## CHAPTER 1

## INTRODUCTION

### 1.1. Background of the study

Nepal is situated at southern part of the Asia. It occupies a small spot in the map of the world with an area of 147181 square kilometer. Its length is 885 km from east to west and average width is 193 km of north to south. It is a country of geographical diversity with its land expanding from the low Terai region at an altitude as low as merely 200 feet to Himalayan region of altitude above 24000 feet. Geographically, Nepal is divided into three regions; Mountain, Hill and Terai. Geographic distribution of population is uneven. But today Nepal is Republic federal democratic country, it hasn't yet determined how many states or region has to make. As constitution assembly is working on, we have be optimistic that Nepal will also grow as so developed 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 economic development by economic growth rate and developing all sectors of economy.

The proper mobilization and utilization of domestic resources is one of the key factors in the economic development of a country. Similarly, integrated and speedy development of the country is only possible when competitive and reliable banking services are reached and operated to every corner of the country. It has been well established that the economic activities of any country can hardly be carried without the assistance and support of financial institutions. Financial institutions have catalytic role in the process of economic development. The investment policy of financial institutions, especially banks has long term impact not only on their growth and sustainability but also on the economic development of the country. Successful formulation and effective implementation of investment policy is the prime requisite for the successful performance of banks and other financial institutions. Good investment policy has a positive impact on economic development of the country and vice- versa.

The initial step an investing policy involves is determining the investment objectives and the amount of one's investable fund. Investment is always related with risks and returns. Making
money alone cannot be an appropriate objective. It is appropriate to state that the objective is to make a lot of money by recognizing the possible losses. Therefore, investment objective should be stated in terms of both risks and returns. Setting a clear investment policy also involves the identification of the potential categories of financial assets for consideration in the ultimate portfolio. The identification of assets depends upon many things, such as investment objectives, investable fund, tax consideration etc.

### 1.1.1. History of the Banks

The concept of banking had developed from the very beginning of the economic activities. First of all, the arrangement was made to deposit and gold and valuables receipts were issued for such deposits. The depository would have their gold for safekeeping and in turn were given a receipt. Wherever receipt was presented the depositors would return back their gold and valuable offer receiving a small payment as fee.
The word "Bank" is orient in medieval age in 1171 A.D. The "Bank of Vanish" was the $1^{\text {st }}$ bank, which established in Italy. Then after in 1401 AD "Bank of Barsilona" is established in Spain, but the credit of the development of modern banks goes to" The Bank of England "which was established in 1694 AD in London."

Banking has crossed various phases to come to the modern form. Some sorts of banking activities have been carried out since the time immemorial. Traditional forms of banking were traced during the civilization of Greek, Rome and Mesopotamia. Merchants, gold smith and moneylenders are said to be the ancestors of modern banking. ${ }^{1}$
With the gradual development of bank, its functions are increasing. It only dealt with the exchanges of money in its preliminary phase, but later it accepting deposit from public against interest and providing them in the form of loan to the needy persons was the basic function defined. But now a day, bank covers wide range of activities.
Banking institutions are indispensable for resource mobilization and all round development maintains economic confidence of various segments and extends credit to the people. ${ }^{2}$
The main objective of the bank is collecting deposit from public in the form of saving and providing medium and short-term loan for the development of industry, trade and business to the ones in need. The bank much return fund to their customers when they demand, so it always gives attention on liquidity position. This is the reason that the commercial banks do not generally provide long-term loan. The development of country's economy is impossible without expansion of banking function in both rural and urban areas of the country. Development of Trade and Industry is dependent upon the development of banking facilities so it said that the bank is backbone of economic development in modern society.

[^0]Generally the bank refers to commercial bank. Bank collect fund as a saving from public of country and invest in highly return yielding firm. It develops saving habits in people. Commercial bank plays vital role for development of a developing country. Bank provides internal resource for developing country's economy. It collects diversified capital from different parts of country through it's own branches so commercial bank is the heart of trade, industry and business in modern age. Commercial banks earn optimal profit by mobilizing such saving resources properly.

### 1.1.2. Overview of world finance at a glance

The financial world was shaken to its foundation during some highly turbulent weeks in autumn 2008. The aftermath of the Subprime Crises that originated from the highly over speculated US housing market spread across the world like a plague. Major Banks and financial institutions around the world saw their balance sheets drastically diminishing, if not completely wiped out. Governments stepped in with enormous capital rescue plans, and former gigantic investment institutions were bought, merged with competitors, or, in some cases, went under. Even nations, such as Island, were on the verge of total financial collapse. This incredibly hard striking and fast moving crises obviously resulted in considerable drops at all major stock markets. That the markets react negatively to problems like these are in itself not very extraordinary. However, what was remarkable were the extreme fluctuations that occurred, many which only could be compared to some historical dark data. Over-day-drops of several percentages were again and again recorded. The Russian stock exchange, for example, completely closed numerous times. How could these drastic fluctuations occur? Fundamentals can only explain this question to a certain extent. There must be something else at play, a force with enough penetrating power to turn the financial world upside down. The drastic fluctuation just discussed makes one wonder: How efficient is the Efficient Market Hypothesis? Throughout history, theoretical and empirical evidence explaining market movements have been almost entirely influenced by the Capital Asset Pricing Model (CAPM) and the Efficient Market Hypothesis (EMH) (Leicester Business School). The standard equilibrium models of asset pricing (CAPM) assume investors only care about asset risks if they affect marginal utility of consumption and incorporate publicly available information to forecast stock returns as accurately as possible (EMH) (Camerer, C. F., \& Loewenstein, G., 2002). The occasional errors of these models were shoved away and blamed on anomalies. But as time passed on, the number of anomalies increased and so did their impact on the markets fluctuations (Phung, 2008). All of a sudden there was the January effect, the Weekend effect, the Small Firm effect and the Holiday effect - to mention a few. As more and more anomalies were recorded, scholars began wondering whether the traditional finance theories were incapable of explaining what determines security prices (Shefrin, 2000). A new field within financial theory emerged in the 1980s; one which did not build on fundamental cornerstones but instead from the world of psychology, called Behavioral Finance. The theories within Behavioral Finance take a different approach when explaining market movements. After all, the market is determined by people, and people cannot always be considered rational in all their investment decisions, especially not during times of
financial distress (Shefrin, 2000). Financial distress puts professional investors under pressure. As Mark Douglas describes the investor's dilemma: "Entering a trade will involve all your beliefs about opportunity in relation to risk, missing out, needing a sure thing, and not being wrong. Exiting a trade will involve all your beliefs about loss, greed, failure, and control. Considering the unlimited potential for profits, entering the market will be much easier, because exiting will require you to confront your beliefs about greed, loss, and failure in relationship to the constant temptation of the possibility for unlimited profits" (Douglas, 2005). In essence, Behavioral Finance attempts to explain and increase understanding of the reasoning patterns of market participants, including the emotional processes involved and the degree to which they influence the decision-making process (Ricciardi \& Simon, 2002). Gradually, Behavioral Finance has become a widely adopted and acknowledged field within finance, advocated by many - at least on the theoretical level (Leicester Business School). This is not to say that the EMH and CAPM theories are disregarded, or for that matter should be. A sound coexistence is recommended. To what extent this general coexistence is implemented, personal experience must judge. As demonstrated in the financial crises that occurred during the autumn of 2008, one could see unprecedented movements. These movements can, as already discussed, only to some extent be explained by fundamentals. During that period, market psychology was instead, to a great degree, setting the standard of the market. It is a time like that the theories from Behavioral Finance can help us explain and understand the highly irrational behavioral patterns of the investor who dictates the market.

### 1.1.3. Commercial Banks and Investment Policy

Commercial Bank is an entity which accepts deposits and makes short term loans to business enterprises, regardless of the scope of its other services. (American Institution of Banking, 1972; 345-346)

Commercial banks are major financial institutions, 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. All the economic activities of each and every country are greatly influenced by the commercial banking business of that country. Commercial banks, by playing active roles, have changed the economic structure of the world. Thus, commercial banks have become the heart of financial system.

Commercial bank deals with people's money. They have to find ways of keeping their assets liquid so that they could meet the demand of their customers. In their anxiety to make profit, the banks can't afford to lock up their funds in assets that are not easily realizable. The depositor's confidence could be secured only if the bank is able to meet the demand for cash promptly and fully. The banker has to keep adequate cash for this purpose. Cash is an idle asset and hence the banker cannot afford to keep a large portion of his assets in the bank. Therefore the banker has to distribute his assets in such a way that he can have adequate profits without sacrificing liquidity.

Commercial banks must mobilize its deposits and other funds to profitable, secured, stable and marketable sector. Then only it can earn more profit as well as it should be secured and can be converted into cash whenever needed. But, commercial banks have to pay due consideration while formulating investment policy regarding loan and investment. Investment policy is one facet of the overall spectrum of policies that guide bank's investment operations. A healthy development of any bank depends heavily upon its investment policy. A sound and viable investment policy attracts both borrowers and lenders, which helps to increase the volume and quality of deposits, loan and investment. Commercial bank should be careful while performing the credit creation function. The banks should never invest its funds in those securities, which are subject to too much depreciation and fluctuations because a little difference may cause a great loss. It must not invest its funds into speculative businessman who may be bankrupt at once and who may earn millions in a minute. Emphasizing upon this, H.D. Crosse stated, "The investment policy should be carefully analyzed."(Crosse H.D., 963) So they must invest their funds where they gain maximum profit.

Commercial banks must follow the rules and regulations as well as different directions issued by the central bank, ministry of finance, ministry of law and other regulatory bodies while mobilizing its funds. So, the bank should invest its funds in legal securities only. Diana McNaughton in her research paper 'Banking Institutions in Developing Markets' states that, investment policy should incorporate several elements such as regulatory environment, the availability of funds, the selection of risk, loan portfolio balance and term structure of the liabilities. (McNaughton, Diana, 1994). Thus, commercial banks should incorporate several elements while making investment policy. The loan provided by commercial bank is guided by several principles such as length of time, their purpose, profitability, safety etc. These fundamental principles of commercial.

### 1.1.4. Highlights on Performance of Banks and Non-Bank Financial Institutions

## Financial Sector at a Glance

The Nepalese Financial Sector is composed of Banking sector and non-banking sector. Banking sector comprises Nepal Rastra Bank (NRB) and Commercial Banks. The non-banking sector includes Development Banks, Finance Companies, Micro-credit Development Banks, Co-operative Financial Institutions; Non-governmental Organizations (NGOs) performing limited banking activities and other financial institutions such as Insurance Companies, Employee's Provident Fund, Citizen Investment Trust, Postal Saving Offices and Nepal Stock Exchange. However, this bulletin contains information of those financial institutions only, which are licensed by NRB up to mid-January, 2009.During the last two and half decades the Nepalese Financial System has grown significantly.

At the beginning of 1980s, there were only two commercial banks and two development banks in the country. After the adoption of economic liberalization policy, particularly the financial sector liberalization that paved the way for establishment of new banks and non-bank financial institutions into the country. Consequently, by the end of mid - January 2009, altogether 235 banks and non- bank financial institutions licensed by NRB are in operation. Out of them, 25 are " A " class commercial banks, 59 " $B$ " class development banks, 78 " $C$ " class finance companies, 12 " $D$ " class micro-credit development banks, 16 saving and credit co-operatives and 45 NGOs .
As an increased in number of Financial Institutions as well as volume of transactions, the total assets/liabilities of the financial system witnessed continuous growth over the last seven and half years. During the period 2001 to mid - January 2009, the total assets of whole financial system increased by 14.97 percent per annum and reached to Rs. 829293.3 million in mid - January 2009 from Rs. 273946.2 million in mid - July 2001. In mid - January 2009 the total assets registered a growth of 17.41 percent compared to 21.26 percent in mid - July 2008. The ratio of total assets/liabilities of the financial system to GDP at nominal prices increased to 86.38 percent at mid - January 2009 from 86.30 percent in mid - July 2008. This ratio was 62.04 percent in mid - July 2001. The structure of financial assets/liabilities shows that Commercial Bank alone hold more than 80 percent of the total assets and liabilities of the financial system. As of mid - January 2009, Commercial Bank group occupied 82.3 percent of total assets/liabilities followed by Finance Companies 9.4 percent, Development Banks 6.0 percent, Micro-credit Development Bank 1.7 percent and others 0.6 percent. The respective shares were 80.2, 11.4, 5.6, 1.8 and 1.0 percent respectively in mid - July 2008.
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The composition of the total liabilities shows as usual, deposit hold dominant share of 69.6 percent followed by capital fund 4.43 percent and borrowings 4.41 percent respectively in mid - January 2009. Likewise in the assets side, loan and advances accounted the largest share of 52.80 percent followed by investments 16.48 percent, liquid funds 12.20 percent and other assets 7.66 percent in the same period. Commercial Banks held dominant share on the major balance sheet components of financial system. Of the total deposits Rs.576897.60million in mid-Jan 2009, the commercial banks occupied 83.2 percent. Similarly, finance companies held 9.5 percent, development banks 6.4 percent, micro credit development banks 0.3 percent and others 0.6 percent. Likewise, on the loans and advances the share of commercial banks stood at 77.9 percent, development banks 7.4 percent, finance companies 12.2 percent, micro credit development banks 1.8 percent and others 0.7 percent in mid Jan 2009. In the same year the share of commercial banks in borrowings, liquid funds and investments constituted 59.0 percent, 74.8 percent and 92.2 percent respectively. The
capital fund, one of the components of liabilities, witnessed a growth of 42.48 percent and reached to Rs. 36728.30 million in Jan 2009 from Rs.25778.0, million in mid July 2008. The borrowings an deposit increased by 16.42 percent and 13.36 percent respectively, while other liabilities decreased by 34.46 percent compared to mid July 2008. Similarly loans and advances, the major component of assets increased by 11.83 percent and reached to Rs. 437871.4 million in mid Jan 2009 from Rs. 391537.7 million in mid July 2008. The liquid fund and investment increased by 3.41 percent and 13.62 percent in mid Jan 2009 compared to the previous year respectively

Nepal's financial sector has encouragingly progressed after fiscal liberalization in the country. Consequently, establishment and operations of Banks/Financial Institutions, and non-Financial Institutions has substantially increased. The range of financial inclusiveness has widened, environment for capital mobilization eased, and opportunities in the banking sector extended with the expansion of the financial sector. As the banking business operates at high-risk environment, the degree of risk grows in proportion of its expansion. Hence, scope of regulation and supervision needs to be widened for overall enabling and strengthening of the financial sector by constantly guarding the trend of steadily escalating risk. An enabled and robust financial sector is necessary for enhancing effectiveness of the Monetary Policy and dynamism of the economy. Two large and older banks i.e., Nepal Bank Ltd., and Rastriya Banijya Bank occupy a large share in Nepal's financial system. Financial Sector Program is ongoing since last few years for improving the financial situation of these banks. Some improvement in financial situation has been achieved through the implementation of the said program though; the non-performing loan is still big chunks in their loan portfolios accompanied by negative capital fund. The aggregate health of the banking sector is affected as the loans mobilized by these two banks in the past could not be realized naturally weakening the management of credit. Hence, expeditious reducing the share of non-performing loans remains the persistent challenge. In the perspective of the umbrella Act concerning Development Banks, Saving and Credit Cooperatives, and NGOs operated Micro-finance institutions already enacted, making necessary arrangement for regulation, inspection and supervision, of micro-finance institutions through the Establishment of a Second-Tier Institution is another challenge. With a number of banks and financial institutions getting involved in channeling credit flows to the ultra poor, issues like double/triple counting of loan investments, identification of targets, and deciding their scope of work etc have emerged. If there is the necessity of drafting the Act, Rules, Manual, and programs for effective execution of the Microfinance Policy 2008, it is a challenge of ensuring a sustainable financial source for Rural Self-Reliance Fund. . Bringing down the level of non-performing loan is very much necessary for reforming the financial sector and sustaining it. Despite the idea for the establishment of Asset Management Company floating around since last few years, it has yet to materialize. The existing huge amount of nonperforming assets of the Banks and financial institutions has been a challenge against the development and sustainability of the financial sector. It is a challenge of arranging necessary infrastructures including financial, physical, and human resources for strengthening of Debt Recovery Tribunal and establishment of Asset Management Company as measures toward bringing down the level of non-
performing loans. 4.6. Secured Transactions Act, 2063 (2007) is already enacted. Now, there is a need of making permanent arrangement for Security Transactions Registration Office to promote economic activities and materialize the true spirit of the Act. In addition to evaluation of achievements of financial institutions, it is necessary to ensure transparency in various aspects of their transactions. Establishment of a Credit Rating Agency has yet to materialize despite policy initiations made towards that direction. Such type of institution helps in making the financial market competitive while ensuring its sustainability through the market process. It will be appropriate to establish a Credit Rating Agency in the country with the help of a reputed foreign credit rating agency. It is necessary to make the country's policy stance clear on Deposit Insurance by conducting detailed analysis and review on the subject matter with the economic and financial aspects of Banks and financial institutions. Major reason for conducting such a detailed study would be inter alia, to encourage savings for the economic development of the country; mobilization of savings for capital formation; enhance credibility of banks and financial institutions; protect the interest of depositors; and adopt the positive aspects observed in advanced and developing countries as well.

The study is concentrated on the Investing in shares of commercial banks : An assessment of risk and return analysis practice in Nepalese banks, problem associated with its usage and operations and the future perspective of its better application. as per the limitation the study is concentrated in the banking operation of the Investment analysis, common stock valuation and risk and return analysis financial services of 2 banks. They are

1. NABIL BANK LIMITED
2. STANDARD CHARTERED BANK LIMITED

The study has analyzed the balance sheet of the above mentioned bank as well as the private questionnaire relating to the study were asked to the concerned authority for the completion of the study.

