

# CHAPTER – I

## INTRODUCTION

### 1.1 Background of the Study

Banking plays significant role in the economic development of a country. Bank is a resource for the economic development which maintains the self- confidence of various segments of society and extends credit to the people. So, commercial banks are those financial institutions mainly dealing with activities of the trade, commerce, industry and agriculture that seek regular financial and other helps from them for growing and flourishing, the objectives of commercial banks is to mobilized idle resources into the most profitable sector after collecting them from scattered sources commercial bank contributes significantly n the formation and mobilization of internal capital and development effort.

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

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

the history of the development of financial institutions in Nepal is not very long. Nepal bank Ltd. is the first commercial bank of Nepal, which was established in 1994 B.S. in non- government sector. The second commercial bank is Rastrya Banijya Bank Ltd., which was established in 2022 B.S. in 100% government ownership. But after studying to the origin of modern banking, we come to know that "Bank DE

RIALTO" which was established in 1587 A.D. is the first bank of the world in Venice, Italy.

Financial statements of a firm mainly include income statement balance sheet and cash flow statement they are the important sources of financial information regarding the firm's operations and its financial position. To analyze the financial performance strength and weakness and predicting reason of failure of the firm many types of tools and techniques are used.

The Nepalese economy has been passing through very difficult times over the last few years. New industries have not come up. Foreign aid which used to take the form of outright grants has mostly turned into loans that have to be repaid. Debt repayment is eating up an increasing position of the budget. The tourism sector has suffered serious blows. In such an adverse economic climate the banking sector has generally not only survived but has also been able to make reasonable operating profit.

Bank is a financial institution, which is established for depositing, withdrawing, borrowing and lending money. It is an intermediary accepting deposits and granting loans offers the widest menu of services of any financial institution (Rose, 2002:2). Bank is an Institution which deals with money and credit. It accepts deposit from the public and mobilizes the fund to productive sectors. It also provides remittance facility to transfer money from one place to another. Generally a bank accepts deposit from business institutions and individuals, which is mobilized into productive sectors mainly business and consumer lending. Bank is, therefore known as a dealer of money. As present context bank is not only confined to accepting deposits and disbursing loan. In addition to this, a bank may be engaged in different types of functions such as remittance, discounting bills etc. "Indeed, many financial institutions-including security dealers, brokerage firms, mutual funds, and insurance companies are trying to be as similar as possible to banks in the services they offers" (Rose, 2002:2). A modern bank performs such a variety of functions that it is difficult to give a precise and general definition of a bank.

"The banking sector is largely responsible for collecting household saving in terms of different types of deposit and regulating it in the society by lending in different sectors of economy. By lending their resources in small scale industries under intensive banking program has enabled the banks to share in the economic growth of the economy" (Sheathe, 1992:32).

In Nepalese financial system, financial institutions are categorized in four classes viz. A, B, C and D according to bank and financial institution act 2063 (BAFIA, 2063). These financial institutions are engaging to collecting deposit and granting loans and advance as well. Lending is a major function of banks. Loan is the sum lent to other for certain time period with the agreement to charge interest on principal. The interest is charged calculating certain percentage on the principal. When money belonging to one is advanced to another to be used for certain time period, it is called loan. The basic objective of loan advancement is to earn interest as the reward for lending the sum for specific period.

Commercial banks are organized institution providing loans for the needed. The loan advancement is the main function of commercial banks. Similarly, interest on loan has become their main source of income. Banks do deposit accepting and lending business. Lending is a risky business. Loans are provided to earn interest. However, sometimes, it may be difficult even for the repayment of principal. In this situation, interest barring becomes fair awaited business to be dealt. To get rid of such situation there should be proper loan management in banks.

In context of Nepal, the history of banking sector has a rather more slow evolution. Even now, the banking system is still an evolutionary phase. Nepal Bank Ltd. is the first modern bank of Nepal. It is taken as the milestone of modern banking of the country. It was established in 1937 A.D (30<sup>th</sup> Kartik, 1994 B.S.). To issue national currencies and promote financial organizations Nepal Rastra Bank was established in 1956 A.D (14<sup>th</sup> Baishakh, 2013) under NRB Act 1955 as the central bank of Nepal. Similarly, Rastriya Banijya Bank was established in 1965 A.D. as the second commercial bank of Nepal. The financial shapes of these two commercial banks have a tremendous impact on the economy. That is the reason why these banks still exist in spite of their bad positions.

For more than two decades, no more banks have been established in the country. After declaring free economy and privatization policy, Nepal government encouraged the foreign banks for joint venture in Nepal. As a result, Nepal Arab Bank Ltd. (NABIL) was established in 2041 B.S. This is the first modern bank with latest banking technology. Then a lot of commercial banks have been opened in the country. Now, there are altogether 31 commercial banks are operating in the country.

Overall national development of any country depends upon the economic development of that country and economic development largely depends upon the financial infrastructure of that country. Therefore, the primary goal of any nation including Nepal is rapid economic development to promote the welfare of the people and the nation as well. Nepal being one of the least developed countries has been trying to embark upon the path of the economic development by economic growth rate and developing all sectors of economy. Nepal started economic development very late, only from early fifties of the 19<sup>th</sup> century. The agriculture based economy, vast mountainous landforms, political instabilities, landlocked situation and poor resource mobilization, which have slowed down the pace of development.

Commercial banks are major financial institution, which occupy quite an important place in the framework of every economy. Commercial banks render numerous services to their customer in view of facilitating their economic and social life such as collection deposits from the public, grant loans to those investors who want to invest in the business, industry and other sectors, overdraft, guarantee services, letter of credit, discounting bills, promissory notes, selling of others share to general public, agency function task, limit of storage commodities etc.

The word 'investment' connotes the investment of income, saving or other collected funds. Investment is possible only when there is adequate saving. If all the incomes are consumed now for fulfilling basic needs, then there is nothing to investment. Therefore, both the saving and investment are interrelated. A distinction is often made between investments and saving, saving is defined as foregone consumption; investment is restricted to real investment of the sort that increases national output in the futures. It is always true that all people want to invest their money in the most profitable opportunities for good return, but there is always risk associated with it.

This a common factor that investment is possible only when there are adequate saving. If all of the income is spending on for daily usage, there will be no amount left for making investment. So, collection and investment are always inter-related. Every people wish to collect and save their income and invest highly return firm. In terms of Bank, collection of deposits, borrowings, income, saving of costumers etc.

Investment policy fixes responsibilities for the investment deposition of th bank assets in term of allocation funds for investment and loan establishing responsibility for day-to-day management of those assets(James B. Baxley,1987:124).

“Investment policy involves determining the investors objectives and the amount of his or her investable wealth. It is not appropriate for an investor to say that his objective is to make a lot of money”(Clarke, 1989:10). What is appropriate for an investor in this situation is to state that the objective is to earn profit while recognizing that there exists some chances of incurring large losses. Investment objectives should be stated in terms of both risk and return.

Investment promotes economic growth and contributes to a nation’s wealth. When people deposit money in the bank, the bank may invest by lending the funds to various businesses. These firms in return may invest in new factories and equipment to increase their production and efficiency. In addition to borrowing from banks, most companies issue stocks and bonds, which they sell to investors to raise capital needed for business expansion. Government also issues bonds, to raise required funds to invest in various projects. NRB on behalf of HMG issues bonds, treasury bills to finance the long term and short-term needs of the government. All such investments by individuals, business, government and government entities involve a present sacrifice of income to get an expected future benefit.

### **1.1.1 Profile of Concerned Banks**

#### **NABIL Bank Limited (NABIL)**

Nabil Bank, the 1st foreign joint venture Bank set up in the nation with an objective to introduce modern banking services, commenced its operations on 12th of July 1984 or 2041 Ashad 29 B.S. with Rs. 28 million capitals and around 50 staffs. Dubai Bank Limited, Dubai was the foreign joint venture partner who extended Nabil a technical service agreement in the initial period. The Bank, through its quality customer service and innovative products, has today attained a distinguished recognition in the banking industry of Nepal. The first Joint Venture Bank in Nepal with a 23 Year old journey of History.

NABIL, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

Nabil Bank Limited was the first joint venture bank established in 1984 with 50% invest by Dubai Bank Limited of UAE and of remaining 50% by Nepalese financial

institutions comprise 30% and 20% by general public. The shares owned by DBL were transferred to Emirates Bank International Ltd (EBIL), Dubai. Later EBIL sold its entire holding to National Bank Ltd, Bangladesh (NBLB). Hence 50% of equity shares of Nabil Bank Ltd are held by NBLB and out of remaining, financial institutions have taken 20% and 30% were issued to general public of Nepal. NABIL was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, NABIL provides a full range of commercial banking services through its 28 points of representation across the nation and over 170 reputed correspondent banks across the globe.

#### Share Subscription and Capital Structure

Subscription	% Holding
NB ( International ) Limited	50
Nepal Industrial Development Corporation	6.15
Rastriya Beema Sansthan	9.67
Nepal Trust	.59
General Public	30
Nepal Stock Exchange	.33
Total	100

Authorized Capital: Rs.1,60,00,00,000

Issued Capital: Rs.1,44,91,24,000

Paid Up Capital: Rs1,44,91,24,000

Today Nabil Bank is the highest banking industry and a dedicated professional team of 557 permanent staff members have 49 branches and 68 unit of 24 hours- operative ATM s providing array of banking services across the kingdom. Highly qualified and experienced team of NABIL bank manages day-to-day operations and risk management. Bank is fully equipped with modern technology, which includes ATMs, credit cards, state-of-art, world-renowned software from Infosys Technologies System, Bangalore, India, Internet banking system and Tele-banking system. Nepal Arab Bank Limited is providing full-fledged commercial banking services to its clients.

NABIL bank is a full services bank providing an entire range of products and services, starting with deposit accounts in local and foreign currency, Visa and Master-Card denominated in rupees and dollars, Visa Electron Debit Cards, Personal Lending Products for Auto, Home and Personal loans, Trade Finance Products, Treasury Services and Corporate Financing. Main aim is to be able to meet customer's entire gamut of financial requirements that is why it prides us in being 'Your Bank at Your Service'.

### **Everest Bank Ltd. (EBL)**

Everest Bank Ltd. was registered under the company act 1964 in 19<sup>th</sup> November 1993 and started commenced banking transaction in 16<sup>th</sup> October 1994, the promoter of the bank decided to join hands with an Indian bank and entered into joint venture agreement in January 1997 AD with Punjab National Bank (PNB), which is one of the leading commercial bank of India, having over 100 years of successful banking experience and known for its strong system and procedure. A team of professionals are deputed by PNB under this arrangement. Now the bank has 38 branches including main branch in Nepal. Nepalese promoter holds 50% and rest 30% held by General public. The main purpose of EBL is to extend professional banking services to various sectors of the society in the Kingdom of Nepal and thereby contributing in the economic development of the country.

Everest Bank Ltd. is moving towards to the consumer finance and providing different types of loans like; Home Loan, Home Equity Loan, Education Loan, Professional Loan, and Vehicle Loan etc.

### **1.2 Statement of Problem**

In our country we see unequal distribution of income which is the main cause of less mobilization of money which thus creates less saving, inadequate capital formation and insufficient investment. The numbers of joint venture banks as well as financial institutions have been set up at a rapid rate after the adoption of economic liberalization policy of the Government of Nepal. However in today's context, where the commercial banks are mushrooming, the competition among them has been a tough job, where it collects lots of deposits with comparatively low investment opportunities.

Lack of sound knowledge about the financial risk, business risk and other risk leads to more unsecured loan and investment-which compels the bank towards liquidation and bankruptcy. Therefore appropriate investment policy is the essence of all the joint venture banks, commercial banks and other financial institutions to deal with the cutthroat competition.

Moreover, this study will analyze the relationship of investment policy and the deposit mobilization and the profit position of the banks.

1. How efficient/reasonable are the commercial banks in Nepal-in accordance to their investment policy?
2. What is the standard form of the investment policy the commercial banks should have? And whether the banks today are following the rule or not, if not why?
3. What is the effect of the investment decision on the Total profit and GDP thereby?
4. What are the views and ideas of the financial executives and customers regarding the knowledge on the various aspects of the investment policy adopted by the commercial banks today?
5. What is the relationship between the various important variables like deposit, loan and advances, total investments and the net profit of the selected banks?

### **1.3 Objectives of the study**

The major objectives of the study will be examine ,identify analyze study and evaluate the investment policy and the fund mobilization of the commercial banks in Nepal; and as the sample for the study we take selected commercial banks of Nepal- in the analysis using the different financial and statistical tools.

- To examine the investment policy of the banks.
- To examine the utilization of available fund of NABIL and EBL.
- To find out the empirical relationship between deposits loan and advances, investment, net profit and compare them between NABIL and EBL.
- To suggest and recommend on the basis of the major findings.

### **1.4 Significance of the Study**

The present study is to find out the investment policy and practice of the joint venture banks in Nepal. Any bank can perform its lending behavior only when it has sufficient



amount to lend it. So first, it should be able to collect sufficient amount in the form of deposits from different sectors.

Investment policy is one of the essential and the main functions where the whole banking business is related thus, the study on the major joint venture banks and especially in their lending and investment policies carry a great significance to the shareholders of banks, to the banking professionals, to the students and teachers of banking and commerce. It is expected that this study will provide some relevant findings, which may help the bankers, professionals and interested readers too.

### **1.5 Limitations of the study**

The studies being the partial fulfillment of master degree in business studies has some limitations of its own kind. They are:

- The study, lack of the sufficient time, resources are the major limitations. The study has been conducted to meet partial fulfillment of the requirement for the “Master of Business study of Faculty of management, T.U.
- The study mainly based on secondary data collected from different sources.
- The study has been mainly carried out based on the published financial documents such as balance sheets, Profit and loss accounts, related journals, magazines and brochures. These published documents have their own limitations.
- The study mainly concentrates only on the investment policy of NABIL and EBL.
- The study period will be covered by only five fiscal year i.e. from 2005/2006-2009/10.
- The study deals with only three commercial banks and data related to other

## **1.7 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 the banks under study, significance of the study, objectives of the study, limitations of the study and organization of the study.

### **Chapter II: Review of the Literature:**

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

### **Chapter III: Research Methodology:**

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

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

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

### **Chapter V: Summary, Conclusion and Recommendations:**

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

## CHAPTER –II

### REVIEW OF LITERATURE

“Review of literature means reviewing research studies of other relevant preposition in the related area of the study so that all part studies, their conclusions and deficiencies may be know and further research can be concluded.”(Pantta & Wolf, 1999:234). This chapter deals with the literature, relevant to this study, this part of thesis will essential to know about the finding of other research which are appropriate to the study. The first part will consist conceptual framework and the remaining parts will consist the review of reports, articles, journals and dissertation.

#### 2.1 Conceptual Review

##### Basic Books

The books are such types of institutions, which deal in money and substitute for money. They deal with credit and credit instruments. Good circulation of credit is very much important for the Bank. The weak decision in mobilizing funds and fluctuation of flow of credit is harmful to the bank and economy as a whole. Hence, the effective collection funds and its use is very challenging task for the banks. The decisions pertaining to the investment of funds and is the factor of survival and extinction of banks.

