on demand. The account neverbecomes time barred, because the limitation does not run until ademand is made by the customer on the bank for the payment of deposit.These accounts are generally opened by business houses, publicinstitutions, corporate bodies and other organization whose bankingtransactions are numerous and frequent. As these deposits are payableon demand, banker is obliged to keep larger cash reserves than areneeded in the case of fixed and savings deposits. This type of account isjust a facility offered by the bank to its customers. So such depositdoesn't yield any interest return.The deposit in which an amount is immediately paid at the time of anyaccount holder's demand is called demand deposit (Bhandari, 2003). Its transaction is continual & a very small portion of such depositcan be invested in the productive sector. Though the bank cannot gainsignificant profit by investing it in new sector, this is one of the facilitiesgiven to the customer. Therefore, the bank doesn't give interest on thisaccount. For this study this types of deposit is not suitable.

### 2.1.2.2Saving Deposit

Saving account means,"An account of amounts deposited in a bank for savings purposes." Thesaving deposit bears the features of both of the current and fixed period'sdeposits. Saving accounts are mainly meant for non-trading customerswho have some potential for saving and who don't have numeroustransactions entering their account. While opening the account theminimum compensating balance differ according to the banks rule.Similarly there is also divergence as to how much amount of money canbe withdrawn. But if the customers want to withdraw more money fromthe bank which is not allowed by it but if s/he gives pre-information tothe banks, s/he can withdraw more money. The bank fixes the minimumand maximum amount of withdraw able through a cheque from thisdeposit. If the bank goes into liquidation, priority is given to the savingdeposit than current and fixed deposits while repaying the liabilities.

### 2.1.2.3Fixed Deposit

Fixed deposits constitute a very important resource for banks as bankneed not keep greater reserve in respect of such deposits. Under thecommercial Bank Act 2063, “Fixed account means as account ofamounts deposited in a bank for certain period of time.” The customersopening such account deposit their money in the account for a fixedperiod. Usually, only the person or institution who wants to gain moreinterest opens such type of account. High interest rate is paid to thisdeposit as compare to saving deposits. The bank and the customer cantake benefit from this deposit. The bank invests this money on theproductive sector and gains profit and the customer too can be made hisfinancial transaction stronger by getting more interest from this deposit.The principal amount with interest must be returned to the customerafter expiry of fixed time.In England these deposits are repayable subject to a period of notice andhence known as time deposit or time liabilities means that these arewithdraw able subject to a period of notice and not on demand(VasuDevan, 1979). Fixed deposit receipt is nottransferable by endorsement and certainly not negotiable. However thedebt covered by the fixed deposit receipts can be assigned. Bankgenerally gives loans up to 90% of the deposit against the security of thedeposit. For this bank charge some interest higher than the interestallowed on the deposit.

### 2.1.3 Mobilization of Deposit

Banks utilize its funds in suitable area and right sector. Banks can notachieve its goals until and unless it mobilizes its deposits in right sectorsand by performing different activities. Much kind of activities and otherthing can origin for the purpose of receiving invest from the bank. Butbank should separate the useful and profitable sector for mobilization itsdeposits. Banker being only a financial intermediary, we will not be ableto make any profit unless he has to pay interest on deposits, meetestablishment expenses, meet liquidity of cash balance, and yet allowhim some balance from out of which he can build reserve and paydividend to the shareholder.

As commercial bank they are expected to make profit. If there is noprofit, there will be adverse criticism against public sector banking, bothin and outside the parliament

when these banks are asked to open newbranches in areas which do not allow profits for years, or asked to grantloan to the priority sectors such as small industries and agriculture witha high incidence of bad debts, there is need for counter balancing profitfrom elsewhere. Therefore, these banks will have to show an ascendingorder of profits in order to ensure growth with stability. For this purposethe bank will have to allocate land able resources to different segments insuch a manner these banks can ensure adequate profitability while atthe same time responding to policies laid down in accordance withnational objectives.

Therefore, banks should mobilize its deposits in suitable and profitablebanking activities and right sector. Generally bank has mobilized itsdeposits in the following activities.

a. **Liquid Funds:-** A bank has kept a volume of amount in liquid funds. The funds haveso many responsibilities in banking activities liquid funds hascovered following transactions.
   I. Cash in hand
   II. Balance with NRB
   III. Balance with domestic bank
   IV. Call money
b. **Investment:-** Bank invests its fund in different banking activities and differentfields. Many types of fields are shown in market for investment. Butbanks invest its funds in profitable and safety activities. Bankinvests its fund in the following titles.
   I. Share and debenture
   II. Government securities
   III. Joint-venture
c. **Loan and Advances:-** Banks mobilize its funds or deposits by providing different types ofloan and advances to customers, by charging fixed interest. Differenttypes of loan and advances are
   I. To government enterprises
   II. To provide enterprises

Bank manages the different types of loans i.e. providing loan,business loan, and traditional loan to priority area.

d. **Fixed Assets:-** Land and buildings are essential for the establishment of bank.Bank's funds are used in buying of furniture, vehicle, computer, andother concerned instrument, which are related to banking activities.Bank cannot take direct gain from these assets, but bank shouldbuy it. A bank has a need of fund to purchase fixed assets for thenew branches of the bank.
e. **Administrative and Miscellaneous Expenses:-** Bank should manage funds for administrative and othermiscellaneous expenses. The administrative expenses are as follows.

I. Salary of Employee
II. Allowances
III. Pension
IV. Advertisement
V. Stationery
VI. Provident Fund
VII. Rent
VIII. Income tax
IX. Donation
X. Insurance
XI. Tour expenses
XII. Commission

f. The miscellaneous expenses are

I. To distribute the dividend to shareholders
II. To bear the loss on sale and purchase of banking assets
III. Maintenance expenses
IV. To pay the interest on borrowed amount
V. Reserve fund

In this way, bank mobilizes its deposits by performing different activitiesto achieve its desired goals i.e. earning profit. Banks are able to earnsufficient profit by mobilizing its deposits in proper way into the differentprofitable sector. It can utilize its collected deposits as well as own fundsin all banking activities by performing effective deposit mobilizationprocedure.

### 2.1.4 Need for Deposit Mobilization

The following are some reasons for why Deposit Mobilization is needed in adeveloping country like Nepal. Workshop report, "Deposit Mobilization why andhow" (NRB Bankers Prakashan, 19) Group "A" states the followingpoints as the need for deposit mobilization.

1. The need of deposit mobilization is felt to control unnecessary expenditure. Ifthere is no saving, the extra money that the people have, can flow forwardsbuying unnecessary and luxury goods. So , the government also should help tocollect more deposit, steeping legal procedures to control unnecessaryexpenditures.

2. Capital is needed for the development of any sector of the country. Theobjective of deposit mobilization is to collect the scattered capital in differentforms within the country.

3. To increase saving is to mobilize deposit. It is because if the production ofagricultural and industrial products increases, it gives additional income, whichhelps to save more, and ultimately it plays a good role in deposit mobilization.

4. It is much more important to canalize the collected deposit in the prioritysectors of a country. In our developing country we have to promote ourbusiness and other sectors by investing the accumulated capital towardsproductive sectors.

5. Commercial banks are playing a vital role for National Development. Depositmobilization is necessary to increase their activities. Commercial banks

aregranting loan not only in productive sectors but also in other sector like foodgrains, gold and silver etc. Though these loans are traditional in nature and arenot helpful to increase productively, but it helps to some extent, to mobilize thebank deposit.

Developed country does not feel the need of deposit mobilization for capitalformation due to developed capital markets in every sectors but in an underdeveloped country and developing country deposit mobilization plays a great rolefor the economic development . So far the developments of these sectorsconcerned, there is needs of more capital. Again instead of the development of aparticular sector, the development of every sector should go side by side. Lownational income, liw per capita income, lack of technical know how, vicious cycleof poverty, lack of irrigation and fertilizer, pressure of population increase,geographical condition etc. are the main problems of economic development of anunder developed country like Nepal. So the development process of these sectorson one side and to accumulate the scattered and unproductive sectors deposit onthe other is the felt need of an under developed country. We can take this in outcountry's present context (NRB Bankers Prakashan, 1984).

### 2.1.5 Advantages of Deposit Mobilization

a. **To Support Fiscal and Monetary Policy: -** Fiscal policy of the government and monetary policy of the central bank for economic development of a country can be supported by deposit mobilization. Deposit mobilization helps to channelize idle money in productive sectors. Again, it helps in money supply which saves the country from deflation and helps central bank's objective of monetary policy.

b. **To promote cottage industries:** - Deposit mobilization is needed to facilitate cottage industries located in rural and urban areas. If the bank utilizes the collected deposit in the same rural or urban sector for the development of cottage industries, it helps to not only promote cottage industries in the area,

but also support in the development of the locality as a whole by increasing employment and income of the local people.

c. **Capital formation:** - Capital plays a vital role for the development of industries. But in an underdeveloped country, where there is always lack of capital to support such industries, capital formation and industrialization is possible through deposit mobilization.

d. **Circulation of Idle Money: -** Deposit mobilization helps to circulate idle money. The meaning of deposit mobilization is to convert idle saving into active saving. Deposit mobilization helps the depositors habit of saving on one side and it also help to circulate the idle saving in productive sector on the other. This helps to create incentives to the depositors. Again, investment in productive sector helps directly in country's economic development and also increases investors' income.

e. **Development of banking habit:** - One important side of economic development of a country is to increase banking habit of the people. Deposit mobilization helps in this aspect. If there is proper deposit mobilization, people believe on the bank and banking habit of the people develops.

f. T**o check-up misutilization of money: -** Mostly our customs and habits are supported by social and religious beliefs. There is also tendency of copying others and show the superiority in the society by buying unnecessary and luxury items. In such society, deposit mobilization proves itself as a tool to check-up misutilization of money.

g. **To support government development projects: -** Every underdeveloped country's government needs a huge amount of money for development projects. The deposit collected by commercial banks, can fulfill, to some extent, the need of money to the government for this purpose.

h. **Co-ordination between different sectors:** - Deposit mobilization helps to collect capital from surplus and capital hoarding sectors. The fund can be

invested for the needy sectors i.e. priority sectors. Thus, it helps to fulfill the gap between these two benefited by earning interest in the deposit and the needy sectors by receiving loans and advances. Thus, deposit mobilization helps to keep good co-ordination between different sectors.

i. **Others:-** Deposit mobilization supports small savers by giving interests, helps to the development of rural economy, protects villagers from being exploited by indigenous bankers, increases investment incentives, provides facilities to the small farmers to purchase tools and fertilizers etc. (Bankers prakashan)

### 2.1.6 Concept of Investment

Investment is a present sacrifice for the sake of future benefits. Therefore, investment alwaysinvolves risk. Present decision about selecting the best alternatives should always take the futurerisk into consideration. The few alternatives of investment in the past have now expanded intohundreds. Hence, the complexity of investment has also been increasing day by day. To select thebest alternative and to construct an efficient portfolio, a wise analysis and decision is required.Before making any decision on investment we must be well informed about the factors, whichaffect investment. Investment decision related with saving, capital formation, capital market, riskinvolve with it, return, inflation etc.(Gittman & Jochnk, 1990).

Investment, in its broadest sense, means the sacrifice of current rupees (dollars) and resources tothe sake of future rupees (dollars) and resources. In other words, it is a commitment of money andother resources that are expected to generate additional money and resources in the future. Such acommitment takes place in the present and is certain to occur but the reward comes in the futureand always remains uncertain. Therefore, every investment entails some degree of risk.

Investments are made in assets. Assets generally are two types: real assets (Land, Building,Factories etc) and financial assets (Stock, Bonds, T-Bills etc). These two types of investment arenot competitive but complementary, highly developed institution for financial investment greatlyfacilitating real investment (Bhattari, 2005).

Country’s growth rate is largely depending on investment and commercial banks are key forinvesting funds in productive works as they deal with money. They collect funds and utilize it in agood Investment, which is not an easy task for them. Therefore an investment of funds may be thequestion of life and death for the bank. They must have effective and good investment policy toexist in this world of competition.

Bank portfolio (loans and investments) of commercial bankshas been influenced by the variable securities rates Investment planning of commercial banks inNepal is directly traced to fiscal policy of government and heavy regulatory procedure of NRB.So the investments are not made in professional manner. Investments planning of the commercialbanks in are not made in professional manner. Investment planning of the commercial banks inNepal has not been found satisfactory in terms of profitability, safety, liquidity, productivity andSocial responsibility. To overcome this problem, she has suggested, commercial banks shouldtake their investment function with proper business attitude and should perform lending andinvestment operation efficiently with proper analysis of the projects (Bhalla, 2004).

Total risk of security can be divided into systematic and unsystematic components. Systematicrisk is risk that cannot be diversified away for it affects all securities in the market. Unsystematicrisk is unique to the particular securities and can be eliminated with efficient diversification. If theassumption of the CAPM or APT factor model holds this risk does not matter to investors. As aresult, diversification of assets by a company in an effort to reduce volatility would not be a thingof value.

Inflation is a major concern for investors. But and large, people have come to fear significantinflation, particulars when it is unpredictable. Capital rationing is likely to result in investmentbecause depreciation charges do not reflect replacement cost and firm’s taxes grown at a fasterrate than inflation. In estimating cash flows one should take account of anticipated inflation.Otherwise a bias arises in using an inflation-adjusted required return and non-inflation-adjustedcash flows and there is a tendency to reject some projects that should be accepted.

From the definition given above, it is clear that an investment means to trade a known rupee amounttoday for some expected future stream of payments or benefits.A commercial bank must always mobilize its funds and other deposits to profitable, secured andmarketable sector so that it earns a handsome amount of profit as well as it should be secured andcan be converted into cash as per the requirement.

The investment process describes how an investor should go about making decisions with regard towhat marketable securities to invest in, how extensive the investment should be, and when theinvestment should be made. A five-step procedure for making these decisions forms the basis of theinvestment process (Francis, 2003)

a. Set investment policy
b. Perform security analysis
c. Construct a portfolio
d. Revise the portfolio
e. Evaluate the performance

### 2.1.7 Investment Alternatives

There are various alternatives for investors:

<table>
<tr><td>1. Equity Securities</td><td colspan="2">Common Stock<br>Preferred Stock</td></tr>
<tr><td>Short term debt securities</td><td colspan="2">Negotiable certificates of deposit<br>Commercial paper<br>Banker’s acceptances<br>Treasury Bills</td></tr>
<tr><td rowspan="4">2. Intermediate and Long TermDebt Securities</td><td>Government securities</td><td>Treasury Notes<br>Treasury Bonds<br>Saving Bonds</td></tr>
<tr><td colspan="2">Agency securities</td></tr>
<tr><td>Municipal Securities</td><td>Revenue bonds<br>Generalobligation bonds</td></tr>
<tr><td colspan="2">Corporate bonds</td></tr>
<tr><td>3. Hybrid Securities</td><td colspan="2">Convertible preferred stock<br>Convertible bonds</td></tr>
<tr><td>4. Derivative securities</td><td colspan="2">Options<br>Community futures<br>Financial futures</td></tr>
</table>

| | |
|---|---|
| | Options in futures<br>Rights<br>Warrants |
| 5. Real Assets | Precious Metal<br>Real State<br>Collectibles |
| 6.International Investment | Multinationals Corporations<br>Foreign stocks traded on all local exchange<br>American Depository Receipts ( ADRs) |
| 7. Other Investment Alternatives | Pension Funds<br>Mutual funds<br>Closed –end Companies |

*Source: Bhalla, 2004*

### 2.1.8 Investment Uncertainty (Risk)

Every investment involves uncertainties that make future investment returns risky. Some of thesources of uncertainty that contribute to investment risk are as follows (Weston & Brigham, 1995).

1. **Interest Rate Risk:-** It is defined as the potential variability of return caused by changes in the market interest rates. Inmore general terms, if market interest rates rise, then investment values and market prices will fall,and vice versa. The variability of return is the result of change in interest rate. This interest rate riskaffects the prices of bonds, stocks, real estate, gold, puts, calls, future contracts and other investmentas well.

2. **Purchasing power Risk:-** It is the variability of return an investor suffers because of inflation. The rate of inflation is measuredby using a consumer price indeed (CPI). The percentage change in the CPI is a widely followedmeasure of the rate of inflation.

3. **Bull-Bear Market Risk:-** Bull-Bear market risk arises from the variability in market return resulting from alternating bull andbear market forces. When a security index rises fairly consistently form a low point called a trough,for a period of time, this upward trend is called a bull market. The bull market ends

when the marketindex reaches a peak and starts a downward trend. The period during which the market declines tothe next trough is called bear market.