## NABIL BANK

The arrival of Nabil Bank in Nepal on the 12th of July 1984 through a joint venture with Dubai Bank Ltd. under a Technical Service Agreement (TSA), marks a new dawn in the Nepalese banking industry. What is more admirable is with the opening of then Nepal Arab Bank Ltd, Customer Service or marketing took a U-turn. That in substance accelerated the evolution in banking products and services thereafter in Nepal. The bank commenced with a team of about 50 staff members and Rs. 28 million as capital. Today Nabil entering the 25th year of operation has proved that it has through its past progressions and through different phases in the banking industry achieved two things it can take pride in: first it has a large clientele base and supportive stakeholders, secondly, it has succeeded in positioning itself robustly in the market for which the
credit goes to Team Nabil. Today the Bank has established itself as the Bank of $1^{\text {st }}$ Choice. It is the largest bank in terms of the network and number of branches amongst the commercial banks with a wide network of ATMs and offerings including a range of diversified service products. it has a number of domains in its precedence of excellence that mirrors where it stand in the market. In this span of 24 years of banking operation Nabil has already distributed rich cash dividends, spectacular returns on asset and equity even during the most trying times. All of which endorses the strength and drive with which Nabil proceeds. in order to make it's presence felt in every walk of life and serve people across all social strata and segments, have expanded it's network by adding 9 more branches that totals to 28 points of representation in the nation. It has diversified its realms of business in the interests of our customers and are also being inspired by the noble cause of adding value to economic development. It has multiple sectors in focus to serve host of entrepreneurs as our new strategies are to expand dynamically, exploring new avenues and opportunities. Thus it has packaged its service products into well a diversified range consisting of corporate banking, trade finance, along with consumer and retail banking services specifically, card products, microfinance and the like to reach out to the masses. It has been able to reach where the bank is today having lived its values of being C.R.I.S.P at all times. It has teamed together, built on its strengths, taking larger strides as it Surge Ahead Faster - Further together in the years ahead to be the 1st Choice Provider of Complete Financial Solutions of all its stakeholders.

## Nabil Bank Limited

Balance Sheet
Balance Sheet as at 15 July 2008 (31 Ashadh 2065)


| $5 \times 0$ | Assens |
| :---: | :---: |
| 1. | Cash Balance |
| 2 | Balance with Nepal Rastra Bank |
| 3 | Balance with Banks/Financial Institutions |
| 4. | Money at Call and Short Notice |
| 5. | Investment |
| 6. | Loans. Advances and Bills Purchased |
| 7. | Fixed Assets |
| 8 | Non Banking Assets |
| 9. | Other Assets |
|  | Total |


| sempur |
| ---: |
| 8 |
| 9 |
| 10 |
| 11 |
| 12 |
| 13 |
| 14 |
| 15 |
| 16 |


| Thsyent | CWryous mix |
| :---: | :---: |
| 511,426,584 | 270,406,987 |
| 1.829,470,769 | 1,113,415,436 |
| 330,243,702 | 16,003,428 |
| 1,952,360,700 | 563,532,632 |
| 9,939,771,428 | 8,945,310,567 |
| 21,365,053,318 | 15,545,778,730 |
| 598.038.998 | 286,895.224 |
| * | - |
| 606.393.650 | 512,050,004 |
| 37,132,759,149 | 27,253,393,008 |

## Standard Chartered <br> Standard Chartered Bank Nepal Limited <br> 1 रट्याणडक चार्टड <br> वेक निप्ल लिfिटटे



Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987. The Bank is an integral part of Standard Chartered Group having an ownership of $75 \%$ and the balance owned by the Nepalese public. The Bank is the largest international bank currently operating in Nepal. Standard Chartered has a history of over 150 years in banking and operates in many of the world's fastest-growing markets in over 70 countries. Standard Chartered employs almost 75,000 people, representing over 115 nationalities, worldwide. This diversity lies at the heart of the Bank's values
and supports the Bank's growth as the world increasingly becomes one market. With 16 points of representation, 17 ATMs and more than 350 local staff, Standard Chartered Bank Nepal Ltd. is in a position to serve its customers through an extensive domestic network. In addition, the global network of Standard Chartered Group gives the Bank a unique opportunity to provide truly international banking services in Nepal. Standard Chartered Bank Nepal Limited offers a full range of banking products and services in Wholesale and Consumer banking. The Bank has been the pioneer in introducing 'customer focused' products and services and aspires to continue to be a leader in introducing new products in delivering superior services. Corporate Social Responsibility is an integral part of Standard Charterer's ambition to become the world's best international bank and is the mainstay of the Bank's values.

Balance Sheet
as at is fuly zooe (a1 Ashad 20es)

| Capital \& Liabilities | Schedule | This Year | Previous Year |
| :---: | :---: | :---: | :---: |
|  |  | Rs. | Rs. |
| 1. Share Capital | 4.1 | 620.784,000 | 413,254,000 |
| 2. Reseerves arad Funds | 4.2 | 1,871,763,996 | 1,703,098.561 |
| 3 Detontires mend Bonds | 4,3 |  |  |
| 4. Loard and Borrowings | 4.4 |  | 400,000,000 |
| 5. Deposit Lintility | 4.5 | 29,743,998,794 | 24,647,020,755 |
| 6. Bits Payables | 4.6 | 87,397,021 | 36,168,332 |
| 7. Proposed and Unpaid Dividend |  | 506366.940 | 341.744,048 |
| B. Income Tax liebinty |  | 2,051,550 | 5,598.588 |
| 9 Other linkilies | 4.7 | 503,426,075 | 1,049.804,361 |
| Total Liabilities |  | 33,335,788,326 | 28,596,689,451 |
| Assets | Schedule | This Year | Previous Year |
|  |  | Rs. | Rs. |
| 1. Cash Balance | 4.8 | 414.875,467 | 378.422,542 |
| 2. Balance with Nepal Rastra Bark | 4.9 | 1,266213,574 | 1,613.757.788 |
| 3. Balance with Barika/lirancial Institutions | ¢ 10 | 369,096,223 | 28,840,738 |
| 4. Money at Cal and Short Notice | 4.11 | 2.197,537,600 | 1,761,151,500 |
| 5 Investrnerts | 4.12 | 13,902.819,011 | $13,553.233,464$ |
| 6.1 Loars, Advances and Bils Purchased | 4.13 | 13, 718,597,132 | $10.502,637.135$ |
| 7. Fioed Assets | 4.14 | 117.272 .258 | 125,550.078 |
| 8. Non-Barking Assets | 4.15 |  |  |
| 9. Outer Aassets | 4.16 | 1,349,319,111 | 633,055,306 |
| Total Assets |  | 33,335,788,326 | 28,596,689,451 |

### 1.2. Statement of the problem

The problem toward which this study is directed is to analyze the basic tools and techniques of common stock valuation and determination of investment alternative in context of Nepalese Bank \& financial institutions as well as it correlates the banking sector with the problem associated with the investment areas of bank like manufacturing and service industries. the critical problem related to Nepalese financial sector are like pervasive role of government, system inefficiency, poor supervision, Specialization inadequacy, Weak legal environment, family control, poor human resource capabilities, less professionalism. The study has focused on the valuation model of common stock which is the judging criterion for investors in commercial bank. The study has revealed the problem associated with the practice of stock valuation techniques available in the market. The study has tried to find out some question like; to what extent and how many types of common stock valuation models are practices? How people were can directly effect? Where and in how many ways people can benefit by buying the stocks? What are the impact in financial markets
and stakeholders? What is the factor that affects this financial practice? The study is very much concentrated in the core areas of practice problem and perspective of in investing in commercial banks of banking area in Nepalese perspective. The direction of study towards the problem provide the basis of understanding about the current and possible path of investing in common stock and valuation of common stocks. An attempt has been made in this thesis to determine whether the shares of commercial banks in Nepal are correctly priced and to trace their future price movements when striving towards equilibrium. For this, some theoretical models have been discussed to analyze return and risk characteristics of those shares. The correlation coefficients between the returns on individual shares and the return on market portfolio have been analyzed with the objective of decomposing the total risk into systematic and unsystematic components. The analysis of the individual stock's beta coefficient helps determine the minimum rate of return required by the investor to compensate for systematic risk. Statistical results suggest that the analyzed shares here are not in equilibrium with most of the shares being less risky than the market. While all the shares examined appear to be attractive to the potential investors since they produce higher rates of return than that of the average stock, the various shares have different degrees of risk with some shares being unable to generate the minimum rate of return (i.e. the sum of risk free-rate plus a premium for additional risk bearing). Because of the calculation made in this study it is very much essential for a researcher to have a complete set of data available in their hand. But with reason of privacy and other constraint the study is analyzed with the limited data outset. It was found during the study that the commercial banks investment policy was not disclosed by them during the interview with the concern authority. Along with it the share pricing methodology used by the banks are bias towards their motives as well as lack of transparency in the investment of the banks put a question mark for any researcher to find out the actual price for the common stock in which the commercial banks are willing to invest.

### 1.3. Significance of the study

There is few researches done in common stock valuation of common stock valuation. Common stock valuation is the one of the most important aspect of commercial banks and the baseline for the investors' .the study of analysis of common stock valuation would be beneficial to the shareholders, banking professionals, investors, teachers and students of banking management. The pricing techniques that are used for the common stock valuation are analyzed in an order to determine the correct price for the stock as well as to understand the factor like risk and return associated with the valuation of common stocks. Valuation of common stock for the commercial banks help them to achieve good return from their investment on it along with to provide the safeguard from the associated risk from it.
The study is focuses on the qualitative measurement of the commercials banks; similarly the finding will be equally important to the people who are interested in investment in common stock as well as to the knowledge seeker in the area of common stock valuation. Where at one side it analyze the valuation methodology from the relevant data but also present it in a graphical representation which will help the forthcoming researcher as well as to the student related with
the finance studies with its descriptive as well as quantitative analysis of the valuation of the common stock with the help of conceptual foundation as well as from the quantitative \& statistical module. The study significantly describe the literature aspect of the valuation methodology along with the financial calculation helps the investor as well as to the people associated for the thorough knowledge in their related studies.

### 1.4 Objective of the study

This study aims at achieving following objectives / milestones Study and analyze about the common stock valuation in Nepalese commercial bank. Find out associated problem associated common stock valuation in context of commercial Banks.

1. To investigate the primary and supplementary causes and factors that positively or negatively affects common stock valuation.
2. To Judge whether valuation techniques are beneficial for both banks and investors.
3. To examine applicability, profitability \& suitability of common stocks in Nepal.
4. To find out new possible models for common stock valuation.
5. Compare common stock price and related aspects among commercial banks.
6. Evaluate acceptability of common stock valuation by banks and investors.

### 1.5 Limitation of the study

The thesis and its result are limited by geography, population, and time, and recourse, objective quality of datasets, methodological challenges \& resources. The limitation within the study is bound are as follows.

1. The study is mostly depended on the secondary data [annual report, books, articles, newspaper, and journals] and data that are analyzed to interpret the result depend upon the reliability of secondary data.]
2. The period of the study covers only few years.
3. The study is only for the partial fulfillment of masters of business studies.
4. This study is limited within the small area of study
5. Limited resource and time has not allowed the study for extensive analysis of the subject.
6. Due to privacy reason very limited data was supplied from the concerned organization.
7. Limited quantitative analyses are used for analysis of data because of the data set availability.
8. The study is limited with the methodological challenges in assessing the societal and economical impact.

### 1.6 Organization of the Study

The study is organized according to methodology and prescribed pattern of the Tribhuvan University. The study comprises 5 chapters. The organization of the study is structured as follows.
Chapter 1: Introduction ---
1.1 background of the study
1.2 statement of the problem
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Chapter 2: Literature Review ---
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## CHAPTER 2

## REVIEW OF LITERATURE

Review of literature means reviewing research studies or other relevant proposition in the related areas of study so that all the past studies their conclusion and deficiencies may be known and further research can be conducted. It is an integral and mandatory process in research work.
Review of literature is a chapter where researchers review books, journal, magazines or any other type of studies, which are relevant to his/her fields of study. Review will help us to perform our study in right track through proper knowledge of the topic. Review of literature further helps us to indentify the problem, to avoid unintentional replication of previous studies and also helps us to interpret the significance of researchers result in progress manner.
In this study review of literature is divided in to three sections. First section deals with the books review. Second section is concerned, in which various thesis, which is related with this topic and third section is concerned in which various related studies and articles have reviewed.

### 2.1. Conceptual Review

In this section various books are reviewed which are related with topic, which may helpful to understand clearly about risk and return. The objective of this section is to know how various writers have defined and described risk and return. Their main focus is implication of risk and return in the investment of common stock
Business concern needs finance to meet their requirements in the economic world. Any kind of business activity depends on the finance. Hence, it is called as lifeblood of business organization. Whether the business concerns are big or small, they need finance to fulfill their business activities. In the modern world, all the activities are concerned with the economic activities and very particular to earning profit through any venture or activities. The entire business activities are directly related with making profit. (According to the economics concept of factors of production, rent given to landlord, wage given to labour, interest given to capital and profit given to shareholders or proprietors), a business concern needs finance to meet all the requirements. Hence finance may be
called as capital, investment, fund etc., but each term is having different meanings and unique characters. Increasing the profit is the main aim of any kind of economic activity.

### 2.1.1. MEANING OF FINANCE

Finance may be defined as the art and science of managing money. It includes financial service and financial instruments. Finance also is referred as the provision of money at the time when it is needed. Finance function is the procurement of funds and their effective utilization in business concerns. The concept of finance includes capital, funds, money, and amount. But each word is having unique meaning. Studying and understanding the concept of finance become an important part of the business concern.
Finance is the study of how to allocate scarce resources over time. The two features that distinguish finance are that the costs and benefits of financial decisions are spread out over time and are usually not known with certainty in advance by either the decision-maker or anybody else. A basic tenet of finance is that the ultimate function of the system is to satisfy people's consumption preferences. Economic organizations such as firms and governments exist in order to facilitate the achievement of that ultimate function. Many financial decisions can be made strictly on the basis of improving the tradeoffs available to people without knowledge of their consumption preferences.

There are at least five good reasons to study finance:

- To manage your personal resources.
- To deal with the world of business.
- To pursue interesting and rewarding career opportunities.
- To make informed public choices as a citizen.
- To expand your mind


### 2.1.2. DEFINITION OF FINANCE

According to Khan and Jain, "Finance is the art and science of managing money".
According to Oxford dictionary, the word 'finance' connotes 'management of money'. Webster's Ninth New Collegiate Dictionary defines finance as "the Science on study of the management of funds' and the management of fund as the system that includes the circulation of money, the granting of credit, the making of investments, and the provision of banking facilities.

### 2.1.2.1. DEFINITION OF BUSINESS FINANCE

According to the Wheeler, "Business finance is that business activity which concerns with the acquisition and conversation of capital funds in meeting financial needs and overall objectives of a business enterprise".
According to the Guthumann and Dougall, "Business finance can broadly be defined as the activity concerned with planning, raising, controlling, administering of the funds used in the business".
In the words of Parhter and Wert, "Business finance deals primarily with raising, administering and disbursing funds by privately owned business units operating in nonfinancial fields of industry". Corporate finance is concerned with budgeting, financial forecasting, cash management, credit administration, investment analysis and fund procurement of the business concern and the business concern needs to adopt modern technology and application suitable to the global environment.

According to the Encyclopedia of Social Sciences, "Corporation finance deals with the financial problems of corporate enterprises. These problems include the financial aspects of the promotion of new enterprises and their administration during early development, the accounting problems connected with the distinction between capital and income, the administrative questions created by growth and expansion, and finally, the financial adjustments required for the bolstering up or rehabilitation of a corporation which has come into financial difficulties"

### 2.1.2.2. DEFINITION OF FINANCIAL MANAGEMENT

Financial management is an integral part of overall management. It is concerned with the duties of the financial managers in the business firm.
The term financial management has been defined by Solomon, "It is concerned with the efficient use of an important economic resource namely, capital funds".
The most popular and acceptable definition of financial management as given by S.C. Kuchal is that "Financial Management deals with procurement of funds and their effective utilization in the business".
Howard and Upton: Financial management "as an application of general managerial principles to the area of financial decision-making.
Weston and Brigham: Financial management "is an area of financial decision-making, harmonizing individual motives and enterprise goals".
Joshep and Massie: Financial management "is the operational activity of a business that is responsible for obtaining and effectively utilizing the funds necessary for efficient operations.
Thus, Financial Management is mainly concerned with the effective funds management in the business. In simple words, Financial Management as practiced by business firms can be called as Corporation Finance or Business Finance.

### 2.1.3. OBJECTIVES OF FINANCIAL MANAGEMENT

Effective procurement and efficient use of finance lead to proper utilization of the finance by the business concern. It is the essential part of the financial manager. Hence, the financial manager must determine the basic objectives of the financial management. Objectives of Financial Management may be broadly divided into two parts such as:
A. Profit maximization
B. Wealth maximization.

## A. Profit Maximization

Main aim of any kind of economic activity is earning profit. A business concern is also functioning mainly for the purpose of earning profit. Profit is the measuring techniques to understand the business efficiency of the concern. Profit maximization is also the traditional and narrow approach, which aims at, maximizes the profit of the concern. Profit maximization consists of the following important features.

1. Profit maximization is also called as cashing per share maximization. It leads to Maximize the business operation for profit maximization.
2. Ultimate aim of the business concern is earning profit, hence, it considers all the possible ways to increase the profitability of the concern..
3. Profit is the parameter of measuring the efficiency of the business concern. So it shows the entire position of the business concern.
4. Profit maximization objectives help to reduce the risk of the business.

## B. Wealth maximization

Wealth maximization is one of the modern approaches, which involves latest innovations and improvements in the field of the business concern. The term wealth means share holder wealth or the wealth of the persons those who are involved in the business concern. Wealth maximization is also known as value maximization or net present worth maximization. This objective is a universally accepted concept in the field of business.