**William J. Sharpe and Alexander J. Gorden** has defined investment in this way, “Investment in its broadest sense, means the sacrifice of certain present value for (possible uncertain) future value.”

**Frank K. Reilly** define investment in the words, “An investment may be defined the current commitment of funds for a period of time to derive a future flow of funds that will b compensate the investing until for the time, the funds are committed, for the expected rate of inflation and also for the uncertainty involved on the future flow of funds.”

**James B. Baxley** expresses his views as “Investment policy fixed responsibilities for the investment dispositions of the banks assets in term of allocation funds for investment and loan and establishing responsibility for day to day manage of those assets.”

**Jack Clark Francis** states that, “Default risk arises because firms may eventually bankrupt. Some default risk is not diversifiable because it is systematically related to the business cycle, which affects almost all investments. However, some default risk may be diversified away in a portfolio of independent investments.”

**Charles P. Jones** has defined that, “Investment as the commitment of funds to one or, more assets that will be held over some future time period. Investment concerned with the management of an investor wealth, which is the sum of current income and present value of all future income.”

**Shakespeare Baidhya** has given his view on a sound investment policy. He has said that “A sound investment policy of a bank is such that its funds are distributed in different types of assets with good possibility on the one hand provides maximum safety and security to the depositors and banks on the other hand. Moreover, risk in the banking sector tends to be concentrated in the loan portfolio. When a bank gets into serious financial trouble, its problem usually springs from a significant amount of loans that have become uncollectible due to mismanagement, illegal manipulation of loans, misguided lending policy or unexpected economic downturn. Therefore, the bank's investment policy must be such that it ensures that it is sound and prudent in order to protect public funds.”

### **2.1.1 Brief concept of Commercial Banks, Investment Policy and its Importance to the Commercial Banks**

Today banking is an industry in change – it is continuously becoming something new – offering new services, adopting new technologies. In spite of its changes, it probably is and always will remain a service industry. A bank involved in a service industry is dedicated to overall financial activities of the economy; they offer a wide range of financial services such as: currency exchange, discounting commercial notes and making business loans, offering savings deposits, safekeeping of valuables and certification of value, supporting government activities with credit, offering demand deposits, offering trust services, granting consumer loans, financial advising, cash management, offering equipment leasing, making venture capital loans, selling insurance services, selling retirement plans. However, among these, the primary function of banks today is to produce and sell financial services demanded by the public. One of the most vital of those services is granting loans, particularly loans

used to support business investment. Yet not all bank funds can be allocated to loans because: many loans are illiquid; it is among the riskiest bank asset – carrying the highest borrower default rate of any form of bank credit; all loan income is taxable. For all these reasons, banks have to learn to devote a significant portion of their asset portfolio to another major category of earning asset: investment in securities like government bonds and notes, corporate bonds and notes, other form of debt securities and other stock permitted by law. These holdings perform a number of vital functions in bank asset portfolios- providing income, liquidity, diversification to reduce risk, and the sheltering of at least some portion of bank earnings from taxation. Hence to have a well managed bank asset portfolio a bank must have its investment policy.

For any bank, one of the important steps to take in the investment planning process is the creation of the Investment policy statement. An investment policy statement defines your goals and sets the guidelines for the investment activity, and some even consider it their business plan for making critical decisions. Most importantly it provides discipline. The investment policy statement can be broken down into these following sections:

- a) Definition of goals and objectives
- b) Statement of parties' responsibilities
- c) Risk and return parameters
- d) Asset allocation detail
- e) Screening criteria
- f) Investment due application and monitoring procedures
- g) Account review and rebalancing guidelines
- h) Fee and expenses considerations

The investment policy should specifically list how to distribute the investments – also known as the asset allocation which should be very specific. It should also include a provision detailing when to rebalance the portfolio, i.e. reworking the portfolio to the original asset allocation. A lot of time and effort should be given in creating an investment policy – because when constructed and followed properly, it provides the discipline to the investment process (source: Donald Trone of the [Foundation for Fiduciary Studies](#)).

A bank may decide to embark on aggressive, liberal or a conservative investment policy. The type to be adopted will depend on the bank's objective, income and the

level of the bank's present and expected risk exposure. For instance, a bank that is already much exposed to liquidity risks in loans and other assets will definitely pursue a conservative investment policy. Preferably, investment policy should be in writing. This will help to ensure uniformity and consistency in its application. However, it should be flexible enough to give room for the use of initiatives, and for easy room for the use of initiatives, and for easy adaptation to changes in the environment.

### **2.1.2 Creating Investment Policy**

An investment policy statement is an important document that will develop a 'blueprint' for managing an organization's assets. A well-developed statement will establish long-term objectives, promote adherence to these objectives, provide a disciplined process, and serve as a guide through difficult markets. Creating an asset allocation policy is an interactive process in which an organization must consider the strategic goals and objectives for their pools of assets. The process can be categorized into four important steps- evaluation, construction, implementation, and review. Each step by itself requires detailed analysis, but equally important is that all four must be completed for a thorough review.

#### **➤ Evaluation**

The evaluation component of the process requires an organization to review its policies and objectives regarding the use of the assets. There are several questions that should be considered specifically targeting the requirements of the portfolio. A review of spending requirements of liabilities is key in developing the return requirements.

The offset to return is to identify an acceptable level of risk that can be taken by the portfolio. This includes the traditional volatility review as measured by the standard deviation. However, standard deviation is not the only risk to be considered. Discussions should include the ability to handle both near- and long-term losses, consideration of a maximum acceptable loss for a given year or longer, and the implications if the required return is not met. The time horizon over which the assets will be invested will help in the risk analysis. Investment risk decreases over time, which implies that longer time horizon portfolios can take on additional risk. During the evaluation process, conflicts between the factors may arise, and further evaluation must be done. As an extreme example, if the required return for a particular asset pool was identified as 10% per year, and the organization is uncomfortable with anything other than a high quality fixed income portfolio, it will be impossible to meet those

objectives. In that case, the return requirements and risk analysis must be revisited with changes to one or both to settle on a realistic plan. Every organization is different, and must be reviewed so that we can help develop an investment strategy that will meet their goals and objectives.

➤ **Construction**

Information gathered during the evaluation phase develops the foundation for portfolio construction. Based on that understanding, an asset allocation can be created to meet those objectives. Studies have shown that over 90% of the variability in return is based on the asset allocation selected and determining the right mix is a helpful guide in both strong and weak markets. (Brinson, Singer, and Beebower, 1991)

The foundation for any review is to develop expectations of returns for different investments. Historical analysis is useful by providing an idea of how various asset classes have performed over time and through different market cycles, and forward-looking analysis is critical to reasonably assessing the potential of reaching investment goals. The starting point of our projections is based on forecasting inflation. From that base, we build the estimated returns based on historical risk premia for the different asset classes. We also consider how changes in things such as growth rates of earnings, the inter-relationship of global markets, inflation, the global yield curve, and investor risk sentiment will affect these projected returns.

Additional asset classes such as Emerging Markets, High Yield Bonds, Real Estate, Alternative Investments, etc. can play an important role and should also be considered depending on the comfort level and appropriateness for the investor. While each of the asset classes by themselves carries varying levels and types of risk, each must be analyzed relative to each other and the value that can be added via a broad portfolio. The power of diversification comes from the relationship of uncorrelated assets. Each asset class is reviewed based on its historical correlations with the other investments.

With projections of asset class returns, standard deviations, and correlations, the next step is to create multiple portfolio options that provide the highest level of return for a given level of risk. Using a mean-variance portfolio optimizer, various portfolios can be created. Mean-variance optimization is a statistical process that uses the mean returns (either historical or projected), standard deviations (variance), and correlations to analyze the inter-relationship between various asset classes, and calculate portfolio

mixes that are the highest return for each given level of risk. This collection of "optimal" mixes along the risk spectrum is referred to as the "efficient frontier". This is a useful tool to measure the risk level of portfolios, understand the impact of changes, and ensure that investors are compensated for the amount of risk that is taken. With these benefits, the process does also have limitations. The primary limitation is that it looks at standard deviation as the sole measure of risk. As discussed in the evaluation section, there are other items within the risk category that need to be considered. Nonetheless, it provides useful information as portfolios are constructed.

Projected returns, diversification, and optimizers must be combined with client-specific information gathered in the evaluation phase to develop a customized investment plan. Based on return requirements and risk tolerances, the universe of potential portfolio mixes can be narrowed to specific options that will meet the portfolio objectives. Investors should review the best and worst returns for different years and time periods to determine their comfort level with the outcomes.

Various portfolio options should also be "stress tested" to understand the range of possible outcomes for a given mix. Factors such as cash flows and spending rates can also be factored in to provide more realistic modeling. The output of such analysis will provide statistical probabilities of certain outcomes. This is especially important relative to an investor's risk tolerance because it can provide guidance for "best" case and "worst" case scenarios, and helps validate the chosen allocation.

#### ➤ **Implementation**

Once the goals are determined and the portfolio structure is identified, the plan is put to work through the implementation phase. Executing the plan is just as important as how the plan has been developed. Care must be given to the choice of investment strategies that will fill the various asset class "buckets". Determining the use of active investment versus passive (indexing), styles such as growth versus value, and rules for rebalancing the portfolio are all considerations that must be reviewed.

The "active versus passive" discussion gives investors the ability to take advantage of asset class efficiencies, or inefficiencies as the case may be. While some investors feel strongly one way or the other, the optimal solution can often be reached through a blend of the two. By blending passive and enhanced indexing (mostly in the more



efficient asset classes) with active (mostly in the less efficient asset classes), investors can control the amount of risk that they take, make sure they are being compensated where they do take it, and ultimately create more efficient portfolios.

After the strategic asset allocation and investment strategies have been determined, a critical decision is how to manage the asset mix. One option is to manage the asset weights tactically (called Tactical Asset Allocation) based on the manager's evaluation of the current markets and opportunities. With this approach, the manager adjusts the weightings based on these views and, for example, sells stocks when they appear poised to fall and increase equity exposure when the manager sees them rising more than the alternatives. However, the manager would always keep the asset weights within the policy ranges as well as determine how cash flows are invested.

The other option is to keep asset mix consistently in line with the policy benchmark regardless of manager or client's views on the market (called Strategic Asset Allocation). The key decision then becomes how frequently to rebalance the strategic allocations of the portfolio, and how to manage cash flows as the holdings deviate from target allocations due to investment performance. Most investors agree that the strategic allocation will be the most important factor responsible for the long-term results of the portfolio; any reallocation activity should be limited to preserving the integrity of the strategic policy.

### **There are a few schools of thought when it comes to Rebalancing Policies**

- a) Calendar or periodic rebalancing at specific times such as monthly, quarterly, or annually.
- b) Rebalancing when the mix drifts to a set trigger point.
- c) Rebalancing to an allowable range within a set tolerance limit.
- d) Allowing the asset mix to drift.
- e) To minimize variation of returns away from a benchmark due to asset drift, monthly rebalancing has been found to be the "optimal" timeframe in the absence of any costs. This ensures a disciplined rebalancing that keeps weights close to target, but without incurring the high costs of trading each month.

### **➤ Review**

A well-created investment policy is a good guide for an organization based on its circumstances at the time of the review. In reality, those circumstances are always

changing, and it is important to regularly review the policy statement to ensure that it is still appropriate. A formal required review quite often is suggested to ensure that the investment committee, board, and staff know it is their responsibility to conduct the process. In between formal reviews, any changes in situation, such as a change in funding status, a change in ownership, a large cash inflow, or re-evaluation of risk tolerance should be discussed and reviewed for its impact on the investments. A review does not necessarily require a change in strategy, but to re-affirm that the approach is appropriate is an important step.

Developing an investment policy can be an involved process, but is necessary for a successful investment program. The steps of evaluation, construction, implementation and review provide the framework for developing a policy that will meet an organization's investment goals and objectives (By Daniel Farley, CFA, Head of U.S. Global Asset Allocation, Global Asset Allocation).

### **2.1.3 Purpose/Components of an Investment Policy and its Process**

The investment policy statement should be the basic building block in an intentional investment process. The Investment policy development process provides crucial education for the client and is a key communication step, helping each party to understand the other's perspective and goals. The Investment policy is the document that guides the advisor as future decisions are made; it serves as a guidepost against which the reality of what has happened can be measured against the rules and procedures and benchmarks that were agreed to. Finally, it serves to create a purposeful decision-making process in rational times, to guide clients through the inevitable rough periods when emotions may cause them to make less than optimal decisions.

#### **➤ Basic purpose of an Investment Policy**

The investment policy statement serves four basic purposes:

- a) Identifying objectives - to establish clear, reasonable and definable expectations, risk and return objectives, and guidelines for the investment of the assets.
- b) Defining the asset allocation policy - to set forth a structure and identify the investment asset classes that will achieve a diversified portfolio, as well as to

determine how those assets are to be best allocated to help achieve the investor's objectives.

- c) Establishing management procedures - to provide a guide for selecting, monitoring and evaluating the performance of those charged with managing and investing the assets, and making changes as appropriate.
- d) Determining communication procedures - to provide a concise method of communicating the process and objectives among all parties involved with the investments and to assign responsibility for implementation.

Two cautions are worth repeating: (1) if you are going to create an investment policy statement, it is only useful if it is in writing; and (2) if you have an Investment policy, it is essential that you follow it. Worse than not having an investment policy statement is to have one and ignore it.

#### Components of an Investment Policy

There is no one right way to construct an Investment policy, although advisors who use a consistent structure each time will find the process of writing an Investment policy much less arduous and time-consuming. Our approach is to categorize the common components of a complete investment policy statement into seven parts:

- a. Introduction-purpose of the Investment policy and an explanation of why the investments are being structured as suggested
- b. Key factual and account information and summary of investor circumstances
- c. Investment objectives, time horizon and risk attitudes
- d. Permissible asset classes, constraints and restrictions
- e. The asset allocation
- f. Selection, monitoring and control procedures
- g. Signatures

Each advisor will approach each of these parts differently and each client's Investment Policy will require a certain degree of individualization. At the same time, having a template to provide consistency in structure from one client to the next can help save time as well as improve the output.

### ➤ **Steps of a proper Investment Process**

Investment process describes how an investor should go about making investment decision with regard to how to invest (analysis), how much to invest (Portfolio Construction), and when to invest (timing and diversification) so that optimal portfolio (revision) is formed to suit investment strategy (objective).

A thorough and proper investment process has nine steps. Each step relies on many different inputs and will be uniquely determined based on the advisor's sophistication, his or her biases and preferences (Source: Norman M. Boone, CFP, and Linda S. Lubitz, CFP, are co-authors of the forthcoming book *Creating an Investment Policy Statement-Guidelines & Templates*. They have their respective financial planning firms in San Francisco, California, and Miami, Florida).

Step-I: - Identify Goals

Step-II: - Identify the target rate of return

Step-III: - Knowing the Time Horizon

Step-IV: - Understanding the client's risk tolerance

Step-V: - Identification of asset classes and Investment vehicles

Step-VI: - Design the asset allocation

Step-VII: - Write the investment policy statement

Step-VIII: - Select the Investments

Step-IX: - Monitoring, Managing and Reporting

### **2.1.4 Features of a sound lending and Investment policy**

The commercial banks are inspired with the goal of earning profit. The income and profit of a financial institution depends upon to its lending procedure, lending policy and investment of its fund in different securities. The bank should be able to make clear the policy of its investment by making a deep study on the subjects that which sector would be the trust worthier and dependable to invest the funds collected in the bank. The greater the credit created by the bank higher will be the profitability. A sound lending and investment policy is not only prerequisite for the bank's profitability but also crucially significance for the promotion of commercial savings of an underdeveloped and backward country like Nepal.