4. **Default Risk:-** It is the portion of an investment's total risk that results from changes in the financial integrity of theinvestment. Default risk is the variability of return that investors experience as a result of changes inthe creditworthiness of a firm in which they invest. Investor losses from default risk usually resultfrom security prices falling as the financial integrity of a firm weakness. By the time an actualbankruptcy occurs, the market prices of the troubled firm's securities will already have declined tonear zero.

5. **Liquidity Risk:-** It is that portion of an assets total variability which results from price discounts given or salescommissions paid in order to sell the asset without delay. Perfectly liquid are highly marketable andsuffer no liquidation costs. Liquid assets are not readily marketable – either price discounts must begiven or sales commissions must be paid, or both of these costs must be incurred by the seller.Hence, the more liquid an asset is, the larger the price discounts and/or commissions which must begiven up by the seller in order to affect a quick sale.

6. **Callability Risk:-** Some bonds and preferred stocks are issued with a provision that allows the issuer to call them in forrepurchase. The portion of a securities total variability of return that derives from the possibility thatthe issue may be called is the callability risk. Callability risk command a risk premium that comesthe form of a slightly higher average rate of return. This additional return should increase as the riskthat the issue will be called increases.

7. **Convertibility Risk:-** Convertibility risk is that portion of the total variability of return from a convertible bond or aconvertible preferred stock that reflects the possibility that the investment may be converted into theissuer's common stock.

8. **Political Risk:-** The portion of an asset's total variability of return cased by changes in the political environment thataffect the asset's market value.

Whether the changes that cause political risk are sought by politicalor by economic interests, the resulting variability of return is called political risk.

9. **Industry Risk:-** An industry may be viewed as a group of companies that compete with each other in a market ofhomogenous product. Industry risk is that portion of an investment's total variability of returncaused by events that affect the products and firms that make up an industry. The stage of theindustry's life cycle, international tariffs and/or quotas on the products produces by an industry,product or industry related taxes; industry wide labour union problems, environmental restrictions,raw material availability, and similar factors interact and affect all the firms in an industrysimultaneously. As a result of these commonalities, the process of the securities issued by competingfirms tends to rise and fall together.

### 2.1.9 Profit & Profitability

Generally profit is defined as the excess of revenue over cost. In other words, profit isthe residual income, which is equal to sale proceeds minus costs. Profit is theresources left to the firm for future growth and explanation or reward to be distributedto the entrepreneurship in the form of dividends etc. In a simple term, profits mean theresidual balance of earning expected to be available with the firm that is obtained afterdeducting entire expenses, costs, charges and provision from total revenue of a periodof time.

It is the lifeblood of each type of business. Every business organization should earnprofits to survive and grow over the long period of time. Obviously, organization willhave no future if it is unable to make reasonable profit from its operation. As a matterof fact, the overall efficiency of an organization is reflected in its profits.Profits to themanagements are the test of efficiency and a measurement of control: to the owners, ameasure of worth of their investment; to the creditors, the margin of safety to theemployees; a source of fringe benefits to the Government, a measure of fixed payingcapacity and the basis of legislative action; to customers, a hint to demand for betterquality and price cuts; to a bank, less burden some source if finance existence

andfinally to the country, profit are index of economic progress. Thus, if an organizationfails to make profit, capital invested erodes and if this situation prolongs it ultimatelycease to exist.

Profit has been universally recognized and accepted as a measure of businessefficiency. Thus, the larger the profits, the more efficiency and profitable the businessorganization is deemed to be. This criterion has the greater advantage that it providesa common standard of measuring the efficiency if different bank. Regarding this,Laxmi Narayan clearly states, "Profit is the simple, convenient and the most popularyardstick of jugging the efficiency of private and public business enterprises. Profithelps in judging the overall efficiency and is easy to calculate. Even through profitmaximization, unlike private enterprise, is not objective of public enterprises, yetprofit services as a well accepted criterion for the judging the overall efficiency ofpublic enterprises too" (Narayan, 1980 : P, 260).

The profit is the ultimate measure of effectiveness. A profitable company is likely tooffer not only security of employment but also promotion prospects, jobopportunitiesand the intense personnel motivation that comes from being associated with success.John Argent observes, "Profit is the barometer of the success of business. It is, indeed,a magic eye that mirrors all aspects of entire business organizations including thequality output." (Argent, 1968)

The term 'profitability' is composed of two words profit and ability. It reflects thecapacity of a business organization to earn profit. It is also referred to as earningcapacityor earning powerof the concern investment. Thus, the term profitabilitymay be taken as the ability to earn profit. According to Howard and Upton, "Theword profitability may be defined as the ability of a given investment to earn returnon its use (Pradhan, 2004).

It may be mentioned that the term 'profitability' is distinguished from the word profit.Profit refers to the absolute quantum of profit whereas profitability alludes to theability to earn profit. The former is an absolute measure in itself while the latter is arelative one. According to W.M. Harper, the profitability is a relative measure.

Itindicates the most profitable alternative. The profit, on the other hand is an absolutemeasure. It indicates the overall amount of profit earned by transaction. As theprofitability is the relative measure, it is used to judge the degree of operationalefficiency of management. Furthermore, it is essentially employed to measure therelative efficiency of different trading systems or different investments within onesystem. In the profitability analysis, the profit making ability of an organization ismeasured in terms of size of investment in it or its sales volume. Such an analysis ofprofitability reveals how particularly such a position stand as a result of transactionsmade during the year. It is particularly interesting to the suppliers of funds who canevaluate their investment and take necessary decision thereon.

The state of profitability is a variable thing like the temperature and humidity of aday. The determination of profitability by an accountant or analyst is very muchsimilar to temperature reading and study of humidity by a meteorologist. Ameteorologist records the weather on daily basis with an intention to forecast itsfuture prospects. Likewise, an analysis records yearly profit of a bank with a view tomake prediction of the future prospects.

The purpose of profitability measurement is to see whether a bank has effectivelyused its resources to achieve its profitability objectives. The profitability objectivesrefer not to the maximum profit the business can produce but to the minimum it mustproduce. The minimum profit is the profit at the minimum rate required for thedesired type of investment in the bank. However, there must not be enough profit toyield the capital in the market rate of return on money, which is already sunk inbusiness, but also to provide additional capital needed to cover the cost of staying inbusiness (Van Horne & Wachowicz, 1995).

### 2.1.10 Meaning of Profit

Profit, from Latin means “to make progress”. It is defined in various ways. Ineconomics, profit is the concept of reward of the entrepreneur for risk taking andmanagement.In business operations, it is the gain from manufacturing, merchandisingand selling operations after all expenses are met. Since profit is added to net worth, itmay be measured by the increase in net worth over that of the previous accountingperiod. The amount of concern’s profit thus may be determined not only through theprofit and loss statement but also by the comparison of the earned surplus or net worthin the balance sheet which, however, is the residue of profits after dividends and anyother appropriations and does not reveal details of sources of income and expenses,which are found in profit and loss account. In speculative transactions, profit is theexcess of the net selling price over the costs (including all charges) of the security orcommodities traded in.

Profit is a motivating factor behind many managerial activities. Much has beenwritten about the role (as opposed to the method of calculation) of profit. Profit playsthree roles in the capitalistic society. Profit is the financial reward of risk taking;profit is the financial reward for having monopoly power; profit is the financialreward for the efficient management. The promise of profit provides a strongincentive to owners and managers to act efficiently. "Profit is essential for everyenterprise to survive in the long run as well as to maintain capital adequacy throughretained earning. It is also necessary to accept market for both debts and equity toprovide funds for increased assistance to the productive sectors” (Robinson, 1981).

Account and economics are two disciplines in which profit is viewed in differentconcept. Pure economic profit is the increase in wealth that an investor has frommaking an investment, taking into consideration all costs associated with thatinvestment including the opportunity cost of capital. Accounting profit is thedifference between retail sales price and the costs of manufacture. A key difficulty inmeasuring either definition of profit is in defining costs. Accounting profit may bepositive even in competitive equilibrium when pure economic profits are zero.

In economics, a firm is said to be making an economic profit when its revenueexceeds the total (opportunity) cost of its inputs. According to Adam Smith (Thefather of economics), “Profit is the sum remaining after the payment of all wages(wage) in economics includes payments to officers of corporations, to proprietors, topartners and to farmers, as well as to what we today term(labor), and rent on theunimproved value of land, as the return to capital” (Hampton, 1995).

Profit in the accounting sense is the net figure of difference between all types ofmeasurable revenues and all measurable costs. In accounting, profit is expressedonlyon explicit and measurable accounting terms and on the book value basis. However,in economics, profit is measured in the realizable terms. “Profit in the accountingsense is the excess of revenue receipts over the costs incurred in producing thisrevenue. This concept of profit is also known as residual concept. But, in economics,both implicit and explicit costs are deducted from total sales revenue in determiningprofits.” (Charles, 1999) As a matter of fact over the years there hasbeen quite an evolution as to what particular items should be deducted from grossincome to arrive at an “accounting” profit. Thus, “accounting” profit is a concept ofman-made legislation, of the courts, of the Security of Exchange Commission, ofaccounting organizations; a concept, which has always been in evolution. “Economic”profit on the other hand, is a concept of a natural law of economics, and like the lawof gravitation has remained and will remain unchanged over the ages. However, theprofit under discussion is concerned with accounting profit, which in a simplelanguage, is the positive and fruitful difference between two revenues and totalexpenses over a period of time,Multiple meaning of the word "profits" have always been troublesome. Accountantshave made energetic efforts in recent years to discard the word for that purpose and torefer to the conventional concept as business income a natural term at avoids anyoverlap with economic theory. The most important points of difference between theeconomists and accountants are as follows (Peter, 2002).

1. The inclusiveness of costs i.e. what should be subtracted from revenue to getprofit.
2. Meaning of depreciation

3. The treatment of capital gains and losses
4. The price level basis of valuation of assets and liabilities
5. Although there may be arguments in favor and against profit generatingalmost all firms require earning it. Their rate of earning differs from firm tofirm and time to time.

### 2.1.11 Theories of Profit

Economists have propounded several theories of profits to explain profits ofentrepreneurs. Most of the theories are centered on the controversy about the role ofthe entrepreneur. In the following section some of the fundamental theories of profithave reviewed in brief (Brigham & Gapenski, 1999).

1. **Theory of Risk and Uncertainty Bearing:**- It was F.B. Hawley who first developed the theory of risk bearing andconcluded that profit is a reward of the entrepreneurs for bearing risks. But,the theory was picked up b Professor F.H. Knight who divided risk intoinsurable risk and uncertainties. Thus according to Knight, profit is a reward tothe entrepreneur for his non-transferable function of bearing non-insurable riskand uncertainties.
2. **Dynamic Theory of Profit:-** This theory was propounded by J.B. Clark. According to this theory, 'dynamicchanges' in the economy are the basic causes of emergence of profits. There isno profit in the static economy as no changes take place. In a dynamiceconomy there are constant changes in population, capital, methods ofproduction and industrial set up. These changes multiply wants of consumers,which earn profits to the entrepreneur.
3. **Innovation theory of profit:-** Joseph Schumpeter singled out 'innovation' from the dynamic theory of profitsand developed economy and innovation in the changing world gives rise toprofits. In his views, the entrepreneur plays an important role of introducinginnovation in an economy and profits are the rewards for his role as aninnovator. The innovation could be changes or techniques that reduces cost ofproduction or increases demand for the product.

### 2.1.12 Need For Profit

Profit is necessary for the following reasons

1. **Measurement of Performance:-** Profit is only factor to measure the management efficiency, productivity andperformance. Profit is the most widely used yardstick to see what really is tobe achieved and where the firm is to go in the future.
2. **Premium to cover costs of staying in Business:-** Business environment is full of risks and uncertainties. to grasp the globallychanging technologies, to stay in the market uncertainties, to replace andacquire assets and enhancing business scope etc. require a profit margin.
3. **Ensuring Supply of Future Capital**:- Profit is necessary to plough back in the investments like innovations, businessexpansion and self-financing. It also attracts investors for further investment.
4. **Return to the investors**:- Shareholders provide equity capital to the business because they expect theentity will provide return to their funds at least equal or above market rate ofreturn. To maintain the shareholders expectation, it is most important that afirm should earn sufficient profit so that it can distribute dividends (Pandey, 1999).

### 2.1.13 Profitability of Commercial Banks

Banks today are under great pressure to perform to meet the objectives of theirstockholders, employees, depositors, and borrowing customers, while somehowkeeping government regulators satisfied that the bank's policies, loans, andinvestments are sound. The majority of the needs of thestakeholders are related with the profitability of the banks. For example, in case thebank earns profits, the investors get dividends, employees get bonus, government getsbenefits in forms of taxes etc. Thus, the foremost objective of the banks is the profitmaximization. As other types of business entity, commercial banks are also inspiredby the profit(Rose, 1999).

The major source of funds of the bank is the public deposit. Commercial banks investpublic deposits on those sectors where they can attain the maximum income or higherrate of return as the bank is liable to pay certain rate of interest to the public in theirdeposit. Hence the investment or granting of loan and advance by them are highlyinfluenced by profit margin. Generally the profit of commercial bank depends uponthe interest rate of the bank, volume of loan provided, time period of loan, and natureof investment in different securities. However, the bank at the same time has to ensurethat their investment is safe from default.

Aspiration of profit to commercial banks seem reasonable as the bank has to cover allthe expenses as interest to the depositors and other administrative costs, they shouldmake payment in the form of dividend to the shareholders who contributed to build upthe banks capital and keep aside for the provision and reserves. For this the bankcalculates the cost of fund and likely return, if the spread is enough irrespective of riskinvolved and absorbs its liquidity obligations, it will go ahead for investment.

A successful bank is one who invests must of its funds in different earning assetstanding safely from the problem of liquidity i.e. keeping cash reserve to meet day-to-day requirements of the depositors. After all the commercial bank is simply a businesscorporation organized for the purpose of maximizing the value of the shareholderswealth invested in the firm at an acceptable level of risk. So bank has to make acrucial decision regarding a mixture of liquidity and profitability cause lower theliquidity higher the profitability and higher the liquidity lower the profitability andboth are equally important, banks cannot afford to ignore any of them (Khadka & Singh, 2001)

## 2.2 Review of Journal Articles

**Dhungana (1998),***"Problem encountered by the Nepalese financial system",*NRB Samachar, Annual Publication, 2053 B.S., highlighted the major weakness ofthe banking sector, mainly of RBB and NBL. According to the writer, the financialsector is dominated by banking sector and which in turn, is dominated by two oldgovernment owned banks. These two banks constitute the largest component of totaldeposit of

banking system. These two banks suffer from various problems, whichresults the unsound health of the banking industry of Nepal. The major weaknesses ofthese banks are.

1. Concentration of loan to limited borrowers
2. Large number of branches with limited transaction
3. Inefficient staff and absence of manpower development and planning
4. Poor supervision and follow up after credit disbursement
5. Insufficient records and bookkeeping
6. No application of modern banking equipments in bank branches
7. To improve the productivity and quality of banking sector the authorities have createda new environment given raise to JVBs.

**Kunt and Harry (1999),** in the journal, World Bank PolicyResearch Working Paper No. 1900. under the topic *"Determinants of CommercialBank Interest Margins and Profitability: Some International Evidence",* says thatdifferences in interest margins andbank profitability reflect a variety of determinants:bank characteristics, macroeconomic conditions, explicit and implicit bank taxation,deposit insurance regulation, overall financial structure, and underlying legal andinstitutional indicators. A larger ratio of bank assets to gross domestic product and alower market concentration ratio lead to lower margins and profits, controlling fordifferences in bank activity, leverage, and the macroeconomic environment. Foreignbanks have higher margins and profits than domestic banks in developing countries,while the opposite holds in industrial countries. Also, there is evidence that thecorporate tax burden is fully passed onto bank customers, while higher reserverequirements are not, especially in developing countries.

In the report and recommendation of the president of Asian Development Bank to theboard of directors on a Proposed loan and technical assistance grant to the Nepal forthe corporate and financial governance project published in 2000 A.D. clearlydiscussed on the financial difficulties of State-Owned Financial Institutions. Thereport states that all state-owned financial intermediaries face financial difficulties,although the extent of the problems is difficult to assess in the absence of

reliablefinancial information. The poor performance can be attributed to deficiencies ingovernance, lack of commercial orientation and managerial skills, as well asinadequate policies. Financial record keeping and auditing are not of internationalstandards. Internal monitoring, evaluation, and supervision are weak, as is the systemof appraisal and follow-up on loans. The problems are most acute for the twogovernment-controlled commercial banks, RBB and NBL, which dominate thebanking system with about 70 percent of total assets. A recent international auditindicates that both banks suffer serious, critical shortfalls in all key areas, and thatboth are technically insolvent, with negative worth estimated at up to 7 percent ofGDP. Although deposits are presumed to be implicitly guaranteed by theGovernment, a systemic banking or fiscal crisis could emerge if problems remainunaddressed. World Bank assistance in this area has been requested.