### 2.1.4. IMPORTANCE OF FINANCIAL MANAGEMENT

Finance is the lifeblood of business organization. It needs to meet the requirement of the business concern. Each and every business concern must maintain adequate amount of finance for their smooth running of the business concern and also maintain the business carefully to achieve the goal of the business concern. The business goal can be achieved only with the help of effective management of finance. We can't neglect the importance of finance at any time at and at any situation. Some of the importance of the financial management is as follows:

## A. Financial Planning

Financial management helps to determine the financial requirement of the business concern and leads to take financial planning of the concern. Financial planning is an important part of the business concern, which helps to promotion of an enterprise.
B. Acquisition of Funds

Financial management involves the acquisition of required finance to the business concern. Acquiring needed funds play a major part of the financial management, which involve possible source of finance at minimum cost.

## C. Proper Use of Funds

Proper use and allocation of funds leads to improve the operational efficiency of the business concern. When the finance manager uses the funds properly, they can reduce the cost of capital and increase the value of the firm.

## D. Financial Decision

Financial management helps to take sound financial decision in the business concern. Financial decision will affect the entire business operation of the concern. Because there is a direct relationship with various department functions such as marketing, production personnel, etc.

## E. Improve Profitability

Profitability of the concern purely depends on the effectiveness and proper utilization of funds by the business concern. Financial management helps to improve the profitability position of the concern with the help of strong financial control devices such as budgetary control, ratio analysis and cost volume profit analysis.

## F. Increase the Value of the Firm

Financial management is very important in the field of increasing the wealth of the investors and the business concern. Ultimate aim of any business concern will achieve the maximum profit and higher profitability leads to maximize the wealth of the investors as well as the nation.

## G. Promoting Savings

Savings are possible only when the business concern earns higher profitability and maximizing wealth. Effective financial management helps to promoting and mobilizing individual and corporate savings. Nowadays financial management is also popularly known as business finance or corporate finances. The business concern or corporate sectors cannot function without the importance of the financial management.

### 2.1.5. Financial Statement Analysis

As we saw in the last section, investors often need to forecast the future earnings of a company when making a decision about whether to invest. One source of information about a company is its financial statements. Using financial statements to evaluate a company's performance and to forecast its future prospects is called financial statement analysis. An important part of financial statement analysis is the calculation of financial ratios. In this section we will examine some of the most common financial ratios and see how they are used.

### 2.1.6. Major Financial Statements

We will be concerned with the three major financial statements: the balance sheet, the income statement, and the statement of cash flows. You should be familiar with these statements from financial accounting,
Balance Sheet
The balance sheet looks at the financial position of the company at a point in time. The financial relationship given by the balance sheet is summarized by the equation:
Assets $=$ Liabilities + Equity
From our perspective, this shows how much of the assets (which drive the company's business) were financed from equity or debt (liabilities). Equity is the value of the company in terms of its financial statements, which is why it is called the "book value" of the company. The market value of the company is given by the "market capitalization", the market value of its stock. The balance sheet will provide details on the various types of assets and liabilities. Generally, assets and liabilities are listed in order of increasing maturity. Assets and liabilities with maturities of less than one year are called "current".
Income Statement
The income statement measures the earnings generated over a year. The basic relationship it captures is given by the equation:
Revenues - Expenses = Earnings
Revenues and expenses are often broken down by type. This can be very useful when analyzing the financial position of a company because it gives clues about what might happen in the future. A software company might break its costs down into manufacturing and research and development. This is a useful distinction because manufacturing costs tend to be variable costs while research costs are fixed with respect to production. If we wanted to know how profits would change if there was an increase in sales, we would want to treat these costs differently.

## Statement of Cash Flows

In some ways, the statement of cash flows is similar to the income statement; however, it focuses on actual cash payments rather than accounting earnings. For example, when you make a capital purchase, the accounting treatment will spread the costs over time by creating a "depreciation cost" for several years, even if the asset was completely paid for in the first year. On the other hand, the statement of cash flows will record the cash out in the first year but no other costs in subsequent years.

Cash flow is usually divided into three types:
Operations
Investment activities (buying and selling assets)
Financing (raising money)
This distinction can be very important. Say that a company shows a positive cash flow of $\$ 100$ million. How likely is this to continue into the future? If the cash flow was generated from operations, then it would continue as long as the business of the company is successful. If the cash flow was generated by selling off a factory (investment activities) then it would be less promising for the future - there are only so many factories that it could sell, and selling them would likely hurt its future business. If the cash flow was generated by borrowing money (financing) then again it might not continue. There is a limit to how much debt a company can raise without.

### 2.1.7. Investment

Investment simply means sacrificing current earnings for further return or reward bearing certain risks. Investment can be made on real assets or finance assets. Investment on real assets is called real investment and on financial assets is called financial investment.
"Investment in the broadest sense means the sacrifice of current dollars for further dollars. Two different attributes are generally involved time and risks. The sacrifice takes place in the present and is certain. The rewards come later, if at all and the magnitude is generally uncertain."(Sharpe, 1995:1)
In primitive economics most investment was real variety, whereas in modern economy most investment is of financial variety
"An investment is a commitment of money that is expected to generate additional money. Every investment entails some degree of risk: It rewards a present certain sacrifice for a future uncertain benefit." (Francis, 1992:1)
Investing or speculating, in the stock market has all the characteristic of the game and the aim is to win. Investment decision involves emotional activities. Investors invest their fund on securities for the long run future returns. Investment involves making decisions whose outcome cannot be predicted and it is always associated with risk and returns a wide range of investment opportunity is available to investors. Investment can be made on common stock, preferred stock, bond, convertible, warrant, option etc. Among various alternatives the present study focuses on common stock investment only.

### 2.1.8. Securities: An Introduction

A security is a tradable claim on the assets of an institution or individual. Where real assets contribute to the productive capacity of the economy, securities are financial assets that merely represent claims on real assets. Securities frequently denote ownership (such as shares of stock) or creditor ship of an institution (such as a bond). We might also claim that most corporate securities imply either fixed claims (such as bonds which typically involve fixed interest and principal repayments) or residual claims (such as common stock, whose owners receive assets remaining after creditors' claims have been satisfied). Some securities such as options and futures denote very specific claims. Many securities are marketable, meaning that they can be sold or assigned to other investors. Some of the more common types of securities are classified and briefly introduced in the following:
A. Debt securities: Denote creditor ship of an individual, firm or other institution. They typically involve payments of a fixed series of interest or amounts towards principal. Examples include:

Bonds Long term debt securities issued by corporations, governments or other institutions.
Treasury securities: Debt securities issued by the Treasury of the United States federal government.
B. Equity securities: Denote ownership in a business or corporation. They typically permit for dividend payments if the firm's debt obligations have been satisfied. The two primary types of marketable equity issued by corporations are:

Common stock Security held by the residual claimant or owner of the firm, and
Preferred stock: Stock which is given priority over common stock in the payment of dividends; preferred stock holders must receive their dividends if common stock holders are to be paid dividends.
C. Derivative securities: Have payoff functions derived from the values of other securities, rates or indices. Some of the more common derivative securities are:

Options: Securities that grant their owners rights to buy or sell an asset at a specific price on or before the expiration date of the security. Options on stock are the most frequently traded. The two types of stock options are:
Calls: A security or contract granting its owner the right to purchase a given asset at a specified price on or before the expiration date of the contract, and Puts A security or contract granting its owner the right to sell a given asset at a specified price on or before the expiration date of the contract
Futures Contracts: Securities that oblige their owners to either purchase or sell a given asset at a specified price on the future settlement date of that contract. We will discuss later the differences between futures and options contracts. Investors may take either a long or a short position in a futures contract. A long position obligates the investor to purchase the given asset on the settlement date of the contract and a short position obligates the investor to sell the given asset on the settlement date of the contract.
Swaps: Provide for the exchange of cash flows associated with one asset, rate or index for the cash flows associated with another asset, rate or index.

We emphasize that this list of security types is far from complete; it only reflects those securities that will be most frequently discussed in the course. Obviously, this course will focus on equities. Securities markets provide for the allocation among various uses of capital and other productive resources including plant, equipment, supplies and raw materials. The exchange of securities among investors intending to maximize their own wealth ensures that resources will be allocated to their most productive uses.

### 2.1.8.1. Common stock

Science the study is about the common stock of commercial companies, light must be thrown on into make it clearer. Whenever a company needs capital for expansions, for creation of new job, for product development etc, it sells of share of its stock to public. Common stock may be defined, as shares in the ownership of the firm. Common stockholder are real owner of business firm. Common stocks are more risky than both bonds and preferred stocks but it has also benefit like voting right in participation in profit. And also common stock may be purchase and sold immediately.
"Common stock is a type of security which represents a commitment on the part of a corporation to pay periodically whatever its board of directors deems appropriate as a cash dividend. A firm may promise a right to share in its profit in return for an investor's fund. Nothing pledged, and no irrevocable promises, are made. The firm pays simply whatever its directors deem reasonable from time to time. However, to protect against serious malfeasance, the investor is given the right to participate in the board of directors. The investor's property fight is represented by a share of common stock, which could be sold someone else, who win then is able to exercise right the holder of common stock is said to be an owner of the corporation and can, in theory, exercise control over its operation through the board of directors." (Sharpe, 1995:3-7)

Common stock represents ownership position in a corporation. It is residual claim, in the sense that creditors and preference shareholders must be paid out before common stock holder can receive any payment. As a result, stockholders return on the investment is less certain than the return to lender or to a preferred stock holder. Hence risk is highest in common stock so is the return. The potential reward and penalties associated with the common stock make it both romantic and exciting proposal. Common stock holder may lose their initial investment and nothing more in case of liquidation of the organization. Equity or common stock is usually known as risk bearing shares; it doesn't receive any dividend during the early stage. During liquidation they are paid out but they are also entitled to all surplus assets after payment to creditors and preference shareholders.
"Stock is the ownership interest of a corporation each share of stock is fraction of the right and privilege that belongs to the owners of a business. A stock certificate is evidence of that fractional ownership. It is tangible evidence. A certificate of title to part of the company." (Henderson, Garyl and Wert, 1984:2)
"Of all the forms of securities common stock appears to be the most romantic. Which fixed income investment revenue may be more important to the most of investors? Common stock seen to capture their interest the most. The potential reward and penalties associated with common stock make them an interesting even exciting proposition, no wonder common stock investment is favorite topic for conversation in parties and get together." (Prasanna, 1995:93)
"Common stock holders are the owners of the corporation, as owners, common stock holders have certain right, the most important are (i) the right to participate in profit distribution (ii) the right to vote etc. From the corporation viewpoint, common stock represents a fund raising device. From the investor's view point stock ownership gives the stockholders an opportunity to share in the profit when declared as dividend, opportunities to make money an appreciation in the corporation." (Bradley, 1995:104)

So common stocks are more risky than both bond and preferred stock from the point of investment. Equity stock gives several rights to the stockholders. He/she has the right to vote, the right of dividend, right of being offered right shares, the right to bonus issue and certain tax benefit. Investment in common stock is highly liquid because common stock may be purchased and sold immediately. While the stockholder has the right of being the owner of the firm his liability is limited only to the extent of his investment among investors.

### 2.1.8.2. Introduction to Common Stock Analysis

The purpose of security analysis is to derive inputs for portfolio analysis. That is, the securities analyst provides information to the portfolio manager enabling the manager to determine how much
of each of the securities to purchase and sell. Securities analysts seek and analyze information concerning expected cash flows and risks associated with securities. Ultimately, analysts are concerned with the valuation of stock. Portfolio managers are particularly interested in obtaining inputs regarding security expected returns (anticipated dividends and price appreciation), risk levels and relative movement of securities. Earlier, we characterized these inputs from a statistical perspective as Expected Return, Variance and Covariance. Most securities analysts are particularly interested in locating underpriced or overpriced securities. Many will hope that their analyses will enable them to find information that is not properly reflected in stock prices.

Basic approaches to valuation include discounted cash flow analysis and relative analysis. Discounted cash flow analysis is based on the cash flows a firm is expected to produce for its investors along with the timing and risk of these cash flows. Because forecasting these cash flows is usually quite difficult as is deriving discount rates, many analysts rely heavily on relative valuation. Here, the analyst derives a value for shares based on the characteristics of the company, its peer companies and the values of its peer companies. Sometimes firms have unused or inefficiently employed assets, or might be in process of restructuring. Such assets may be put to better use by management of another firm, hence, it is often useful to value the firm as though it were to be purchased outright, taken over or liquidated. Some firms have patents, copyrights, unexploited assets and other options that may be very difficult to value using standard discounted cash flow analysis, but may be valued using contingent claims analysis or option pricing methodology.

Many investors will distinguish among types with respect to their return, risk and fundamental characteristics. For example, shares of blue chip stock are issued by large, well established corporations such as Exxon Mobil and Proctor \& Gamble. Blue chips topically have stable earnings and dividend records and are frequently industry leaders. On the other hand, speculative stocks generally do not have this record of earnings success and stability, but may be regarded as having strong potential for price appreciation. Prices of cyclical stocks such as Georgia Pacific and Caterpillar tend to vary with the level economy-wide output. Income stocks such as many utility company shares tend to emphasize stable or increasing dividend payouts and are frequently interest rate sensitive. Investors in income stock (such as retirees and certain non profit endowments) often have a particular need for current income. On the other hand, growth stocks emphasize capital appreciation at the expense of dividends. Investors in growth stocks are generally not dependent on the current income generated by their investments and may be motivated by tax considerations to defer income. Some investors distinguish growth stocks that typically have high P/E (Market Price/Book Earnings) ratios from value stocks that typically have lower P/E ratios and Market Value to Book Value ratios. There is some statistical evidence to back up the claim that value stocks outperform growth stocks on a risk-adjusted basis. Small cap, and in particular, micro cap stocks are issued by smaller publicly traded firms. Many investors pay particular attention to these companies feeling that they frequently are not followed as closely by the market as the issues of larger companies. Thus, these investors believe that more bargains exist among the small caps. There does exist substantial evidence indicating that small cap stocks outperform the issues of larger firms

### 2.1.8.3. The Concept of Stock Valuation

The concept of value is at the heart of financial management. The value of any tradable item is whatever the bidder is prepared to pay. With a well-established asset market, valuation is relatively simple. So long as the market can be accepted as being reasonably efficient, then the market price can be trusted as a fair assessment of value. Several analytical techniques are available to assist the financial manager for valuing common stock. The investor expects regular earnings in the form dividends and capital gains from the upward movement of the stock price. Therefore, the valuation model should account for all these factors. Some of the basic valuation models used to determine the
intrinsic value of the stocks are: Net Asset Value (NAV); the Dividend Discount Model (DDM); and Price- Earnings (P/E) model. These different models are discussed below:

## A. The NAV Model

The NAV is the value of total assets less current liabilities and long term debt, which is financed by shareholders' net-worth. The shareholders' net-worth comprises of paid-up capital, share premium, accumulated profit and other free reserves, which belong to shareholders. The NAV per share or the book value per share is determined dividing the total NAV by number of outstanding shares.

## NAV (Book Value) per share $=$ Net Asset Value/Number of shares outstanding

## B. The DDM Model

DDM is used to evaluate publicly traded stocks and it is a very popular method to value the stock. DDM calculate the present value of the future dividend that a company is expected to pay shareholders. DDM can also calculate the expected return implied by the current dividend yield and projected dividend growth.
DDM defines as an intrinsic value of a share as the value of the future dividend. There is several variation of the DDM because of different assumptions about the growth rate of the dividend ad its relationship to the discount rate used to calculate the present values.
The main advantage of the DDM is their simplicity. In addition, empirical studies suggest that these models are able to distinguish undervalued from overvalued stocks over the long run, although they don't outcomes the market every year.
The DDM states that the value of a share now is the sum of stream of future discounted dividends, plus the value of the share as and when sold in some future year. Therefore, the value of a share today is a function of the cash inflows expected by the investors and the risk associated with the cash inflows.

$$
\begin{aligned}
& \mathrm{V} 0=\mathrm{D} 1 /(1+\mathrm{K}) 1+\mathrm{D} 2 /(1+\mathrm{K}) 2+\mathrm{D} 3 /(1+\mathrm{K}) 3+\ldots . . . . . . . . . . . . . . . . . . \\
& \mathrm{V} 0=(\mathrm{Dt} /(1+\mathrm{K}) \mathrm{n} \text { or } \\
& \mathrm{V} 0(1+\mathrm{K}) \mathrm{t}
\end{aligned}
$$

In the model, V0 represents the intrinsic or the theoretical value of the stock today, Dt is the dividend expected in nth year and the K is the firm's cost of equity capital. The equation stated above assumes that dividend will grow at a given rate and the amount of dividend will be different in different years. A zero growth stock is a stock from which the investor expects a constant amount of dividend each year and where the dividend is not expected to grow. In such case the price of the stock now, $\mathrm{V}_{0}$, is calculated by dividing the amount of dividend by the cost of equity.

$$
\mathrm{V} 0=\mathrm{D} / \mathrm{K}
$$

Generally, dividend is expected to grow at a given rate (g). Myron J. Gordon developed an equation to value the stock price for a growing firm. It is often called the Gordon Model.
$\mathrm{V} 0=\mathrm{D} 1 /(\mathrm{K}-\mathrm{g})$
D 1 is the next expected dividend and g is the growth rates in dividends.