The factors that banks must consider for sound lending and investment policies are explained as under:

a) **Safety and Security**

Banks should buy rated securities only. It should abstain from investing its fund in those securities, which are subject to greater depreciation and fluctuation for example common stock, since a little difference may result in a great loss. It must not advance its funds to speculative business, which may earn millions in minute or may become bankrupt the another minute. Since risk is overpriced during recession and under priced during boom banks should invest in medium grade and high-grade securities during recession and boom respectively. Banks should buy securities, which are commercially durable, marketable and high market price. In This regard, “MAST” should be followed while investing,

Where,

M= Marketability

A=Ascertainability

S=Stability

T=Transferability

b) Liquidity

Commercial banks can maximize its volume of wealth through maximization of return on their investments and lending. They must invest their fund in available sectors where they can earn maximum profit. Their return depends upon the interest rate, volume of loan, duration of the loan and nature of investment in different securities.

b) Profitability

Commercial banks can maximize its volume of wealth through maximization of return on their investments and lending. They must invest their fund in available sectors where they can earn maximum profit. Their return depends upon the interest rate, volume of loan, duration of the loan and nature oif investment in different securities.

c) Purpose of Loan

It is very important to be reminded that most of the bank failures in the banking world are due to shrinkage in the value of loan and advances. The first substantive question a banker must examine how loan proceeds will be used. If the loan purpose conflicts with commercial policy, such as loan for some speculative purpose not acceptable to the banker such loans should not be processed. If customers misuse their borrowings,

there is risk involved in repayment and the bank will incur heavy bad debts. Detailed information about the plan and scheme of project should be collected and examined before borrowing.

d) Diversification

Investment and credit concentrated on same geographical region, same sector of business and few customers increase the risk. Hence the policy should fix a cap on all these aspect. As the saying goes “A bank should not put all its eggs in the same basket”, therefore, in order to minimize the risk, a bank should diversify its investment in different securities. This diversification or portfolio investment helps to earn good return and at the same time minimize the risks and uncertainty.

e) Legality

A commercial bank must follow the rules and regulations and statutory directives issued by Nepal Rastra Bank, Ministry of Finance and others while issuing securities and mobilizing their funds. In Nepal, NRB restricts financial institution licensed by it to invest in securities of each other.

### **2.1.5 Meaning of Some Important Terminology**

a) Assets

Assets, representing economic resources are the valuable possessions owned by the firm. These possessions should be capable of being measured in monetary terms. Assets are the future benefits. They represent: (a) stored purchasing power (e.g. cash), (b) money claims (e.g. receivables stock) and (c) tangible and intangible assets that can be sold or used in business to generate earnings. Tangible items include land building, plant equipment or stocks of materials and finished goods and all such other items, which have physical value. Intangible items do not have physical existence, but they have value to the firm. They include patents, copyrights, trade name or goodwill. Assets may be current assets or long-term assets. Current assets are those assets that are expected to be converted into cash within the accounting period .Long-term assets normally include fixed assets, long-term investment and other non-current assets are held for longer periods for use in business.

(b) Advances

Advances are amount of money, which are paid or lent before any actual benefit has been derived. It could be expenses of future period paid in advance, advance for current supplies or advances against acquisition of capital assets.

(c) Balance Sheet

Balance sheet is one of the most significant financial statements, which is prepared at the end of each accounting period that indicates the financial condition or the state of affairs of a business at a given moment of time. More specifically, balance sheet contains information about the assets liabilities and ownership equity capital.

(d) Bond

A bond is the source of long term financing issued by an organization in which the organization or the borrower agrees to pay principal and interest to the lender on specific date. It may be secured i.e. mortgage bond with fixed assets pledged as security or unsecured like debenture bond.

(e) Deposits

Deposits are the main source of fund of the financial institution. It is the sum totals of money collected form the depositors in various accounts.

(f) Liquidity position

Liquidity assets are those assets that can be quickly converted into cash. Liquid assets determine the liquidity position of the organization. Higher the liquid assets better the liquidity position. Liquidity position refers to the state of owning things of value that can easily be changed into cash.

(g) Share

The part of capital owned by a shareholder is called share. Any person can become a member of a company by purchasing the certificates of investment of the company also called shares, and can withdraw his/her membership by transferring his/her shares. Shares are a major source of long-term financing.

(h) Securities

Securities are the main source of long term financing. They consist of shares and debentures issued by government or any company, which may or may not be redeemable with interest in the future.

(i) Loan and advances

Earnings from loan and advances occupy a major space in income statement of the bank. Loans from commercial banks are secured against the assets of the borrower.

(j) Income Statement

It is a statement, which presents the summary of revenue expenses and net income or net loss of a firm at a given period of time. Thus, it serves as a measure of firm's profitability. Revenues are amounts, which the customers pay to the firm for providing them goods and services. The firm uses economic resources in providing goods and services to customers. The costs of economic resources are called expenses. Net income is the amount by which revenues earned during a period exceeds expenses incurred during that period.

(k) Retained earning

It represents total undistributed earnings. It is that portion of firm's earnings, which is kept for future use and contingencies. It is also an internal source of financing.

(l) Liability

Liabilities are debts payable in future by the firm to its creditors. They represent economic obligations to pay cash or provide goods or services in some future period. Generally, borrowing money or purchasing goods or services on credit creates liabilities. Examples of liabilities are creditors, bills payable, wages and salaries payable etc.

(m) Off-Balance Sheet Transaction

Off-Balance sheet transactions are future agreements concerning bills purchase, letter of credit, guarantees and forward contracts. They are also treated as contingent liabilities.



## 2.2 Review of Research papers

Nowadays, the field of investment is going on the wide concept. Therefore, many researchers have published their research article about the investment policy in Nepal. In the Nepalese context, there is a need of research in commercial banks and financial institutions in order to achieve their goal effectively.

“**Dr. Govinda Bahadur Thapa**” has expressed his view that the commercial banks including foreign joint venture banks seem to be doing pretty well in mobilizing deposits likewise; loans and advances of these banks are also increasing. But compared to the high credit needs particularly by the newly emerging industries, the banks still seem to lack adequate funds. The banks are increasing their lending to non-traditional sectors along with the traditional sectors.

Out of the thirteen, commercial banks, Nepal Bank Ltd. and Rastriya Banijya Bank are operating with a nominal profit, the later turning towards negative from time to time. Because of non-recovery of accrued interest, the margin between interest income and interest expenses is decline. Because of these two local banks, in traditional off balance sheet operations, these banks have not been able to increase their income from commission and discount. On the contrary, they have got heavy burden of personal and administrative overheads. Similarly, due to accumulated overdue and defaulting loans, profit position of these banks has been seriously affected.

On the other hand the foreign venture banks have been functioning in an extremely efficient way. They are making huge profit year after and have been distributing large amount of bonus and dividends to its employees and shareholders. Because of their effective persuasion for loan recovery, overdue and defaulting loans have been limited resulting in high margins between interest income and interest expenses. Similarly, concentration of these banks to modern off-balance sheet operations and efficient personnel management had added to the maximization of their profits.

At the end of this article, he concludes that by it's very nature of the public sector, the domestic banks couldn't compete with the private sector banks, so only remedy to the problems of these banks, as the government decided, is to hand over the ownership as well as the management of these banks to the private banks.

“**Dr Sunity Shrestha**” has explained her view on research. ‘Investment planning of commercial banks in Nepal’ has made remarkable efforts to examine the investment

planning of commercial banks in Nepal. On the basis of the study, she concluded that the bank portfolio (loan and investment) of commercial banks have been influenced by the variable securities rates. Investment planning of commercial bank in Nepal is directly traced to fiscal policy of government and heavy regulatory procedure of Central Bank (NRB). So, the investments are not made in professional manners. Investment planning and operation of commercial banks in Nepal has not been found satisfactory in term of profitability safety, liquidity, productivity and social responsibility. To overcome the problem she has suggested that the commercial banks should take their investment function with proper business attitude and should perform lending and operation efficiently with proper analysis of the projects.

**“Dr. Radhe Shyam Pradhan”** in his research ‘Financial management practices in Nepal’ has studied about the major feature of financial management in Nepal. To address his issue, a survey of 78 enterprises was carried out by distributing a multiple questionnaire, which contained questions an various aspect of financial management practices in Nepal.

He found that among the several finance functions, the most important finance function appeared to be working capital management. While the least important one appeared to be maintaining good relations with stockholders. The finding reveals that banks and retained earning are to the two most widely used financing sources. Most enterprises do not borrow from one bank only and they do switch between banks to whichever offers best interest rates. Most enterprises find that banks are flexible in interest rates and covenants. He further found that among the bank loans, bank loans of less than one year are more popular in public sector where as bank loans of 1-5 years are more popular in private sector. In periods of tight money, the majority of private sector enterprises fell that back will treat all firms equally while public sector does not feel so. Similarly he concluded that the majority of enterprises in trade sector find that banks, interest rate is just right while the majority in non-trade sector find that the same is one higher side.

### **2.3 Review of Articles/Journals**

**Mr. Bodhi B. Bajracharya (Bajracharya, 2047)** in his article, “Monetary Policy and Deposit Mobilization in Nepal” has mentioned the mobilization of domestic saving being one of the prime objectives of the monetary policy in Nepal. Moreover, for this purpose commercial banks are the 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.

**Mr. Shiba Raj Shrestha (2055)**, in his article, “Portfolio Management in Commercial Bank Theory and Practice” has focused on the use of the excess funds in the best and profitable investment. But here the question may arise on how to make any best investment decisions - and the answer would be proper portfolio management. Portfolio management basically means to invest funds in various schemes of mutual funds like deposits, shares and debentures for the investors with surplus income. Basically, the wealthy clients having plenty of surplus funds seek to maximize the return on their fund prepared to take certain amount of risk for this. But due to lack of technical expertise they can't make such investment decision of their own. Primarily, there are only two options for savers/investors, i.e. to use funds either for purchase of financial assets like securities or for purchase of financial assets like land, building etc. while selecting the best mix of investment assets there are things to be considered like; higher comparable return with alternative opportunities available according to the risk of investor, good liquidity with adequate safety on investment, capital gains, tax concessions, flexible investment, etc.

However, Shrestha states that, in order to get success in portfolio management and customer's confidence, the bank should possess: skilled manpower, strong research and analysis team, Proper management information system.

**Mr. Bhasker Sharma (2000)** in his article “Banking the future on competition” has highlighted that majority of commercial banks are being established and have operation in urban areas only. They have shown no interest to open branches in rural areas. The branches on NBL and RBB are only running in those sectors. The commercial banks are charging higher interest rate on lending, they are offered maximum tax concession, they do not properly analyze the credit system.

**Mr. Rewat Bahadur Karki (2000)** in his article on “Nepalese Financial Sector: Challenges and Some Solution” has stated that, the financial institutions especially commercial banks have to identify new areas of investment to increase loan and advances in liquidity position. Especially with the rapid growth in the number of banks and financial institutions in today's world – deposit insurance scheme is a must. The principle reason for introducing such deposit insurance should be one of the social justice rather than economic justification in order to protect the interest of the small depositors.

**Mr. Krishna D. Bhattarai (2003)** has presented an article about the “Non Performing Assets (NPA) Management”, where he has mentioned that it is very difficult for a borrower to pay back and for the lender to recover his lending. From a banker’s view, it is just like a stone to roll down from the top of the hill while approving the loan, but too difficult to roll back the same stone to the top of the hill while recovering the loan. A loan not recovered within the given time frame either in the form of interest servicing or principal repayment is called non-performing loan. There are other parameters as well to quantify an NPL; like inadequate security and safety margin for the loan amount specified, value of security unrealizable, conflict of the charges – these are the various reasons which causes difficulties while recovering the loan. According to him, NPL for a bank is like a developing cancer in a human body, which will collapse the whole bank if not managed in time. Hence managing is an important discipline in banking to prevent whole NPL or avoid situations for a loan to turn into NPL. A loan disbursed as a good loan doesn’t turn into a bad one overnight. It takes certain course of time to turn into a bad one. An efficient bank management can recover the loan before turning it into bad and can save itself from the unwanted collapse.

**Mr. Shekhar Bahadur Pradhan (1996)** in his article, “Deposit mobilization its problem and prospects” points out that deposit in the lifeblood of every financial institution. The latest financial/accounting figures of most bank and financial companies produce a strong feeling that serious review must be made with regards to problem and prospect of deposit sectors. Leaving a few joint venture banks other organizations rely heavily on the business deposit and credit disbursement.

Mr. Pradhan has highlighted the following problems of deposit mobilization in the Nepalese context.

- a) Most Nepalese people do not go for institutional savings due to lack of adequate knowledge. They are much used to savings in the form of cash and ornaments. Their half heartedness to deal with institutional system is governed by the lower level of understanding about financial organization process, withdrawal system, availability of deposit facilities and so on.
- b) Unavailability of institutional services in rural areas.
- c) Due to lesser office hours of banking system, people prefer holding cash in their personal possession.

- d) Improper mobilization and improvement of the employment of deposits towards various sectors.

## **2.4 Review of Thesis**

During the study, several thesis works has been carried out by the previous students. Among them some research thesis are found to be relevant for this study. They are presented as follows:

**Acharya, (2006)** in his thesis entitled “ A comparative study of Investment policy of SCBL & EBL” has made an endeavor to examine and interpret the Investment policy adopted by SCBNL in comparison to EBL.

The objectives of the research were:

- a) To compare the investment policy of concerned bank and discuss the fund mobilization of the sample banks.
- b) To find out empirical relationship between total investment, deposit and loan & advances and net profit and outside assets and compare them.
- c) To analyze the deposit utilization & projection for next five years of SCBNL and EBL.
- d) To evaluate comparatively the profitability & risk position liquidity assets management efficiency of SCBNL & EBL.
- e) To provide a package of possible guidelines to improve investment policy, its problems and way to solve some problems and provide suggestions and recommendation on the basis of the study.

The main findings of the study were as follows:

- a) Both the banks have good deposit collection. EBL has higher but fluctuating liquidity position. It is in a good position to meet daily cash requirement and current obligation.
- b) SCBNL has successfully maintained and managed its assets towards different income generating activities. SCBNL has invested high portion of total working fund in government securities and share and debentures of other companies.
- c) The profitability position of SCBNL is comparatively better than EBL.
- d) The liquidity risk ratio, credit risk ratio of SCBNL is lower than that of EBL.
- e) SCBNL has not been successful to increase its sources of funds and its mobilization i.e., loans and advances and total investment.

**Karki, (2007)** in his thesis entitled “Investment policy of Commercial Banks in Nepal: A comparative study of Nepal Investment Bank Limited with NABIL Bank Limited and Bank of Kathmandu” with objective of:

- a) To discuss fund mobilization and investment policy of EBL, NABIL and BOK Ltd.
- b) To evaluate the liquidity, efficiency and profitability and risk position.
- c) To evaluate the growth ratios of loan & advances, total investments with other financial variables.
- d) To analyze the trend of deposits utilization towards total investment with other financial variable.
- e) To analyze the trend of deposits utilization towards total investment and loan and advances.
- f) To conduct hypothetical test to find whether there is significant difference between the various important ratios of EBL, NABIL & BOK. The study was conducted on the basis of secondary data.