**New Business Age (August, 2008)**published a article *"Banks & Profit",*highlights about the increase in reserve and surplus of all the banks with the exceptionof Nepal SBI, Global and NB Bank. Overall deposits in the banking sector haveincreased by 25 percent with increase in deposits of all the banks except Lumbini.Government banks such as RBB, NBL and ADB have the highest deposits followedby Nepal Investment Bank Ltd. (NIBL), Himalayan Bank Ltd. (HBL), Nabil Bankand SCBN. NIBL has surpassed the deposit of ADB in the current fiscal year 2007-08. Deposits in Laxmi, Siddhartha, Global and Citizens Banks have substantiallyincreased by 43 percent, 55 percent, 142 percent and 295 percent respectively. Therehas been an increase in overall interest income because of overall increase in loansand advances. ADB, RBB, NBL, Nabil, NIBL, and HBL have the highest interestincome. Among these banks, NBL has lowest loans and advances but have highestinterest income. NBL, RBB, and NB Bank have negative capital adequacy ratio(CAR) but it has improved compared to last year in NBL and RBB while itdeteriorated in NB Bank. NPL to total loan ratio of all these banks has reduced.Laxmi, Siddhartha, Everest, Nabil, NIC, and SCBNL have the lowest NPL to totalloan ratio while NB Bank, RBB, NCC Bank and Lumbini Bank have the highest ratio.

**Bajracharya (2008),** in his article, "*Monetary policy and deposit mobilization in Nepal"* concludes that the mobilization of domestic saving is one of the prime objectives of the monetary policy in Nepal and for this purpose commercial banks are the vital active financial intermediary for generating resources in the form of deposit of the private sector and providing credit to the investors in different sectors of the economy.

**Panta (2010)** in his thesis article, *"A Study of Commercial Banks Deposit and its Utilization"* has made an attempt to highlight the discrepancy between resource collection and research utilization. He concluded that commercial banks failure in resource utilization is due to their lending confined to short term only. He recommended the commercial banks to give emphasis also on long and medium term lending for better utilization of the deposit.

## 2.3 Review of Previous Research Work

**Malla (2008)** has conducted thesis entitled, *"Financial Performance of CommercialBank with Special Reference to Himalayan & NABIL Bank Ltd."* The mainobjective of the study is to analyze the liquidity position & the profitability of thesetwo banks.

The following are the major findings of the study.

1. The high liquidity ratios are maintained by this banks.
2. Themeasurement of assets management has revealed that the total liability to totalassets of HBL has the highest ratio than of NABIL.
3. She has also found thatconsidering EPS, performance of HBL is better than NABIL but comparing netprofit and shareholders' equity, the performance of NABIL is better.
4. Sheconcludes that the overall liquidity ratio of NABIL is better.It has low degree ofsurviving capacity in the adverse liquidity position caused by interest sensitivedeposit.

**Joshi (2009),** has conducted a study on *"Investment & Deposit of Commercial Bank of Nepal"* acomparative study of SCBNL with NABIL Bank and .

Her Main Objectives

1. To examine the liquidity assets management and profitability position and investment policyof SCBNL in comparison to NABIL and L.
2. To analyze the relationship between loan and advance and total investment with otherfinancial variable of SCBNL and compare with NABIL and L.
3. To study the various risks in investment of SCBNL in comparison to NABIL and L.

Her Majors Findings

1. SCBNL has higher idle cash and bank balance. It may decrease profit of bank. It is good to invest more on share & debentures as it encourage financial and economicdevelopment of the country.
2. A commercial bank must mobilize its fund in different sectorsuch as to purchase share & debentures of other financial and non financial companies outof total working fund.
3. SCBNL has invested its more of the funds i.e. total investment on totaldeposit ratio, in comparison to other commercial banks but percentage of investment onshare and debenture in very nominal.
4. Portfolio condition of a bank should be regularly revised from the time to time. It shouldalways try to maintain the equilibrium in the portfolio condition of the bank. So it can besaid "all eggs should not be kept in the same basket".
5. On the basis of above facts, it is seen that SCBNL has invested much of its fund in total outsideassets but it has not achieved the desired result.
6. The risk taken by SCBNL, from the angle of credit and capital are in an average whereas theconsistencies of the same are highly volatile which may

result higher loss. The bankshouldnot test those risks on an experiment basis as seen from the consistency angle.

**Shrestha (2012),** in her study "*A Comparative Study on Investment Policy of Joint Venture Banks"* has studied primarily of four commercial banks i.e. Himalayan Bank Ltd., Nepal SBI Bank Ltd., and Everest Bank Ltd. & Bank of Kathmandu Ltd. The main objectives of her studies are as follows.

1. To compare, analysis & evaluate the investment policy of these four commercial banks.
2. To evaluate, liquidity, activity & portfolio ratios of these banks.
3. To find out the deposit collection & the effectiveness of fund mobilization.

The Conclusion of the research study is as follows:

1. HBL is more successful in mobilizing the fund in proper way in comparison to other three commercial banks.
2. All these banks should have to increase the deposit collection, investment in securities shares & debentures.
3. All banks should be in rural areas & have to take effectives marketing strategy for their promotion.
4. New technologies have to be introducing so to develop new banking system.

**Maharjan (2013)** has carried out a research work on the topic *"Deposit Mobilization of Commercial Banks in Nepal".* The objective of the study has been to examine relationship between theamount of total deposit and amount of total credit granted by thecommercial banks.The main objectives of the study are;

1. To analyze the relationship between deposits and loans &advances.
2. The effectiveness of deposit mobilization of commercial banks.

3. To examine how far the interest rates of deposits have positiverelationship with the deposit collection of commercial banks.
4. To see the impact of an interest rates of loan on the creditextended by commercial banks.
5. To provide suggestions and recommendations to the concerned forthe further improvement.

Based on the study his major finds are;

1. The cash and bank balance to total deposit ratio of HBL is 7.79percent in an average, SBL is 7.65 percent in an average as well asNBL has 5.68 percent and SCBNL has 7.42 percent. The averageratio of HBL is higher than SBL, NBL and SCBNL. The ratios of thebanks are found to be in fluctuating. The S.D is 1.58, 5.3, 2.18and 1.73 for HBL, SBL, NBL and SCBNL respectively. As well asthe C.V. for HBL, SBL, NBL and SCBNL are 20.28, 69.26, 38.37and 23.32 respectively.
2. The Loan and Advances to Total Deposit ratio of HBL is 52.77percent in an average, SBL is 114.72 percent in an average as wellas 64.07 percent in an average for NBL and 12.75 percent in anaverage for SCBNL. The ratios of the banks are found to be influctuating. The S.D is 3.77, 36.68, 5.98 and 6.1 for HBL, SBL,NBL and SCBNL respectively. As well as the C.V. for HBL, SBL,NBL and SCBNL are 7.14, 23.26, 9.33 and 16.57 respectively.
3. The Total Investment to Total Deposit ratio of HBL is 37.76 percentin an average and SBL is 9.11 percent in an average as well as NBLhas 37.04 percent in an average and SCBNL has 53.79 percent inan average. The ratios of the banks are found to be in fluctuating.

The liquidity position of a bank may be affected by internal as well asexternal factors. The affecting factors may be interest rates, supply anddemand position of loan and advances as well as savings, investmentsituations, central banks directives, the lending policies, capability ofmanagement, strategic planning and funds flow situations.

The ratio ofcash and bank balance to total deposit and current assets of SBL ishigher than that of other banks.

**Khatri (2014)** has carried out a research work on the topic *"Mobilization of Deposit and Investment ofNabil Bank Limited".* The purpose of the study will be to examine the relationship between the amountof total deposit and amount of total credit granted by Nabil. The main objectives of the study are;To examine how far the interest rates of deposits have positive relationshipwith the deposit collection of Nabil Bank.

1. To see the impact of interest rate of loan on the credit extended by NabilBank.
2. To study the increasing and decreasing trend of deposit mobilization ofNabil Bank.
3. To compare the performance of deposit and investment of Nabil.

The major findings of this study are;

1. The analysis reveals that the banks attraction toward saving deposit seems tobe satisfactory. But it is not stable increasing in percentage during the studyperiod. It is continuous to increasing in the last of the study period.
2. The changes in percentage in all deposits are in increasing trend. But last ofthe study period it is little fluctuate.The analysis reveals that the banks attraction towards total deposit seems tobe satisfactory. Though the percentage changes are not stable, the change inratio is in average.In case of percentage change in credit amount, the bank's attraction towardscredit amount is satisfactory.
3. The growth ratio of total deposit of Nabil by analysis of 15 years period is13.48%. It means the bank is able to maintain 13.48% growth rate. This ratiomeasures the capacity of the bank to maintain the percentage of total deposit.Since the growth ratio of total deposit is 13.48%, the bank must improve itsdeposit collection in high growth ratio.Similarly the growth ratio of total credit is 17%. So the bank seems in strongcondition to increase the total credit than the total deposit growth rate.Bank's deposit collection is satisfactory but due to lack of investingopportunities it is unable to use its funds

## 2.4 Research Gap

Research gap refers to the gap between previous research and this research. Many research studies have been conducted by the different students, experts and researcher about deposit and investment.There have been fund numerous research studies on financial companies and public enterprises regarding deposit mobilization and investment. Some studies are related to case study of two company and some others are comparative in nature. But the study on " impact of deposit and investment to profitability of neplese commercial bank (with reference to EBL & HBL)" has not been made yet.

The financial and statistical tools used by most of the researchers were ratio analysis, test of hypothesis and regression analysis. This study includes different tools like ratio analysis, correlation analysis and co-efficient of variation, probable error, trend analysis as specific tools.Thus the research study made on " impact of deposit and investment to profitability of neplese commercial bank (with reference to EBL & HBL)" will be an effort to analyze on detail about deposit collection, investment and their impact on profitability of the EBL & HBL in present situation with the help of various related financial as well as statistical tools and techniques by joining date from the F/Y2065/066 to 2069/070. The study can be beneficial to all the concerned parties and people as well.

# CHAPTER – III

# RESEARCH METHODOLOGY

Research methodology is the systematic way of solving research problems. Researchmethodology refers to the overall research process, which a researcher conducts duringhis/her study, if all the procedures from theoretical foundation to the collection andanalysis of data. As most of the data are quantitative, the research is based on thescientific models. It is composed of both parts of technical aspect and logical aspect. Onthe basis of historical data, research is systematic and organizational effort to investigatea specific problem that needs a solution. This process of investigation involves a series ofwell thought out activities of gathering, recording and analyzing and interpreting the datawith the purpose of finding answer to the problem. Hence, the entire process by which weattempt to solve the problem is called research.

## 3.1 Research Design

Research design is a controlling part for the collection of the data and it helps to collectthe accurate information, which is related to the research topic. Research design is theplan structure and strategy of investigation conceived so as to obtain answers to researchquestions and to control variance through the analysis of data. The first step of the research design is to collect necessary information and data concerningto the study. Therefore, research design means the definite procedure and techniques,which guide the study as profound ways of doing research.The justification for the choice of these methods ispreferred because it concludes reliable data and information covering a long time andavoids numerical complex variables.As per the requirement of the study, both descriptive and analytical approaches are used.

## 3.2 Population and Sample

Under the study of deposit, investment & Profitability, the total numbers of commercial banks including domestic and joint venture banks operating in the Nepal are the population. At present there are thirty licensed commercial banks are running in Nepal. All thirty licensed Nepalese commercial banks has been considered as the total population out of them this study is concerned with two commercial bank i.e. EBL & HBLbank has been convenience for the study purpose.

1. Everest Bank Limited
2. Himalayan Bank Limited

## 3.3 Nature and Sources of Data

The data used in this report is secondary type, which have been taken mainly from thepublished data and financial statements of the sampled banks. These include annualreports for the last five years and report of each year. Besides these, the following sourcesof data are also be considered.

a. NRB reports
b. Various publications dealing in the subject matter of the study
c. Various articles published in Newspapers

## 3.4 Data Collection Techniques

It indicates the sources of data and how they collected. In this study data are collected through published sources. They were collected from the correspondent offices and their respective websites. The annual reports of EBL& HBL, NRB publications, the data regarding the profile of sample banks and other related documents were collected from internet websites. Unpublished master's thesis, books, research papers, articles, journals have been collected through different library, and NRB Magazines and newspapers were from concerned authorities.

## 3.5 Data Analysis Techniques

The data collected is classified and tabulated in order to make it easilyunderstandable. The data is classified in chronological order, i.e., on the basis oftime intervals. After classification, the data is tabulated, i.e., arranging the data incolumn and rows systematically.

### 3.5.1 Diagrammatic Presentation of Data

Various diagrams are used to present the data more clearly. The diagrams used inthis study are as follows.

a. Bar Diagram
b. Trend Diagram

### 3.5.2 Analytical Tools

Various tools are used in this thesis. Menly statistical tools andfinancial tools areused , these tools are as follows.

#### 3.5.2.1Statistical Tools

Statistical tools are used to analyzed the relationship between two or more variables and to find how these variables are related.In this study,following statistical tools are used.

**a. Arithmetic Mean or Average**

The mean or average value is a single value within the range of the data that is used to represent all the values in the series.Since an average is somewhere within the range of the data, it is also called a measure of central value. It is calculated by;

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

Where,

$\overline{X}$ = Arithmetic Mean

$\sum X$ = Sum of values of all items, and,

N = Number of items

**b. Standard Deviation**

The standard deviation is the measure that is most often used to describe variability in data distributions.It can be thought of as a rough measure of the average amount by which observations deviate on either side of the mean. Denoted by Greek letter's (read as sigma), standard deviation is extremely useful for judging the representatives of the mean. Standard deviation is calculated as;

$$\text{Standard deviation}(\sigma) = \sqrt{\frac{\sum(\mathbf{X}-\bar{\mathbf{x}})^2}{N}}$$

Where,

$\boldsymbol{\sigma}$ = Standard deviation

$\sum(\mathbf{X}-\bar{\mathbf{x}})^2$ = Sum of squares of the deviations measured from arithmetic average.

N = Number of items

**c. Coefficient of Correlation**

Correlation is a statistical tool design to measure the degree of association between two or more variables.In other word if the changes in one variable affects the changes in other variable,then the variable are said to be co-related when it is used to measure the relationship between two variables, then it is called simple correlation.The coefficient of correlation measures the degree of relationship between to sets of figures. Among the various methods of finding out coefficient of correlation, Karl Pearson's method is applied in the tudy.The result of coefficient of correlation is always lie between +1 and -1.The formula for the calculation of coefficient of correlation between X and Y is given below.

$$r = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$

Where,

r = Correlation coefficient

$\sum x_1 = X_1 - \overline{X}_1$

$\sum x_2 = X_2 - \overline{X}_2$

Under this topic,Karl Pearson's correlation coefficient is used to measure the degree of relationship between the following variables.

**d. Coefficient of Determination ($r^2$)**

The coefficient of determination is a measure of the degree of linear association or correlationbetween two variables one of which happens to be independent and other being dependentvariable. In other words coefficient of determination measures the percentage total variationindependent variables explained by independent variables. Zero to one is the rangingmeasurement of this coefficient of multiple determinations. If $R^2$ is equal to 0.75, which indicatesthat the independent variables used in, regression model explained 75% of the total variation inthe dependent variable. If the regression line is a perfect estimator $R^2$ will be equal to +1, whenthere is no correlation the value of $R^2$ is zero.

**e. Probable Error of Coefficient. of Correlation**

The probable error is a measure of as certainty the reliability of the value of a Pearson's coeff. Ofcorrelation. If the probable error is added to and subtract from the coeff. of correlation, it wouldgives two such limits within which we can reasonably accept the value of coeff. of correlation tovary. The formulae for finding out the probable error of the Karl Pearson's coeff. of correlation is:

$$P.E(r) = 0.6745 \times 1\text{-}r^2 / \sqrt{n}$$

Where,

P.E( r)= probable error of coeff. of correlation.

r = Coefficient of correlation.

n = No. of pairs observation.

If r < 6 P.E(r), the value of 'r' is not significant no matter how high r value.i.e. there is no evidence of correlation between the variables.
If r > 6 P.E(r), the value of r is significant, i.e. correlation is significant.