## C. The P/E Model

This model requires only an estimate of price-earnings ratio. It uses earnings rather than dividends in determining the intrinsic value of the stock. Under this model, the intrinsic value of the stock today is calculated as follows

$$
\mathrm{V} 0=\mathrm{M} * \mathrm{E}
$$

M is the estimate if earnings multiplier or $\mathrm{P} / \mathrm{E}$ ratio and E is the estimates of earnings. The theoretical multiplier (M) for a company that distributes all earnings as dividends and has no earnings growth is equals to:

$$
\mathrm{M}=(\mathrm{D} / \mathrm{E}) / \mathrm{K}=1 / \mathrm{K}
$$

If the company retains parts of its earnings and those results in earnings growth, the theoretical multiplier (M) can be calculated as:

$$
\mathrm{M}=[\mathrm{D} / \mathrm{E}(1+\mathrm{g})] /[\mathrm{K}-\mathrm{g}]
$$

The growth rate (g), being the product of retention ratio (b) and return on incremental capital (r), will be zero if the company does retain earnings and distributes all its earnings as dividends $(\mathrm{b}=0$ ) or the if the company produces no additional earnings on retention ( $\mathrm{r}=0$ )

### 2.1.9. RETURN

Return is reward received from investment for sacrifice of present certain amount of asset. It is commonly defined as reward for bearing risk. Return is the major factor behind any investment. It is the most important outcome of any investment. It measures the investor's rate of wealth accumulation i.e. increase or decrease in the wealth of the investor. Return is the total gain or loss expire need in an investment over a given period of time. It can also be defined as the after tax increase in the value of the investment.
"Return is desired as the dividends yields plus the capital gain or loss. The relationship between different levels of return on their relative frequencies is called a probability distribution for the relative frequency of a firm's annual return by analyzing its historical returns over the previous year. But we know that history never repeats itself exactly. Hence after analyzing relative frequencies of historical return for the individual company. We can form a probability distribution based on historical data plus the analysis for the outlook for the economy, for the industry and outlook for the firm in its industry and other factor." (Weston \& Brigham 1990:94)

The return can be defined as "The total gain or loss experienced on behalf of the owner over a given period of time, and calculated by dividing the assets change in value plus any cash distribution during the period by its beginning of period investment value." (Gitman, $6{ }^{\text {th }}$ Edition:59)

Return can be of different types like holding period return, return from speculation or return from short sell, capitalization etc. Holding period rate of return is useful with the investment horizon of one year or less whereas for longer periods, it is better to use rate of return as an investment yield. Return comes from two sources income and price appreciation. Investment decisions based on expectation about the future. "The return from holding an investment over some period-say-a year is simply a cash payment received due to ownership plus the change in market price divided by the beginning price. Thus, income return comes from two sources: income plus any price appreciation (or loss in price) for common stock defines one period return as:

$$
\mathrm{R}=\frac{\left(P_{\mathrm{t}}--_{\mathrm{t}-1}\right)}{r_{\mathrm{t}-1}}+D_{\mathrm{t}}
$$

Where R is the actual (expected) return when t refers to a particular time period in past (future): $D_{\mathrm{t}}$ is the cash dividend at the end of time period t ; Pt is the stock's price at time period t and $P_{t-1}$ is the stock's price at time period $t-1$. Notice that this formula can be used to determine both actual oneperiod returns (when based on historical figure) as well as expected one period returns when based on future expected dividends and prices. Also note that the return is parenthesis in the number of the above equation represents the capital gain or loss during the period "(Van Horne and Wachowicz, 2001:94).

Return is the key variable in the investment decisions because this measure allows us to compare the amount of actual or expected gain provided by various investments.

### 2.1.10. Expected Return

It also can be used I investment decision process rather than historical behaviors. It is what you think the stock bonds will earn in the future (in terms of dividend/ interest plus capital gain) that determines what an investors should be willing to pay for a security.
"Off all the forms of securities common stock appears to the most romantic while fixedincome Investment Avenue expected return."(Sharp, Gordon and Bailey, $5{ }^{\text {th }}$ Edition: 177)
"Return on typical investment consists of two components. The basic component is the periodic cash receipt (or income) on the investment either in the form of interest or dividends. The second component is the change in price of the assets commonly called the capital gain or loss. Thus element of return is the difference between the purchase price and the price at which the asset can be sold: therefore, it can be a gain or loss.

The income from an investment consists of one or more cash payment paid at specific intervals of time. Interest payments on most bonds are paid semiannually, whereas dividends on common stock are usually paid quarterly. The distinguishing feature of these payments is that they are paid in cash by the issuer to the holder of assets.

The term yield is often used in connection component in the relation to some price for a security. For our purpose, the price that is relevant is the purchase price of the security. The yield on a $\$ 1000$ per value, 6 percent coupon bond purchase for $\$ 950$ is 6.31 percent ( $\$ 601, \$ 950$ ). The yield on a common stock paying $\$ 2$ in dividends per year and purchased for $\$ 50$ per share is 4 percent. One must remember that yield is not, for most purposes, the proper measure of return from a security. The capitals gain or loss must also be considered" (Fisher \& Jordon, 2000:66)

### 2.1.11. Risk

Risk is the uncertainty associated with the end of period value of and investment. Risk and return are the determinants for the valuation of the securities. However, risk means that we do not know what is going to happen even though we occasionally have a good idea of the range of possibilities. Risk is a hazard, a peril and exposure to loss or injury. Thus most risk refers to the chance that some unfavorable event may occur, while other view it as a chance of loss but in reality particular activity or event. Risk is the product of all potential outcomes expressed with probability associated with each other and it distribution of such outcomes.
"Risk exists because of the inability of the decision maker to make perfect forecasts. Forecasts can be made with perfection or certainty since the future events on which they depend are uncertain. An investment is not risky, if we can specify a unique sequence of cash flow for it. But risk arises in investment because we cannot anticipate the occurrence of the possible future events with certainty. Risk associated with an investment may be defined as the variability that is likely to occur in the future returns from the investment. If the investor invests in share of company than it is not possible to estimate future returns accurately. The return could be negative, zero or some extremely large figure." (Pandey, 1999:574-575)

Risk play central role in the analysis of investment. There are various types of risk, which an investor might have face like interest rate risk, financial risk, business risk, management risk, market
risk, currency risk, assets class risk etc. Risk is very much likely to occur in any type of investment but proper analysis will be able to help us to minimize the risk up to some extent. "Risk defined most generally is the probability of the occurrence of unfavorable outcomes. But risk has different meaning on different context. In our context two major developments from the probability distribution has been used as initial measure of return and risk." (Weston \& Brigham, 1990:93)
"In the most basic sense risk it the chance of financial loss. Assets having greater of chance of loss are viewed as more risky than those with lesser chance of loss more firmly, the term risk is used inter changeably with uncertainty to refer to the variability of return associated with a given assets. The more certain the return from an assets the less variability and therefore the less risk." (Prashan, 2000:303-313)

Risk is the chance that the actual return from investment may differ from what is expected. Risk plays vital role in the analysis of investment. Investors often ask about the total risk they will be assuming in an investment and wants to know if the risk premium provided is enough.

Actually risk in a simple language is an uncertainty. Risk is the typically defines as uncertainty. It arises from imperfect knowledge or from incomplete data.

The variability of the return may be defined as the extent of deviation of individual rate of return from the average rate of return. There are measures of dispersion. Variance and standard deviation. The following steps are involved in calculating variance or standard Deviation of rates of return of assets or securities using historical returns.

$$
\text { Average rate of return } \bar{R}=\frac{1}{n} \sum_{t-1}^{n} R t
$$

Calculation of sum of individual rate of return from average rate of return and square.

$$
(R-\bar{R})^{2}
$$

Calculation of sum of the squares of the deviation as determined in $2^{\text {nd }}$ step and divides it by the no. of periods or observation to obtain variance.

$$
\operatorname{Var}(\boldsymbol{\delta})^{2}=\frac{1}{n} \sum_{t-1}^{n}(R-\bar{R})^{2}
$$

Calculation of standard deviation

$$
\delta=\sqrt{a^{2}} \text { or, } \delta=\sqrt{\frac{1}{n}} \sum_{t-1}^{n}(R-\bar{R})^{2}
$$

Where, $\delta=$ Standard Deviation
$\mathrm{R}=$ Holding Period Rate of Return
$\bar{R}=$ Expected or Average Return
Standard deviation is not a complete measure of risk. Another useful measure of risk is the coefficient of variation which is standard deviation divided by expected return.
The coefficient of variation shows the risk per unit of return, and it provides a more meaningful basis for comparison when the expected returns on two alternatives are not same.
The coefficient of variation can be measured with the following equation:

$$
\begin{gathered}
\operatorname{Cov}_{j}=\frac{\delta_{j}}{\kappa_{j}} \\
\text { Where, } C v_{j}=\text { Coefficent of Variation on stock } \mathrm{j} . \\
\delta_{j}=\text { Standard Deviation on Stock } \mathrm{j} . \\
K_{j}=\text { Expected rate of Return on Stock } \mathrm{j} .
\end{gathered}
$$

### 2.1.12. Correlation

Correlation is the statistical tools to measure the relationship between more assets. If the relationship is direct they are called positively correlated and if relationship is inverse they are called negatively correlated. If changes in one asset doesn't affect the other variable are called uncorrelated.

Symbolically,
Correlation (p) $=\frac{\operatorname{cov}_{i m}}{\hat{\sigma}_{i} \sigma_{m}}$
Where,
$\operatorname{Cov}_{\text {fm }}=$ corvariance between security's and market.
$\delta_{i}=$ standard deviation of security.
$\delta_{m}=$ standard deviation of market return

### 2.1.13. SYSTEMIC AND UNSYSTEMATIC RISK.

Figure - 1
Risk


The risk is the total risk that arises in the business. Any type of business, whether that may be of large or small scale suffers risk. Because investment is a part of economics and the economical cycle changes frequently. When the market bullish three is low risk and when it starts declining i.e. bearish there may be high risk. The risk which we talk may be systematic risk and unsystematic risk
associated with investment. Hence, the risk can be classified as diversifiable risk is also known as unsystematic risk and undiversifiable risk is the systematic risk, which is neither avoidable no can be quit. The combination of these two risks is the total risk. Total risk systematic risk + unsystematic risk.

Systematic risk is also known as non-diversifiable risk. This risk arises due to the change in the economic state or due to change made by government in fiscal or monetary policies. Some examples of systematic risk are change in interest rate policy by government, increase in corporate tax rate, increase in inflation rate etc.

Unsystematic risk arises due to the many more reasons, like labor strike entry of formidable competitor in the market loss on a big contract bid, company not being able to manage or obtain adequate raw materials on time etc. These type of risks normally minor one and can be handled by the management. That's why this type of risk is called diversifiable risk.
Characteristic line is used to measure both systematic risk and unsystematic risk. The equation for the characteristic line is:

$$
r_{i t}=a_{i}+b i r_{m t}+e_{i t}
$$

Where,
$a_{i} \quad=$ The intercept for the its assets (alpha)-
$b i_{m t}=$ The slope for the $i^{\text {th }}$ asset.
$e_{i t} \quad=$ The regression model's unexplained residual return that occurs in period t .
Beta is a measure of non diversifiable risk or market risk that is it shows the price of a security responds to market forces. It is found by relating the historical returns on a security with the historical return for the market. Market return is typically measures by average return of all (or a large sample of) stock. The beta for overall market is equal to 1 all other bets are viewed in relation to this value. The ready availability of security beats has enhanced their use in assessing investment risk, in general the higher the beta, the riskier the security. For stock having positive beats, increase in the market return result an increase in return.
The different values of beta are defined as follows:

## Beta Equal to $1(\beta=1)$

It signifies the average level of systematic risk in the market and implies that changes in stock's respond to changes in market for example $1 \%$ change in market return will causes exactly $1 \%$ change in stock return and it command the average market risk premium.

## Beta Less than $1(\beta<1)$

It indicates that stock returns are less volatile than the market return. For example $1 \%$ change (increase or decrease) in market return will cause less than $1 \%$ increase or decrease in stock's return. $\beta<1$ implies that stock return is less sensitive to market fluctuation and the stock is called defensive type.

## Beta More than 1 ( $\beta>1$ )

It indicates that stock returns are more volatile than market return. For example: $1 \%$ change in market return will cause more than $1 \%$ change in stock's return. $\beta>1$ implies that stock return is more sensitive to market fluctuation and the stock is called aggressive type.

Mathematically Define as:
Beta $($ bi $)=\frac{\operatorname{Cov}\left(\operatorname{trr}_{m}\right)}{\delta \mathrm{m}^{2}}=$ Slope of regression line
Where,
$\operatorname{Cov}\left(\mathrm{rir}_{m}\right)=$ Covariance of return of the $i^{t / h}$ asset with the market.
$\operatorname{Var}\left(r_{m}\right)=$ Variance of the return of the market index.

### 2.1.14. Capital Assets Pricing Model (CAPM)

Capital asset pricing model almost always referred, as CAPM is a centerpiece of modern financial economics. Where portfolio theory deals with selection of optimal portfolio. Capital market theory deals with an equilibrium model of asset price. Especially capital market theory postulates the exante risk return relationship of individual asset as well as portfolio under equilibrium conditions. In general the CAPM indicates that assets required return should be related to the risk free rate of return plus a risk premium based on the beta of the assets.
CAPM is a model that describes the relationship between risk and required return. In this model a security's expected return is the risk free rate plus a premium based on the systematic risk of the security.

The model is:
$\sum\left(R_{j)=R_{f}+\left(R_{m-} R_{f}\right) \beta_{j}}\right.$

Where,
$\Sigma\left(R_{f)}=\right.$ The required rate of return of asset j.
$K_{f} \quad=$ The normal risk free rate of return.
(The real risk free rate of return plus risk premium for inflation)
$\beta_{j} \quad=$ Beta coefficient of stock j .
$R_{m} \quad=$ The expected rate of return on the market portfolio.
"The CAPM is undoubtedly the most successful model to link the risk and expected return of capital assets. The relationship between expected return and unavoidable risk, and the valuation of securities that follows, is the essence of the capital asset pricing model" (Van Horne, 1997:62)
Assumption of CAPM
> The capital markets are efficient. The capital market efficiency implies that share price reflected all available information.
$>$ All investors have the same expectations about the expected return and risk of securities.
$>$ All investor's decisions are based on single time period.
$>$ All investors can be land and borrow at risk free rate of interest.

[^1]Laureale William sharp's capital assets pricing model (CAPM). (Van Horne \& Wachowitz, 1996:101)

Figure - 2
" A graph of the CAMP is given below:


Above figure depicts two assets u and o , which are not in equilibrium on the CAPM. Asset u is undervalued and therefore very desirable assets to own u's price will rise in the market as more investors purchase it. However as u's price goes up its return fall. When u's return falls to the return to consistent with its beta on the SML, equilibrium is attained with o just opposite takes place. Investor will attempt to sell o since it is overvalued. And therefore put downward pressure on o's price. When the return on asset o increase to the rate that is consistent with the beta risk level given by the SML, equilibrium will be achieved and downward price pressure will cease/" (Francis, 1986:267-269)
Hence CAPM helps us to decide whether to purchase or sell the stock of the particular company. We decide by comparing required rate with the expected rate of return. The capital asset pricing model provides us a means by which to estimate the required rate of return. The capital asset pricing model provides us a means by which to estimate the required rate of return on a security. And on the basis of price and dividend data expected return can be calculated. With comparison of two return investors can analyze whether the stock is under priced of overpriced.

### 2.2. Review from Journals and other Related Studies

It is necessary to address current academic workings contributed towards the field of this study. Here in this section article from various national and international journals are reviewed and the attempt is concentrated to grab current picture of subject matter, which ultimately helps for the success of study.

Leading American journal (journal of finance) has thrown enough light on risk and return subject. So it is thought to be relevant to review an article from the same.

Theoretical relationship between systematic risk and financial variables at his article. The theoretical relationship between systematic risk and financial variables on Journal of Finance.
"Robert utilized the CAPM assumption and additional assumption that corporation can borrow and lend at risk-free interest rate. He has presented theoretical relationship of systematic risk, the firm's leverage, accounting beta, earning variability, dividend or payout and growth. Shortly his findings are as follows:
> Systematic risk of levered firm is equal to the systematic risk of the same firm without leverage.
$>$ Between earning variability and market risk there is no direct relationship.
$>$ There is no any theoretical relationship between size and growth of the firm and systematic risk.
$>$ There is no any theoretical relationship between dividend and systematic risk and also theoretical basis for relationship of dividend payout and beta.
$>$ to the according systematic risk is directly related.
This study shows that there is a theoretical relationship between systematic risk and firm's accounting beta and systematic function is not a function of earning variability, dividend polices and size and growth of firm's." (Bowman, 1979:617-628)

The study that testing the CAPM with time varying risk and return from monthly observations on total equity returns for firm's listed in NYSE and monthly treasury bill yields. The estimation period cover 1926-1985. They used time series returns for five value-weighted portfolios as the assets priced by CAPM and the market return that they used is the CRPs value weighted market return.

The conditional CAPM provides a convenient way to incorporate the time varying conditional variance and covariance and allows assets risk premium vary overtime as a result of time variation in three components: The market conditional co-variance between the assets risk premium. In the conditional CAPM, an asset beta is the ratio of the conditional co-variance between assets and market returns and the conditional variance of the market's return." (Bodurtha and nark, 1991:14181503)

In twentieth century, Philip Zorin and William N.Geotzman have studies about global stock market. To estimate for the long run expected return on equity in international base is the main purpose of this study. About the implication of this study, they mention "In a famous article Mehra and Prescott (1985) argue that standard general equilibrium models cannot explain the size of the risk premium on US equities which average about $6 \%$ over the $1978 / 89$ periods. They show that one would need a very large difference of risk aversion largely in excess of the usual value of two generate such a premium. This up settings result has sparkled a flurry of theoretical research that explains alternatives performance structure; including dropping the expected utility assumption and introducing habit function." (Zorin and Goteman, 1999:95)

Capital appreciations index of 39 countries for the period of 1921 to 1996 is included in this study. Beyond, this global database allows us a broad investigation into the behavior of equity markets over the long run. Basically, it is based on less volatile market, about 6\% annual market growth and 20\%
standard duration is considered in this study. To obey it, about half century of data is necessary to maintain these requirements.

Approximately 76000 data points are involved in 39 markets of different countries which are taken from IFC, IMF and WPI and all are monthly based and these sources of data help to reconstruct histories for the numbers of stock markets going back early of 1920 .

While reviewing studies "Finance subject committee faculty of management Tribhuvan University" organized the seminar on the basis of "Emerging issues and challenges in corporate finance has mainly emphasis on the total risk pattern on joint venture Commercial banks (JVCBs) in Nepal.