The research findings of the study are:

- a) The liquidity position of the EBL is comparatively better than NABIL & BOK. EBL has the highest cash and bank balance to total deposits, cash and bank balance to current assets ratio. NABIL has the lowest liquidity position than that of other two banks. EBL has good deposit collection and has made enough investment on government securities but it has maintained moderate investment policy on loan & advances.
- b) From the analysis of assets management ratio or activity ratio, it can be concluded that EBL is comparatively average or in between successful in compared to NABIL and BOK. THE total investment of EBL is in Between In compared to other banks.
- c) In the study, loan & advances to total deposit is higher in BOK but total investment to total deposit is higher in NABIL. Investment on shares and debentures to total working fund ratio is higher in BOK. But the coefficient of variation is higher in EBL.
- d) In analysis of profitability, total interest earned to total outside assets of EBL is lowest at all. But overall analysis of profitability ratios, EBL is average profitable in comparison to other compared banks i.e., NABIL and BOK. From the viewpoint of risk ratio, EBL has higher capital risk ratio but average of credit risk ratio in compared to NABIL and BOK.

**Bhandari, (2008)** has conducted a research entitled “Investment policy Analysis of Joint Venture Bank (with reference to NSBIL, BOKL & EBL)”.

The objectives of the study were as follows:

- a) To evaluate the liquidity management, assets management efficiency, profitability position, risk position and investment practices of NSBIL, BOKL & EBL.
- b) To find out the relationship between deposit and total investment,, deposit and loan & advance, and net profit and outside assets.

His major findings are enumerated below:

- a) NSBIL has better liquidity position. It is in a good position to meet its daily cash requirement and current obligation. Liquidity position of EBL & BOKL has not been Satisfactory.
- b) NSBIL’s loan and advance to total deposit ratio is lower than EBL & BOKL. It does not seem to follow any definite policy regarding the management of its assets.
- c) The profitability position of all the banks is not satisfactory. The banks have not adopted sound investment policy in utilizing their surplus funds.
- d) BOKL & EBL are exposed to high credit risk and capital risk.
- e) NSBIL & BOKL have not been successful to increase their sources of fund. EBL has been successful in maintaining its higher growth rate of total deposit.
- f) There is significant relationship between deposits and total investment of BOKL & EBL but the same is not significant in case of NSBIL.

Commercial banks have huge deposit collections. These deposits need to be properly utilized. Effective utilization of collected fund is possible only through implementation of sound investment policy. NABIL & SCBNL are the best examples of JVBs in Nepal that have been able to mobilize the funds in an effective manner and achieved phenomenal growth and profit year after year by formulating and implementing sound investment policy.

**Shrestha, (2009)** entitled with “A study on the investment policy of NABIL Ltd. in comparison to Investment Bank Ltd.” with the objective of:

- a) To analyze the financial position of NABIL and EBL in terms of deposit collection and investment procedure.
- b) To evaluate the liquidity, efficiency, risk position and profitability of the selected banks.
- c) To find out empirical relationship between total investment, deposit and loan & advance, net profit and outside assets and compare them.

- d) To analyze the fund utilization and its projection of NABIL and EBL for next five years. The study was conducted on the basis on secondary data.

The research findings of the study are:

- a) It is found from the study that the amount of total deposits collected by NABIL in each year during 5 years of the study period is higher than that of EBL. Similarly, investment to total deposit ratio and the amount of total Investment made by NABIL for the same period is also higher. Besides total deposit collected and total investment made, total loan and advances of NABIL is also higher during first three years but afterward it is lower than that of EBL. It is clear that Investment policy adopted by NABIL is sound from profit point of view.
- b) NABIL has given more priority on investment and loan and advances. Hence it has maintained lower liquidity than EBL. NABIL has accepted higher level of interest rate risk rather than credit risk. Overall profitability ratios of NABIL shows that it has earned higher profit than EBL. It is clear that NABIL has given more emphasis on profit but EBL has given priority on both profit and liquidity as well.
- c) The study has found that the total deposit and loan and advances and investment of the selected banks will be increasing trend if other things remain constant. But it is also found that Net profit of the NABIL will be in decreasing trend from 2010 onward.
- d) There is positive relationship between deposits and loan and advances and deposit and investment of the selected bank. The study also found that increase in net profit of NABIL is not caused by the increase in outside assets as it has negative relationship between outside assets and net profit but in the case of EBL increase in net profit depends upon increase in outside assets.

**Dhakal, (2010)** has conducted a research entitled “Investment Policy of Joint Venture Commercial Banks of Nepal” with the objective of:

- a) To evaluate the liquidity, assets management, profitability, risk position, liquidity and growth ratios of the banks under study.
- b) To assess the relationship between total deposits and investment, loan and advances, interest earned and net profit, net profit to outsides assets and total working fund, loan and advances to interest paid and compare them.



- c) To analyze the trend of deposits, investment net profit and loan & advances for next five years of SCBNL and NABIL.
- d) To make appropriate recommendations, suggestions on the basis of major findings.

The research findings of the study are:

- a) The liquidity position of SCBNL is comparatively better than NABIL. It has the highest cash and bank balance to total deposit, cash and bank balance to current assets. SCBNL is in a better position to meet its daily cash requirement. NABIL has a higher current ratio, which justifies that it is also capable enough to meet its current obligations. SCBNL's mean investment in Government securities is better than NABIL.
- b) NABIL has been more successful in mobilization of its total deposits and working fund as loan and advances. On the other hands, SCBNL appears to be stronger in mobilization of total deposits and working fund as investment in risk free government securities. NABIL has fared better in purchasing shares and debentures of other companies, but both the banks have invested marginal amount under this heading.
- c) SCBNL has been more successful in maintaining its higher return on loan and advances and total working fund. NABIL has been more successful in mobilization of its funds in interest bearing assets to earn higher interest income than SCBNL. SCBNL is in a better position than NABIL from interest payment point of view. NABIL has paid higher interest than SCBNL
- d) SCBNL has lower liquidity risk and credit risk than NABIL. NABIL has greater exposure to risk in its financial operations than SCBNL.
- e) SCBNL has been more successful in increasing its deposits, loan and advances and investment during the study period, whereas, NABIL has been more efficient in terms of increasing its net profit.
- f) There is a significant relationship between deposit and loan and advances, deposits and total investment, outside assets and net profit, deposits and net profit in case of SCBNL, and the relationship is insignificant, deposit and interest earned, loan and advances and interest paid, total assets and net profit. Incase of NABIL, there is a significant relationship between deposits and total loan and advances, deposits and investment, deposits and interest earned, whereas the relationship is insignificant between deposit and net profit, deposit and interest earned, loan and advances and interest paid, total assets and net profit, outside assets and net profit.

## **2.5 Research Gaps**

The purpose of the research work is quite different from the studies made by the above persons. The author focuses this study in effectiveness on investment policy analysis of NABIL and EBL in comprehensive manner considering the major items. The method of analysis is fully different. Financial tools and statistical tools are used in this study as ratio analysis, trend analysis, correlation and hypothesis.

This study is a little bit different than previous studies. It may be the first research study in the field of investment policy taking the comparative study of NABIL and EBL. This study has tried to indicate the effectiveness of investment policy of concerned banks.

## **CHAPTER –III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

“Research methodology is the systematic way of solving research problems. Research methodology refers to the overall research process, which a researcher conducts during his/her study, if all the procedures from theoretical foundation to the collection and analysis of data. As most of the data are quantitative, the research is based on the scientific models. It is composed of both parts of technical aspect and logical aspect. On the basis of historical data, research is systematic and organizational effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well thought out activities of gathering, recording and analyzing and interpreting the data with the purpose of finding answer to the problem. Hence, the entire process by which we attempt to solve the problem is called research” (Kothari, 1990:21).

#### **3.2 Research Design**

“Research design is a controlling part for the collection of the data and it helps to collect the accurate information, which is related to the research topic. Research design is the plan structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance through the analysis of data” (Kothari, 1990:22).

The first step of the research design to collect necessary information and data concerning to the study. Therefore, research design means the definite procedure and techniques, which guide the study as profound ways of doing research. In this way a descriptive and analytical survey will be done. The justification for the choice of these methods

is preferred because it concludes reliable data and information covering a long time and avoids numerical complex variables.

#### **3.3 Nature and Sources of Data**

The data used in this thesis is secondary type, which have been taken mainly from the published data and financial statements of the sampled banks. These include annual

reports for the last five years and report of each year. Besides these, the following sources of data are also being considered.

a.NRB reports

b.Various publications dealing in the subject matter of the study

Various articles published in Newspapers

### **3.4 Population and Sample**

The term “population” of universe for research means the universe of research study in which the research is based” (Pant, 2000:75). At present there are 31 commercial banks operating in Nepal and most of their stocks are traded actively in the stock market. All 31 commercial banks are the population of this study. Among them Nabil Bank Limited and Everest Bank Limited are chosen as sample for the present study on the basis of good financial performance.

### **3.5 Data Collection and Processing Techniques**

The annual reports of respective finance companies were collected from their respective offices and also by post on request. NRB reports were collected from Research department of NRB. The numerical data collected from different sources were used in whole numbers for the convenience of the study. The internet also proved to be a very good source of data. Various sites were used for the collection of data. The sites used are listed in the bibliography.

### **3.6 Data Processing and Presentation**

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

### **3.7 Tools for Analysis**

As mentioned above for the purpose of data analysis, various financial, accounting and statistical tools are used to make the analysis more effective, convenience, reliable and authentic. The analysis of data will be done according to the pattern of data available because of limited time and resources. Simple analytical statistical tools such as percentage, Karl Pearson's coefficient of correlation, regression, the method of least square and test of hypothesis are used in this study. Similarly some accounting tools such as ratio analysis and trend analysis have also been used for financial analysis.

The various tools applied in this study have been briefly presented as under.

#### **Financial Tools**

##### **Ratio Analysis**

Ratio analysis is a tool of scanning the financial statement of the firm. "Ratio means the numerical or quantitative relationship between two items or variables. It can be expressed as percentage fraction or a stated comparison between numbers." (I.M.Panday, 1992; 104) Ratio analysis is the relationship between two accounting figures expressed in mathematically. It is computed by dividing one item of relationship with the other. Management itself can use these parameters to improve the organization's performance in future. Because, truly know-how of the strengths and weakness for exploiting maximum benefits and to repair the weaknesses to meet the challenges.

Even though there are many ratios, only those financial ratios are calculated and analyzed which are related in this study. They are as follows:

##### **A) Liquidity Ratios**

Liquidity ratios measure the firm's ability to current obligations. It reflects the short – term financial strength of the business. It is the measurement of speed with which a bank's assets can be converted into cash to meet deposit withdrawal and other current obligations. A bank should ensure that it does not suffer from lack of liquidity and also it does not have excess liquidity. Both condition of liquidity are not in favour the viewpoint of banks.

The following ratios are evaluated under liquidity ratios.

### **i) Current Ratio**

A ratio between current assets and current liabilities is known as current ratio. It shows the relationship between current assets and current liabilities. Current assets are those assets which can be converted into cash within short period of time, normally not exceeding one year current liabilities are those obligations which are payable within a short period, normally not exceeding one year.

Mathematically it is represented as:

$$\text{Current ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

Higher the current ratio better is the liquidity position. The widely accepted standard of current ratio is 2:1 but accurate standard depends on circumstances in case of seasonal business ratio.

This ratio measures the bank short-term solvency i.e. its ability to meet short-term obligations. As a measure of creditors versus current assets, it indicates each rupee of current assets available for each rupees of current liability.

### **ii) Cash and Bank Balance to Total Deposit Ratio (Cash Reserve Ratio)**

Cash and bank balances are the most liquid current assets. This ratio measures the percentage of most liquid fund with the bank to make immediate payment to the depositor. This ratio is calculated by dividing the cash and bank balance by the amount of total deposits. Mathematically it is expressed as,

$$\text{CRR ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposit}}$$

Hence, cash and bank balance includes cash on hand, foreign cash on hand, cheques and other cash items, balance with domestic and abroad banks where as the total deposits include current deposits, saving deposits, fixed deposits, money at call and short term notice and other deposits.

### **i) Cash and Bank Balance to Current Assets Ratio**

This ratio measures the proportion of most liquid assets i.e. cash and balance among the total current assets of the bank. Higher ratio shows the banks ability to meet its demand for cash.

This ratio is calculated by dividing cash and bank balance by current assets.

Mathematically it is expressed as,

$$\text{Cash and bank balance to current assets ratio} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

## ii) Investment on Government Securities to current Assets Ratio

Investment on government securities includes treasury bills and development bonds etc. This ratio is calculated to find out the percentage of current assets invested in government securities.

This ratio is calculated by dividing investment made on government securities by current assets,

Mathematically it is expressed as,

Investment on govt. securities to current assets ratio

$$= \frac{\text{Investment on Government Securities}}{\text{Current Assets}}$$

## iii) Loan and Advances to Current Assets Ratio

Loan and advances to current asset ratio shows the percentage of loan and advances in the total current assets. Where loan & advances include loans, advances, cash credit, local and foreign bill purchased and discounted etc.

This ratio can be calculated by dividing loans and advances by current assets.

Mathematically it is expressed as,

$$\text{Loan and advances to current assets ratio} = \frac{\text{Loan and Advances}}{\text{Current Assets}}$$

## B) Assets Management Ratios (Activity Ratios)

Activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets. These ratios are also called turnover ratios because they indicate the speed with which assets are being converted turnover into sales. Asset management ratio measures how efficiently the bank manages the resources at its command.

The following ratios are used under this asset management ratio.

**i) Loan and Advances to Total Deposit Ratio**

This ratio is calculated to find out that which banks are able to utilizing their total deposits on loan and advances for profit generating purpose. This ratio can be obtained by dividing loan and advances by total deposits, which can be states as,

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

**ii) Total Investment to Total Deposit Ratio**

This ratio implies the utilization of firm's deposit on investment in government securities and share debentures of other companies and bank.

This ratio can be calculated by dividing total investment by total deposit. Which can be states as,

$$\text{Total Investment to Total Deposit Ratio} = \frac{\text{Total Investment}}{\text{Total Deposit}}$$

Hence, total investment consist investment on government securities, investment on debenture and bonds, share in subsidiary companies, share in other companies and other investment.

**iii) Loan and Advances to Working Fund Ratio**

Loan and advances indicates the ability of any bank to canalize its deposits in the form of loan and advances to earn high return. This ratio is computed by dividing loan and advances by total working fund, which can be states as,

$$\text{Loan and Advances to Working Fund Ratio} = \frac{\text{Loan and Advances}}{\text{Working Fund Ratio}} \quad \text{Where,}$$

Total working fund consists current assets, net fixed assets, loan for development banks and other miscellaneous assets.

**iv) Investment on Government Securities to Total Working Fund Ratio**

This ratio shows that banks investment on government securities in comparison to the total working fund.