**3.5.2.2Financial Tools**

Financial analysis is the process of identifying the financial strengths and weaknesses of the organization by properly establishing relationships between the items of the balance sheet and the profit and loss account.

**c. Net Profit Margin**

The ratio signifies the effectiveness of expenses management and cost control andgives the direction to the management for service pricing policies. It means how muchof total revenue has been declared as net profit after all the charges are over up. Thehigher ratio means the management has been able to control its operational costs andmaintain efficiency.

Net Profit Margin = $\frac{Net\ Profit\ After\ Tax}{Total\ Operating\ Income}$

### d. Return on Loans & Advances

This ratio shows the return on loans and advances during the year. Higher ratio of net income to loans & advance is better.

Return on Loans & Advances = $\frac{Net\ Profit\ After\ Tax}{Loans\ \&\ Advance}$

### e. Net Profit to Investment

Net profit to investment ratio shows the proportion of profit in the total investment. It measures the earning efficiency of firm from the investment in different sectors.

Net Profit to Investment Ratio = $\frac{Net\ Profit\ After\ Tax}{Investment}$

### f. Net Profit to Deposit Ratio

Deposits are the liabilities of banks. Net profit to deposit ratio is the proportion of net profit in total deposit.

Net Profit to Deposit Ratio = $\frac{Net\ Profit\ After\ Tax}{Deposit}$

# CHAPTER - IV

# PRESENTATION & ANALYSIS OF DATA

To find the answer of research problem, the collected data are necessary to present and analyze by processing. This chapter will present the data on table & figure. The main objective of the study is to present data and analyze them with the helps of various financial and statistical tools. This chapter consists of analysis and presentation of empirical data. The important variables are very sensitive and taken into consideration, so this chapter will present the analysis of components of deposit, investment and profitability. The major ratio for the study is profitability ratio. The variables of the ratio indicated above are also tried to study in details.

## 4.1 Deposit Position

Deposits are the main sources of resources to meet growing demands of financial existence. The existence of commercial banks basically depends upon the mobilization of deposits. It is important that commercial bank's deposit policy is the essential policy for its existence. The growth of bank depends primarily upon the growth of its deposit. The commercial banks may function well when they have enough deposit. Higher the volume of deposit, higher will be the volume of lending and investment which again creates higher volume of profit

**Table: 4.1**

**Deposit Position of EBL**

**(Rs. In Millions)**

| Year(B.S) | Current Deposit | Saving Deposit | Fixed Deposit | Margin Deposit | Call Deposit | Others Deposit |
|---|---|---|---|---|---|---|
| **2065/066** | 2492.35 | 11883.86 | 6446.18 | 221.44 | 2780.65 | 151.83 |
| **2066/067** | 4859.95 | 14782.33 | 7949.98 | 291.98 | 6294.00 | 44.7 |
| **2067/068** | 4173.32 | 13360.03 | 10440.28 | 375.93 | 8412.8 | 169.94 |
| **2068/069** | 4741.38 | 13039.11 | 15061.94 | 410.03 | 7550.04 | 275.58 |
| **2069/070** | 6098.25 | 17269.29 | 13007.48 | 451.74 | 12952.16 | 227.18 |
| **Average** | 4473.05 | 14066.92 | 10581.17 | 350.22 | 7597.93 | 173.85 |
| **SD** | 1311.10 | 2066.93 | 3535.73 | 92.90 | 3682.41 | 87.14 |
| **CV** | 29.31 | 14.69 | 33.42 | 26.53 | 48.47 | 50.12 |

*Source: Annual Reports of EBL from 2065/066 to 2069/070*

**Figure: 4.1**

**Deposits of EBL**

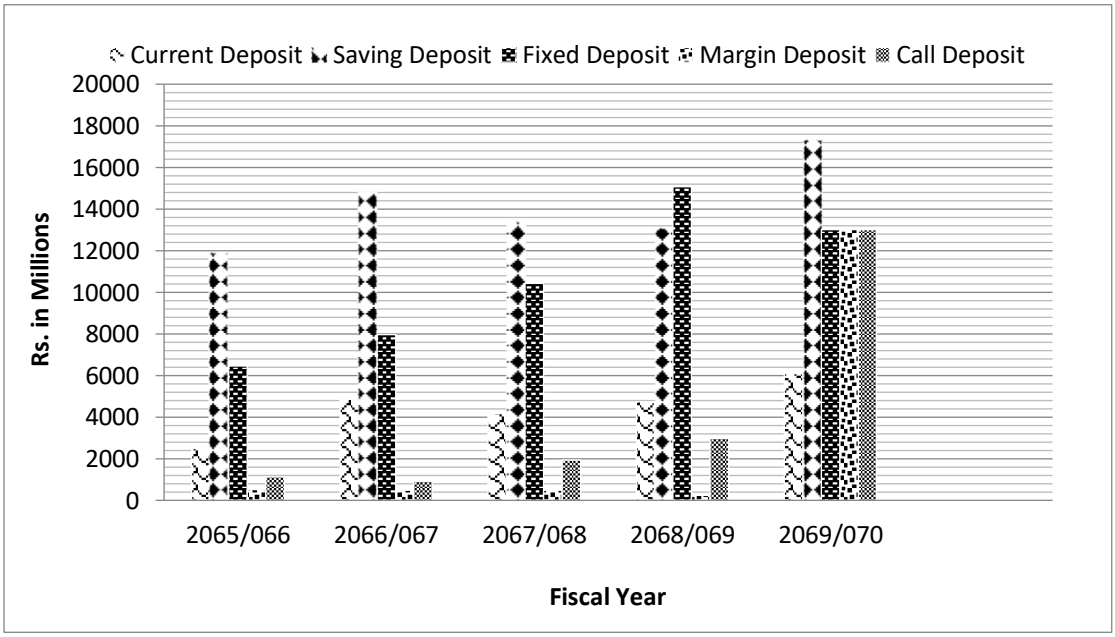



Table 4.1 and figure 4.1 shows the types of deposit and their amount during the study period. EBL has collect deposit from the different types of deposit they are saving deposit, current deposit, fixed deposit, call deposit, margin deposit and others deposit Position of EBL. Current deposits are increasing trend each fiscal year than previous year except the fiscal year 2067/068. The highest amount of current deposit is Rs.

6098.25 million in the fiscal year 2069/070 and that of lowest is Rs. 2492.35 million in the fiscal year 2065/066. Saving deposits are increasing each fiscal year than previous year except the fiscal year 2067/068&2068/069 the highest amount of saving deposit is Rs. 17269.27 million in the fiscal year 2069/070 and that of lowest is Rs. 11883.86 million in the fiscal year 2065/066. Fixed deposit are also increasing each fiscal year than previous year except the fiscal year 2069/070 the highest amount of fixed deposit is Rs. 15061.94 million in the fiscal year 2068/069 and that of lowest is Rs. 6446.18 million is the fiscal year 2065/066. Margin deposits and call deposits are increasing trend during the study period and others deposits are fluctuating trend. Among the different types of deposits, the saving deposit has the highest amount in each fiscal year and other deposit has the lowest amount during the study period.

Comparing to current, fixed, margin, call & other deposit average saving deposit is highest during the study period i.e. Rs. 14066.92 million and that of lowest is Rs. 173.85 million of other deposit. Similarly the highest and lowest standard deviations are Rs. 3682.41 & Rs. 87.14 million of call deposit and other deposit respectively.

**Table: 4.2**

**Deposit Position of HBL**

**(Rs. In Millions)**

| Year(B.S) | Current Deposit | Saving Deposit | Fixed Deposit | Margin Deposit | Call Deposit |
|---|---|---|---|---|---|
| **2065/066** | 4784.22 | 17972.44 | 6423.87 | 645.19 | 2017.07 |
| **2066/067** | 3218.22 | 20061.05 | 6377.13 | 666.14 | 4359.77 |
| **2067/068** | 3745.62 | 16294.68 | 11328.64 | 946.87 | 5295.38 |
| **2068/069** | 3694.35 | 15994.56 | 13507.37 | 1219.36 | 6505.08 |
| **2069/070** | 4584.23 | 21915.27 | 11866.78 | 971.29 | 8393.41 |
| **Average** | 4005.33 | 18447.60 | 9900.76 | 889.77 | 5314.14 |
| **SD** | 656.79 | 2525.18 | 3294.56 | 238.94 | 2381.29 |
| **CV** | 16.40 | 13.69 | 33.28 | 26.85 | 44.81 |

*Source: Annual Reports of HBL from 2065/066 to 2069/70*

**Figure: 4.2**

**Deposits of HBL**

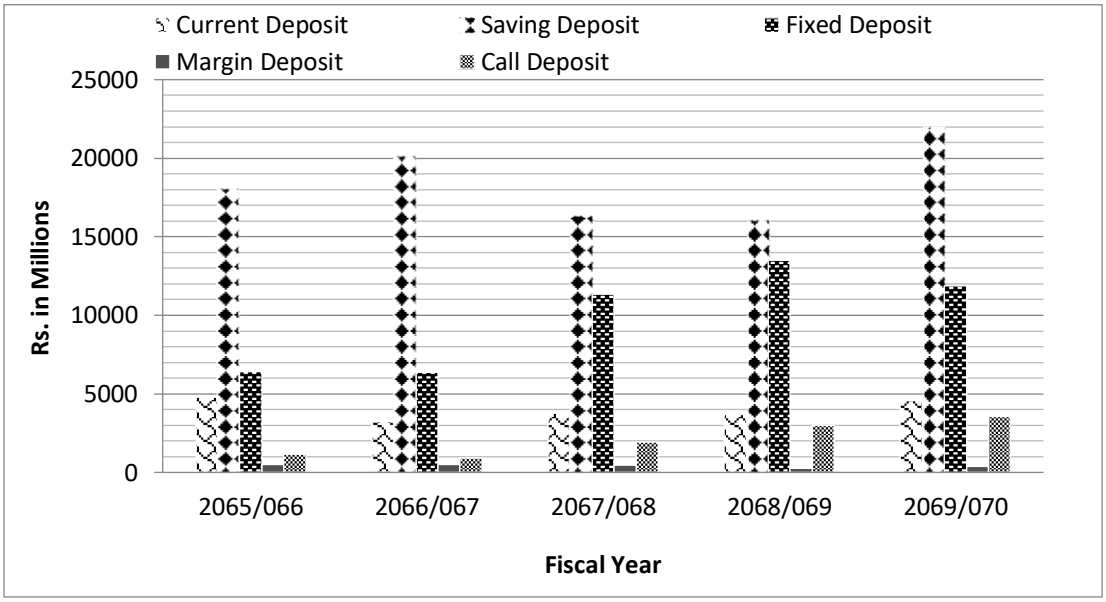



Table 4.2 and figure 4.2 shows the types of deposit and their amount for the fiscal year 2065/066 to 2069/070. HBL has collect deposit from the different types of deposit they are saving deposit, current deposit, fixed deposit, call deposit and margin deposit. Current deposits are fluctuating trend each fiscal year than previous year the highest amount of current deposit is Rs. 4784.22 million in the fiscal year 2065/066 and that of lowest is Rs. 3218.22 million in the fiscal year 2066/067. Saving deposits are increasing each fiscal year than previous year except the fiscal year 2067/068&2068/069 the highest amount of saving deposit is Rs. 21915.27 million in the fiscal year 2069/070 and that of lowest is Rs. 15994.56 million in the fiscal year 2068/069. Fixed deposit are fluctuating each fiscal year than previous year the highest amount of fixed deposit is Rs. 13507.35 million in the fiscal year 2068/069 and that of lowest is Rs. 6377.13 million is the fiscal year 2066/067. Margin deposits and call deposits are increasing trend during the study period. Among the different types of deposits, the saving deposit has the highest amount in each fiscal year and margin deposit has the lowest amount during the study period.

Comparing to current, fixed, margin & call deposit average saving deposit is highest during the study period i.e. Rs. 18447.60 million and that of lowest is Rs. 889.77 million of other margin deposit. Similarly the highest and lowest standard deviations are Rs. 3294.56 & Rs. 238.94 million of fixed deposit and margin deposit respectively.

**Table: 4.3**

**Comparative Total Deposit**

**(Rs. In Millions)**

| Fiscal Year | EBL | | HBL | |
|---|---|---|---|---|
| | Total Deposit | % Changes | Total Deposit | % Changes |
| 2065/066 | 23976.29 | - | 31842.79 | - |
| 2066/067 | 33322.95 | 38.98 | 34682.3 | 8.92 |
| 2067/068 | 36932.31 | 10.83 | 37611.2 | 8.44 |
| 2068/069 | 41127.91 | 11.36 | 40920.63 | 8.80 |
| 2069/070 | 50006.1 | 21.59 | 47730.99 | 16.64 |
| **Average** | 37073.11 | **20.69** | 38557.58 | **10.70** |
| **SD** | 9608.77 | **13.16** | 6138.76 | **3.97** |
| **CV** | 25.92 | **63.61** | 15.92 | **37.06** |

*Source: Annual Reports of EBL&HBL from 2065/066 to 2069/070*

**Figure: 4.3**

**Total Deposit of EBL&HBL**

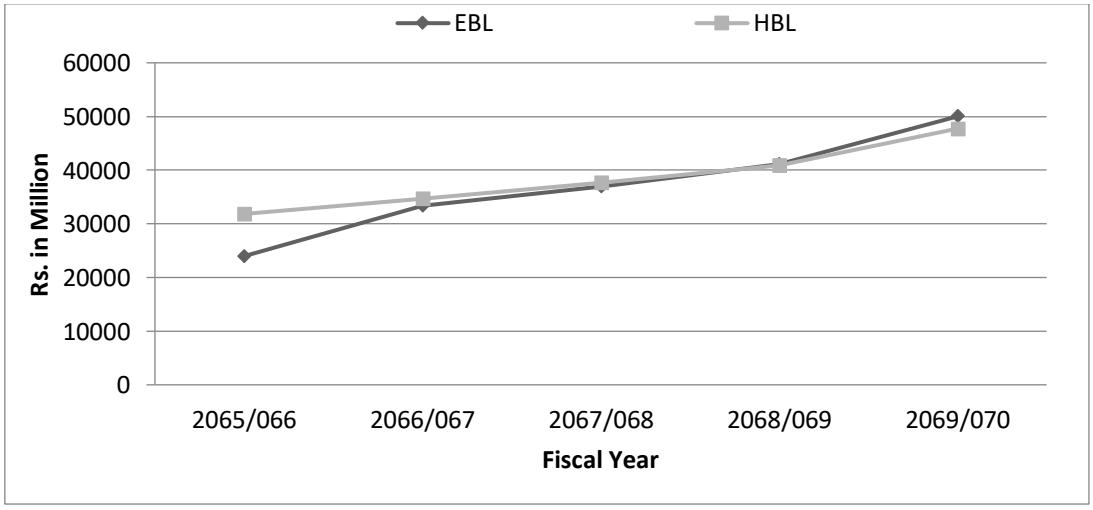


Table 4.3 & Figure 4.3 shows that the total deposit of EBL&HBL in the fiscal year 2064/65 is Rs. 23976.29& Rs. 31842.79 million respectively, during the next five-year the total deposit of EBL&HBL is in increasing trend. In the fiscal year 2069/070, the total deposit of EBL&HBL is Rs. 50006.1& 47730.99 million respectively. The percentage changes of deposit is positive of both banks it means the deposit is increasing each fiscal year than previous year but the percentage changes rate of EBL is higher than HBL.

An average increasing rate of deposit of EBL has 20.69% and HBL has 10.70%, standard deviation has 13.16% & 3.97 % and CV has 63.61% & 37.06% of EBL&HBL respectively. It shows the increasing rate of deposit of EBL is higher than HBL but the consistency of increasing rate of HBL is higher than EBL.

## 4.2 Investment position

Investment usually means the sacrifice of the current money for future money. The sacrificetakes place in the present and the reward comes later, if at all, and the magnitude is generallyuncertain. However, Shrestha (2002) describes investment as utilization of saving forsomething that is expected to produce profit or benefits. Investment is employment of fundsto achieve added income or growth in value. It involves the commitment of resources put offfrom current consumption with hope of capitalizing some benefits in future. It includes bothreal asset and financial asset .Real asset investment denotes the tangible assets like building,land, machinery, factory and the like. On the other hand, financial asset investment indicatespapers representing an indirect claim to real asset held by someone else. .Nevertheless, realasset is less liquid than financial asset.

"Investment is the current commitment of funds for a period of time to derive a future flowof funds that will compensate the investing unit for the time funds are committed, for theexpected rate of inflation and also for uncertainty involved in the future flow of thefunds*"(*Frank & Reilly, 1972:299)

The above definitions describe that an investment is the allocation and mobilization of funds fora certain time period to acquire some extra benefit or extra attachment with mobilized fund.