The risk analysis procedure is based on the historical return of the commercial banks holding periods assumed on year. Standard deviation is calculated to measure the total risk similarly coefficient of variation is calculated for finding the best bank from the risk, return perspective further coefficient of correlation is also calculated to test the role of EPS and DPS on the market price of share, coefficient of determination is also calculated in order to explain the influence of independent variables. (i.e. EPS DPS)

The seminar founds that the expected return in (JVCBs) ranges between $6.7 \%$ to $92.2 \%$, which can be taken as satisfactory in such a context of declining interest rate. However the standard deviation of the observed banks ranges between $14.72 \%$ to $82.43 \%$ and from the perspectives it is cleared that the return is not consistent and there is more changes of deviation in the expected mean return.

In the conclusion on the basis of correlation coefficient between market price of share and DPS that there is not a role of DPS in the variation of market price of share. It means the market price of the share of (JBVCBs) is greatly determined by other factors rather than the cash dividend. On the other hand the analysis shows that there is close relationship between EPS and market price of share and $63.5 \%$ variation in market price is determined by the EPS. (Devkota and Budathkoti, 2002:81-89)

An another article Managing Banking Risks, $t$ hat various risk factors may equally be relevant for manufacturing sectors as well as in banking areas.

The primary function of bank is to take trade risk. Risk cannot be avoided by the banks but can only manage. But how these are managed and what type of risk exists in banking system.
He discuss about some of primary risk which the banking industry faces and must be point of interest only to bankers and regulators but most importantly to the depositors as well so that they can map the capacity of their banks and safeguard their hard earn money.

Trading Market Risk: Excess liquidity is invested on various government and corporate securities, in foreign currencies and other assets for instance swaps, option etc. Owing to the market uncertainty the value of these assets may also decline. Hence managing such investments needs experts who can predict the further return of these assets and invest the excess return smartly?

- Credit Risk: There are two types of credit risk. One si the diversifiable risk or the firm specific risk, which can be mitigated by maintaining an optimum and diversifiable and second, is correlated across borrowers, countries and industries, such risk not under the control of firm and banks.
- Liquidity risk: It is matter of great concern for the banks to maintain sufficient liquidity in the form of hard cash or marketable securities, which can be, converted liquidity risk.

The central bank has initiated various regulatory frameworks to maintain reserve in their vault and certain specific percentage of the total deposit with central bank.

- Interest Rate Risk: This is one of the most common risks the bank face owing to the volatility of the interest in the market. Just a decade ago, in Nepal, the interest rate in saving and time deposits were at the highest of around $8 \%$ and $12 \%$ respectively, but today they have pathetically gone down with an average of $4 \%$ and $6 \%$ respectively due to dwindling economic scenario. Similar volatility has also been observed in case of lending interest rate as well. The spread of interest between tending and deposit is what the bank earns but with above stated volatility there is great uncertainty.
- Off Balance Sheet Risks: Bank often creates contingent liabilities and they are not shown in the balance sheets. Some of the examples of such off balance sheet items are as guarantor in case of default by principle of borrower in loan commitments of risk of incurring loss in forward contract due to change in price of the purchasing / selling of assets, swaps, options, commitments made in later of credit etc. Such risks are managed by a prudent analysis of the bank officials materializing such contingent contracts.

Technology Operational Risks: Due to the modern technology and operational efficiency modern commercial banks are among the best in terms of services, profitability and image as well. This a very small example where the government owned banks has failed, as compared to technological up gradating of other commercial banks." (Thapa, 2003:4)

Another articles is conducted the study on "Effect of Dividends of Common Stock Price", based on data collected for 29 companies from 1994 to 1999. This study explains the effect of dividend payment and retained earnings on market price of share in the context of Nepalese companies. The purpose of the study is as follows:

- In the context of Nepal, to explain relationship of share price, dividend and retained earnings.
- Among Nepalese stockholders, to find out whether dividends or retained earnings are more alternative.
- To examine the elasticity of dividends and for retained earnings with respect to market price per share.
- On market price of share to ascertain the effect of dividend payment and retained earnings.
He concluded and fined that:
- As compared to retained earnings in Nepal, dividend payment is more important and if company retained earnings is more the market price of share may decline.
- Dividends are relatively more alternative than retained earnings and share price is effected dividends.
- With respect to share price the elasticity of dividends is less than unity, which shows the absence of economics of scale." ( Pradhan, 2003:151-157)


### 2.3. Review of Thesis

In this section various thesis are reviewed which are related to the topic risk and return and which may be helpful for this study. Here same thesis and dissertation are reviewed which have done on risk and return topic.

Mr. Sudeep Upadhaya has conducted the study on "Risk and Return on Common Stock Investment of Commercial Banks in Nepal" in 2001. His study is based on five years data from financial year 1994/95 to financial year 1998/99 o eight commercial banks of Nepal. He analyzed the data in order to achieve his objectives. To assess the risk associated with returns on common stock investment of the listed commercial banks on the basis of selective financial tools were the main purpose of the study and to evaluate common stocks of listed commercial banks in terms of risk and return, to assess the risk compensating and to analyze the volatility of common stock and other relevant variables as an affecting factor in portfolio construction of common stocks. Due to the effect of unrealistic annual return because the issue of bonus share and increase in share price, the expected return on common stock of Nepal Grindlays bank in maximum (127.84\%). This is very high rate. Among eight commercial banks the rate of return on common stock of SBI is minimum i.e. (7.77\%). The expected return of other sector is highest in the context of industries but manufacturing and production sector is found least performer.
"High Risk High return" it has proved in this study because it has found the common stock of NGB is most risky on the other hand the common stock of SBI is least risky. Coefficient of variation is more rational basis of investment decision and banking sectors coefficient of variation is less than that of manufacturing production and Hotel sector. In this study it shows that the stocks of commercial banks are over period. The expected rate of return of Nepal Grindlays Bank is highly greater than its required rate of return.

The Nepalese investor invests their fund on the basis expectation and assumption of individual securities rather than analysis of the effect of portfolio that use their fund in two or more securitized." (Upadhaya, 2001:15)

A study conducted by Shanker Kumar Mishara is somehow related to this study. He conducted a thesis on the topic of "Risk and return on Common Stock Investment of Commercial Bank in Nepal" in 2002. His objectives were "to examine common stock of listed commercial bank in term of risk and return" and to identify whether stock of selected companies are overpriced, under priced and equilibrium priced.

He tried to calculate risk and return of the portfolio as well as common stick and has tried to suggest some ideas. He conclude that, the risk of an assets could be measured quantitatively issuing the standard deviation and co-efficient of variation. The study is focused on the common stock of listed commercial banks. No investor will like to invest in risk assets unless he is assured of adequate compensation for the acceptance of risk. From his analysis, for risk point of view, banking sector is the best for the investment in common stock. (Mishara, 2002)

A study conducted by Nisha Shakya in "Risk and return Analysis of Common stock Investment " which may help in decision making about stock investment. She has studied over five finance company. The specific objectives of her study to assets the general investors perception attitude and awareness towards risk associated with return, to calculated risk and return of selected securities and there portfolio and to analyzed the volatility of common stock and other valuables.

After conducted the study she come to the conclusion that the professional investors have not so sound knowledge about the stock market. Most of the investors don't know how to interpret the information and cannot make a rational decision regarding transaction of the stock and most of the investor has wrong concept theory that they believe that return of banking sector as always high. The investor's way of making portfolio is not right but aware about risk diversification. They make portfolio by investing same sector but the portfolio of same sector cannot reduce risk because they
co-related positively. Most of the Nepalese investor doesn't know about correlation coefficient and they can't reduce risk by making wrong portfolio. She has taken some selected finance companies to analysis the risk and return. Among them expected return of universal finance and capital markets Ltd. is highest ( $18.33 \%$ ) and National finance company has lowest risk i.e. ( $20.59 \%$ ). By this investor realize that National finance company best security in term of coefficient of variation and the Kathmandu finance company has highest beta coefficient among the sample companies. So Kathmandu finance company is more volatile, riskier and aggressive than market and other sample swcurities. (Shakya, 2003)

A study conducted by Mr. Guna Nidhi Gautam on the topic of Risk and Return Analysis of Common Stock of Finance Companies in Nepal in 2004. The relevant objective set Mr. Gautam were to examine risk and return on common stock of finance company, to evaluate the stock of selected companies are overpriced, under priced or equal priced. His study was based on the period of seven years.

Mr. Gautam has given the summary of his findings as "the expected rate of return of the common stock of Narayani finance Ltd. is highest among the selected finance companies after analyzing the available data and information using various financial and statistical. Similarly, expected rate of return of common stock of people's finance company Ltd. is found lowest. The total risk measured by standard deviation is observed maximum in common stock of Narayani Finance Company Ltd. common stock of citizen investment trust has highest excess return $t$ Beta. (Gautam, 2004).

## CHAPTER - 3

## RESEARCH METHODOLOGY

### 3.1. RESEARCH DESIGN

A Research design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern of framework for the project that stipulates what information is to be collected, form which sources and by what procedures. Thus a research design is a plan for the collection an analysis of data. For research there exits different types of research design like; Historical research, Descriptive research, Case study research, Field study research, analytical research, True experimental research and so on. This study mainly concerned with historical research. If applicable, sometime descriptive and analytical approach may also be used. But generally, to describe the practice, problem and perspective of short term financing by the
commercial banks in reference to NABIL bank and STANDARD CHARTERED bank, past historical data are used. The relevant and needed data has been collected from various publications of different commercial banks and website of the various institutions like Nepal Rastra bank and Ministry of finance of Nepal government and other e journals and article websites.

### 3.2 POPULATION AND SAMPLES:

The term "population" or universe for research means the universe of research study in which the research is based. Since the research topic is about Investing in shares of Commercial Banks in Nepal: An Assessment of Return and Risk Elements (regarding Nabil \& SCBNL), all the institution of Nepal are the member of population study. The population for the study comprises 26 commercial banks, 59 development banks, 78 finance companies, 12 micro credit development banks, 16 saving and credit co operative limited, one employee provident fund and other 45 non-government financial organizations. Among the total population of 235 banks and non banks that are operating in the Nepal, only some selected institutions are taken as sample on random basis. Similarly, due to unavailability of data from all sectors, only commercial banks are chosen for this study. So precisely saying, all 26 commercial banks are the population of this study. But, the study is conducted by taking the sample of 2 commercial banks (NABIL bank limited \& STANDARD CHARTERED bank limited) among the whole population of 26 commercial banks. The sample selection was done through the judgment \&purposive sampling method. Because of the availability of data for the

Study purpose has forced the researcher to select the sample from the population. We can say that the all 26 banks are the population for the study and the 2 banks are the sample upon the study is conducted.

The population of the study i. e. the commercial banks of Nepal are listed below:-
Table no-1

| S.No | A' Class commercial Bank | ESTD. Date |
| :---: | :--- | ---: |
| 1 | Nepal bank limited | $11 / 15 / 1937$ |
| 2 | Rastriya Banijya Bank | $1 / 23 / 1966$ |
| 3 | NABIL Bank Limited | $7 / 16 / 1984$ |
| 4 | Nepal Investment Bank Limited | $2 / 27 / 1986$ |
| 5 | Standard Chartered Bank Nepal Limited. | $1 / 30 / 1987$ |
| 6 | Himalayan Bank Limited | $1 / 18 / 1993$ |
| 7 | Nepal SBI Bank Limited | $7 / 7 / 1993$ |
| 8 | Nepal Bangladesh Bank Limited | $6 / 5 / 1993$ |
| 9 | Everest Bank Limited | $10 / 18 / 1994$ |
| 10 | Bank of Kathmandu Limited | $3 / 12 / 1995$ |
| 11 | Nepal Credit and Commerce Bank Limited | $10 / 14 / 1996$ |
| 12 | Lumbini Bank Limited | $7 / 17 / 1998$ |


| 13 | Nepal Industrial \& Commercial Bank Limited | $7 / 21 / 1998$ |
| ---: | :--- | ---: |
| 14 | Machhapuchhre Bank Limited | $10 / 3 / 2000$ |
| 15 | Kumari Bank Limited | $4 / 3 / 2001$ |
| 16 | Laxmi Bank Limited | $4 / 3 / 2002$ |
| 17 | Siddhartha Bank Limited | $12 / 24 / 2002$ |
| 18 | Agriculture Development Bank Ltd. | $3 / 16 / 2006$ |
| 19 | Global Bank Ltd. | $1 / 2 / 2007$ |
| 20 | Citizens Bank International Ltd. | $6 / 21 / 2007$ |
| 21 | Prime Commercial Bank Ltd. | $9 / 24 / 2007$ |
| 22 | Sunrise Bank Ltd. | $10 / 12 / 2007$ |
| 23 | Bank of Asia Nepal Ltd. | $10 / 12 / 2007$ |
| 24 | Development Credit Bank Ltd. | $1 / 23 / 2001$ |
| 25 | NMB Bank Ltd | $11 / 26 / 1996$ |
| 26 | KIST Bank Ltd | $2 / 21 / 2003$ |

only 2 commercial banks i.e. (NABIL Bank and STANDARD CHARTERED Bank) have taken into account for research proposes as samples in this research. They are two of the best performing Joint Venture Bank's in Nepal. Their profit per share, percentage of dividend paid per equity capital, net profits are among the highest in commercial banks. They are equipped with research and analysis team, proper MIS, sufficient capital and skilled manpower. They also have access to Global financial markets. For selecting the samples, simple random sampling method is used here among different methods. Organization under study are as follows, whose general introduction and major objectives are presented in chapter one.

### 3.3 SOURCES OF DATA AND COLLECTION PROCEDURES:

Basically this study is based on published source of information. These published sources of information are called secondary data. These secondary data are collected mainly from sources like annual report, prospectus, balance sheet, newspaper, journal, Internet and other sources. Besides this in some case, if needed, primary data are also be used. They are collected through direct interview and observation from the concern authority and persons related to the study .

Secondary data published on annual reports of concerning organizations, like interest rate as well as amount and their organizational profiles are collected through personal visit of respective organization as well as from their web sites. Some secondary data like source and use of funds of respective bank, comparative study, and inflation rates are collected from the website of Nepal Rastra Bank as well as from the ministry of finance. To make the statistical part of the study more
descriptive and analyzable various theses related to the study were selected for the data of historical evidence.

### 3.4. DATA ANALYSIS TOOLS:

Analysis and presentation of the data is the core of project study. This study needs some financial and statistical tools to accomplish the objectives of this study. The data extracted from financial, statistical and accounting tools have been used. These results are then compared with each other to interpret the results. Two kinds of tools have been used to achieve the purpose, namely:

1] Financial tools and
2] Statistical tools

### 3.4.1 Financial tools:

Financial tools basically help to analyze the strength and weakness of a firm. Ratio analysis being one of the important financial tools has been used in this study. In financial analysis a ratio is used as a benchmark for evaluating the financial position and performance of a firm. Ratios help to summarize the large quantities of financial data and to make qualitative judgment about the firm's performance. The point to note is that a ratio indicates a quantitative relationship, which can be used to make a qualitative judgment. There are several ratios involved in analyzing and interpreting the financial statement. In this study, basically four types of ratios have been used which are related to Investment policy of banks. They are as follows:

## A: The NAV Model

The NAV is the value of total assets less current liabilities and long term debt, which is financed by shareholders' net-worth. The shareholders' net-worth comprises of paid-up capital, share premium, accumulated profit and other free reserves, which belong to shareholders. The NAV per share or the book value per share is determined dividing the total NAV by number of outstanding shares.

NAV (Book Value) per share $=$ Net Asset Value/Number of shares outstanding

## B: The DDM Model

The dividend discount model (DDM) is the theoretically most correct model for firm valuation (Miller and Modigliani, 1961). It's a very intuitive approach as well. When investors buy a stock, they expect to receive two types of cash flows: the dividends in the period over which the stock is owned and the market price at the end of the holding period. The market price however is again
determined by the dividends the new owner of the security expects to receive over his holding period. From this follows that the market price can be replaced again by a stream of dividends, until the entire value of the stock is expressed in terms of dividends. Consequently, even from the perspective of an investor with a finite investment horizon, the value of a stock always depends on all future dividends:

$$
V_{0}=\frac{D_{1}}{(1+k)}+\frac{D_{2}}{(1+k)^{2}}+\ldots+\frac{D_{t}}{(1+k)^{t}}+\frac{P_{t}}{(1+k)^{t}}
$$

With

$$
P_{t}=\frac{D_{t+1}}{(1+k)^{+1+1}}+\frac{D_{t+2}}{(1+k)^{++2}}+\ldots+\frac{D_{n}}{(1+k)^{n}}
$$

becomes $V_{0}=\sum_{i=1}^{n} \frac{D_{t}}{(1+k)^{t}}$
$\mathrm{V} 0=$ Value of the stock in $\mathrm{t}=0$
Dt = Dividend received in period t
Pt = Market price in period t
k = Discount rate
$\mathrm{n}=$ Number of years over which the asset will generate dividends for investors.

The most widely known DDM model is the Gordon growth model (Gordon, 1962). It expresses the value of a stock based on a constant growth rate of dividends so that (1) $1 D D g t t=+-$ where $g$ is the expected constant growth rate in dividends. For any time t , Dt equals the $\mathrm{t}=0$ dividend, compounded at g for t periods: $\operatorname{ttD} D(1 \mathrm{~g}) 0=+$. If Dt is substituted into equation 1-1 we obtain

$$
V_{0}=\sum_{t=1}^{n} \frac{D_{0}(1+g)^{t}}{(1+k)^{t}}
$$

As this represents a geometric series, the equation can be simplified into the Gordon growth model:

$$
V_{0}=\frac{D_{0}(1+g)}{k-g}
$$

Or ever simpler,

$$
V_{0}=\frac{D_{1}}{k-g} .
$$

These equations show that the value of a stock is determined by the current dividend, its growth rate and the discount rate.
Even though the DDM is the theoretical correct valuation model for common stocks, it has some major weaknesses related to its practical application. The main problem is that observed dividends are not directly related to value creation within the company and therefore to future dividends. According to Miller and Modigliani (1961) currently observed dividends are not informative unless the pay-out policy is tied to the value generation within the company. Penman (1992) describes this as the dividend conundrum: "price is based on future dividends but observed dividends do not tell us anything about price". The missing link between value creation and value distribution leads to a problem in forecasting dividends as it is difficult to forecast pay-out ratios.