This ratio is calculated by dividing investment on government securities by total working fund, which can be states as,

Investment on Govt. Securities to Total Working Fund Ratio

$$= \frac{\text{Interest on Govt. Securities}}{\text{Working Fund Ratio}}$$

Hence, Investment on government securities includes treasury bills and development bonds etc.

**v) Investment on Shares and Debentures to Total Working Fund Ratio**

This ratio shows the banks investment in shares and debenture of the subsidiary and other companies.

This ratio can be computed by dividing investment on shares and debentures by total working fund, which can be states as,

Investment on Shares & Debentures to Total Working Fund Ratio

$$= \frac{\text{Investment on Shares and Debentures}}{\text{Working Fund Ratio}}$$

Where, Numerator includes investment on debentures bonds and shares of the other companies.

**C) Profitability ratios**

Profit is the difference between revenues and expenses over a period of time. A company should earn profit to survive and grow over a long period of time, and it will have no future if it fails to make sufficient profits. Therefore, the financial manager should continuously evaluate the efficiency of its company in terms of profits. The profitability ratios are calculated to measure the operating efficiency of a company. It is the indicator of the financial performance of any institution. This implies that higher the profitability ratio, better the financial performance of the bank and vice versa.

The following ratios are taken into account under this heading.

**i) Return on Total Working Fund Ratio**

This ratio measures the overall profitability of all working funds i.e. total assets. A firm has to earn satisfactory return on assets or working fund for its survival. This ratio is calculated by dividing net profit by total working fund.

This can be express,

$$\text{Return on Total Working Fund Ratio} = \frac{\text{Net Profit}}{\text{Working Fund Ratio}}$$

**ii) Return on Loan & Advances Ratio**

This ratio indicates how efficiently the bank has employed its resources in the form of loan and advances. This ratio is computed by dividing net profit by loan & advances.

This can be expressed as,

$$\text{Return on Loan \& Advances Ratio} = \frac{\text{Net Profit}}{\text{Loan and Advances}}$$

**iii) Total Interest Earned to Total Outside Assets Ratio**

This ratio measures the interest earning capacity of the bank through the efficient utilization of outside assets. Higher ratio implies efficient use of outside assets to earn interest.

This ratio is calculated by dividing total interest earned by total outside assets; this can be expressed as,

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

**iv) Total Interest Earned to Total Working Fund Ratio**

This ratio is calculated to find out the percentage of interest earned to total assets (working fund). Higher ratio implies better performance of the bank its terms of interest earning on its total working fund. This ratio is calculated by dividing total interest earned by total working fund.

This can be expressed as,

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

Where, total interest earned includes, interest on loan, advances and overdrafts, government securities investment debentures and other inter bank loans.

#### v) **Total Interest Paid to Total Working Fund Ratio**

This ratio is calculated to find out the percentage of interest paid on liabilities with respect to total working fund. This ratio is calculated by dividing total interest paid by total working fund.

Which, can be expressed as

$$\text{Total Interest Paid to Total Working Fund Ratio} = \frac{\text{Total Interest Paid}}{\text{Total Working Fund}}$$

Where, total interest paid includes total expenses on deposits, loan and advances, borrowings and other deposits.

#### D) **Risk Ratios**

Risk taking is the prime business of bank's investment management. It increases effectiveness and profitability of the bank. These, ratio indicate the amount of risk associated with the various banking operations, which ultimately influences the bank investment policy.

The following ratios are taken into account under this heading.

##### i) **Liquidity Risk Ratio**

The Liquidity risk ratio measures the level of risk associated with the liquid assets i.e. cash, bank balance that are kept in the bank for the purpose of satisfying the depositor's demand for cash. Higher the ratio, lower is the liquid risk. Dividing cash & bank balance calculate this ratio by total deposits. This can be mentioned as,

$$\text{Liquidity Risk Ratio} = \frac{\text{Total Cash \& Bank Balcne}}{\text{Total Deposit}}$$

## ii) Credit Risk Ratio

Credit risk ratios measures the possibility that loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. By definition, credit risk ratio is expressed as the percentage of non-performing loan to total loan & advances. This ratio is calculated by dividing total loan and advances by total assets.

This can be mentioned as,

$$\text{Credit Risk Ratio} = \frac{\text{Total Loan and Advances}}{\text{Total Assets}}$$

## iii) Capital Risk Ratio

The capital risk ratios of a bank indicate how much asset values may decline before the position of depositors and other creditors jeopardize. The capital risk is directly related to the return on equity (ROE). Higher the ratio, low is the capital risk. This ratio is computed by dividing capital (Paid up Capital + Reserves) by risk- weighted assets as computed under BASLE committee's formula.

This can be mentioned as,

$$\text{Capital Risk Ratio} = \frac{\text{Capital (Paid up + Reserves)}}{\text{Risk Weighted Assets}}$$

## E) Growth Ratios

Growth ratios measure how well the firm is maintaining its economic position in its industry. It is directly related to the fund mobilization and investment management of a commercial bank.

The following growth ratios are calculated in this study.

- i. Growth ratio of total deposit
- ii. Growth ratio of loan & advances
- iii. Growth ratio of total investment
- iv. Growth ratio of net profit

## Statistical Tools

Some important statistical tools are used to achieve the objective of this study. In this study, statistical tools such as trend analysis of important variables, co-efficient of correlation between different variables as well as test of hypothesis have been used which are as follows:

### Co- efficient of Correlation Analysis

This analysis identifies and interprets the relationship between the two or more variables. In the case of highly correlated variables, the effect on one variable may have effect on other correlated variable under this topic, Karl Pearson's co-efficient of correlation has been used to find out the relationship between the following variables.

- i. Co-efficient of correlation between deposit and loan & advances.
- ii. Co-efficient of correlation between deposit and total investment.
- iii. Co- efficient of correlation between total outside assets and net profits.

These tools analyze the relationship between these variables and help the banks to make appropriate policy regarding deposit collection, fund utilization (loan & advances and investments) and maximization of profit.

EBL	1.17	1.17	1.20	1.15	1.12	1.162	0.029	2.50%
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Source: Annex B1

The current ratio of two commercial bank i.e. NABIL and EBL is calculated as per mean, standard deviation and coefficient of variation (Table 13). In the case of NABIL and EBL, the current ratio shows Fluctuating trend. The highest current ratio (0.95) in NABIL is in 2007/08 and lowest (0.88) in 2008/09. The highest current ratio (1.20) in the EBL is in 2007/08 and lowest (1.12) in 2009/10. On an average, EBL has maintained higher current ratio than NABIL indicating highest liquidity position of the EBL. The coefficient of variation of the current ratio in NABIL is comparatively higher (2.83%) than that of EBL (2.50%) exhibiting EBL as more consistent than NABIL.

#### **4.1.4.2 Cash and Bank Balance to Current Assets Ratios**

Cash & bank balance to current assets ratios reflect the portion of cash and bank balance in total of current assets. The ratio shows the banks liquidity capacity on the basis of cash and bank balance that is the most liquid asset. So this ratio visualizes higher liquidity position than current ratio.

is explained due to outside assets, whereas rest of the variation is caused due to other unexplained variables.

#### **4.3 Major Findings of the Study**

- The mean ratio of return on total assets ratio of NABIL is higher than that of EBL. It can be concluded that the NABIL has success to maintain the high ratio in return on total asset. NABIL has more consistent than EBL because of NABIL has less C.V. than that of EBL.
- The mean ratio of return to loan and advances ratio of NABIL higher than that of EBL. The variability of return on loan and advances of NABIL has highest than that of EBL. But NABIL has less consistency than that of EBL because of NABIL is higher C.V.
- The mean ratio of total interest earned to total outside assets of NABIL is greater than that of EBL. It indicated that the NABIL has average position towards income earned from total outside asset in comparison to EBL. NABIL has more consistency income earned than that of EBL because of NABIL has less C.V.
- The mean ratio of interest earned to total working fund ratio of NABIL is less than that of EBL. It indicated that EBL has better to NABIL. But NABIL has

more consistency than that of EBL Because of the interest earned to total working fund ratios C.V. of NABIL is less than that of EBL.

- The mean ratio of total interest paid to total working fund of NABIL is lower than that of EBL. It means NABIL has paid lower interest than that of EBL. NABIL has more consistency paid interest than that of EBL because of NABIL has lower C.V.
- From the above findings, it can be concluded that NABIL has average profitable in comparison to EBL. NABIL to earn high profit in future the bank must maintain its high profit margin. NABIL to earn high profit more consistency in future.
- The mean ratio of loan and advances to total deposit of NABIL is lower than EBL. EBL has less C.V. than that of NABILs it indicates that loan and advances of EBL is stable and consistent.
- The mean ratio of loan and advances to working fund ratio of NABIL is lower than that of EBL. It can conclude that EBL has better mobilizing its fund than that of NABIL. EBL has more consistency than that of NABIL because of EBL has less C.V. than that of NABIL.
- The mean ratio of total investment to total deposits of NABIL is higher than that of EBL. It can be concluded that NABIL is success to better utilization of deposit to investment than EBL. But EBL has more consistency than that of NABIL because of EBL has less C.V. than that of NABIL.
- The mean ratio of investment on government securities to total working fund ratio of NABIL has lower than that of EBL. It can be concluded that the EBL has Investment practices is more variable than that of NABIL. EBL has more consistency than NABIL because of EBL has less C.V.
- The mean ratio of investment on shares and debenture to total working fund of NABIL has lower than that of EBL. EBL has investment in shares and debenture seems to stable than NABIL. EBL has more consistency than NABIL i.e. the C.V. of EBL has less.
- From the above analysis, it can be concluded that NABIL has highest Investment practices towards investment to total deposits but it has lowest government securities to total working fund, share and debenture to total working funds. EBL has stable and consistent than that of NABIL.

- The loan loss provision to loan and advances ratio were fluctuating trend in both banks during the study period. The highest ratio of NABIL is 1.01 in FY 2005/06 and lowest ratio 0.29 in FY 2008/09. EBL has highest ratio 1.22 in FY 2006/07 and lowest ratio 0.924 in FY 2005/06. The mean value of the ratio in NABIL lower than EBL i.e.  $0.804 < 1.02$ . Coefficient of variation of the ratio in NABIL higher than EBL i.e.  $36.94\% > 11.09\%$ . It indicates that NABIL has good quality of assets in total volume of loan and advances whereas EBL indicates the more risky assets in the volume of loan and advances but EBL has more consistency than NABIL because of the EBL has less coefficient of variation.
- The ratio was in a fluctuating trend in NABIL and decreasing trend in EBL. The highest ratio of NABIL is 5.79 in FY 2005/06 and lowest ratio 1.15 in FY 2009/10. EBL has highest ratio 2.26 in FY 2005/06 and lowest ratio 0.946 in FY 2009/10. The mean value of the ratio in NABIL was higher than EBL i.e.  $2.64 > 1.56$ . Coefficient of variation of the ratio in NABIL was higher than EBL i.e.  $75.78\% > 31.83\%$ . It indicates that NABIL has the bad performance of the bank in mobilizing loan and advances than EBL. EBL has more consistency than NABIL.
- From the analysis of current ratio, it is found the mean ratio of NABIL is less than EBL. It means EBL has maintained higher current ratio in compared to NABIL. The ratio of EBL is more variable than NABIL. EBL has more consistency than NABIL because of EBL has lower C.V. than NABIL.
- The mean ratio of cash and bank balance to current assets ratio of NABIL is lesser than EBL. It states that the EBL has utilized its fund better than that of NABIL. EBL has more consistency to utilize its fund than that of NABIL because of EBL has lower C.V than that of NABIL.
- The mean ratio of cash and bank balance to total deposits of NABIL is less than that of EBL. It states that the liquidity position of NABIL is not better than that of EBL. EBL has better to maintain of its liquidity position. EBL has more consistent to maintain of its liquidity position than that of NABIL because of EBL has less C.V. than that of NABIL.
- The mean ratio of investment on government securities to current asset of NABIL is less than that of EBL. It states that the EBL uses to invest its current asset in government securities more than that of NABIL. EBL has more consistent to maintain of its uses to invest current asset than that of NABIL.



because of EBL has less C.V. than that of NABIL.

- The mean ratio of loan and advances to current assets of NABIL is higher than EBL. It concluded that NABIL use to provide more loan and advances than that of EBL. But EBL has more consistency than NABIL because of EBL has less C.V. than that of NABIL.
- The above result shows that the liquidity position of NABIL is comparatively lower than EBL. It has lower cash and bank balance to total deposit, cash and bank balance to current assets ratio, and Investment on government securities to current assets ratio but it has higher mean ratio of NABIL is loan and advances to current assets. It reveals that EBL has better liquidity position than that of NABIL.
- The mean ratio of credit risk of NABIL is lower than that of EBL. Therefore NABIL has less credit risk than that of EBL. But EBL has more consistency than that of NABIL because of EBL has less C.V.
- The mean ratio of capital risk of NABIL is lower than that of EBL. NABIL has less capital risk than EBL.
- From the above findings, it can be concluded that NABIL has average risk ratio. The bank should maintain risk against credit fund to earn high profit.
- The coefficient of correlation (r) between deposit and loan and advances of NABIL and EBL are 0.967 and 0.998 respectively, which shows the highly positive relationship between these two variables of both banks. The coefficient of determination i.e.  $r^2$  of NABIL is 0.935 whereas it is 0.996 in case of EBL indicating that the 93.5% of variation in loan and advances is caused by deposit in NABIL and 99.6% of it is caused deposit in EBL, while rest part of variation in the is due to other unexplained variables. The probable error of NABIL is higher (0.12) than that of EBL (0.0086) exhibiting a highly significant relationship between deposit and loan and advances of both banks. Thus, both the banks are successful in mobilizing their deposit and loan and advances, however, EBL is better in mobilizing deposit and loan and advances in comparison to NABIL.
- The deposit and total investment of both banks are highly correlated exhibiting r-values 0.82 and 0.96 of NABIL and EBL, respectively. The EBL has greater (0.92) coefficient of determination ( $r^2$ ) than NABIL (0.67) indicating that the variation in total investment of NABIL and EBL is caused by deposits at the rate

of 67% and 92%, respectively. Rest of the variation in dependent variable is caused by other unexplained variables. However, the value of  $R^2$  is greater (0.59) in NABIL than in EBL (0.14). EBL is more successful ( $r$ -value is high) in maximizing the investment of their deposits in comparison to the NABIL.

- There is a highly positive relationship between net profit and outside assets of both EBL ( $r = 0.99$ ) and NABIL ( $r = 0.94$ ). The coefficient of determination ( $r^2$ ) is higher (0.98) in EBL than in NABIL (0.88) indicating that about 98% of variation in net profit of EBL and 88% of variation in net profit of NABIL is caused due to outside assets, whereas rest of the variation is caused due to other unexplained variables.
- The growth ratio of total deposit of NABIL is lower than that of EBL. It indicated that the performance of NABIL to collect deposit is not better.
- The growth ratio of loan and advances of NABIL is lower than that of EBL. It indicated that the performance of to grant loan and advances is not satisfactory.
- The growth ratio of investment is also lower than that of EBL. It indicated that the performance of to grant investment is not better.
- The growth ratio of NABIL net profit is higher than that of EBL . It indicated that the NABIL has not successful to earn more profit than than of EBL.