**Table: 4.4**

**Investment Pattern of EBL**

**(Rs. In Millions)**

| Sector | 2065/066 | 2066/067 | 2067/068 | 2068/069 | 2069/070 |
|---|---|---|---|---|---|
| Nepal Govt. T-bills | 3237.98 | 3371.43 | 2745.28 | 4745.49 | 3119.59 |
| Nepal Govt. Saving Bonds | - | - | - | - | - |
| Nepal Govt. Other Securities | 1583.63 | 1774.62 | 1609.07 | 2399.52 | 2949.28 |
| Local licensed Institutions | - | - | 261.8 | 177.87 | - |
| Foreign Banks | 138.4 | 702.00 | 291.72 | 313.06 | 1685.57 |
| Corporate Share | 16.22 | 17.12 | 17.12 | 24.65 | 25.85 |
| Corporate Debentures & Bonds | 84.93 | 84.93 | 84.93 | 84.93 | 84.93 |
| **Total Investment** | **5061.16** | **5950.08** | **5009.91** | **7745.53** | **7865.23** |
| Less: Provisions | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| **Net Investments** | **5059.56** | **5948.48** | **5008.31** | **7863.63** | **7743.93** |

*Source: Annual Reports of EBL from 2065/066 to 2069/070*

**Figure: 4.4**

**Investment Sources of EBL**

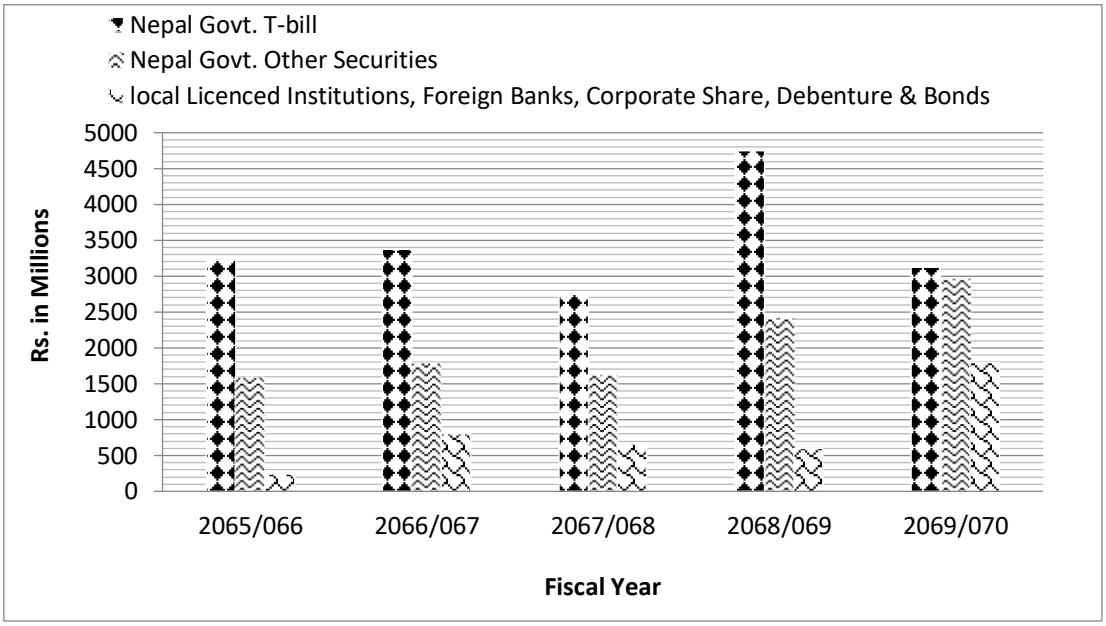



Table 4.4 & figure 4.4 shows the investment pattern of EBL, the major sector of investment are Nepal Govt. T-bills, Nepal Govt. Other Securities, Local licensed Institutions, Foreign Banks, Corporate Share, and Corporate Debentures & Bonds. The EBL invest the high amount in the Nepal govt. treasury bills in each year, it is risk free assets for investment. The investment trend in treasure bills is in fluctuating during the study period, the highest amount of investment is Rs. 4745.49 million and that of lowest is Rs. 2745.28 million in the fiscal year 2068/069&2067/068 respectively.

The second highest investment sector of EBL is Nepal Govt. Other Securities, the highest amount invested by EBL in Nepal Govt. Other Securities is Rs. 2949.28 million and that of lowest is Rs. 1583.63 million in the fiscal year 2069/070 and 2065/066 respectively. The trend of investment in Nepal Government Other Securities is in increasing each year than previous year during the study period except the fiscal year 2067/068.

The third investment sector is Foreign Banks, the highest amount invested by EBL in Foreign Banks is Rs. 1685.57 million and that of lowest is Rs. 138.4 million in the fiscal year 2069/070 and 2065/066 respectively. The trend of investment in Foreign

Banks is in increasing each year than previous year during the study period except the fiscal year 2067/068.

Investment in the corporate share is in increasing trend during the study period and the investment in Local licensed Institutions is only for the fiscal year 2067/068&2068/069. Investment in Corporate Debentures & Bonds is equal to Rs. 84.93 million over the study period. The total investment of EBL is in increasing trend over the study period except the year 2067/068.

**Table: 4.5**

**Investment Pattern of HBL**

**(Rs. In Millions)**

| Sector | 2065/066 | 2066/067 | 2067/068 | 2068/069 | 2069/070 |
|---|---|---|---|---|---|
| Nepal Govt. T-bills | 7166.53 | 3907.34 | 3455.03 | 4725.58 | 6402.96 |
| Nepal Govt. Saving Bonds | 305.13 | 304.96 | 1010.34 | - | - |
| Nepal Govt. Other Securities | - | - | - | 1681.78 | 2759.26 |
| Local licensed Institutions | - | - | 197.31 | 479.42 | 88.2 |
| Foreign Banks | 5778.95 | 4404.51 | 3703.35 | 1497.34 | 692.37 |
| Corporate Share | 89.56 | 93.88 | 78.88 | 90.00 | 90.00 |
| Corporate Debentures & Bonds | - | - | - | - | - |
| **Total Investment** | **13340** | **8710.69** | **8444.9** | **8771.15** | **10032.79** |
| Less: Provisions | - | - | - | 1.21 | 1.21 |
| **Net Investments** | **13340** | **8710.69** | **8444.9** | **8769.94** | **10031.58** |

*Source: Annual Reports of HBL from 2065/066 to 2069/070*

**Figure: 4.5**

**Investment Sources of HBL**

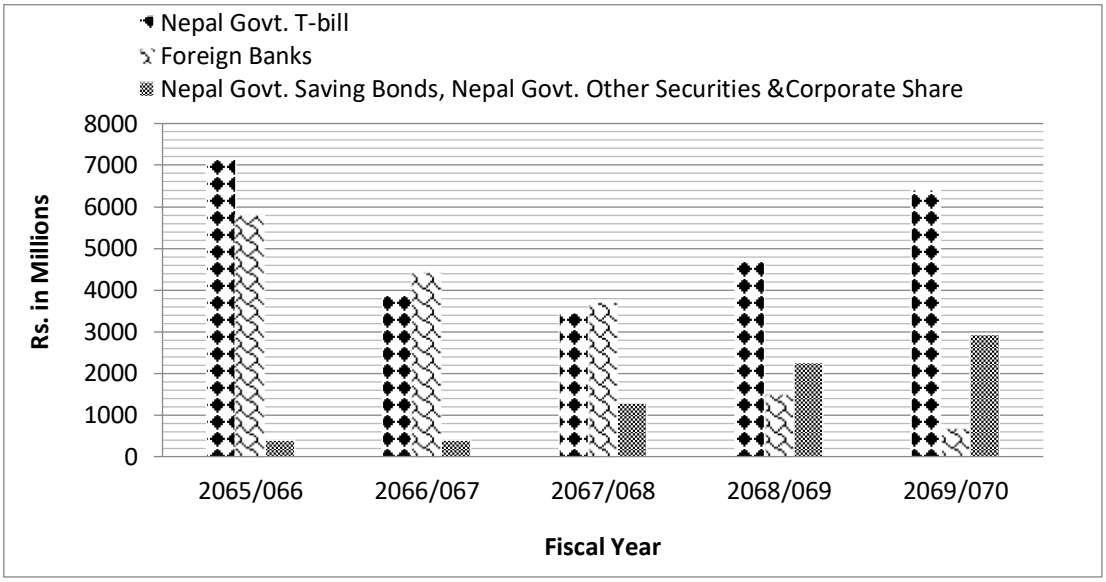



Table 4.5 & figure 4.5 shows the investment pattern of HBL, the major sector of investment are Nepal Govt. T-bills, Foreign Banks, Corporate Share, Local licensed Institutions, and Nepal Govt. Saving Bonds. The HBL invest the high amount in the Nepal govt. treasury bills in each year, it is risk free assets for investment. The investment trend in treasure bills is in increasing each year than previous year except the fiscal year 2066/067, the highest amount of investment is Rs. 7166.53 million and that of lowest is Rs. 3907.34 million in the fiscal year 2065/066&2066/067 respectively.

The second highest investment sector of HBL is Foreign Banks, the highest amount invested by HBL in Foreign Banks is Rs. 5778.95 million and that of lowest is Rs. 692.37 million in the fiscal year 2065/066 and 2069/070 respectively. The trend of investment in Foreign Banks is in decreasing each year than previous year during the study period.

The third investment sector is corporate share, the highest amount invested by HBL in corporate Share is Rs. 90 million and that of lowest is Rs. 78.88 million in the fiscal year 2069/070 and 2067/068 respectively. The trend of investment in Corporate Share is in fluctuating each year than previous year during the study period.

Investment in Nepal Govt. Other Securities is Rs. 1681.78 & Rs. 2759.26 million in the fiscal year 2068/069 and 2069/070. The bank has no investment in corporate debenture and bonds during the study period. The total investment of HBL is in decreasing trend up to the fiscal year 2067/068 after that it is increases.

**Table: 4.6**

**Comparative Net Investment**

**(Rs. In Millions)**

| Fiscal Year | EBL | | HBL | |
|---|---|---|---|---|
| | Net Investment | % Changes | Net Investment | % Changes |
| 2065/066 | 5059.56 | - | 13340.18 | - |
| 2066/067 | 5948.48 | 17.57 | 8710.69 | -34.70 |
| 2067/068 | 5008.31 | -15.81 | 8444.91 | -3.05 |
| 2068/069 | 7863.63 | 57.01 | 8769.94 | 3.85 |
| 2069/070 | 7743.93 | -1.52 | 10031.58 | 14.39 |
| **Average** | 6324.78 | **14.31** | 9859.46 | **-4.88** |
| **SD** | 1401.56 | **31.58** | 2040.39 | **21.14** |
| **CV** | 22.16 | **220.62** | 20.69 | **-433.11** |

*Source: Annual Reports of EBL&HBL from 2065/066 to 2069/070*

**Figure: 4.6**

**Trend of Net Investment of EBL&HBL**

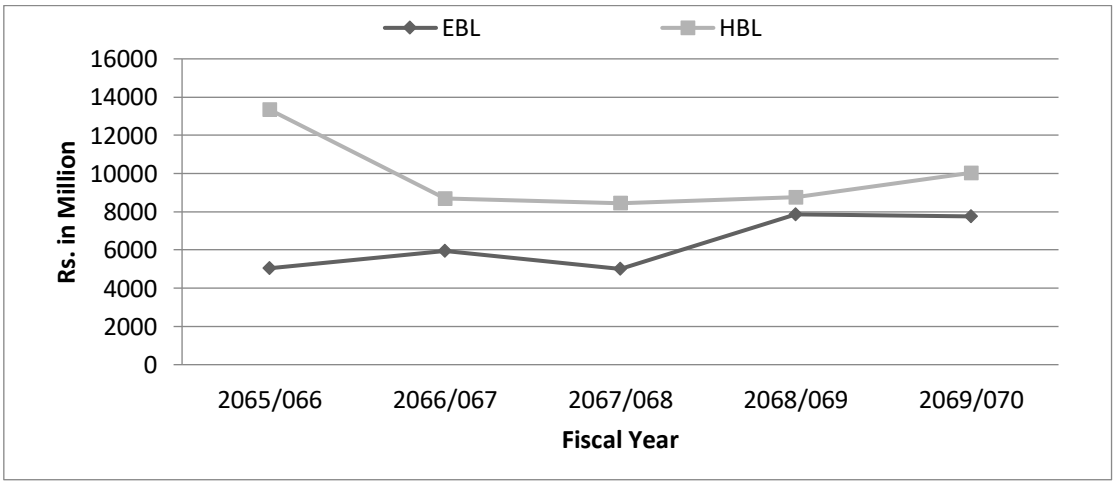


Table 4.6 & Figure 4.6 shows that the net investment of EBL&HBL in the fiscal year 2064/65 is Rs. 5059.56 & Rs. 13340.18 million respectively, during the next five-year the net investment of EBL&HBL is in fluctuating trend. In the fiscal year 2069/070, the net investment of EBL&HBL is Rs. 7743.93& 10031.58 million respectively. The percentage changes of net investment of EBL are positive of 17.57% & 57.01% in the fiscal year 2066/067&2068/069 respectively and negative of 15.81% & 1.52% in the fiscal year 2067/068&2069/070 respectively. Similarly, the percentage changes of net investment of HBL are positive of 3.85% & 14.39% in the fiscal year 2068/069&2069/070 respectively and negative of 34.70% & 3.05% in the fiscal year 2066/067&2067/068 respectively.

An average increasing rate of deposit of EBL has 14.31% and HBL has decreasing rate of 4.88%, standard deviation has 31.58% & 21.14% and CV has 220.62% & 433.11% of EBL&HBL respectively during the study period. The net investment of HBL is higher than the net investment of EBL in each fiscal year.

## 4.3 Profitabilityposition

Profitability is a deviation of the term profit, which explains the ability to make theprofit. Profit is primary a measuring rod of a success of a business enterprises. Profitis essential for the survival of the business. It is the difference between revenuegenerated and expenses occurred over the period of time but the term profit hasseveral different interpretations. It is a basic test of the performance of any businessconcern. Without profit a firm could not attract the outside capital. Moreover, theowners and creditors would become concerned about the company's future andattempt to recover their funds. Owner creditors and management pay close attentionfor boosting profit due to the great importance placed on earning the market place.Profitability is a technical term, used to compare performances analysis of differenttrading systems or different investments within one system. This is computed for eachsystem or investments being compared over the same period long enough to includesignificant "ups" and "downs". So analysis of the profitability of the business is veryessential which can be used to measure the overall efficiency of the business.

Profitability of the business can be analyzed through the financial analysis whichrefers to the assessment of the viability and stability of the business.Profitability of a company is usually based on the income statement. A properlyconducted profitability analysis provides invaluable evidence concerning the earningspotential of a company and the effectiveness of management. While analyzingprofitability different profitability ratios are calculated. Profitability ratios provide adefinitive evaluation of the overall effectiveness of management based on the returnsgenerated on sales and investment. The most widely used profitability measurementsare profit margin on sales, return-on-investment ratios, and earnings per share.