Today, share repurchases are further complicating the practical application of the DDM. Grullon and Michaley (2002) document that since the mid 1980's; many corporations have been repurchasing large amounts of shares. Repurchases transmit cash from the corporation to investors and are, in that sense, not different from dividends. For these reasons, dividends as the relevant cash flow to investors have been more and more replaced since the 1980's with free cash flows.

## C: The P/E Model

$P / E$ is short for the ratio of a company's share price to its per-share earnings. As the name implies, to calculate the $P / E$, you simply take the current stock price of a company and divide by its earnings per share (EPS:
$P / E=M P S / E P S$
Most of the time, the P/E is calculated using EPS from the last four quarters. This is also known as the trailing $P / E$. However, occasionally the EPS figure comes from estimated earnings expected over the next four quarters. This is known as the leading or projected $P / E$. A third variation that is also sometimes seen uses the EPS of the past two quarters and estimates of the next two quarters. There isn't a huge difference between these variations. But it is important to realize that in the first calculation, you are using actual historical data. The other two calculations are based on analyst estimates that are not always perfect or precise. Companies that aren't profitable, and consequently have a negative EPS, pose a challenge when it comes to calculating their P/E.

Opinions vary on how to deal with this. Some say there is a negative $P / E$, others give a $P / E$ of 0 , while most just say the $\mathrm{P} / \mathrm{E}$ doesn't exist. Historically, the average $\mathrm{P} / \mathrm{E}$ ratio in the market has been around $15-25$. This fluctuates significantly depending on economic conditions. The P/E can also vary widely between different companies and industries.

### 3.4.2. Statistical tools:

In this research study, after data is collected \& coded in an objective to understand easily, Statistical analysis are performed .the study has performed selected statistical analysis in order to explain the information collected. The application of the statistical tools and techniques in this study is to find and explain the relationship, along with to provide comparative picture and description. Statistical tools are used in the study are very essential for analyzing experimental data, investigate the association between the data and to examine the differences between them in an objective to give the real picture for the study. The statistical tools and method that are used in the study are given below.

### 3.4.2.1. The Expected Rate of Returns

The expected rate of return is the expected after-tax increase in the value of the initial investment over the over the holding period. The overall rate of return can be decomposed into capital appreciation and dividend components. Capital appreciation is the difference between investor's end-of-the period and beginning-of-the period.

## (i) Single-Period Return

For a one-year holding period, the benefits associated with ownership include the cash dividend paid during the year together with an appreciation in market price, or capital gain, realized at the end of the year. Thus, the Expected or realized or ex-post rate of return is:

Ending price - Beginning price + Dividends
Beginning price
Ex-ante rate of return on an investment is also the mean value of the probability
Distribution of its possible returns. The expected rate of return, in such case, can be calculated as:-

## (ii) Return over Several Periods

Annualized rate of returns over several periods can be calculated in two ways. The first one is simply to take the average of the annual holding period returns over a given period and the second
one, which also takes into account the compounding effects of cash receipts over different time intervals, is the geometric mean rate of return.

The simple arithmetic mean:
n
$H P R=\Sigma H P R t / n$
$\mathrm{t}=1$
The geometric mean rate of return:
n
HPR g $=\Pi(1+$ HPR t $) 1 / n-1.0$
$\mathrm{t}=1$

### 3.4.2.2. The Standard Deviation

The standard deviation $(\sigma)$ is the other measure of investment risk. The smaller the standard deviation the lower will be the degree of risk of the stock. The formula for calculating the standard deviation is:

Standard deviation $(\sigma)=\sqrt{ } \Sigma(\mathrm{K}-\mathrm{KAvg}) 2 / \mathrm{N}$
In the equation, $K$ is the possible rates of returns, and $K A$ vg is the average mean return and $N$ is the number of observations. The variance can also be used to measure risk, which is the square of the standard deviation. Total risk ( $\sigma$ ) can also be defined as the sum of systematic risk plus unsystematic risk. Systematic risk has its source factors that affect all marketable as sets and thus cannot be diversified away. The sources of systematic risk are market-pervasive. The measure of systematic risk permits an investor to evaluate an asset's required rate of return relative to the systematic risk of the stock. Unsystematic (or company-specific or unique) can be reduced through diversification. The relationships among total risk, systematic risk and unsystematic risk are shown below.

Total Risk ( $\sigma \mathrm{j}$ ) = Systematic risk + Unsystematic risk; with Systematic risk $=(\sigma \mathrm{j})(\rho \mathrm{jM})$ and Unsystematic risk $=\sigma \mathrm{j}(1-\rho \mathrm{jM})$

In the equations $\rho \mathrm{jM}$ is the correlation coefficient between the returns of a given stock (i) and the the return on market portfolio.

### 3.4.2.3. The Coefficient of Variation

The coefficient variation (CV) is the other useful measure of risk. It is the standard deviation divided by the expected return, which measures risk per unit of return. It provides a more meaningful basis for comparison when the expected returns on two alternatives are not the same. If investors believe that the rate of return should increase as the risk increase, then the coefficient of variation provides a quick summary of the relative trade-off between expected return and risk.

Coefficient of Variation (CV) $=\sigma /$ KAvg
In general the CAPM indicates that an asset's required return should be related to the risk free rate of return plus a risk-free return based on the beta of the asset.

### 3.5. Measuring Risk of Investment Alternatives

Investors are risk-averter and they select the securities that maximize expected rate of return for any given level of risk or minimize risk for any given level of expected returns. Chenny and Moses define risk as the variability of possible returns around the expected return of an investment. For some investments, this variability can be quite small. Similarly, Weston and Brigham define risk as the chance that some unfavorable event will occur. Each investor has his one attitude toward risk and how much he can tolerate. The real rate of return will provide a rate of return that compensates the investors for deferred consumption. An additional rate of return should be added to the risk-free rate of return that provides premium for additional risk bearing.
$E(R j)=R R+R P j$
Where, $\mathrm{E}(\mathrm{Rj})=$ Required rate of return for asset j .
RR = Risk-Free- rate of return.
RPj $=$ Risk premium for stock $j$.
A number of factors may contribute to investment uncertainty. The factors usually Mentioned with respect to marketable securities are business risk, financial risk, liquidity risk, default risk, interest rate risk, management risk and purchasing power risk. Risk is a difficult concept to grasp. Some of the statistical methods that can be used to measure risk of an underlying financial asset are discussed below.

### 3.6. The Beta Coefficient

The beta coefficient $(\beta)$, a measure of systematic risk, can be calculated by using the following formula.

Beta coefficient $(\beta I)=$ CoviM $/ \sigma M^{2}$

CoviM is the covariance between the return of an individual asset and the returns of the market and $\sigma M^{2}$ is the variance of the market returns. Stocks can be classified as aggressive or defensive or average depending on the value of beta coefficients. Beta coefficient ( $\beta$ ) Stocks classification Degree of risk Exactly 1 Average stock Equally risky as the market Greater than 1 Aggressive stock More risky than the market Less than 1 defensive stock Less risky than the market

Beta coefficient can also be related with the CAPM equation to determine the required rate of return of a given stock. The required rate of return $(\mathrm{Ki})$ is the risk free rate of return (KRF ) plus a risk premium ( $R P M=K M-K R F$ ) based on the beta of the stock $(\beta)$.
$K i=K R F+\beta(K M-K R F)$ or $K i=K R F+R P M \beta$

### 3.7. Coefficient of Correlation:

By this statistical tool, the degree of relationship between to variables is identified. In other words, this tool is used to describe the degree to which one variable is linearly related to other variables. Two or more variables are said to be correlated if change in the value of one variable appears to be linked with the change in the other variables. The correlation analysis refers the closeness of the relationship between the variables. Correlation may be positive or negative and ranges from -1 to +1 . Simple correlation between interest rate and deposit amount, interest rate and credit or lending amount and interest rate (both deposit rate and lending rate) and inflation is computed in this thesis. For example, let's say that the correlation between interest rate and inflation is positive. It indicates that when inflation increases, interest rate also increases in same direction and vice versa. For our study following reference is used.

Correlation may be positive or negative and ranges from -1 to +1 . When $r=+1$, there is positive perfect correlation; when $r=-1$, there is perfect negative correlation; when $r=0$, there is no correlation and when $r<0.5$ then there is low degree of correlation.

When ' $r$ ' lies between 0.7 to 0.999 (or -0.7 to -0.999 ), there is high degree of positive (or negative) correlation.

When ' $r$ ' lies between 0.5 to 0.699 , there is a moderate degree of correlation.

The simple correlation coefficient, $r$, is calculated by using following formula:
Simple Correlation Coefficient $(\mathrm{r})=\frac{n \Sigma X_{1} X_{2}-\left(\Sigma X_{1}\right)\left(\Sigma X_{2}\right)}{\sqrt{n \Sigma X_{1}{ }^{2}-\left(\Sigma X_{1}\right)^{2}} \sqrt{n \Sigma X_{2}{ }^{2}-\left(\Sigma X_{2}\right)^{2}}}$
Alternately, $\quad r=\frac{\operatorname{Cov}\left(X_{1} X_{2}\right)}{\operatorname{VarX} X_{1}, \operatorname{Var} X_{2}}$
Where,
Covariance $\left(\mathrm{X}_{1}, \mathrm{X}_{2}\right)=\frac{1}{n} \sum\left(X_{1}-\bar{X}_{1}\right)\left(X_{2}-\bar{X}_{2}\right)$
$\mathrm{n}=$ Total number of observations.
$\mathrm{X}_{1}$ and X 2 = two variables, correlation between them are calculated.

### 3.8. Trend Analysis:

Under this topic we analyze the trend of short Market price per share, Earning per share as well as of the Dividend per share of NABIL and SCBNL from F/Y 2002/03 to F/Y 2008/09. It also aids in making forecasting for the next five years up to 2013/14. The trend value analysis of risk and return of the commercial banks has been taken. As a matter for, study, NEPSE index's trend analysis also has been taken up to fiscal year 2013/14. The formula of least square method for the straight line is represented by the following formula.
$Y_{c}=a+b X$
Where,
$\mathrm{Y}_{\mathrm{c}}=$ Trend Values
$a=Y$ intercept or the computed trend figure of the $Y$ variable, when $X=0$
$b=$ Slope of the trend line of the amount of change in $Y$ variable that is associated with change in 1 unit in $X$ variable.
$X=$ Variable that represent time i.e. time variable
The value of the constants $a$ and $b$ can be determined by solving the following two normal equations.
$\sum \mathrm{Y}=\mathrm{Na}+\mathrm{b} \sum \mathrm{X}$
$\sum \mathrm{XY}=\mathrm{a} \sum \mathrm{X}+\mathrm{b} \sum \mathrm{X}$
Where, $\mathrm{N}=$ number of years

But for simplification, if the time variable is measured as a deviation form its mean i.e. mid point is taken as the origin, the negative value in the first half of the series balance out the positive values in the second half so that $\left(\sum \mathrm{X}=0\right.$.

The values of constant $a$ and $b$ can easily be determined by using following formula.
$a=\frac{\sum \mathrm{Y}}{\mathrm{N}}$
$b=\frac{\sum X Y}{X^{2}}$

### 3.9. Test of Hypothesis:

Under this analysis, effect has been made to test the significance level regarding the parameters of the population on the basis of sample drawn from the population. This test has been conducted on the following:
i) Test of hypothesis on return of common stock of NABIL and return of market (NEPSE).
ii) Test of hypothesis of return of common stock of SCBNL and return of market (NEPSE).

## CHAPTER - 4

## DATA PRESENTATION AND ANALYSIS

### 4.1. Introduction

This is the section where, the filtered data are presented and analyzed. This is the one of the major chapter of this study because it includes detail analysis and interpretation of data from which concrete result of Nepalese market can be obtained. In this chapter, the relevant data and information
necessary for the study are presented and analyzed keeping the objectives set in mind. This chapter consists of various calculation made for the analysis of P/E, DDM,NAV, risk and return as well as the performance of the sample banks. To make our study effective and precise as well as easily understandable, this chapter is categorized in three parts; presentation, analysis and interpretation. The analysis is fully based on Secondary data available. In presentation section data are presented in terms of table, graph chart of figures, according to need. The presented data are then analyzed using different statistical tools mentioned in chapter three. At last the results of analysis are interpreted. Though there is no distinct line of demarcation for each section (like presentation section, analysis section \& interpretation section) but the arrangement of writing is made by aforementioned way. Similarly it is also noted that almost all data used for analysis are of secondary type.

### 4.1.1. Financial Tools

Financial analysis involves identifying the financial strength and weakness of the organization by presenting the relationship between items of the balance sheet. For the purpose of this study, market ratio analysis has been mainly used for the analysis of data.
Various market financial ratios related to investment management and common stock valuation have been presented and discussed in order to evaluate and analyze the performance of financial statements of concerned banks. The market financial ratios that are calculated for the purpose of this study are:
A. NAV (Net Assets Value)
B. DDM (Dividend Discount Model)
C. P/E Ratio (Price Earnings Ratio)

### 4.1.1.1. Analysis of individual banks regarding financial tools

Mainly 2 banks are taken as sample due to various constraints. All together 26 commercial banks are listed in NEPSE but my study I've included 2 of them as sample risk and return of these banks individually presented and analyzed below:
This study has presented and analyzed of these bank's MPS, Dividend EPS, annual return, expected return, standard deviation and C.V. Also it has considered the market risk and return, C.V. correlation between banks and market.
A. NAV (Net Assets value); - The NAV is the value of total assets less current liabilities and long term debt, which is financed by shareholders' net-worth. The shareholders' net-worth comprises of paid-up capital, share premium, accumulated profit and other free reserves, which belong to shareholders. The NAV per share or the book value per share is determined dividing the total NAV by number of outstanding shares.
NAV (Book Value) per share $=$ Net Asset Value/Number of shares outstanding
Table no-2

| F/Y | Nabil | SCBNL |
| :---: | :---: | :---: |
| $2002 / 03$ | 267 | 403 |
| $2003 / 04$ | 301 | 399 |
| $2004 / 05$ | 337 | 422 |
| $2005 / 06$ | 381 | 468 |
| $2006 / 07$ | 418 | 512 |
| $2007 / 08$ | 354 | 402 |


| $2008 / 09$ | 324 | 328 |
| :---: | :---: | :---: |

## Source:-Appendix - 1, 2.

It is clear from the above table no 2 that both NABIL and SCBNL have better book value per share (NAV\share) .AS we can see that NAV per share of the Nabil bank is in the increasing trend from the year 2002/03 to 2006/07, but in the year 2007/08 \& 2008/09 it is in the decreasing trend. In the above table we can see the highest book value per share of Nabil is in the year 20067/07 (i.e. 418), where as the lowest book value per share is in the year 2002/03 (i.e. 267). As this were the past days. On the other side SCBNL, book value per share has variance, as we can see the year 2002/03, 2004/05 to 20067/07 NAV/share is in the increasing trend and in the rest of the year it is in the decreasing trend (i.e. 2003/04,2007/08 \& 2008/09). The highest NAV/ share of the SCBNL from the given table is in year 2006/07 (i.e. 512) and the lowest NAV / share is in the year 2008/09 (i.e. 328). This is a sign that both banks NAV per share are fluctuating with the market situation.

As we compare the both banks NAV \share regarding the above table (i.e. table no:- ), we can conclude that among both the banks the highest NAV / share, is of the SCBNL in the year 2006107 (i.e. 512) , and lowest NAV/ share is of the Nabil in the year 2002/03 (i.e. 267)

But the individual NAV/ share of the both banks are good and their performance is also considerable.
We can see those data in graphical presentation.
Figure - 3


## B. Dividend Discount Model (DDM):

The dividend discount model (DDM) is the theoretically most correct model for firm valuation (Miller and Modigliani, 1961). It's a very intuitive approach as well. When investors buy a stock, they expect to receive two types of cash flows: the dividends in the period over which the stock is owned and the market price at the end of the holding period. The market price however is again determined by the dividends the new owner of the security expects to receive over his holding period. From this follows that the market price can be replaced again by a stream of dividends, until the entire value of the stock is expressed in terms of dividends. Consequently, even from the perspective of an investor with a finite investment horizon, the value of a stock always depends on all future dividends.