## CHAPTER - V

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary

Banks are the backbone of the country's economic development. They are providing a foundation to develop country through economic ways. Now days there are thirty one commercial banks are operation in all over the country. The data, which were used in this dissertation, are secondary nature. They were obtained from concerned banks annual report, literature, publication, balance sheet, profit and loss account, previous thesis report, different web site, related books and booklets, journal and articles and NEPSE. For the analysis and interpretation of data, various related financial and statistical tools, which are used in this study are liquidity ratio, assets management ratio, profitability ratio, growth ratio, risk ratio, sources and uses of funds and cash flow analysis. Similarly, statistical tools, which are used in this study are, mean, standard deviation, coefficient of variation, coefficient of correlation.

To fulfill the objective of the study all secondary data are compiled, processed and tabulated in the second last chapter. To make the analysis easier and understandable line chart are also used. This study also bounded by many limitations, such as secondary data, unreliability of time and resources are the constraints of the study. In this study the focus is given to the quantities. Qualitative factors are not studies. Therefore the study may not be generalized in all cases and accuracy depends upon the data collected and provided by the concerned organization.

This study "A Study on Investment Policy of Commercial Banks" is primarily prepared for the partial fulfillment of the requirement of the master of business studies (MBS). This study is mainly based on secondary and primary data provided by concern companies and security board of Nepal (SEBON). Among the listed companies Nabil Bank and Nepal Investment Bank have selected as a sample of study. The main objective of the study is to assets the Fund Collection and Utilization. However due to the time and resource constraints all types of analysis are not conducted and information are gathered from the period of 2005/06 to 2009/10.

The collected information is presented analyzed and conclusion is drawn from the study.

Chapter One is concerned with the introduction of the whole study. It explained about the concentration of the study objectives and organization of the study which provides guideline for entire study.

Chapter Two is for the review as well as the review of related previous studies is conducted.

Chapter Three specifies the guidelines, tools and research design to achieve the objectives of the study.

In Chapter Four, the analysis of data, some statistical and financial tools are used. This chapter contains analysis and evaluation of data. The relevant finding drawn on the basis of analysis and interpretation of provided data.

In chapter Five, main findings are concluded as the conclusion of the study. Based on the analysis and conclusion of the study some recommendations are made in this chapter.

## **5.2 Conclusion**

- The mean ratio of return on total assets ratio of NABIL is higher than that of EBL. It can be concluded that the NABIL has success to maintain the high ratio in return on total asset. NABIL has more consistent than EBL because of NABIL has less C.V. than that of EBL.
- The mean ratio of return to loan and advances ratio of NABIL higher than that of EBL. The variability of return on loan and advances of NABIL has highest than that of EBL. But NABIL has less consistency than that of EBL because of NABIL is higher C.V.
- The mean ratio of total interest earned to total outside assets of NABIL is greater than that of EBL. It indicated that the NABIL has average position towards income earned from total outside asset in comparison to EBL. NABIL has more consistency income earned than that of EBL because of NABIL has less C.V.
- The mean ratio of interest earned to total working fund ratio of NABIL is less than that of EBL. It indicated that EBL has better to NABIL. But NABIL has more consistency than that of EBL Because of the interest earned to total

working fund ratios C.V. of NABIL is less than that of EBL.

- The mean ratio of total interest paid to total working fund of NABIL is lower than that of EBL. It means NABIL has paid lower interest than that of EBL. NABIL has more consistency paid interest than that of EBL because of NABIL has lower C.V.
- The mean ratio of loan and advances to total deposit of NABIL is lower than EBL. EBL has less C.V. than that of NABILs it indicates that loan and advances of EBL is stable and consistent.
- The mean ratio of loan and advances to working fund ratio of NABIL is lower than that of EBL. It can conclude that EBL has better mobilizing its fund than that of NABIL. EBL has more consistency than that of NABIL because of EBL has less C.V. than that of NABIL.
- The mean ratio of total investment to total deposits of NABIL is higher than that of EBL. It can be concluded that NABIL is success to better utilization of deposit to investment than EBL. But EBL has more consistency than that of NABIL because of EBL has less C.V. than that of NABIL.
- The mean ratio of investment on government securities to total working fund ratio of NABIL has lower than that of EBL. It can be concluded that the EBL has Investment practices is more variable than that of NABIL. EBL has more consistency than NABIL because of EBL has less C.V.
- The mean ratio of investment on shares and debenture to total working fund of NABIL has lower than that of EBL. EBL has investment in shares and debenture seems to stable than NABIL. EBL has more consistency than NABIL i.e. the C.V. of EBL has less.
- The loan loss provision to loan and advances ratio were fluctuating trend in both banks during the study period. The highest ratio of NABIL is 1.01 in FY 2005/06 and lowest ratio 0.29 in FY 2008/09. EBL has highest ratio 1.22 in FY 2006/07 and lowest ratio 0.924 in FY 2005/06. The mean value of the ratio in NABIL lower than EBL i.e.  $0.804 < 1.02$ . Coefficient of variation of the ratio in NABIL higher than EBL i.e.  $36.94\% > 11.09\%$ . It indicates that NABIL has good quality of assets in total volume of loan and advances whereas EBL indicates the more risky assets in the volume of loan and advances but EBL has more consistency than NABIL because of the EBL has less coefficient of variation.

- The ratio was in a fluctuating trend in NABIL and decreasing trend in EBL. The highest ratio of NABIL is 5.79 in FY 2005/06 and lowest ratio 1.15 in FY 2009/10. EBL has highest ratio 2.26 in FY 2005/06 and lowest ratio 0.946 in FY 2009/10. The mean value of the ratio in NABIL was higher than EBL i.e.  $2.64 > 1.56$ . Coefficient of variation of the ratio in NABIL was higher than EBL i.e.  $75.78\% > 31.83\%$ . It indicates that NABIL has the bad performance of the bank in mobilizing loan and advances than EBL. EBL has more consistency than NABIL.
- From the analysis of current ratio, it is found the mean ratio of NABIL is less than EBL. It means EBL has maintained higher current ratio in compared to NABIL. The ratio of EBL is more variable than NABIL. EBL has more consistency than NABIL because of EBL has lower C.V. than NABIL.
- The mean ratio of cash and bank balance to current assets ratio of NABIL is lesser than EBL. It states that the EBL has utilized its fund better than that of NABIL. EBL has more consistency to utilize its fund than that of NABIL because of EBL has lower C.V than that of NABIL.
- The mean ratio of cash and bank balance to total deposits of NABIL is less than that of EBL. It states that the liquidity position of NABIL is not better than that of EBL. EBL has better to maintain of its liquidity position. EBL has more consistent to maintain of its liquidity position than that of NABIL because of EBL has less C.V. than that of NABIL.
- The mean ratio of investment on government securities to current asset of NABIL is less than that of EBL. It states that the EBL uses to invest its current asset in government securities more than that of NABIL. EBL has more consistent to maintain of its uses to invest current asset than that of NABIL because of EBL has less C.V. than that of NABIL.
- The mean ratio of loan and advances to current assets of NABIL is higher than EBL. It concluded that NABIL use to provide more loan and advances than that of EBL. But EBL has more consistency than NABIL because of EBL has less C.V. than that of NABIL.
- The mean ratio of credit risk of NABIL is lower than that of EBL. Therefore NABIL has less credit risk than that of EBL. But EBL has more consistency than that of NABIL because of EBL has less C.V.
- The mean ratio of capital risk of NABIL is lower than that of EBL. NABIL has

less capital risk than EBL.

- The coefficient of correlation ( $r$ ) between deposit and loan and advances of NABIL and EBL are 0.967 and 0.998 respectively, which shows the highly positive relationship between these two variables of both banks. The 6P.Er. of NABIL is higher (0.12) than that of EBL (0.0086), indicating a highly significant relationship between deposit and loan and advances of both banks. Thus, both the banks are successful in mobilizing their deposit and loan and advances. However, EBL is at the better position in mobilizing deposit and loan and advances in comparison to NABIL.
- The deposit and total investment of both banks are highly correlated exhibiting  $r$ -values 0.82 and 0.96 of NABIL and EBL, respectively. However, the value of 6P. Er is greater (0.59) in NABIL than in EBL (0.14). EBL is more successful ( $r$ -value is high) in maximizing the investment of their deposits in comparison to the NABIL.
- There is a highly positive relationship between net profit and outside assets of both EBL ( $r = 0.99$ ) and NABIL ( $r = 0.94$ ). The coefficient of determination ( $r^2$ ) is higher (0.98) in EBL than in NABIL (0.88) indicating that about 98% of variation in net profit of EBL and 88% of variation in net profit of NABIL is caused due to outside assets, whereas rest of the variation is caused due to other unexplained variables.
- The growth ratio of total deposit of NABIL is lower than that of EBL. It indicated that the performance of NABIL to collect deposit is not better.
- The growth ratio of loan and advances of NABIL is lower than that of EBL. It indicated that the performance of to grant loan and advances is not satisfactory.
- The growth ratio of investment is also lower than that of EBL. It indicated that the performance of to grant investment is not better.
- The growth ratio of NABIL net profit is higher than that of EBL . It indicated that the NABIL has not successful to earn more profit than than of EBL.

### **5.3 Recommendations**

- Profitability ratio of NABIL is good from the return point of view but it seems that NABIL cannot earn higher interest through the outside assets and working fund. Therefore, NABIL is recommended to increase its interest earned in outside assets and working fund by investing more funds in loan and advances and

different types of securities. The high interest earning capacity of the EBL implies a good performance of the bank.

- The loan and advances to total deposit ratio and loan and advances to total working fund ratio of NABIL is lower than that of EBL. To overwhelm this condition, NABIL is strongly recommended to follow liberal lending policy and invest more and more percentage of total deposit and total working fund in loan and advances. EBL has invested its more fund in loan and advances compared to NABIL. EBL seems to be more aggressive in lending which is not fair from liquidity point of view. So, EBL is recommended to be moderate in its lending.
- Besides investing on government securities, NABIL is recommended to invest its fund in purchase of shares and debentures of that the EBL. Government securities such as treasury bills have very lower yield than that of EBL. This also helps to maintain the sound portfolio of the bank.
- NABIL has good quality of assets in total volume of loan and advances whereas EBL indicates the more risky assets in the volume of loan and advances but EBL has more consistency than NABIL because of the EBL has less coefficient of variation. Thus, EBL should reduce its risky assets.
- NABIL has the bad performance of the bank in mobilizing loan and advances than EBL. EBL has more consistency than NABIL. So, NABIL should increase its loan and advances mobilization.
- As NABIL has lower ratio of cash and bank balance to total deposits and current assets than that of EBL. Therefore, NABIL is recommended to increase cash and bank balance to make immediate payment to the depositors and to meet the demand of loan and advances. EBL has excess liquidity; it should not be beyond the limit. EBL should maintain it within the satisfactory level.
- Coefficient of correlation between outside assets and net profit of both banks is highly positive, however, EBL has higher coefficient of correlation than that of NABIL. It shows that there is highly positive relationship between these two variables of both banks. But, NABIL is less capable to earn profit by mobilizing its total outside assets than the EBL. So, NABIL should innovate new strategy and changing its current policy for more utilizing its outside assets to earn more profit to compete with the EBL.
- To gather more funds, NABIL is suggested not to focus only on big clients i.e. multinational companies, large industries, manufacturing companies, NGOs and



INGOs etc. It should attract the lower and middle level people too. Different kind of schemes such as easy saving scheme, cumulative deposit scheme, house building deposit scheme, deposit linked life insurance scheme, recurring deposit scheme should be launched.

- Since the NABIL has limited branches in outside the Kathmandu valley and the developing rural areas, it should establish its branches at the respective sites to mobilize the scattered money to the industrial sectors in the city areas.
- Considering the growing competition in the banking sector, the business of the bank should be customer oriented. The bank is recommended to adopt innovations and services such as SWIFT, ATM cards, visa electron debit card, international credit card, locker services, lending against gold and silver services, 24-hour services, holiday banking etc. The bank should involve in different kind of social and community development activities. The bank has been able to provide more personalized services and better environment for its customer, it is an effective tool to attract the retain the customers.
- Since, the risk increases effectiveness and profitability of the bank, the capital risk taken by NABIL is an average whereas credit risk is lower than that of EBL and its consistency is highly unstable which may result higher loss. The bank should not take high risk, NABIL should carefully analyze in above risk to achieve higher returns.
- NABIL's growth ratio is lower than that of EBL. It has very much fluctuating growth rate and NABIL is recommended to increase its growth ratio into deposits, loan and advances, investment and net profit by designing new products and services to the depositors so as to attract them.

# BIBLIOGRAPHY

## BOOKS

Bhandari, Delli R. (2005), *Principle and Practices of Banking and Insurance*,  
Bagbazar, Kathmandu: Asia Publication

Cheney, John M. & Moses, Edward A. (1992), *Fundamental of Investment*,  
New York: West Publishing Company.

Famma and Miller (1998), *The Theory of Finance*, New York: The Dryden Press.

Frances, J. Clark, (2003), *Investment Analysis and Management*, Post Graduate Publications

Gupta S.P. (2000), *Statistical Methods*, New Delhi: Sultan Chand & Sons Publishers.

Gupta, S.C. (2002), *Fundamental of Statistics*, Bombay: Himalayan Publishing House.

Joshi, P.R. (2003), *Research Methodology*,  
Kathmandu, Nepal: Buddha Academic Publishers and Distributers Pvt. Ltd.

Kothari, C.R. (1999), *Research Methodology: Method and Techniques*, New Delhi:

Sharma, P.K. & Chaudary, A.K. (2002), *Statistical Methods*,  
Kathmandu, Nepal: Khanal Books Prakashan.

Sharpe, William F., Alexander Gordon J. and Bailey Jeffery V., *Investments*, 5<sup>th</sup> Edition, Prentice Hall  
of India P. Ltd, New Delhi, 2000

Vaidya, S. (2058), *Financial Market and Institutions*, Kathmandu, Nepal: Taleju Prakashan.

Van Horne, J.C. & Brigham, E.F. (1987), *Essential of Managerial Finance*,  
Ornaldo: The Dryden Press. Vishwa Prakashan.

Wolff Howard K. and Pant P.R. (2002), *Social Science research and Thesis Writing*, Kathmandu,  
Nepal: Buddha Academic publishing and distributors.

## THESIS

**Bhandari Ramesh (2008)** has conducted a research entitled “Investment policy Analysis of Joint  
Venture Bank (with reference to NSBIL, BOKL & EBL).” Kathmandu, Nepal: An  
unpublished Master’s Degree Thesis, T.U.

**Karki Udab (2005)** in his thesis entitled “Investment policy of Commercial Banks in Nepal: A comparative study of Everest Bank Limited with Nabil Bank Limited and Bank of Kathmandu.” Kathmandu, Nepal: An unpublished Master’s Degree Thesis, T.U.

**Dhakal, Binay (2010)** has conducted a research entitled “Investment Policy of Joint Venture Commercial Banks of Nepal.” Kathmandu, Nepal: An unpublished Master’s Degree Thesis, T.U.

**Acharya Kiran (2004)** in his thesis entitled “ A comparative study of Investment policy of SCBL & EBL.” Kathmandu, Nepal: An unpublished Master’s Degree Thesis, T.U.