**Table: 4.7**

**Comparative Profit Earned by EBL&HBL**

**(Rs. In Millions)**

| Fiscal Year | EBL | | HBL | |
|---|---|---|---|---|
| | Net Profit | Total Income | Net Profit | Total Income |
| 2065/066 | 451.22 | 1209.89 | 635.87 | 1597.5 |
| 2066/067 | 638.73 | 1544.97 | 752.83 | 1988.05 |
| 2067/068 | 831.77 | 1927.98 | 508.8 | 2157.96 |
| 2068/069 | 931.3 | 2192.94 | 893.12 | 2586.74 |
| 2069/070 | 1090.56 | 2609.74 | 958.64 | 2911.21 |
| **Average** | 788.72 | 1897.10 | 749.85 | 2248.29 |
| **SD** | 249.85 | 546.03 | 183.86 | 513.18 |
| **CV** | 31.68 | 28.78 | 24.52 | 22.83 |

*Source: Annual Reports of EBL&HBL from 2065/066 to 2069/070*

**Figure: 4.7**

**Trend of Total Income of EBL&HBL**

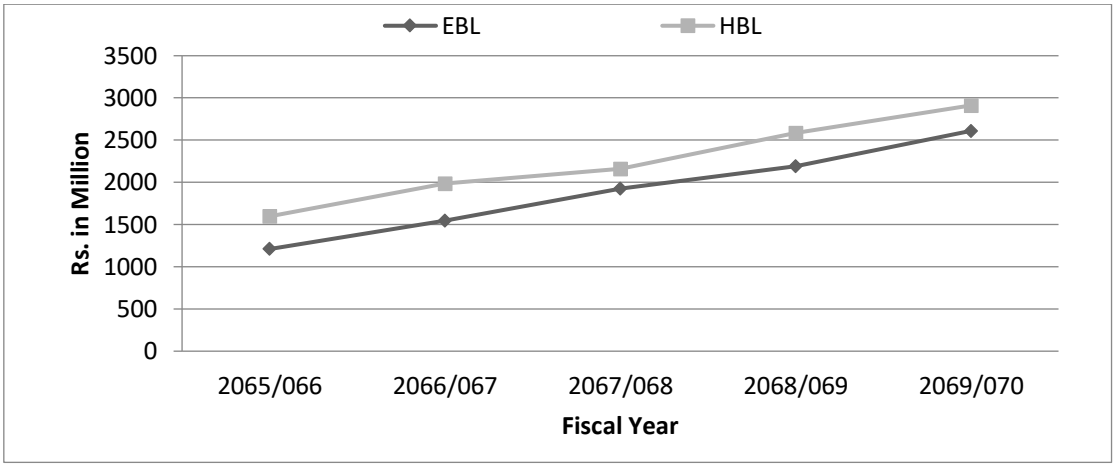



Table 4.7 shows that the total income and net profit of EBL&HBL. The total income of EBL is in increasing trend during the study period and the total income of HBL is increasing in each fiscal year. The highest values of total income of EBL&HBL are Rs. 2609.74 & Rs. 2911.21 million in the fiscal year 2069/070 and that of lowest is Rs. 1209.89 & Rs. 1597.5 million in the fiscal year 2065/066 respectively. The total income of HBL is higher than EBL in each fiscal year during the study period.

An average total income of EBL is Rs.1897.10 and HBL is Rs.2248.29, standard deviation is Rs. 546.03 & Rs. 513.18 and CV 28.78% & 22.83% of EBL&HBL respectively during the study period. It shows that the total income of EBL is more variable than HBL.

**Figure: 4.8**

**Trend of Net Profit of EBL&HBL**

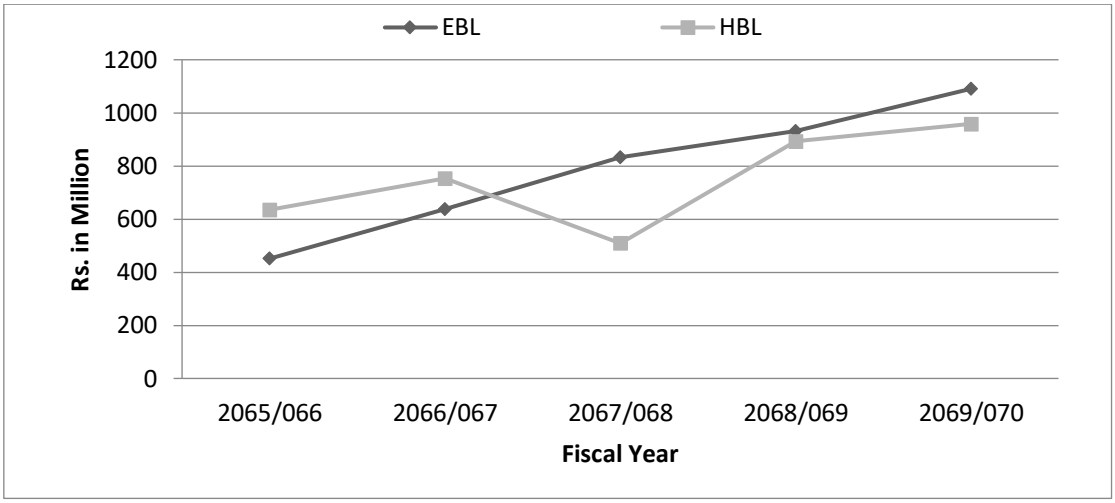



Table 4.7 & figure 4.8 shows that the net profit of EBL&HBL. The net profit of EBL is in increasing trend during the study period and the net profit of HBL is increasing in each fiscal year than previous year except the fiscal year 2067/068. The highest values of net profit of EBL&HBL are Rs. 1090.56 & Rs. 958.66 million in the fiscal year 2069/070 and that of lowest is Rs. 451.22 & Rs. 508.8 million in the fiscal year 2065/066&2067/068 respectively.

An average net profit of EBL is Rs.788.72 and HBL is Rs.774.85 million, standard deviation is Rs. 249.85 & Rs. 183.86 and CV has 31.68% & 24.52% of EBL&HBL respectively during the study period. It shows that the net profit of EBL is more variable than HBL.

## 4.4 Net Profit to Investment

Profit is a primary measure of a success of a business enterprises. Profitis essential for the survival of the business.Investment refers to asusing present money to get long term benefit. Investment in its broadest sense means the sacrificeof current money for future money. Net profit to investment ratio shows the proportion of profit in the total investment. It measures the earning efficiency of firm from the investment in different sectors.

**Table: 4.8**

**Net Profit to Net Investment Ratio**

**(Rs. In Millions)**

| Year (B.S) | EBL | | | HBL | | |
|---|---|---|---|---|---|---|
| | Net Profit | Investment | Ratio % | Net Profit | Investment | Ratio % |
| **2065/066** | 451.22 | 5059.56 | 8.92 | 635.87 | 13340.18 | 4.77 |
| **2066/067** | 638.73 | 5948.48 | 10.74 | 752.83 | 8710.69 | 8.64 |
| **2067/068** | 831.77 | 5008.31 | 16.61 | 508.80 | 8444.91 | 6.02 |
| **2068/069** | 931.30 | 7743.93 | 12.03 | 893.12 | 8769.94 | 10.18 |
| **2069/070** | 1090.56 | 7863.63 | 13.87 | 958.64 | 10031.58 | 9.56 |
| **Average** | 788.72 | 6324.78 | 12.43 | 749.85 | 9859.46 | 7.83 |
| **SD** | 249.85 | 1401.56 | 2.95 | 183.86 | 2040.39 | 2.34 |
| **CV** | 31.68 | 22.16 | 23.75 | 24.52 | 20.69 | 29.81 |

*Source: Annual Reports of EBL & HBL from 2065/066 to 2069/070*

**Figure: 4.9**

**Trend of Net Profit to Investment Ratio of EBL&HBL**

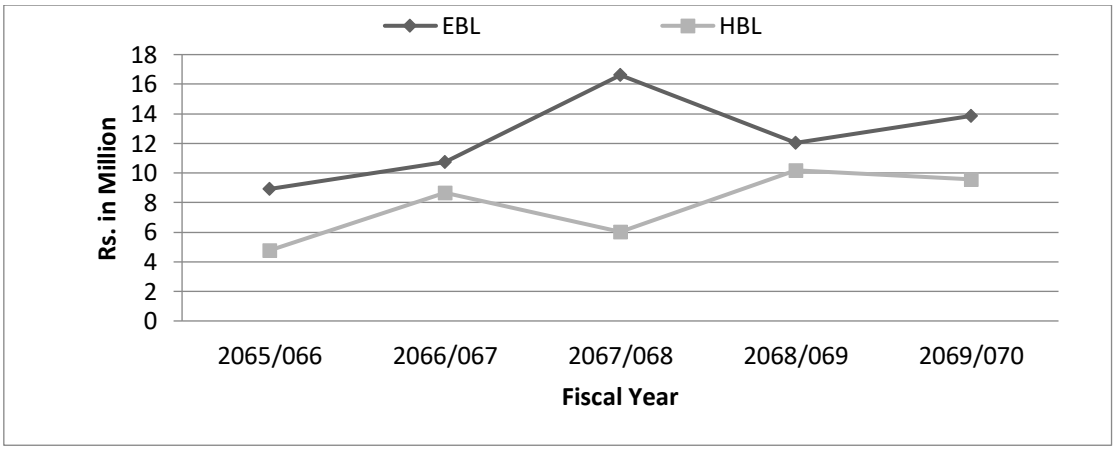



Table 4.8 & figure 4.9 shows that the net profit to investment ratios of EBL&HBL. The net profit to investment ratio of EBL is in fluctuating each year during the study period and the net profit to investment ratio of HBL is in also fluctuating in each fiscal year than previous year. The highest values of net profit to investment ratio of EBL&HBL are 16.61% & 10.18% in the fiscal year 2067/068&2068/069 respectively and that of lowest is 8.92% & Rs. 4.77% in the fiscal year 2065/066. The net profit to

investment ratio of EBL is higher than HBL in each fiscal year during the study period.

An average net profit to investment ratio of EBL is 12.43% and HBL is 9.83%, standard deviation is 2.95% & 2.34% and CV has 23.75% & 29.81% of EBL&HBL respectively during the study period. It shows that the net profit to investment ratio of HBL is more variable than EBL.

## 4.5 Net Profit to Deposit Ratio

Depositsas the amount deposited in a current, saving or fixed accounts of a bank or financial institution. Thedeposits are subject to withdrawals by means of cheque on a short notice by customers. Deposits are the liabilities of banks. Net profit to deposit ratio is the percentages of net profit in total deposit.

**Table: 4.9**

**Net Profit to Total Deposit Ratio**

**(Rs. In Millions)**

| Year (B.S) | EBL | | | HBL | | |
|---|---|---|---|---|---|---|
| | Net Profit | Deposit | Ratio % | Net Profit | Deposit | Ratio % |
| **2065/066** | 451.22 | 23976.29 | 1.88 | 635.87 | 31842.79 | 2.00 |
| **2066/067** | 638.73 | 33322.95 | 1.92 | 752.83 | 34682.3 | 2.17 |
| **2067/068** | 831.77 | 36932.31 | 2.25 | 508.8 | 37611.2 | 1.35 |
| **2068/069** | 931.3 | 41127.91 | 2.26 | 893.12 | 40920.63 | 2.18 |
| **2069/070** | 1090.56 | 50006.1 | 2.18 | 958.64 | 47730.99 | 2.01 |
| **Average** | 788.72 | 37073.11 | 2.10 | 749.85 | 38557.58 | 1.94 |
| **SD** | 249.85 | 9608.77 | 0.19 | 183.86 | 6138.76 | 0.34 |
| **CV** | 31.68 | 25.92 | 8.84 | 24.52 | 15.92 | 17.55 |

*Source: Annual Reports of EBL & HBL from 2065/066 to 2069/070*

**Figure: 4.10**

**Trend of Net Profit to Deposit Ratio of EBL&HBL**

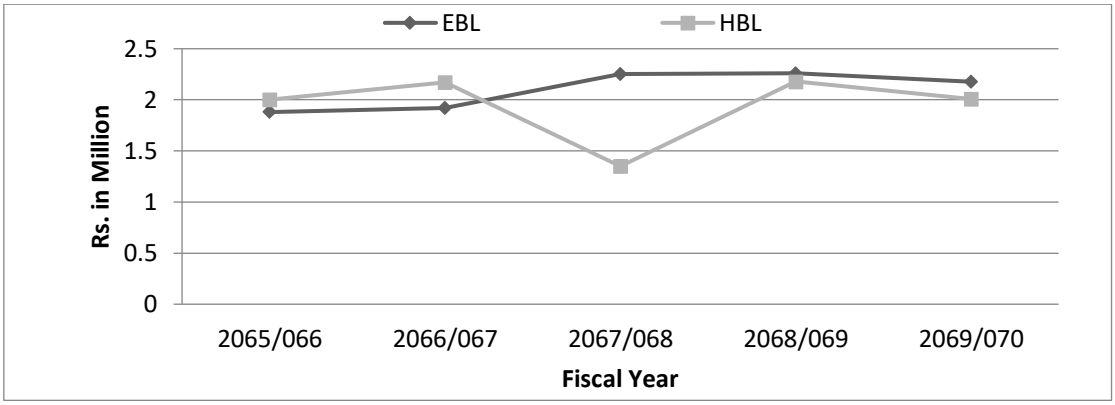



Table 4.9 & figure 4.10 shows that the net profit to deposit ratios of EBL&HBL. The net profit to deposit ratio of EBL is in increasing each year than previous year during the study period except the fiscal year 2069/070 and the net profit to deposit ratio of HBL is in also fluctuating in each fiscal year than previous year. The highest values of net profit to deposit ratio of EBL&HBL are 2.26% & 2.18% in the fiscal year 2068/069 respectively and that of lowest are 1.88% & Rs. 1.35% in the fiscal year 2065/066&2067/068 respectively.

An average net profit to deposit ratio of EBL is 2.18% and HBL is 2.01%, standard deviation is 0.91% & 0.34% and CV has 8.84% & 17.55% of EBL&HBL respectively during the study period. It shows that the net profit to deposit ratio of HBL is more variable than EBL.

## 4.6 Net Profit Margin

Net profit margin indicates margin of compensation left to the owners for providingtheir capital, after all expenses have been met. It helps in determining the efficiencywith which the affairs of the business are being managed. A net profit margin wouldenable the firm to withstand adverse economic conditions and low margin will haveopposite implications.

**Table: 4.10**

**Net Profit Margin Ratio**

**(Rs. In Millions)**

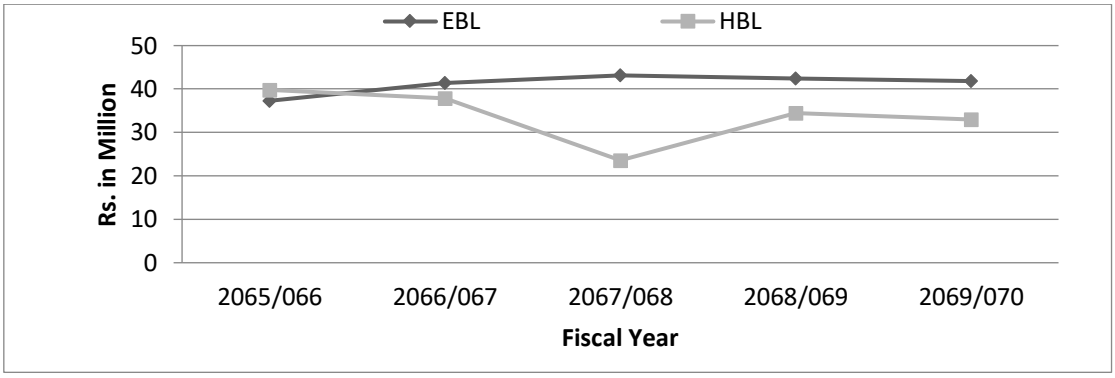
| Year (B.S) | EBL | | | HBL | | |
|---|---|---|---|---|---|---|
| | **Net Profit** | **Income** | **Ratio %** | **Net Profit** | **Income** | **Ratio %** |
| **2065/066** | 451.22 | 1209.89 | 37.29 | 635.87 | 1597.50 | 39.80 |
| **2066/067** | 638.73 | 1544.97 | 41.34 | 752.83 | 1988.05 | 37.87 |
| **2067/068** | 831.77 | 1927.98 | 43.14 | 508.8 | 2157.96 | 23.58 |
| **2068/069** | 931.3 | 2192.94 | 42.47 | 893.12 | 2586.74 | 34.53 |
| **2069/070** | 1090.56 | 2609.74 | 41.79 | 958.64 | 2911.21 | 32.93 |
| **Average** | 788.72 | 1897.10 | 41.21 | 749.85 | 2248.29 | 33.74 |
| **SD** | 249.85 | 546.03 | 2.29 | 183.86 | 513.18 | 6.29 |
| **CV** | 31.68 | 28.78 | 5.56 | 24.52 | 22.83 | 18.65 |

*Source: Annual Reports of EBL & HBL from 2065/066 to 2069/070*

Table 4.10 & figure 4.11 shows that the net profit margin ratios of EBL&HBL. The net profit margin ratio of EBL is in increasing up to the fiscal year 2067/068 after that it is decreasing than previous year and the net profit margin ratio of HBL is in increasing up to 2067/068 after that it is fluctuating in each fiscal year than previous year. The highest values of net profit margin ratio of EBL&HBL are 43.14% & 34.53% in the fiscal year 2067/068&2068/069 respectively and that of lowest are 37.29% & Rs. 23.58% in the fiscal year 2065/066&2067/068 respectively

**Figure: 4.11**

**Trend of Net Profit Margin Ratio of EBL&HBL**




An average net profit margin ratio of EBL is 41.21% and HBL is 33.74%, standard deviation is 2.29% & 6.29% and CV has 5.56% & 18.65% of EBL&HBL respectively during the study period. It shows that the net profit margin ratio of HBL is more variable than EBL.