## B.A. Constant Growth in Dividends

Constant growth in dividends means that dividends on a stock are expected to grow at a constant rate, $g$, each year into the future. Thus, $D 1 \_D 0\left(1 \_g\right) 1, D 2 \_D 0\left(1 \_g\right) 2, \ldots, D q_{\_} D 0\left(1 \_g\right) q$. Accordingly, the equity valuation formula can now be written as follows:

$$
P_{0}=\frac{D_{0}(1+g)^{1}}{\left(1+i_{s}\right)^{1}}+\frac{D_{0}(1+g)^{2}}{\left(1+i_{s}\right)^{2}}+\cdots+\frac{D_{0}(1+g)^{\infty}}{\left(1+i_{s}\right)^{\infty}}=D_{0} \sum_{t=1}^{\infty}\left(\frac{(1+g)}{\left(1+i_{s}\right)}\right)^{t}
$$

Or,

$$
P_{0}=\frac{D_{0}(1+g)^{1}}{i_{s}-g}=\frac{D_{1}}{i_{s}-g}
$$

This formula can be generalized as follows:
$P_{t}=\frac{D_{0}(1+g)^{t}}{i_{s}-g}=\frac{D_{t+1}}{i_{s}-g}$
If the required rate of return $(r r r)$ is applied to the formula (is $\_r r r$ ), the price we solve for is the fair market price. If the expected return ( Err ) is applied to the formula (is _Err), the price we solve for is the current market price. The equity valuation formula can also be rearranged to determine a rate of return on the stock if it were purchased at a price $P 0$ :
$i_{s}=\frac{D_{0}(1+g)}{P_{0}}+g=\frac{D_{1}}{P_{0}}+g$
*Calculation of the price of stock $\left(\mathrm{P}_{0}\right)$ by DDM, in accordance of the constant growth model assuming that the growth rate ( g ) will be constant forever.

| Particular | Nabil | SCBNL |
| :--- | ---: | ---: |
| Required rate of return (RRR) | 19.67 | 13.02 |
| growth rate (g) | 2.35 | 7.85 |
| Dividend for 1st year (D1) | 85 | 100 |
| (Source:-appendix - 17) |  |  |

For Nabil bank:
$\mathrm{P}_{0}=\frac{\mathrm{D}_{1}}{\mathrm{r}-\mathrm{g}}$
$=\frac{85}{(0.1967-0.0235)}=\frac{85}{0.17}=$ Rs. 500
For SCBNL bank,
$\mathrm{P}_{0}=\frac{\mathrm{D}_{1}}{\mathrm{r}-\mathrm{g}}$
$=\frac{100}{(0.1302-0.0785}=\frac{100}{0.05}=$ Rs 2000

| According the constant growth rate |  |  |
| :--- | :---: | :---: |
| Particular | Nabil | SCBNL |
| value of the common stock | Rs. 500 | Rs. 2000 |

## B.B. Supernormal (or Non constant) Growth in Dividends:

Firms often experience periods of supernormal or non constant dividend growth, after which dividend growth settles at some constant rate. The stock value for a firm experiencing supernormal growth in dividends is, like firms with zero or constant dividend growth, equal to the present value of the firm's expected future dividends. However, in this case, dividends during the period of supernormal (non constant) growth must be evaluated individually. The constant growth in
dividends model can then be adapted to find the present value of dividends following the supernormal growth period.
To find the present value of a stock experiencing supernormal or non constant dividend growth, we calculate the present value of dividends during the two different growth periods. A three-step process is used as follows:
Step 1: Find the present value of the dividends during the period of supernormal growth;
Step 2: Find the price of the stock at the end of the supernormal growth period (when Constant growth in dividends begins) using the constant growth in dividends Model. Then discount this price to a present value.
Step 3: Add the two components of the stock price together

## (I)For Nabil Bank:

Present value of dividend during the super normal growth (assuming that supernormal growth will be $65 \%$, and the normal will be the $8 \%$ ) See appendix - no 18

Step 1 : Present value of dividends during the supernormal period's

| Year | Dividend | PVIF | Present Value |
| :--- | ---: | ---: | ---: |
| n | $\mathrm{DO}=85(1+0.65)^{2}$ | PVIF $=1 /(1+.65)^{\mathrm{n}}$ |  |
| 1 | 140.25 | 0.6061 | 85 |
| 2 | 231.41 | 0.3673 | 85 |
| 3 | 381.83 | 0.2226 | 85 |
| PV of dividend during supernormal growth |  |  | 255 |

Step 2 : Value of the stock at the end of the year 3

$$
\mathrm{P}_{3}=\frac{\mathrm{D}_{4}}{\mathrm{r}-\mathrm{g}}
$$

$=\frac{412.37}{0.1967-0.08}=\frac{412.37}{0.1167}=$ Rs. 3533.65,
W.N.

Calculation of $D_{4}=D_{3}\left(1+g_{n}\right)=$ Rs. $381.83(1+0.08)=412.37$
PV of $\mathrm{P} 3=\frac{\mathrm{P}_{3}}{(1+\mathrm{r})_{3}}=\frac{3533.65}{(1+0.65)_{3}}=$ Rs. 786.63,
Step: 3 Value of common stock $=P V$ of dividend during supernormal period +PV of P3

$$
\text { = Rs. } 255+786.63 \text { = Rs. } 1041.631
$$

## (II).For SCBNL,

Present value of dividend during the super normal growth (assuming that supernormal growth will be $20 \%$, and the normal will be the $9 \%$ ) See appendix no 18

Step 1 : Present value of dividends during the supernormal period's

| Year | Dividend | PVIF | Present Value |
| :--- | :--- | :--- | :--- |
| $n$ | D0 $=130(1+0.2)^{2}$ | PVIF $=1 /(1+.2)^{n}$ |  |
| 1 | 156.00 | 0.8333 | 130 |
| 2 | 187.20 | 0.6944 | 130 |
| 3 | 224.64 | 0.5787 | 130 |
| PV of dividend during supernormal growth |  | 390 |  |

Step 2 : Value of the stock at the end of the year 3
$\mathrm{P}_{3}=\frac{\mathrm{D}_{4}}{\mathrm{r}-\mathrm{g}}$

$$
=\frac{244.86}{0.1302-0.09}=\frac{244.86}{0.0402}=\text { Rs. } 6088.77
$$

W.N.

Calculation of $\mathrm{D}_{4}=\mathrm{D}_{3}\left(1+\mathrm{gn}_{\mathrm{n}}\right)=$ Rs. $224.64(1+0.09)=244.86$
$P V$ of $P 3=\frac{P_{3}}{(1+r)_{3}}=\frac{6088.77}{(1+0.2)_{3}}=$ Rs. 3523.59
Step: 3 Value of common stock $=P V$ of dividend during supernormal period + PV of P3

$$
\text { = Rs. } 390+3523.59 \text { = Rs. } 3913.596
$$

| According the super normal growth rate |  |  |
| :---: | :---: | :---: |
| Particular | Nabil | SCBNL |
| value of the common stock | 1041.63 | 3913.59 |

From the above calculation we can conclude that if we will assume the growth rate will be the constant forever the value of the stock will be Rs 500 and 2000 for Nabil and SCBNL respectively, if take the growth rate as supernormal rate that l've take in according the greatest and the lowest among the g calculation we can find the value of the stock Rs.1041.63 and 3523.59 for the Nabil and SCBNL respectively.

## C. P/E Ratio (Price Earnings Ratio):

$P / E$ is short for the ratio of a company's share price to its per-share earnings. As the name implies, to calculate the P/E, you simply take the current stock price of a company and divide by its earnings per share (EPS)
Most of the time, the P/E is calculated using EPS from the last four quarters. This is also known as the trailing P/E. However, occasionally the EPS figure comes from estimated earnings expected over the next four quarters. This is known as the leading or projected $\mathrm{P} / \mathrm{E}$. A third variation that is also sometimes seen uses the EPS of the past two quarters and estimates of the next two quarters. There isn't a huge difference between these variations. But it is important to realize that in the first calculation, you are using actual historical data. The other two calculations are based on analyst
estimates that are not always perfect or precise. Companies that aren't profitable, and consequently have a negative EPS, pose a challenge when it comes to calculating their P/E. Opinions vary on how to deal with this. Some say there is a negative $P / E$, others give a $P / E$ of 0 , while most just say the $P / E$ doesn't exist. Historically, the average $P / E$ ratio in the market has been around $15-25$. This fluctuates significantly depending on economic conditions. The $P / E$ can also vary widely between different companies and industries. The following formula is adopted to calculate the $P / E$ ratios of the observed commercial banks.

$$
\text { P/E Ratio }=\frac{\text { Market Price per share }}{\text { Earning per share }}
$$

## Table no-3

|  | F/Y | Nabil | SCBNL |
| :---: | :---: | :---: | :---: |
|  | 2002/03 | 8.74 | 10.98 |
|  | 2003/04 | 10.80 | 12.16 |
|  | 2004/05 | 14.27 | 16.38 |
| The above shows P/E both bank. we the following from the table, in the $\mathrm{P} / \mathrm{E}$ | 2005/06 | 17.34 | Source: - (APReAdix - 1, 2.) |
|  | 2006/07 | 36.84 | 35.25 |
|  | 2007/08 | 48.70 | 51.77 |
|  | 2008/09 | 45.89 | 54.64 |

table no 3 ratio of the can generate conclusion as the matter ratio of the $\mathrm{P} / \mathrm{E}$ ratio is the increasing trend from the beginning year 2002/03 to the fiscal year 2007/08 but in the year 2008/09 the p/e ratio slops down. It clarifies the highest P/E ratio of the Nabil bank is in the year 2007/08 (i.e. 48.70) and the lowest P/E ratio from the given table is in the year 2002/03 (i.e. 8.74). As the P/E ratio of the Nabil bank was on the increasing trend but in the year 2008/09 it slops down to $45.48 \%$ (2008/09) from $48.70 \%$ (2007/08). At the other side, i.e. SCBNL's P/E ratio, is only in the increasing trend, it is going on and on from the beginning of the year to the end of the fiscal year given in the table. As we can conclude that the highest P/E ratio is in the year 2008/09 (i.e. 54.64) and lowest P/E ratio is in the year 2002/03 (i.e. 10.98) SCBNL are better than NABIL in all F/Y, through they have a fluctuating trend.

In conclusion, it can be said that SCBNL's P/E ratio's is better than the Nabil's P/E ratio, as for comparison both banks are doing their own effort to improve their MPS, EPS and the ratio of all. But nevertheless NABIL is making significant improvements in this regard.

We can also show this data in graphical presentation.
Figure no-4


### 4.1.1.2. Analysis of individual banks regarding statistical tools

The above observed commercial bank's risk and return calculation is given below. The statistical tools are mean, standard deviation and coefficient of variation which are calculated and presented below.

### 4.1.2. Position of Risk \& Return of Nepalese Financial Institution

The secondary data collected from secondary sources like publication of NEPSE, annual report of SEBO/N and other related sources are presented and their interpretation and analysis is carried out in this section. The secondary data includes MPS and Dividend paid on the selected securities for various years. Beside it NEPSE index of various years is also taken for the study. Here closing market price is taken into consideration. Appropriate diagrams and tables are presented to make this analysis more simple and understandable.
The selected securities are from different sector of Banking and Finance. All selected eight companies are listed in NEPSE and their MPS, DPS, and other related data are presented in table and analysis is made accordingly using appropriate

### 4.1.3. Risk \& Return of Selected Nepalese Commercial Bank

In this section the selected securities of listed commercial banks are analyzed separately in terms of risk and return. Different financial tools and techniques have been adopted during the calculation. Side by side appropriate diagram and table is also used. As a researcher I've only take the 2 commercial bank i.e.

## A. NABIL Bank Ltd.

The data of market price, cash dividend and stock dividend per share are presented in the following table below.

## Table no-4

| F/Y | Market Price Per Share |  |  | Dividend per Share |  |  | EPS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | High | Low | Closing | Cash | Stock | Total |  |
| $2001 / 02$ | 1500 | 465 | 735 | - | - | - |  |
| $2002 / 03$ | 875 | 700 | 740 | 50 | - | 50 | 84.66 |
| $2003 / 04$ | 1005 | 705 | 1000 | 65 | - | 65 | 92.61 |
| $2004 / 05$ | 1515 | 1000 | 1505 | 70 | - | 70 | 105.49 |
| $2005 / 06$ | 2300 | 1500 | 2240 | 85 | - | 85 | 129.21 |
| $2006 / 07$ | 5050 | 2025 | 5050 | 100 | 40 | 140 | 137.08 |
| $2007 / 08$ | 6700 | 3410 | 5275 | 60 | 40 | 100 | 108.31 |
| $2008 / 09$ | 6400 | 3050 | 4899 | 35 | 50 | 85 | 106.76 |

Source:- Appendix - 1,2, and the SEBONP report, and the Annual report of Nabil Bank.

The above table no_ 4 clearly shows the true picture of the market price per share of the Nabil Bank traded in the market (i.e. NEPSE). From the above table we can conclude the share traded in the different period of time. We can easily find the market price share, high market price share \& low price per share for the table of the Nabil bank in the different fiscal year. The market price per share of the Nabil bank is in the increasing trend from the beginning of the fiscal year 2001/02 (i.e. 735) to the F/Y 2007/08 (i.e.5275) but in the year 2008/09 it was decreased to Rs. 4899.The higher market price per share of the Nabil bank is Rs. 6700 in the year 2007/08, and the lower market price per share is 465 in the year 2001/02. As the matter of the Dividend Nabil is highly paid of the cash dividend in the different fiscal year, at the recent time it's also provided the Stock dividend, we can see from the given table. For the cash dividend in the year 2002/03 it has declare the rs. 50 and then after DPS is also in the increasing trend to the year 2006/07 and then it slops down to the Rs. 35 in the year 2008/09.So, Nabil Bank's DPS is also in the fluctuating matter, on the other side Nabil 's bank's has also declare the stock dividend, it has declare the stock dividend only from the year 2006/07 to the 2008/09, In the F/Y year 2006/07 Nabil 's gives the $40 \%$ stock dividend , as same in the year 2007/08, but in the year 2008/09 it has declare the $50 \%$ stock dividend. As the matter of the total DPS the highest DPS is in the year 2006/07 (i.e. 140/ share) and the lowest total DPS in the year 2002/03 (i.e. 50/ share), the total DPS is constant in the year 2005/06 and 2008/09 (i.e. 85/ share).if we talk about the EPS the highest EPS of the Nabil is in the year 2006/07 i.e. 137.08 and the lowest EPS is in the year 2002/03 i.e 84.66,EPS trend of the Nabil bank is in the increasing trend to the year 2006/07 and then after it gradually decreased down to the 106.76 in the year 2008/09.

At last we can also conclude that the performance of the Nabil bank is quiet better among the shareholder's and the stake party. The market price and the dividend is clearly show the good up liftment in the market.

Figure no-5

A.A. Calculation of risk and return of Nabil bank Itd.

Table no-5

| $F / Y$ | MPS | DPS | RETURN |
| :---: | :---: | :---: | :---: |
| $2002 / 03$ | 740 | 50 | - |
| $2003 / 04$ | 1000 | 65 | 0.4392 |
| $2004 / 05$ | 1505 | 70 | 0.5750 |
| $2005 / 06$ | 2240 | 85 | 0.5449 |
| $2006 / 07$ | 5050 | 140 | 1.3170 |


| $2007 / 08$ | 5275 | 100 |
| :--- | :---: | :---: |
| 0.0644 |  |  |
| $2008 / 09$ | 4899 | 85 |
| -0.0552 |  |  |
| 2.8852 |  |  |
| Expected return on Nabil's stock | 0.4809 |  |
| Risk of Nabil's stock $(\sigma)$ | 0.4847 |  |
| Varience of Nabil's stock $\left(\sigma^{2}\right)$ | 0.2349 |  |
| C.V of Nabil's stock | 1.0079 |  |

(Source: - Appendix - 3)
The closing market price of Nabil bank is higher in the year 2007/08 i.e. Rs. 5275 and minimum in the year 2002/03 i.e. Rs.740. The market price of Nabil bank has initially smoothly increasing trend and only in the fiscal year 2008/09 it has decrease to the Rs. 4899. Nabil has provided dividend from the beginning of the fiscal year. as we can see the divided per share is also in the increasing trend and to the fiscal year 2002/03 to 2006/07, Rs. 50 to Rs. 140/ share respectively, and then decrease to Rs. 100 and Rs. 85 per share in the year 2007/08 \& 2008/09 respectively as I've considered the stock and cash to total dividend, DPS was calculated according to the declaration on dividend from AGM of the Nabil bank on the basis of the paid up value per share. We can see the annual return of the common stock of Nabil bank is in the rapid increasing trend from 0.4392 to 1.3170 from the fiscal year 2003/04 to 2006/07, then it slops down to the 0.0644 and it goes to the negative matter at 0.0522 , As above table, shows the total return of Nabil bank is 0.4809 , it's risk is 0.4847 and the coefficient of variation of the Nabil bank is 1.0079 . The annual return, expected return, standard deviation and CV are calculated on the basis of above ground is shown in the table below.

Figure -6


## B. STANDARD CHARTERED BANK NEPAL LTD.

The data of market price, cash dividend and stock dividend per share are presented in the following table below.

Table no-6

| F/Y | Market Price Per Share |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Dividend per Share |  |  | EPS |  |  |  |  |
|  | High | Low | Closing | Cash | Stock | Total |  |
| $2001 / 02$ | 2100 | 1000 | 1550 | - | - | - |  |
| $2002 / 03$ | 1760 | 1380 | 1640 | 100 | - | 100 | 149.3 |
| $2003 / 04$ | 1800 | 1520 | 1745 | 110 | 10 | 120 | 143.55 |
| $2004 / 05$ | 2350 | 1553 | 2345 | 110 | - | 110 | 143.14 |
| $2005 / 06$ | 3775 | 2200 | 3775 | 120 | - | 120 | 175.84 |
| $2006 / 07$ | 5900 | 3058 | 5900 | 130 | 10 | 140 | 167.37 |
| $2007 / 08$ | 9025 | 4505 | 6830 | 80 | 50 | 130 | 131.92 |
| $2008 / 09$ | 9200 | 4100 | 6010 | 80 | 50 | 130 | 109.99 |

(Source:- Appendix - 1,2, and the SEBONP report, and the Annual report of SCBNL Bank.)

The above 6 no. table reflects a increasing trend of the closing market price per share of the standard chartered bank Nepal ltd. we can clearly see the upward movement of the closing MPS from the beginning of the fiscal year 2001/02 (i.e.1550) to 2007/08 (i.e. 6830) but in the ending year 2008/09 closing MPS slops down to the Rs. 6010 . As we can see the highest market per share from the above table is Rs. 9200 in the fiscal year 2008/09, and the lowest market per share from the above table we can get Rs. 1000 in the fiscal year 2001/02.But generally we can see the SCBNL stock perform good in the market (i.e. NEPSE), the market price of the share of SCBNL overall is in the good condition, because it was traded in the good price,

Above description was only for the Market price per share, now I'm going to describe about the dividend SCBNL was declared in the past and recent years, It is clear that SCBNL declar the cash dividend in the past and recent year in good condition, we can see that it was giving the cash dividend round about the 100 per share and above, from the analysis of the above table we can get the DPS of the SCBNL, normally the Dividend per share was in the fluctuating rate ,the highest cash dividend per share was Rs. 130 / share in the fiscal year2006/07, and the lowest DPS was Rs. 80 in the year 2007/08 \& 2008/09, and SCBNL has also declare the stock dividend in the in the fiscal year 2003/04,2006/07,2007/08,2008/09 at Rs. 10,10,50 \& 50 respectively, in context of the total Dividend per share, SCBNL declare Rs, 140 highest total DPS in the year 2006/07 and lowest total DPS in the year 2002/03 9i.e. 100).
If we take our eyes to the EPS trend of the SCBNL, it is varying in every of the fiscal year, we can clearly analyze that Rs. 149.3 slops down to the 143.5 in the year 2003/04 from year 2002/03 and
then after a minor decrease in EPS of Rs 0.41, then after it slops upward to the Rs. 175.84 in the year 2005/06, which is the highest EPS among all the fiscal year which are presented , again it decrease to the $167.37,131.92 \& 109.99$ in the year 2006/07,2007/08 \& 2008/09 respectively, the lowest EPS of the SCBNL is the Rs.109.9 in the fiscal year 2008/09.