**Shrestha Kumar (2009)** entitled with “A study on the investment policy of NABIL Bank Ltd. in comparison to Investment Bank Ltd.” Kathmandu, Nepal: An unpublished Master’s Degree Thesis, T.U.

## **JOURNALS, REPORTS AND ARTICLE**

Annual Reports of NABIL, and EBL.

Bhaskar Sharma, *Banking Future on competition*-2000 P-13

Bodhi Bahadur Bajracharya, *Monetary Policy and Deposit Mobilization in Nepal*,

Rajat Jayanti Smarika, *Rastriya Binijya Bank*, Ktm -2047BS, PP 93-97.

Dr. Govinda Bahadur Thapa, *Financial System of Nepal*,

Development division Patan Multiple Campus, Lalitpur. Vol.3 1994. PP29-37.

Dr. Sunity Shrestha, *Investment Planning of Commercial Banks in Nepal*.

Ph.D. Thesis-1993.

Krishna D. Bhattarai (2003). *Non Performing Assets (NPA) Management*.

An unpublished Master Degree Thesis, Shanker Dev Campus

Radhe Shyam Pradha, *Financial Management Practice in Nepal*, Vikash Publishing House (p) Ltd, New Delhi, 1994. p89.

Rewat Bahadur Karki (2000). *Nepalese Financial Sector: Challenges and Some Solution*. An unpublished Master Degree Thesis, Shanker Dev Campus

Shekhar Bahadur Pradhan *Deposit Mobilization its Problem and Prospects*,-1996 P-9

Shiva Raj Shrestha, *Portfolio Management in Commercial Bank, Theory and Practice*, Nepal Bank Patrika-2055 P-13.

## ANNEX:

Annex A1: Loan loss provision & loan and advances ratios of NABIL Bank Limited and Everest Bank Limited

<b>NABIL BANK LIMITED</b>				<b>EVEREST BANK LIMITED</b>			
<b>Year</b>	<b>Loan loss provision</b>	<b>Loan and advances</b>	<b>Ratios</b>	<b>Year</b>	<b>Loan loss provision</b>	<b>Loan and advances</b>	<b>Ratios</b>
2005/06	78.66	7755.95	1.01	2005/06	45.37	4908.46	0.924
2006/07	81.3	8189.99	0.99	2006/07	71.66	5884.12	1.22
2007/08	86.62	10586.17	0.82	2007/08	74.53	7618.67	0.978
2008/09	37.69	12922.54	0.29	2008/09	97.57	9801.31	0.995
2009/10	142.06	15545.78	0.91	2009/10	137.5	13664.081	1.006

Source: Annual report Nabil and Everest

Annex A2: Non-performing Loan to loan and advances ratios of NABIL Bank Limited and Everest Bank Limited

<b>NABIL BANK LIMITED</b>				<b>EVEREST BANK LIMITED</b>			
<b>Year</b>	<b>Non-performing loan</b>	<b>Loan and advances</b>	<b>Ratios</b>	<b>Year</b>	<b>Non-performing loan</b>	<b>Loan and advances</b>	<b>Ratios</b>
2005/06	449.63	7755.95	5.79	2005/06	111.19	4908.46	2.26
2006/07	286.68	8189.99	3.50	2006/07	104.75	5884.12	1.78
2007/08	144.51	10586.17	1.36	2007/08	113.18	7618.67	1.49
2008/09	182.62	12922.54	1.41	2008/09	128.81	9801.31	1.31
2009/10	178.29	15545.78	1.15	2009/10	129.24	13664.081	0.946

Source: Annual report Nabil and Everest

Annex B1: Current ratios of NABIL Bank Limited and Everest Bank Limited

<b>NABIL BANK LIMITED</b>				<b>EVEREST BANK LIMITED</b>			
<b>Year</b>	<b>Current assets</b>	<b>Current liabilities</b>	<b>Ratios</b>	<b>Year</b>	<b>Current assets</b>	<b>Current liabilities</b>	<b>Ratios</b>
2005/06	13868.30	15135.42	0.92	2005/06	7911.26	6733.69	1.17
2006/07	14244.04	15374.61	0.93	2006/07	9526.77	8127.99	1.17
2007/08	14845.75	15667.12	0.95	2007/08	11604.85	9710.68	1.20
2008/09	18133.82	20501.92	0.88	2008/09	15227.78	13209.05	1.15
2009/10	22829.54	25022.27	0.91	2009/10	19826.78	17739.13	1.12

Source: Annual report Nabil and Everest

Annex B2: Cash and Bank balance Current ratios of Nabil Bank Limited and Everest Bank Limited

<b>NABIL BANK LIMITED</b>				<b>EVEREST BANK LIMITED</b>			
<b>Year</b>	<b>Cash &amp; Bank balance</b>	<b>Current Assets</b>	<b>Ratios</b>	<b>Year</b>	<b>Cash&amp;Bank balance</b>	<b>Current assets</b>	<b>Ratios</b>
2005/06	1144.77	13868.30	8.25	2005/06	1139.59	7911.26	14.40
2006/07	970.49	14244.04	6.81	2006/07	631.80	9526.77	6.63
2007/08	559.38	14845.75	3.77	2007/08	1049.99	11604.85	9.05
2008/09	630.24	18133.82	3.48	2008/09	1552.96	15227.78	10.20
2009/10	1399.82	22829.54	6.13	2009/10	2391.42	19826.78	12.06

Source: Annual report Nabil and Everest

Annex B3: Cash and bank balance to total deposits ratios of Nabil Bank Limited and Everest Bank Limited

<b>NABIL BANK LIMITED</b>				<b>EVEREST BANK LIMITED</b>			
<b>Year</b>	<b>Cash &amp; Bank balance</b>	<b>Total deposits</b>	<b>Ratios</b>	<b>Year</b>	<b>Cash &amp; Bank balance</b>	<b>Total deposits</b>	<b>Ratios</b>
2005/06	1144.77	13447.66	8.51	2005/06	1139.59	6694.96	17.02
2006/07	970.49	14119.03	6.87	2006/07	631.80	8063.90	7.83
2007/08	559.38	14586.60	3.83	2007/08	1049.99	10097.69	10.39

2008/09	630.24	19347.39	3.26	2008/09	1552.96	13802.44	11.25
2009/10	1399.82	23342.28	5.99	2009/10	2391.42	18186.25	13.15

Source: Annual report Nabil and Everest

Annex B4: Investment on Government securities to Current ratios of NABIL Bank Limited and Everest Bank Limited

NABIL BANK LIMITED				EVEREST BANK LIMITED			
Year	Government securities	Current Assets	Ratios	Year	Government securities	Current Assets	Ratios
2005/06	3588.77	13868.30	25.88	2005/06	1599.35	7911.26	20.22
2006/07	3672.62	14244.04	25.78	2006/07	2466.43	9526.77	25.89
2007/08	2413.93	14845.75	16.26	2007/08	2109.54	11604.85	18.18
2008/09	2301.46	18133.82	12.69	2008/09	4181.43	15227.78	27.46
2009/10	4808.35	22829.54	21.06	2009/10	4965.23	19826.78	25.04

Source: Annual report Nabil and Everest

Annex B5: Loan and advances to current ratios of NABIL Bank Limited and Everest Bank Limited

NABIL BANK LIMITED				EVEREST BANK LIMITED			
Year	Loan and advances	Current Assets	Ratios	Year	Loan and advances	Current Assets	Ratios
2005/06	7755.95	13868.30	55.92	2005/06	4908.46	7911.26	62.04
2006/07	8189.99	14244.04	57.49	2006/07	5884.12	9526.77	61.76
2007/08	10586.17	14845.75	71.30	2007/08	7618.63	11604.85	65.65
2008/09	12922.54	18133.82	71.26	2008/09	9801.30	15227.78	64.36
2009/10	15545.78	22829.54	68.09	2009/10	13664.08	19826.78	68.92

Source: Annual report Nabil and Everest

Annex C1: Loan and advances to total deposits ratios of NABIL Bank Limited and Everest Bank Limited

NABIL BANK LIMITED				EVEREST BANK LIMITED			
Year	Loan and advances	Total deposits	Ratios	Year	Loan and advances	Total Deposits	Ratios
2005/06	7755.95	13447.66	57.67	2005/06	4908.46	6694.96	73.32

2006/07	8189.99	14119.03	58.00	2006/07	5884.12	8063.90	72.97
2007/08	10586.17	14586.60	72.57	2007/08	7618.63	10097.69	75.45
2008/09	12922.54	19347.39	66.79	2008/09	9801.30	13802.44	71.01
2009/10	15545.78	23342.28	66.59	2009/10	13664.08	18186.25	75.13

Source: Annual report Nabil and Everest

Annex C2: Loans and advances to total working fund ratios of NABIL Bank Limited and Everest Bank Limited

NABIL BANK LIMITED				EVEREST BANK LIMITED			
Year	Loan and advances	Total working fund	Ratios	Year	Loan and advances	Total working fund	Ratios
2005/06	7755.95	16562.62	46.82	2005/06	4908.46	8052.20	60.95
2006/07	8189.99	16745.49	48.91	2006/07	5884.12	9608.57	61.24
2007/08	10586.17	17064.08	62.04	2007/08	7618.63	11737.52	64.91
2008/09	12922.54	22329.97	57.87	2008/09	9801.30	15959.28	61.41
2009/10	15545.78	27253.39	57.04	2009/10	13664.08	21432.57	63.75

Source: Annual report Nabil and Everest

Annex C3: Total investment to total deposits ratios of NABIL Bank Limited and Everest Bank Limited

NABIL BANK LIMITED				EVEREST BANK LIMITED			
Year	Total investment	Total deposits	Ratios	Year	Total investment	Total deposits	Ratios
2005/06	6031.18	13447.66	44.85	2005/06	1653.97	6694.96	24.70
2006/07	5835.95	14119.03	41.33	2006/07	2535.66	8063.90	31.44
2007/08	4275.53	14586.60	29.31	2007/08	2128.93	10097.69	21.08

2008/09	6178.53	19347.39	31.93	2008/09	4200.52	13802.44	30.43
2009/10	8945.31	23342.28	38.32	2009/10	4984.31	18186.25	27.41

Source: Annual report Nabil and Everest



Annex C4: Investment on government securities to total working fund ratios of NABIL Bank Limited  
and Everest Bank Limited

NABIL BANK LIMITED				EVEREST BANK LIMITED			
Year	Government securities	Total working fund	Ratios	Year	Government securities	Total working fund	Ratios
2005/06	3588.77	16562.62	21.67	2005/06	1599.35	8052.20	19.86
2006/07	3672.62	16745.49	21.93	2006/07	2466.43	9608.57	25.67
2007/08	2413.93	17064.08	14.17	2007/08	2109.54	11737.52	17.98
2008/09	2301.46	22329.97	10.31	2008/09	4181.43	15959.28	26.20
2009/10	4808.35	27253.39	17.64	2009/10	4965.23	21432.57	23.17

Source: Annual report Nabil and Everest

Annex C5: Investment on shares & debentures to total working fund ratios of NABIL Bank Limited  
and Everest Bank Limited

NABIL BANK LIMITED				EVEREST BANK LIMITED			
Year	Shares & debentures	Total working fund	Ratios	Year	Shares & Debentures	Total working fund	Ratios
2005/06	22.22	16562.62	0.133	2005/06	18.36	8052.20	0.23
2006/07	22.22	16745.49	0.133	2006/07	19.38	9608.57	0.20
2007/08	44.31	17064.08	0.26	2007/08	19.38	11737.52	0.17
2008/09	10.41	22329.97	0.05	2008/09	19.89	15959.28	0.124
2009/10	28.69	27253.39	0.105	2009/10	19.89	21432.57	0.092

Source: Annual report Nabil and Everest

Annex D1: Return on total assets ratios of NABIL Bank Limited and Everest Bank Limited

<b>NABIL BANK LIMITED</b>				<b>EVEREST BANK LIMITED</b>			
<b>Year</b>	<b>Net profit</b>	<b>Total assets</b>	<b>Ratios (%)</b>	<b>Year</b>	<b>Net profit</b>	<b>Total assets</b>	<b>Ratios (%)</b>
2005/06	416.24	16562.62	2.51	2005/06	94.18	8052.20	1.17
2006/07	455.31	16745.49	2.72	2006/07	143.57	9608.57	1.49
2007/08	520.11	17064.08	3.05	2007/08	168.21	11737.52	1.43
2008/09	635.26	22329.97	2.84	2008/09	237.29	15959.28	1.49
2009/10	673.96	27253.39	2.47	2009/10	296.41	21432.57	1.38

Source: Annual report Nabil and Everest

Annex D2: Return on loan and advances ratios of NABIL Bank Limited and Everest Bank Limited

<b>NABIL BANK LIMITED</b>				<b>EVEREST BANK LIMITED</b>			
<b>Year</b>	<b>Net profit</b>	<b>Loan and advances</b>	<b>Ratios (%)</b>	<b>Year</b>	<b>Net profit</b>	<b>Loan and advances</b>	<b>Ratios (%)</b>
2005/06	416.24	7755.95	5.37	2005/06	94.18	4908.46	1.92
2006/07	455.31	8189.99	5.56	2006/07	143.57	5884.12	2.44
2007/08	520.11	10586.17	4.91	2007/08	168.21	7618.63	2.21
2008/09	635.26	12922.54	4.92	2008/09	237.29	9801.30	2.42
2009/10	673.96	15545.78	4.33	2009/10	296.41	13664.08	2.17

Source: Annual report Nabil and Everest

Annex D3: Interest earned total outside ratios of NABIL Bank Limited and Everest Bank Limited

<b>NABIL BANK LIMITED</b>				<b>EVEREST BANK LIMITED</b>			
<b>Year</b>	<b>Interest earned</b>	<b>Outside assets</b>	<b>Ratios (%)</b>	<b>Year</b>	<b>Interest earned</b>	<b>Outsides assets</b>	<b>Ratios (%)</b>
2005/06	1017.87	13787.13	7.38	2005/06	520.17	6703.58	7.76
2006/07	1001.62	14025.94	7.14	2006/07	657.25	8631.49	7.62
2007/08	1068.75	15083.23	7.09	2007/08	719.29	10312.23	6.96
2008/09	1309.99	16022.12	8.17	2008/09	903.41	14027.32	6.44
2009/10	1587.76	18422.59	8.62	2009/10	1144.41	18838.04	6.07

Source: Annual report Nabil and Everest

Annex D4: Interest earned to total working fund ratios of NABIL Bank Limited and Everest Bank Limited

<b>NABIL BANK LIMITED</b>				<b>EVEREST BANK LIMITED</b>			
<b>Year</b>	<b>Interest earned</b>	<b>Working fund</b>	<b>Ratios (%)</b>	<b>Year</b>	<b>Interest earned</b>	<b>Working Fund</b>	<b>Ratios (%)</b>
2005/06	1017.87	16562.62	6.15	2005/06	520.17	8052.20	6.46
2006/07	1001.62	16745.49	5.98	2006/07	657.25	9608.57	6.84
2007/08	1068.75	17064.08	6.26	2007/08	719.29	11731.52	6.13
2008/09	1309.99	22329.97	5.87	2008/09	903.41	15959.28	5.66
2009/10	1587.76	27253.39	5.83	2009/10	1144.41	21432.57	5.34