## 4.7 Return on Loan & Advance Ratio

**Table: 4.11**

**Return on Loan & Advance Ratios**

**(Rs. In Millions)**

| Year (B.S) | EBL | | | HBL | | |
|---|---|---|---|---|---|---|
| | Net Profit | Loan & Advance | Ratio % | Net Profit | Loan & Advance | Ratio % |
| **2065/066** | 451.22 | 18339.08 | 2.46 | 635.87 | 19497.52 | 3.26 |
| **2066/067** | 638.73 | 23884.67 | 2.67 | 752.83 | 24793.15 | 3.04 |
| **2067/068** | 831.77 | 27556.36 | 3.02 | 508.8 | 27980.63 | 1.82 |
| **2068/069** | 931.3 | 31057.69 | 3.00 | 893.12 | 31566.98 | 2.83 |
| **2069/070** | 1090.56 | 35910.97 | 3.04 | 958.64 | 34965.43 | 2.74 |
| **Average** | 788.72 | 27349.75 | 2.84 | 749.85 | 27760.74 | 2.74 |
| **SD** | 249.85 | 6713.51 | 0.26 | 183.86 | 5990.22 | 0.55 |
| **CV** | 31.68 | 24.55 | 9.11 | 24.52 | 21.58 | 20.15 |

*Source: Annual Reports of EBL & HBL from 2065/066 to 2069/070*

**Figure: 4.12**

**Trend of Return on Loan & Advance Ratios of EBL&HBL**

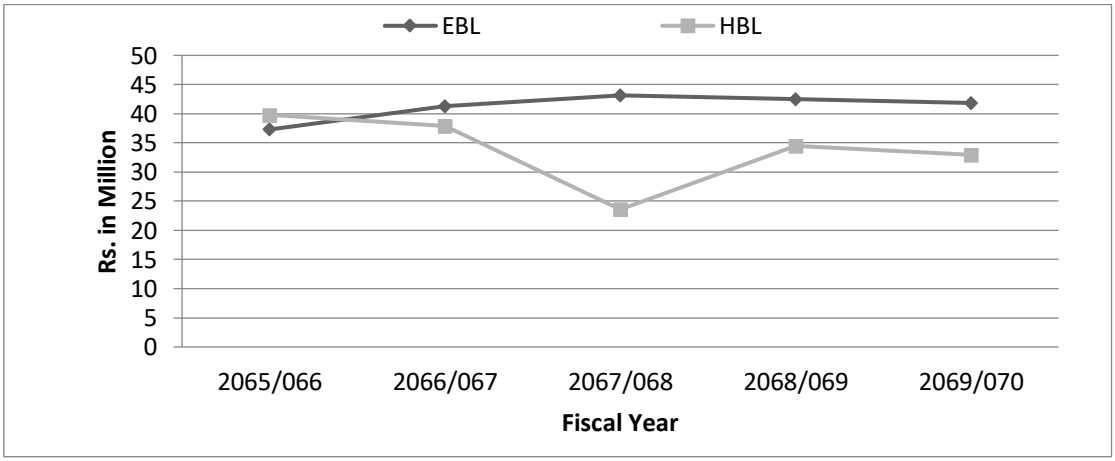



Table 4.11 & figure 4.12 shows that the return on loan & advance ratio of EBL&HBL. The return on loan & advance ratio of EBL is in increasing trend during the study period and the return on loan & advance ratio of HBL is in fluctuating in each fiscal year than previous year. The highest values of return on loan & advance ratio of EBL&HBL are 3.04% & 3.26% in the fiscal year 2069/070&2065/066respectively

and that of lowest are 2.46% & 1.82% in the fiscal year 2065/066&2067/068 respectively.

An average return on loan & advance ratio of EBL is 2.84% and HBL is 2.74%, standard deviation is 0.26% & 0.55% and CV has 9.11% & 20.15% of EBL&HBL respectively during the study period. It shows that the return on loan & advance ratio of HBL is more variable than EBL.

## 4.8 Correlation Analysis

### 4.8.1 Correlation between Total Investment & Net Profit

Correlation coefficient between total Investment and net profit measures the degree of relationship between total Investment and net profit. For the analysis of coefficient correlation, investment is an independent variable ($X_3$)while net profit is dependent variable ($X_1$).

**Table: 4.12**

**Correlation Coefficient between Investment & Net Profit**

| Evaluation Criteria | | | | | | |
|---|---|---|---|---|---|---|
| Name | r | $r^2$ | P.E | 6 P.E | Remarks | Relationship |
| EBL | 0.7808 | 0.6096 | 0.1178 | 0.7066 | Significant | Moderate Degree of Positive Correlation |
| HBL | -0.1195 | 0.0143 | 0.4408 | 2.6449 | Insignificant | Low Degree of Negative Correlation |

*Source: Appendix II& V*

Table 4.12 describes the relationship between investment and net profit during the period of study. The coefficient of correlation (r) between investment and net profit of EBL&HBL are 0.7808 & -0.1195 respectively. This figure shows the high degree of positive association between investment & net profit of EBL and low degree of negative correlation between investment & net profit of HBL. It means investment

and net profit of EBL move towards same direction and investment and net profit of HBL move towards opposite direction.

The coefficient of determination ($r^2$) of EBL&HBL are 0.6096 & 0.0143, it shows that 60.96% & 1.43% of the variation in the dependent variable (i.e. net profit) has been explained by the independent variable (i.e. total investment).

The value of P.E of EBL is 0.1178 and 6P.E is 0.7066, which shows the correlation coefficient (r) is greater than six times of probable error (6.P.E). Therefore,true value of 'r' is significant. It reveals that there is significant relationship between the investment and net profit. It shows that by increasing the investment, the amount of net profit can be increased. Similarly, the value of P.E of HBL is 0.0048 and 6P.E is 2.6449, which shows the correlation coefficient (r) is less than six times of probable error (6.P.E). Therefore,true value of 'r' is insignificant. It reveals that there is insignificant relationship between the investment and net profit.

### 4.8.2 Correlation between Deposit & Net Profit

Correlation coefficient between total deposit and net profit measures the degree of relationship between total Deposit and net profit. For the analysis of coefficient correlation, Deposit is an independent variable ($X_2$)while net profit is dependent variable ($X_1$).

**Table: 4.13**

**Correlation Coefficient between Deposit & Net Profit**

| Evaluation Criteria | | | | | | |
|---|---|---|---|---|---|---|
| Name | r | $r^2$ | P.E | 6 P.E | Remarks | Relationship |
| EBL | 0.9850 | 0.9701 | 0.009 | 0.0541 | Significant | High Degree of Positive Correlation |
| HBL | 0.7167 | 0.5137 | 0.1467 | 0.8801 | Insignificant | Moderate Degree of Positive Correlation |

*Source: Appendix I& IV*

Table 4.13 describes the relationship between deposit and net profit during the period of study. The coefficient of correlation (r) between deposit and net profit of EBL&HBL are 0.9850 & 0.7167 respectively. This figure shows the high degree of positive association between investment & net profit of EBL and moderate degree of positive correlation between deposit & net profit of HBL. It means deposit and net profit of EBL&HBL move towards same direction.

The coefficient of determination ($r^2$) of EBL&HBL are 0.9701 & 0.5137, it shows that 97.01% & 51.37% of the variation in the dependent variable (i.e. net profit) has been explained by the independent variable (i.e. total deposit).

The value of P.E of EBL is 0.009 and 6P.E is 0.0541, which shows the correlation coefficient (r) is greater than six times of probable error (6.P.E). Therefore,true value of 'r' is significant. It reveals that there is significant relationship between the deposit and net profit. Similarly, the value of P.E of HBL is 0.1467 and 6P.E is 0.8801, which shows the correlation coefficient (r) is less than six times of probable error (6.P.E). Therefore,true value of 'r' is insignificant. It reveals that there is insignificant relationship between the deposit and net profit.

### 4.8.3 Correlation between Deposit & Investment

Correlation coefficient between total deposit and investment measures the degree of relationship between total Deposit and investment. For the analysis of coefficient correlation, Deposit is an independent variable ($X_2$)while investment is dependent variable ($X_3$).

**Table: 4.14**

**Correlation Coefficient between Deposit & Investment**

| Evaluation Criteria | | | | | | |
|---|---|---|---|---|---|---|
| Name | r | $r^2$ | P.E | 6 P.E | Remarks | Relationship |
| EBL | 0.8135 | 0.6618 | 0.1020 | 0.6121 | Significant | High Degree of Positive Correlation |
| HBL | -0.3708 | 0.1375 | 0.2602 | 1.561 | Insignificant | Low Degree of Negative Correlation |

*Source: Appendix III& VI*

Table 4.14 describes the relationship between deposit and investment during the period of study. The coefficient of correlation (r) between deposit and investment of EBL&HBL are 0.8135 & -0.3708 respectively. This figure shows the high degree of positive association between deposit & investment of EBL and low degree of negative correlation between deposit & investment of HBL. It means deposit and investment of EBL move towards same direction and HBL move towards opposite direction.

The coefficient of determination ($r^2$) of EBL&HBL are 0.6618 & 0.1375, it shows that 66.18% & 13.75% of the variation in the dependent variable (i.e. investment) has been explained by the independent variable (i.e. total deposit).

The value of P.E of EBL is 0.1020 and 6P.E is 0.6121, which shows the correlation coefficient (r) is greater than six times of probable error (6.P.E). Therefore,true value of 'r' is significant. It reveals that there is significant relationship between the deposit and investment. Similarly, the value of P.E of HBL is 0.2602 and 6P.E is 1.568, which shows the correlation coefficient (r) is less than six times of probable error (6.P.E). Therefore,true value of 'r' is insignificant. It reveals that there is insignificant relationship between the deposit and net investment.

### 4.8.4 Multiple Correlations between Total Deposit, Total Investment & Net Profit

Correlation coefficient between total deposit, total investment and net profit measures the degree of relationship between total deposit, total investment & net profit. For the analysis of coefficient correlation, deposit and investment are independent variable while profit is dependent variable.

Let,

Dependent Variable ($X_1$) = Net Profit

Independent Variable ($X_2$) = Total Deposit

Independent Variable ($X_3$) = Total Investment

Now, Correlation coefficient between dependent variable ($X_1$) and joint effect of the independent variable ($X_2$) & ($X_3$) on ($X_1$);

$$X_{1.23} = \sqrt{\frac{r_{12}^2 + r_{13}^2 - 2r_{12}\ r_{23}\ r_{13}}{1 - r_{23}^2}}$$

**Table: 4.15**

**Multiple Correlation Coefficients between Deposit, Investment & Net Profit**

| Evaluation Criteria | | | | | | |
|---|---|---|---|---|---|---|
| Name | r | $r^2$ | P.E | 6 P.E | Remarks | Relationship |
| EBL | 0.9854 | 0.9710 | 0.0087 | 0.0525 | Significant | High Degree of Positive Correlation |
| HBL | 0.7339 | 0.5386 | 0.1392 | 0.8352 | Insignificant | Moderate Degree of Positive Correlation |

*Source: Appendix VII & VIII*

Table 4.15 describes the relationship between deposit, investment & net profit during the period of study. The coefficient of correlation (r) between deposit, investment & net profit of EBL&HBL are 0.9854 & 0.7339 respectively. This figure shows the high degree of positive association between deposit, investment &net profit of EBL and

moderate of negative correlation between deposit, investment & net profit of HBL. It means deposit, investment & net profit of EBL&HBL move towards same direction.

The coefficient of determination ($r^2$) of EBL&HBL are 0.9710 & 0.5386, it shows that 97.10% & 53.86% of the variation in the dependent variable (i.e. net profit) has been explained by the independent variable (i.e. investment & deposit).

The value of P.E of EBL is 0.0087 and 6P.E is 0.0525, which shows the correlation coefficient (r) is greater than six times of probable error (6.P.E). Therefore,true value of 'r' is significant. It reveals that there is significant relationship between the deposit, investment & net profit. Similarly, the value of P.E of HBL is 0.1392 and 6P.E is 0.8352, which shows the correlation coefficient (r) is less than six times of probable error (6.P.E). Therefore,true value of 'r' is insignificant. It reveals that there is insignificant relationship between the deposit investment & net profit.

## 4.9 Major Findings

I. An average increasing rate of deposit of EBL has 20.69% and HBL has 10.70%, standard deviation has 13.16% & 3.97 % and CV has 63.61% & 37.06% of EBL&HBL respectively. The increasing rate of deposit of EBL is higher than HBL but the consistency of increasing rate of HBL is higher than EBL.

II. The net investment of HBL is higher than the net investment of EBL in each fiscal year. The average increasing rate of investment of EBL has 14.31% and HBL has decreasing rate of 4.88%, standard deviation has 31.58% & 21.14% and CV has 220.62% & 433.11% of EBL&HBL respectively during the study period.

III. Total income of EBL is more variable than HBL. An average total income of EBL is Rs.1897.10 and HBL is Rs.2248.29, standard deviation is Rs. 546.03 & Rs. 513.18 and CV 28.78% & 22.83% of EBL&HBL respectively during the study period.

IV. The average net profit of EBL is Rs.788.72 and HBL is Rs.774.85 million, standard deviation is Rs. 249.85 & Rs. 183.86 and CV has 31.68% & 24.52% of EBL&HBL respectively during the study period. The net profit of EBL is more variable than HBL.

V. An average net profit to investment ratio of EBL is 12.43% and HBL is 9.83%, standard deviation is 2.95% & 2.34% and CV has 23.75% & 29.81% of EBL&HBL respectively during the study period. The net profit to investment ratio of HBL is more variable than EBL.

VI. Net profit to deposit ratio of HBL is more variable than EBL. An average net profit to deposit ratio of EBL is 2.18% and HBL is 2.01%, standard deviation is 0.91% & 0.34% and CV has 8.84% & 17.55% of EBL&HBL respectively during the study period.

VII. The average net profit margin ratio of EBL is 41.21% and HBL is 33.74%, standard deviation is 2.29% & 6.29% and CV has 5.56% & 18.65% of EBL&HBL respectively during the study period. The net profit margin ratio of HBL is more variable than EBL.

VIII. An average return on loan & advance ratio of EBL is 2.84% and HBL is 2.74%, standard deviation is 0.26% & 0.55% and CV has 9.11% & 20.15% of EBL&HBL respectively during the study period. The return on loan & advance ratio of HBL is more variable than EBL.

IX. The coefficient of correlation (r) between investment and net profit of EBL&HBL are 0.7808 & -0.1195 respectively. There is significant relationship between the investment and net profit of EBL and insignificant relationship between the investment and net profit of HBL.

X. The coefficient of correlation (r) between deposit and net profit of EBL&HBL are 0.9850 & 0.7167 respectively. There is significant relationship between the deposit and net profit of EBL and insignificant relationship between the deposit and net profit of HBL.

XI. The coefficient of correlation (r) between deposit and investment of EBL&HBL are 0.8135 & -0.3708 respectively. There is significant relationship between the deposit and investment of EBL and there is insignificant relationship between the deposit and investment of HBL.

XII. The coefficient of correlation (r) between deposit, investment & net profit of EBL&HBL are 0.9854 & 0.7339 respectively. There is significant relationship between the deposit, investment & net profit of EBL and insignificant relationship between the deposit investment & net profit of HBL.

# CHAPTER – V

# SUMMARY, CONCLUSION &REOCMMENDATIONS

In this chapter, summary and conclusion of the research as well asrecommendations arepresented separately. After summarizing and concluding theresearch, recommendationsare suggested for the effective utilization of fund to generate high profit. Theresearcher has tried to give suggestions and recommendations to the sample banks based on this research.

## 5.1 Summary

Banks today are under great pressure to meet the objectives of their stockholders,employees, depositorsand borrowing customers, while somehow keepinggovernment regulators satisfied that the bank's policies, loans, and investments aresound. The majority of the needs of the stakeholders are related with the investment and profitabilityof the banks. Thus, the foremost objective of the banks is the profit maximization. Asother types of business entity, commercial banks are also inspired by the profit. In thisage of great competition, only the profitable banks can sustain for a long time.Financial policies of any concern are directly or indirectly influenced by its investment and profitability. Thus, it is a base for a bank's survival, growth and expansion.

Deposit, Investment and Profitability analysis is one of the key tools for financial decision and assist in makingplan before using sophisticated forecasting and budgeting procedure. The value of thisapproach is the quantitative relation, which can be used to diagnose strengths andweakness in a bank performance. Such analysis is considerable things for the bank'scommon stock holders, investors, bondholders and others.The objective of the study is to find out and analyze the impact of deposit & investment on profitability Position of EBL&HBL.