Source: Annual report Nabil and Everest

Annex D5: Interest paid to total working fund ratios of NABIL Bank Limited and Everest Bank Limited

NABIL BANK LIMITED				EVEREST BANK LIMITED			
Year	Interest Paid	Working fund	Ratios (%)	Year	Interest Paid	Working fund	Ratios (%)
2005/06	317.35	16562.62	1.92	2005/06	307.05	8052.20	3.81
2006/07	282.95	16745.49	1.69	2006/07	316.37	9608.57	3.29
2007/08	243.54	17064.08	1.42	2007/08	299.57	11731.52	2.55
2008/09	357.16	22329.97	1.59	2008/09	401.39	15959.28	2.51
2009/10	555.71	27253.39	2.04	2009/10	517.17	21432.57	2.41

Source: Annual report Nabil and Everest

Annex E1: Credit Risk ratios of NABIL Bank Limited and Everest Bank Limited

NABIL BANK LIMITED				EVEREST BANK LIMITED			
Year	Loan and advances	Total assets	Ratios (%)	Year	Loan & advances	Total assets	Ratios (%)
2005/06	7755.95	16562.62	46.82	2005/06	4908.46	8052.20	60.96
2006/07	8189.99	16745.49	48.91	2006/07	5884.12	9608.57	61.24
2007/08	10586.17	17064.08	62.04	2007/08	7618.63	11731.52	64.93
2008/09	12922.54	22329.97	57.87	2008/09	9801.30	15959.28	61.41
2009/10	15545.78	27253.39	57.04	2009/10	13664.08	21432.57	63.75

Source: Annual report Nabil and Everest

Annex E2 : Capital risk ratios of NABIL Bank Limited and Everest Bank Limited

NABIL BANK LIMITED				EVEREST BANK LIMITED			
Year	Share capital	Total assets	Ratios (%)	Year	Share capital	Total assets	Ratios (%)
2005/06	491.65	16562.62	2.97	2005/06	455.00	8052.20	5.65
2006/07	491.65	16745.49	2.93	2006/07	455.00	9608.57	4.73
2007/08	491.65	17064.08	2.88	2007/08	518.00	11731.52	4.42
2008/09	491.65	22329.97	2.20	2008/09	518.00	15959.28	3.26
2009/10	491.65	27253.39	1.80	2009/10	518.00	21432.57	4.42

Source: Annual report Nabil and Everest

Annex F1: Growth ratios total deposits of NABIL Bank Limited and Everest Bank Limited

Bank/Year	2005/06	2006/07	2007/08	2008/09	2009/10	Growth ratios (%)
<b>Nabil Bank</b>	13447.66	14119.03	14586.60	19347.39	23342.28	14.78%
<b>Everest Bank</b>	6694.95	8063.90	10097.69	13802.44	18186.25	28.36%

Source: Annual report Nabil and Everest

Growth rate can be calculated as follows

Here,

$D_n$  = Total deposits in  $n^{\text{th}}$  year

$D_0$  = Total deposits in initial year

$g$  = growth rate

we have.

$$D_n = D_0(1 + g)^{n-1}$$

Where, Nabil bank

$$D_{2009/10} = D_{2005/06} (1+g)^{5-1}$$

$$23342.28 = 13447.66 (1+g)^4$$

$$\text{or } 1+g = 1.1478$$

Therefore,  $g = 14.78\%$

Where, Everest Bank

$$D_{2009/10} = D_{2005/06} (1+g)^{5-1}$$

$$18186.25 = 6694.95 (1+g)^4$$

$$\text{or } 1+g = 1.2836$$

Therefore,  $g = 28.36\%$

Annex F2: Growth ratios Loans and advances of NABIL Bank Limited and Everest Bank Limited

Bank/Year	2005/06	2006/07	2007/08	2008/09	2009/10	Growth ratios (%)
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<b>NABIL Bank</b>	13447.66	14119.03	14586.60	19347.39	23342.28	18.97
<b>Everest Bank</b>	6694.95	8063.90	10097.69	13802.44	18186.25	29.13

Source: Annual report Nabil and Everest

Growth rate can be calculated as follows

Here,

$D_n$  = Total loan and advances in  $n^{\text{th}}$  year

$D_0$  = Total loan and advances in initial year

$g$  = growth rate

We have.

$$D_n = D_0(1 + g)^{n-1}$$

Where, Nabil bank

$$D_{2009/10} = D_{2005/06} (1+g)^{5-1}$$

$$15545.78 = 7755.95 (1+g)^4$$

$$\text{or } 1+g = 1.1897$$

Therefore,  $g = 18.97\%$

Where, Everest Bank

$$D_{2009/10} = D_{2005/06} (1+g)^{5-1}$$

$$13664.08 = 4908.46 (1+g)^4$$

$$\text{or } 1+g = 1.2913$$

Therefore,  $g = 29.13\%$

Annex F3: Growth ratios total investment of NABIL Bank Limited and Everest Bank Limited

<b>Bank/Year</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>	<b>2008/09</b>	<b>2009/10</b>	<b>Growth ratios %</b>
<b>NABIL Bank</b>	13447.66	14119.03	14586.60	19347.39	23342.28	10.35
<b>Everest Bank</b>	6694.95	8063.90	10097.69	13802.44	18186.25	31.74

Source: Annual report Nabil and Everest

Growth rate can be calculated as follows

Here,

$D_n$  = Total Investment in  $n^{\text{th}}$  year

$D_0$  = Total investment in initial year

$g$  = growth rate

We have.  $D_n = D_0(1 + g)^{n-1}$

Where, Nabil bank

$$D_{2009/10} = D_{2005/06} (1+g)^{5-1}$$

$$8945.31 = 6031.18 (1+g)^4$$

$$\text{or } 1+g = 1.1035$$

Therefore,  $g = 10.35\%$

Where, Everest Bank

$$D_{2009/10} = D_{2005/06} (1+g)^{5-1}$$

$$4984.31 = 1653.97 (1+g)^4$$

$$\text{or } 1+g = 1.3174$$

Therefore,  $g = 31.74\%$

Annex F4: Growth ratios on total net profit of NABIL Bank Limited and Everest Bank Limited

Bank/Year	2005/06	2006/07	2007/08	2008/09	2009/10	Growth ratios %
<b>NABIL Bank</b>	13447.66	14119.03	14586.60	19347.39	23342.28	12.79
<b>Everest Bank</b>	6694.95	8063.90	10097.69	13802.44	18186.25	33.16

Source: Annual report Nabil and Everest

Growth rate can be calculated as follows

Here,  $D_n$  = Total Net profit in  $n^{\text{th}}$  year,  $D_0$  = Total net profit in initial year,  $g$  = growth rate

We have.

$$D_n = D_0(1 + g)^{n-1}$$

Where, Nabil bank

$$D_{2009/10} = D_{2005/06} (1+g)^{5-1}$$

$$673.96 = 416.24 (1+g)^4$$

$$\text{or } 1+g = 1.1279$$

Therefore,  $g = 12.79\%$

Where, Everest Bank

$$D_{2009/10} = D_{2005/06} (1+g)^{5-1}$$

$$296.41 = 94.18 (1+g)^4$$

$$\text{or } 1+g = 1.3316$$

Therefore,  $g = 33.16\%$



Annex H 1a: Coefficient of correlation Analysis total deposits and total investment in Nabil bank.

Year	Deposits (X)	Investment (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	xy	$x^2$	$y^2$
2005/06	13447.66	6031.18	-3520.932	-222.12	782069.42	12396962.15	49337.29
2006/07	14119.03	5835.95	-2849.562	-417.35	1189264.70	8120003.59	174181.02
2007/08	14586.6	4275.53	-2381.992	-1977.77	4711032.32	5673885.89	3911574.17
2008/09	19347.39	6178.53	2378.798	-74.77	-177862.73	5658679.92	5590.56
2009/10	23342.28	8945.31	6373.688	2692.01	17158031.83	40623898.72	7246917.84
<b>Total</b>	<b>84842.96</b>	<b>31266.5</b>			<b>23662535.54</b>	<b>72473430.27</b>	<b>11387600.88</b>

$$\bar{X} = \frac{\sum X}{n} = \frac{84842.96}{5} = 16968.592$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{31266.5}{5} = 6253.3$$

$$\text{Coefficient of correlation } (r) = \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}} = \frac{23662535.54}{\sqrt{72473430.27 \times 11387600.88}} = 0.82$$

$$P.Er. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.67458 \times \frac{(1-0.82^2)}{\sqrt{5}} = 0.099$$

$$6P.Er. = 6 \times 0.099 = 0.594$$

**Annex H 1b: Coefficient of correlation Analysis total deposits and total investment in Everest bank.**

Year	Deposits (X)	Investment (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	xy	$x^2$	$y^2$
2005/06	6694.96	1653.97	-4674.096	-1446.708	6762052.076	21847173.42	2092964.037
2006/07	8063.90	2535.66	-3305.146	-565.018	1867466.983	10923990.08	319245.3403
2007/08	10097.69	2128.93	-1271.356	-971.748	1235437.65	1616346.079	944294.1755
2008/09	13802.44	4200.52	2433.394	1099.842	2676348.924	5921406.359	1209652.425
2009/10	18186.25	4984.31	6817.204	1883.632	12841103.6	46474270.38	3548069.511
<b>Total</b>	<b>56845.23</b>	<b>15503.39</b>			<b>25382409.24</b>	<b>86783186.31</b>	<b>8114225.489</b>

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

$$= \frac{56845.23}{5}$$

$$= 11369.046$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{15503.39}{5} = 3100.67$$

Coefficient of correlation(r)

$$= \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}} = \frac{25382409.24}{\sqrt{86783186.31 \times 8114225.489}} = 0.956514394 = 0.96$$

$$P.Er. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{(1-0.96^2)}{\sqrt{5}} = 0.024 = 6P.Er. = 6 \times 0.024 = 0.14$$

Annex H 2a: Coefficient of correlation Analysis total deposits and total loan & advances of Nabil bank.

Year	Deposits (X)	Loan & advances (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	xy	$x^2$	$y^2$
2005/06	13447.66	7755.95	-3520.932	-3244.14	11422382	12396962	10524418
2006/07	14119.03	8189.99	-2849.562	-2810.1	8007543	8120004	7896640
2007/08	14586.6	10586.17	-2381.992	-413.916	985944.6	5673886	171326.5
2008/09	19347.39	12922.54	2378.798	1922.454	4573130	5658680	3695829
2009/10	23342.28	15545.78	6373.688	4545.694	28972835	40623899	20663334
<b>Total</b>	<b>84842.96</b>	<b>55000.43</b>			<b>53961835</b>	<b>72473430</b>	<b>42951548</b>

$$\bar{X} = \frac{\sum X}{n} = \frac{84842.96}{5} = 16968.59$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{55000.43}{5} = 11000.09$$

$$\text{Coefficient of correlation } (r) = \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}} = \frac{53961835}{\sqrt{72473430 \times 42951548}} = 0.967$$

$$P.Er. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{(1-0.967^2)}{\sqrt{5}} = 0.019 = 6P.Er. = 6 \times 0.019 = 0.1175$$

Annex H 2b: Coefficient of correlation Analysis total deposits and total loan & advances Everest Bank

Year	Deposits (X)	Loan & advances (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	xy	$x^2$	$y^2$
2005/06	6694.95	4908.46	-4674.1	-3466.87	16204474	21847173	12019174

2006/07	8063.9	5884.12	-3305.15	-2491.21	8233806	10923990	6206117
2007/08	10097.69	7618.67	-1271.36	-756.658	961981.7	1616346	572531.3
2008/09	13802.44	9801.31	2433.394	1425.982	3469976	5921406	2033425
2009/10	18186.25	13664.08	6817.204	5288.752	36054501	46474270	27970898
<b>Total</b>	<b>56845.23</b>	<b>41876.64</b>			<b>64924738.7</b>	<b>86783185</b>	<b>48802145.3</b>

$$\bar{X} = \frac{\sum X}{n} = \frac{56845.23}{5} = 11369.05$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{41876.64}{5} = 8375.328$$

$$\text{Coefficient of correlation } (r) = \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}} = \frac{64924738.7}{\sqrt{8683185 \times 48802145.3}} = 0.9976$$

$$P.Er. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{(1-0.9976^2)}{\sqrt{5}} = 0.0014 = 6P.Er. = 6 \times 0.0014 = 0.0084$$

Annex H 3a: Coefficient of correlation Analysis total outside assets and net profit in Nabil bank

Year	Outside assets (X)	Net profit(Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	xy	$x^2$	$y^2$
2005/06	13787.13	416.24	-1681.072	-123.936	208345.3394	2826003.069	15360.1321
2006/07	14025.94	455.31	-1442.262	-84.866	122399.0069	2080119.677	7202.237956
2007/08	15083.23	520.11	-384.972	-20.066	7724.848152	148203.4408	402.644356
2008/09	16022.12	635.26	553.918	95.084	52668.73911	306825.1507	9040.967056
2009/10	18422.59	673.96	2954.388	133.784	395249.8442	8728408.455	17898.15866

<b>Total</b>	<b>77341.01</b>	<b>2700.88</b>			<b>786387.7777</b>	<b>14089559.79</b>	<b>49904.14012</b>
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$$\bar{X} = \frac{\sum X}{n} = \frac{77341.01}{5} = 15468.202$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{2700.88}{5} = 540.176$$

$$\text{Coefficient of correlation } (r) = \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}} = \frac{786387.7777}{\sqrt{14089559.79 \times 49904.14012}} = 0.94$$

$$P.Er. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{(1-0.94^2)}{\sqrt{5}} = 0.0351 = 6P.Er. = 6 \times 0.0351 = 0.2107$$

Annex H 3b: Coefficient of correlation Analysis total outsiders assets and net profit in Everest Bank

<b>Year</b>	<b>Outsides assets (X)</b>	<b>Net profit (Y)</b>	$x = X - \bar{X}$	$y = Y - \bar{Y}$	<b>xy</b>	<b>x<sup>2</sup></b>	<b>y<sup>2</sup></b>
2005/06	6703.58	94.18	-4998.952	-4998.952	468661.7479	24989521.1	8789.437504
2006/07	8631.49	143.57	-3071.042	-3071.042	136237.5652	9431298.966	1967.987044
2007/08	10312.23	168.21	-1390.302	-1390.302	27419.53604	1932939.651	388.957284
2008/09	14027.32	237.29	2324.788	2324.788	114746.8861	5404639.245	2436.212164
2009/10	18838.04	296.41	7135.508	7135.508	774045.6368	50915474.42	11767.47648
<b>Total</b>	<b>58512.66</b>	<b>939.66</b>			<b>1521111.372</b>	<b>92673873.38</b>	<b>25350.07048</b>

$$\bar{X} = \frac{\sum X}{n} = \frac{58512.66}{5} = 11702.532$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{939.66}{5} = 187.932$$

$$\text{Coefficient of correlation } (r) = \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}} = \frac{1521111.372}{\sqrt{92673873.38 \times 25350.07048}} = 0.99$$

$$P.Er. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{(1-0.99^2)}{\sqrt{5}} = 0.0060 = 6P.Er. = 6 \times 0.0060 = 0.0360$$