## 5.2 Conclusion

It can be concluded from the observance and analysis of above data theEBL&HBLshould move as per the direction given by the central bank. Bankshould have optimum policy to collect the deposit in various accounts. Deposit isthe major organ of commercial banks to live in the industry. Higher the deposithigher will be the chance of the mobilization of working fund and profit there to.Bank should invest in different sector very carefully, while advancing loanbecause loan is the blood of commercial banks for survival. If commercial banksdo not apply sound investment policy it will be in great trouble in future to collectit in time. Hence the possibility of bankruptcy there too. Bank should invest theirfund in various portfolios after the deep study of the project to be safe from beingbankruptcy. If banks concentrate the investment in few organizations, there is highchance of default risk. Diversifications are indeed need to all the business housesbut it has seen immense importance to commercial banks. Diversification ofinvestment is very much important to commercial bank than other business housesbecause banks use the money to other people for the benefit of its own. And lastlyis can be said that banks are important for the nation. It helps in the capitalformation to the nations, which is the most important element for the economicgrowth of the country.

## 5.3 Recommendations

Suggestionsare the output of the whole study. It helps to take corrective action in theactivities in future. Different analyses are done to arrive at this step. On the basis of aboveanalysis and findings of the study following suggestions and recommendations may bereferred to overcome weakness, inefficiency to deposit, investment andprofitability and for correctiveaction for the concern authorities and other researchers.

I. In the light of growth competition in the banking sectors, the business of the banks shouldbe customer oriented. It should focus not only towards big clients but also towards smallclients. They should treat every client equally. They should bring different schemes to focusthe customers like, increase interest rate, bank credit policies,bank loan insurance policies,evening counters, social responsibilities etc.

II. The bank should initiate a good step for maintaining the increasing trend of deposit collection as well as mobilization of it. The bank should launch several customer-oriented programs to raise the deposits in satisfied rate. For this purpose, the foremost step to be take is the bank can increase the interest rate on deposit and further it can launch several latest technologies in the banking field like Credit Cards, e-banking etc.

III. The Bank should find out new areas/sectors for investing collecteddeposits from which it can generate maximum profit. In context of presentscenario of the country, health and education can be considered as the bestsector for investment, which are more secure and can generate a reasonableprofit.

IV. Majority of commercial banks have been found to be profit oriented ignoring their socialresponsibility, which is not a proper strategy to sustain in long run. So, all the banks aresuggested to render their serves even in the rural areas providing special loans to thedeprived and priority sectors, which might further intensify the goodwill of the banks infuture.

V. Ethics of staff impresses the customers and create interest to improve theperformance of the company. Hence, full co-peration from staff must beobtained. Customers satisfactions are affected by the services provided by the bank, which will effect the collection of deposits. The bank should alsoprovide the training programmed to the employees for the professionaldevelopment.

VI. The bankshave to create the conductive environment for the revival of sickinvestment and has to analyze the necessity of Mobilizing additional resourceto revive the overall banking sector.

VII. Further studies can be conducted by using others organization as sample, by using other sophisticated tools and techniques, by using other aspects as well.

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## Appendix I

## Calculation for Mean value & Correlation between Net Profit & Deposit of EBL

| Year | Net Profit ($X_1$) | Deposit ($X_2$) | $x_1=X_1-\bar{x}_1$ | $x_2=X_2-\bar{x}_2$ | $x_1 . x_2$ | $x_1^2$ | $x_2^2$ |
|---|---|---|---|---|---|---|---|
| 2065/066 | 451.22 | 23976.29 | -337.50 | -13096.82 | 4420125.04 | 113903.55 | 171526746.50 |
| 2066/067 | 638.73 | 33322.95 | -149.99 | -3750.16 | 562471.80 | 22495.80 | 14063715.03 |
| 2067/068 | 831.77 | 36932.31 | 43.05 | -140.80 | -6062.09 | 1853.65 | 19825.20 |
| 2068/069 | 931.30 | 41127.91 | 142.58 | 4054.80 | 578149.32 | 20330.20 | 16441386.82 |
| 2069/070 | 1090.56 | 50006.1 | 301.84 | 12932.99 | 3903744.83 | 91109.80 | 167262178.61 |
| **$N_1 = 5$** **$N_2 = 5$** | **$\sum X_1 =$ 3943.58** | **$\sum X_2 =$ 185356.56** | **0.00** | **0.00** | **$\sum x_1.x_2 =$ 9458428.89** | **$\sum x_1^2 =$ 249692.99** | **$\sum x_2^2$ 369313852.16** |

For Net Profit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{3943.58}{5} = 788.72$$

For Deposit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{185356.56}{5} = 37073.11$$

Correlation between Net Profit & Deposit,

$$(r_{12}) = \frac{\sum x_1 x_2}{\sqrt{\sum {x_1}^2 \sum {x_2}^2}}$$

$$= \frac{9458428.89}{\sqrt{249692.99 \times 369313852.16}} = 0.9850$$

$$r^2 = 0.9850^2 = 0.9701$$

For Probable Error,

$$PE = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.9701}{\sqrt{5}}$$

= 0.009 or, 0.09%

6PE = 6 × 0.09 = 0.0541

## Appendix II

## Calculation for Mean value & Correlation between Net Profit & Investment of EBL

| Year | Net Profit ($X_1$) | Investment ($X_3$) | $x_1 = X_1 - \bar{x}_1$ | $x_2 = X_3 - X_3$ | $x_1 . x_2$ | $x_1^2$ | $x_2^2$ |
|---|---|---|---|---|---|---|---|
| 2065/066 | 451.22 | 5059.56 | -337.50 | -1265.22 | 427007.36 | 113903.55 | 1600786.71 |
| 2066/067 | 638.73 | 5948.48 | -149.99 | -376.30 | 56440.03 | 22495.80 | 141603.20 |
| 2067/068 | 831.77 | 5008.31 | 43.05 | -1316.47 | -56679.39 | 1853.65 | 1733098.53 |
| 2068/069 | 931.30 | 7743.93 | 142.58 | 1419.15 | 202347.80 | 20330.20 | 2013981.05 |
| 2069/070 | 1090.56 | 7863.63 | 301.84 | 1538.85 | 464492.04 | 91109.80 | 2368053.17 |
| **$N_1 = 5$** **$N_2 = 5$** | **$\sum X_1 =$ 3943.58** | **$\sum X_2 =$ 31623.91** | **0.00** | **0.00** | **$\sum x_1.x_2 =$ 9458428.89** | **$\sum x_1^2 =$ 249692.99** | **$\sum x_2^2$ 7857522.64** |

For Net Profit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{3943.58}{5} = 788.72$$

For Investment,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{31623.91}{5} = 6324.78$$

Correlation between Net Profit & Investment,

$$(r_{13}) = \frac{\sum x_1 x_2}{\sqrt{\sum {x_1}^2 \sum {x_2}^2}}$$

$$= \frac{1093607.84}{\sqrt{249692.99 \times 7857522.64}} = 0.7808$$

$r^2 = 0.7808^2 = 0.6096$

For Probable Error,

$$PE = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.6096}{\sqrt{5}}$$

= 0.1178 or, 11.78%

6PE = 6 × 0.1178 = 0.7066

## Appendix III

## Calculation for Mean value & Correlation between Deposit & Investment of EBL

| Year | Deposit ($X_2$) | Investment ($X_3$) | $x_1 = X_1 - \bar{x}_1$ | $x_2 = X_3 - X_3$ | $x_1 . x_2$ | $x_1^2$ | $x_2^2$ |
|---|---|---|---|---|---|---|---|
| 2065/066 | 23976.29 | 5059.56 | -13096.82 | -1265.22 | 16570387.32 | 171526746.50 | 1600786.71 |
| 2066/067 | 33322.95 | 5948.48 | -3750.16 | -376.30 | 1411193.46 | 14063715.03 | 141603.20 |
| 2067/068 | 36932.31 | 5008.31 | -140.80 | -1316.47 | 185361.89 | 19825.20 | 1733098.53 |
| 2068/069 | 41127.91 | 7743.93 | 4054.80 | 1419.15 | 5754358.47 | 16441386.82 | 2013981.05 |
| 2069/070 | 50006.1 | 7863.63 | 12932.99 | 1538.85 | 19901902.72 | 167262178.61 | 2368053.17 |
| **$N_1 = 5$ $N_2 = 5$** | **$\sum X_1 =$ 185363.56** | **$\sum X_2 =$ 31623.91** | **0.00** | **0.00** | **$\sum x_1.x_2 =$ 43823203.87** | **$\sum x_1^2 =$ 369313852.16** | **$\sum x_2^2$ 7857522.64** |

For Deposit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{185363.56}{5} = 37073.22$$

For Investment,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{31623.91}{5} = 6324.78$$

Correlation between Deposit & Investment,

$$(r_{13}) = \frac{\sum x_1 x_2}{\sqrt{\sum {x_1}^2 \sum {x_2}^2}}$$

$$= \frac{43823203.87}{\sqrt{369313852.16 \times 7857522.64}} = 0.8135$$

$r^2 = 0.8135^2 = 0.6618$

For Probable Error,

$$PE = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.6618}{\sqrt{5}}$$

= 0.1020 or, 10.20%

6PE = 6 × 0.1020 = 0.6121

## Appendix IV

### Calculation for Mean value & Correlation between Net Profit & Deposit of HBL

| Year | Net Profit ($X_1$) | Deposit ($X_2$) | $x_1 = X_1 - \bar{x}_1$ | $x_2 = X_2 - \bar{x}_2$ | $x_1 . x_2$ | $x_1^2$ | $x_2^2$ |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2065/066 | 635.87 | 31842.79 | -113.98 | -6714.79 | 765365.42 | 12991.90 | 45088431.60 |
| 2066/067 | 752.83 | 34682.3 | 2.98 | -3875.28 | -11540.59 | 8.87 | 15017810.58 |
| 2067/068 | 508.8 | 37611.2 | -241.05 | -946.38 | 228127.27 | 58106.07 | 895638.89 |
| 2068/069 | 893.12 | 40920.63 | 143.27 | 2363.05 | 338549.16 | 20525.72 | 5583995.85 |
| 2069/070 | 958.64 | 47730.99 | 208.79 | 9173.41 | 1915297.51 | 43592.43 | 84151414.33 |
| **$N_1 = 5$** **$N_2 = 5$** | **$\sum X_1 =$ 3749.26** | **$\sum X_2 =$ 192787.91** | **0.00** | **0.00** | **$\sum x_1.x_2 =$ 3235798.79** | **$\sum x_1^2 =$ 135224.98** | **$\sum x_2^2$ 150737291.26** |

For Net Profit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{3749.26}{5} = 749.85$$

For Deposit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{192787.91}{5} = 38557.58$$

Correlation between Net Profit & Deposit,

$$(r_{12}) = \frac{\sum x_1 x_2}{\sqrt{\sum {x_1}^2 \sum {x_2}^2}}$$

$$= \frac{3235798.78}{\sqrt{135224.98 \times 150737291.26}} = 0.7167$$

$$r^2 = 0.7167^2 = 0.5137$$

For Probable Error,

$$PE = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.5137}{\sqrt{5}}$$

$$= 0.1467 \text{ or, } 14.67\%$$

6PE = 6 × 0.1467 = 0.8801

## Appendix V

## Calculation for Mean value & Correlation between Net Profit & Investment of HBL

| Year | Net Profit ($X_1$) | Investment ($X_3$) | $x_1=X_1-\bar{x}_1$ | $x_2=X_3-X_3$ | $x_1 . x_2$ | $x_1^2$ | $x_2^2$ |
|---|---|---|---|---|---|---|---|
| 2065/066 | 635.87 | 13340.18 | -113.98 | 3480.72 | -396739.43 | 12991.90 | 12115411.72 |
| 2066/067 | 752.83 | 8710.69 | 2.98 | -1148.77 | -3421.04 | 8.87 | 1319672.51 |
| 2067/068 | 508.8 | 8444.91 | -241.05 | -1414.55 | 340980.11 | 58106.07 | 2000951.70 |
| 2068/069 | 893.12 | 8769.94 | 143.27 | -1089.52 | -156093.35 | 20525.72 | 1187053.83 |
| 2069/070 | 958.64 | 10031.58 | 208.79 | 172.12 | 35936.59 | 43592.43 | 29625.29 |
| **$N_1 = 5$ $N_2 = 5$** | **$\sum X_1$ = 3749.26** | **$\sum X_2$ = 49297.30** | **0.00** | **0.00** | **$\sum x_1.x_2$ = -179337.12** | **$\sum x_1^2$= 135224.98** | **$\sum x_2^2$ 16652715.06** |

For Net Profit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{3749.26}{5} = 749.85$$

For Investment,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{49297.30}{5} = 9859.46$$

Correlation between Net Profit & Investment,

$$(r_{13}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$

$$= \frac{-179337.12}{\sqrt{135224.98 \times 16652715.06}} = -0.1195$$

$r^2 = -0.1195^2 = 0.0143$

For Probable Error,

$$PE = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.0143}{\sqrt{5}}$$

= 0.4408 or, 44.08%

6PE = 6 × 0.4408 = 2.6449

## Appendix VI

## Calculation for Mean value & Correlation between Deposit & Investment of HBL

| Year | Deposit ($X_2$) | Investment ($X_3$) | $x_1 = X_1 - \bar{x}_1$ | $x_2 = X_3 - X_3$ | $x_1 . x_2$ | $x_1^2$ | $x_2^2$ |
|---|---|---|---|---|---|---|---|
| 2065/066 | 31842.79 | 13340.18 | -6714.79 | 3480.72 | -23372310.81 | 45088431.60 | 12115411.72 |
| 2066/067 | 34682.3 | 8710.69 | -3875.28 | -1148.77 | 4451807.70 | 15017810.58 | 1319672.51 |
| 2067/068 | 37611.2 | 8444.91 | -946.38 | -1414.55 | 1338704.66 | 895638.89 | 2000951.70 |
| 2068/069 | 40920.63 | 8769.94 | 2363.05 | -1089.52 | -2574588.06 | 5583995.85 | 1187053.83 |
| 2069/070 | 47730.99 | 10031.58 | 9173.41 | 172.12 | 1578926.98 | 84151414.33 | 29625.29 |
| **$N_1 = 5$ $N_2 = 5$** | **$\sum X_1$ = 192787.91** | **$\sum X_2$ = 49297.30** | **0.00** | **0.00** | **$\sum x_1.x_2$ = -18577459.52** | **$\sum x_1^2$= 150737291.26** | **$\sum x_2^2$ 16652715.06** |

For Deposit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{192787.91}{5} = 38557.58$$

For Investment,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{49297.30}{5} = 9859.46$$

Correlation between Deposit & Investment,

$$(r_{13}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$

$$= \frac{18577459.52}{\sqrt{150737291.26 \times 16652715.06}} = -0.3708$$

$$r^2 = -0.3708^2 = 0.1375$$

For Probable Error,

$$PE = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.1375}{\sqrt{5}}$$

$$= 0.2602 \text{ or, } 26.02\%$$

$$6PE = 6 \times 0.2602 = 1.561$$

## Appendix VII

## Multiple Correlations between Total Deposit, Total Investment & Net Profit of EBL

$$X_{1.23} = \sqrt{\frac{r_{12}^2 + r_{13}^2 - 2 r_{12}\, r_{23}\, r_{13}}{1 - r_{23}^2}}$$

$$= \sqrt{\frac{0.9701 + 0.6096 - 2 \times 0.9850 \times 0.8135 \times 0.7808}{1 - 0.6618}}$$

$$= \sqrt{\frac{0.3284}{0.3382}} = 0.9854$$

$$r^2 = 0.9854^2 = 0.9710$$

For Probable Error,

$$PE = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.9710}{\sqrt{5}}$$

$$= 0.0087 \text{ or, } 0.08\%$$

$$6PE = 6 \times 0.0087 = 0.0525$$

## Appendix VIII

## Multiple Correlations between Total Deposit, Total Investment & Net Profit of HBL

$$X_{1.23} = \sqrt{\frac{r_{12}^2 + r_{13}^2 - 2r_{12}\ r_{23}\ r_{13}}{1 - r_{23}^2}}$$

$$= \sqrt{\frac{0.5137 + 0.0143 - 2 \times 0.7167 \times (-0.3708) \times (-0.1195)}{1 - 0.1375}}$$

$$= \sqrt{\frac{0.4645}{0.8625}} = 0.7339$$

$r^2 = 0.7339^2 = 0.5386$

For Probable Error,

$$PE = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.5386}{\sqrt{5}}$$

$$= 0.1392 \text{ or, } 13.92\%$$

$$6PE = 6 \times 0.1392 = 0.8352$$