## Figure no - 7



## B.A. Calculating of the risk and the return of the SCBNL

The closing market price of SCBNL is higher in the year 2007/08 i.e. Rs. 6830 and minimum in the year 2002/03 i.e. Rs.1640. The SCB has given more than 100 percent cash dividend throughout the presented year and also provided stock dividend in the year 2003/04, 2006/07,2007/08 and 2008/09.The annual return, expected return, standard deviation and CV are calculated on the basis of above ground is shown in the table below.

Table no-7

| $F / Y$ | MPS | DPS | RETURN |
| :---: | :---: | :---: | :---: |


| 2002/03 | 1640 | 100 | - |
| :---: | :---: | :---: | :---: |
| 2003/04 | 1745 | 120 | 0.1372 |
| 2004/05 | 2345 | 110 | 0.4069 |
| 2005/06 | 3775 | 120 | 0.6610 |
| 2006/07 | 5900 | 140 | 0.6000 |
| 2007/08 | 6830 | 130 | 0.1797 |
| 2008/09 | 6010 | 130 | -0.1010 |
| ᄃR |  |  | 1.8837 |
| Expected return on SCBNL's stock |  |  |  |
|  |  |  | 0.3767 |
| Risk of SCBNL's stock ( $\sigma$ ) |  |  | 0.3020 |
| Varience of SCBNL's stock ( $\sigma^{2}$ ) |  |  | 0.0912 |
| C.V of SCBNL's stock |  |  | 0.8016 |

(Source: - Appendix - 4 )
The range of annual return on the common stock of SCBNL is from 13.72 percent in the year 2003/04 to 65.68 percent in the year 06/07. The trend of yearly return is gradually in increasing trend but negligible decrease in the year 2006/07 comparison to year 05/06 return and then after it decrease and become negative to $-10.10 \%$ in the year 2008/09. From the above data expected return is 37.67 percent. The total risk of SCBNL i.e. standard deviation is 0.3020 and the relative measure of dispersion based on standard deviation i.e. CV is found to be 0.8016 which means for earning one unit of return the investors has to bear 0.8016 unit of risk.

Figure - 8

C. NEPSE (SHARE MARKET)

Table no-8

| Fiscal year | Index |
| :---: | :---: |
| $2002 / 03$ | 204.86 |


| $2003 / 04$ | 222.04 |
| :---: | :---: |
| $2004 / 05$ | 286.67 |
| $2005 / 06$ | 386.83 |
| $2006 / 07$ | 683.95 |
| $2007 / 08$ | 963.36 |
| $2008 / 09$ | 749.10 |

(Source:- Report of the SEBONP, and NEPSE Annual Report)

The above table (no:-8), this table is all about the nepse index over the several period (i.e. fiscal year2002/03 to 2008/09), the above table clearly tells about the stock market of the Nepal i.e. NEPSE, in briefly, we can get the overall data of nepse index (stock market index) from the above table, by analysis of the table no._ the highest index over the all period of the given data is 963.36 in the fiscal year 2007/08, where as the lowest index is in the fiscal year 2002/03 (i.e. 204.36), as we can see the NEPSE index is in the increasing trend from the year 2002/03 to 2007/08, and then it slops down to the 749.10 in the fiscal year 2008/09, but as overall matter, the NEPSE index is growing gradually and showing the positive sign in the share market.

We can also describe the data in the graphical presentation,
Figure no-9

C.A. Market Retune and its S.D and C.V (NEPSE index)

Table no -9

| F/Y | Index | Return |
| :---: | :---: | :---: |
| $2002 / 03$ | 204.86 | - |
| $2003 / 04$ | 222.04 | 0.0839 |
| $2004 / 05$ | 286.67 | 0.2911 |



The trend of market return shows in table no. 9 that only one year (i.e. 2008/09) is negative in the overall market return and the market return for the year 2002/03 to 2005/06 increased significantly to $8.39 \%$ to $34.894 \%$ percent and it again increased to 76.81 percent in the year 2006/07. The overall market return again deceased on year 2007/08 by $40.85 \%$ percent significantly. The trend shows that the market return is very fluctuating. From the market return of six year, the expected return on market is calculated as 27.98 percent and the standard deviation is found as 0.4398 . By relating the market return with the market standard deviation, market CV i.e. risks per unit of return is calculated as 1.5721 . Hence in the market as a whole, for 100 percent return, the risk shall be more than one times i.e. 1.5721 percent. We can this in presentation.

Figure - 10


### 4.1.4. Comparison of Individual Securities Return with Market Return

In this section, the comparison of individual stock return with market return is presented. The market return, calculated on the basis of closing market index is used in this section.
Comparison of Individual Securities with Market Return
Table no-10

| Identities | Expected Return | Standard <br> Deviation | Coefficient of <br> Variance |
| :--- | ---: | ---: | ---: |
| MARKET | 0.2798 | 0.4398 | 1.5721 |
| NABIL | 0.4809 | 0.4847 | 1.0079 |
| SCBNL | 0.3767 | 0.3020 | 0.8016 |

In the above table no -10 , the expected return of NABIL has maximum i.e. 48.09 percent in respect to the only 2 commercial banks are selected for the sample, where as the expected return of the SCBNL is 37.67 percent, and the market expected rerun is 27.98 percent.
As there is high return of NABIL among 2 commercial bank, as the matter for the risk ,there is high risk for the investors to invest their money in the Nabil bank. SCBNL will be the appropriate for the investors to invest their money because the risk of the SCBNL have only 30.20 percent where as Nabil risk is 48.47 percent, so Nabil is more risky then the SCBNL.As the matter for the market risk , it is 43.98 percent .
The coefficient of variation of the market is determined as 1.57 , which indicates that there are 1.57 units of risk in order to get, earn 1 more unit of return. Nabil has higher CV i.e. 1.0079 respect to other sample commercial bank i.e. SCBNL while SCBNL has the lower in respect to the Nabil, the C.V. of the SCBNL is 0.8016 only, if we talk about the market C.V. we'll get it to 1.57 unit. We can also show this throughout in the graphical presentation.

Figure -11


### 4.1.5. Correlation between return of the market and the return of the commercial banks.

$\rho_{j M}=$ the correlation coefficient between the returns of an individual bank's share and the return on market (NEPSE Index)
The correlation between return of the common stock of the individual banks and the market shows the degree of relationship between these 2 items. The fluctuating in the return on the market affects the return of the stock of individual's banks

Table no-11

| Banks | Correlation coefficient | Probable error | 6*P.E. |
| :---: | :---: | :---: | :---: |
| Nabil | 0.893617 | 0.060766 | 5.361702 |
| SCBNL | 0.897888 | 0.058458 | 5.387329 |

(Source: - Appendix - 6 \& 8)
The above table no (11) it explains the relationship between the return of the market and the return of the observed commercial banks. Here correlation coefficient of the Nabil with the market is 0.893617 and it is more than 6 times the value of its P.E. and the even more than P.E., the correlation coefficient is significant. In other words, the return of the Nabil is correlated with the return of the market. The correlation coefficient is positive as the return of the common stock of the observed commercial banks and the return of the market. In case of the SCBNL, the correlation coefficient is 0.897888 , and this is also significant. The sample banks, which I've taken for the observation, both are significant in order of the return of the market and their own common stock return. The P.E. of Nabil and SCBNL are 0.060766 and 0.058458 respectively.

### 4.1.6. Analysis of market sensitivity

Market sensitivity of the stock is the systematic risk and that is measured by its beta coefficient, beta coefficient is an index of the systematic risk that can't be reduced by diversification. Beta coefficient shows how sensitive the stock in comparison with market. Greater beta means higher risk and return. It measures the responsiveness of a security movement in the market portfolio.

Depending upon the volatile of stock return relative to market return for an individual stock, beta could be less than, more than or equal to 1.
To calculate beta of stock, first we have to calculate the covariance between on that stock and market return, then we can calculate beta coefficient by using.

$$
\mathrm{Bj}=\frac{\operatorname{Cov}(\mathrm{rj} . \mathrm{rm})}{\sigma_{2} \mathrm{~m}}
$$

Covariance between stock of Nabil and market
Table no-12

| $F / Y$ | $\left(R_{\text {Nabil }}-\Sigma R_{\text {Nabil }}\right)$ | $\left(R_{m}-\Sigma R_{m}\right)$ | $\left(R_{\text {Nabil }}-\sum R_{\text {Nabil }}\right) *\left(R_{m}-\Sigma R_{m}\right)$ |
| :--- | ---: | :--- | :--- |
| $2002 / 03$ | - | - | - |
| $2003 / 04$ | -0.0417 | -0.1959 | 0.0082 |
| $2004 / 05$ | 0.0941 | 0.0113 | 0.0011 |
| $2005 / 06$ | 0.0640 | 0.3494 | 0.0224 |
| $2006 / 07$ | 0.8361 | 0.7681 | 0.6422 |
| $2007 / 08$ | -0.4165 | 0.4085 | -0.1702 |
| $2008 / 09$ | -0.5360 | -0.2224 | 0.1192 |
| $\left.\Sigma\left(R_{\text {Nabil }}-\Sigma R_{\text {Nabil }}\right)\right)^{*}\left(R_{m}-\Sigma R_{m}\right)$ |  |  |  |

(Source: - appendix - 3 \&5)

We have,
$\operatorname{Cov}($ Nabil, m$)=\frac{\sum\left[\left(\mathrm{R}_{\text {Nabil }}-\overline{\mathrm{R}}_{\text {Nabil }}\right)\left(\mathrm{R}_{\mathrm{m}}-\overline{\mathrm{R}}_{\mathrm{m}}\right)\right]}{\mathrm{N}-1}$
$=\frac{0.6228}{6-1}=0.1246$

Calculation of beta coefficient of $\mathrm{Nabil}\left(\beta_{\text {nabil }}\right)$
$\beta_{\text {Nabil }}=\frac{\operatorname{Cov}\left(\mathrm{R}_{\text {Nabil }}, \mathrm{R}_{\mathrm{m}}\right)}{\sigma 2 \mathrm{~m}}$
$=\frac{0.1246}{0.1934}=0.6443$

Beta of Nabil is 0.6443

Covariance between stock of SCBNL and market
Table no-13

| $F / Y$ | $\left(R_{\text {SCBNL }}-\sum R_{\text {SCBNL }}\right)$ | $\left(R_{m}-\sum R_{m}\right)$ | $\left(R_{\text {SCBNL }}-\sum R_{\text {SCBNL }}\right)^{*}\left(R_{m}-\sum R_{m}\right)$ |
| :--- | ---: | ---: | :--- |
| $2002 / 03$ | - | - | - |
| $2003 / 04$ | -0.2459 | -0.1959 | 0.0482 |
| $2004 / 05$ | 0.0356 | 0.0113 | 0.0004 |
| $2005 / 06$ | 0.2925 | 0.3494 | 0.1022 |
| $2006 / 07$ | 0.2204 | 0.7681 | 0.1693 |
| $2007 / 08$ | -0.1973 | 0.4085 | -0.0806 |
| $2008 / 09$ | -0.4824 | -0.2224 | 0.1073 |
| $\sum\left(R_{\text {SCBNL }}-\sum R_{\text {SCBNL }}\right)^{*}\left(R_{m}-\sum R_{m}\right)$ |  | 0.3467 |  |

(Source: - appendix - 4 \&5)

We have,
$\operatorname{Cov}(\mathrm{SCBNL}, \mathrm{m})=\frac{\sum_{\left[\left(\mathrm{R}_{\text {sCBNL }}-\overline{\mathrm{R}}_{\text {sCBNL }}\right)\left(\mathrm{R}_{\mathrm{m}}-\overline{\mathrm{R}}_{\mathrm{m}}\right)\right]}^{\mathrm{N}-1}}{\text { - }}$

Now,
$=\frac{0.3467}{6-1}=0.0693$

Beta coefficient of common stock of SCBNL.
$\beta_{\mathrm{sCbNL}}=\frac{\operatorname{Cov}\left(\mathrm{R}_{\text {sCBNL }}, \mathrm{R}_{\mathrm{m}}\right)}{\sigma 2 \mathrm{~m}}$
$=\frac{0.0693}{0.1934}=0.3585$

Beta of SCBNL is 0.3585

Beta coefficient of 2 commercial bank

| S.N | Name of the comm. bank | Beta coefficient |
| :---: | :---: | :---: |
| 1 | Nabil | 0.6443 |
| 2 | SCBNL | 0.3583 |

From the above calculation shows that the beta coefficient of SCBNL is greater than 1. It indicates that the stock return of the SCBNL is more volatile than the market return. So company is highly sensitive that with $1 \%$ increase in the market return there will be $3.5832 \%$ risk in the stock return , beta of the Nabil is only 0.6443 , which is less than 1 . it indicates that stock return of Nabil is less volatile than market return . 1 \% changes market return only 0.6443 \% changes in Nabil stock's return.
Beta coefficient from the above calculation, SCBNL beta is greater than 1 , whereas the Nabil beta is less than 1. Therefore the stock of the SCBNL is aggressive stock and the Nabil stock is defensive stock.
Above all calculation of beta i.e. observed commercials banks beta are positive. It means that return of stock of these banks is moves to the same direction where the market return moves. Nabil beta is less volatile than market whereas SCBNL beta is more volatile than the market.

### 4.1.7. Calculation of the required rate of return (RRR) of observed commercial banks.

$\mathrm{K}=$ the required rate of return using the Capital Asset Pricing Model. The following formulae used for determining the RRR of the stocks of the observed commercial banks.

## $=\mathrm{K}_{\mathrm{RF}}+\beta\left(\mathrm{K}_{\mathrm{M}}-\mathrm{K}_{\mathrm{RF}}\right)$

Table no-14

| S.N. | Description | Nabil | SCBNL |
| :--- | :--- | :--- | :--- |
| 1 | KRF (risk free rate)(\%) | 4.67 | 4.67 |
| 2 | Beta | 0.6443 | 0.3583 |
| 3 | Market return (\%) | 27.98 | 27.98 |
| 4 | RRR (\%) | 19.67 | 13.02 |

### 4.1.8. Price evaluation of the common stock of observed commercial banks.

Beta is one of the most important factors of CAPM. According to CAPM assumption stock's required rate of return is equal to risk free and plus it's risk premium. Where risk is measured y the beta coefficient. To evaluate of the price of the common stock the following 2 assumption can be used.

- If required rate of return (RRR) is less than expected rate of return (ERR) the stock is underpriced.
- If the required rate return ( RRR ) is more than expected rate of return (ERR) the stock is overpriced

Table no-15

| S.N. | Comm. bank | $\mathrm{R}_{\mathrm{F}} \%$ | Beta $\beta$ | $\overline{\mathrm{R}} \mathrm{m}_{(\%)}$ | ERR (\%) | $\mathrm{RRR}(\%)$ | Price <br> valuation |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | Nabil | 4.67 | 0.6443 | 27.98 | 48.09 | 19.67 | underpriced |
| 2 | SCBNL | 4.67 | 0.3583 | 27.98 | 37.67 | 13.02 | underpriced |

Above table no 15 describes the price situation of the common stock of the observed commercial banks (i.e. Nabil and SCBNL), where they are overpriced or underpriced.
This calculation is on the basis of the capital assets pricing model (CAPM) comparison between required rate of return RRR and the expected rate of return ERR determines stock to be overpriced or underpriced. According to CAPM model if RRR is less than ERR stock is said to be underpriced
and this situation investor should follow buying strategy for this type of stock. If RRR is greater than ERR, stock should be overpriced and investor should sell that type of stock.
From the above calculation and observation we can clearly see that the stock of the Nabil bank is underpriced because of the expected return of the common stock is more than the expected rate of return, at the other side the stock of the SCBNL is also similar to Nabil bank because the expected rate of return is more than required rate of return.
So, it implies that investors can be benefited to buy the stock of Nabil and SCBNL because the stock is underpriced in term of CAPM.

### 4.1.9. Segregation of risk

The total risk involved in holding a stock in a 2 part i.e. systemic risk and unsystematic risk. Total risk for an individual security can be measured by standard deviation or variance of the rate of return.
The systemic risk i.e. caused by whole system and can't be diversified, so it is known as a avoidable risk.
Diversifiable risk can be diversified at no cost so investor should now that portion of systemic risk and unsystematic risk because by partitioning investor knows what extent rsik of particular stock can be diversified away by holding a optimal portfolio.

## (I)Segregation of risk of the Nabil

Total risk measured by variance ( $\sigma^{2}$ ) has segregation into systemic and unsystematic
$\sigma^{2}$ Nabil $=\beta^{2}$ Nabil $* \sigma^{2} m+\operatorname{Var}(E)$
Or, $(0.4847)^{2}=(0.6440)^{2} *(0.4398)^{2}+\operatorname{Var}(\mathrm{E})$
Or, $0.2349=0.4148 * 0.1934+\operatorname{Var}(E)$
Or, $0.2349=0.0802+\operatorname{Var}(E)$
Or, $0.2349-0.0802=\operatorname{Var}(\mathrm{E})$
$\operatorname{Ver}(E)=0.1547$
$\therefore$ Unsystematic risk $=0.1547$
(a)Systematic Risk $=0.0802$
.; Portion of systematic risk on total risk $=\frac{\text { systemetic risk }}{\text { total risk }}=\frac{0.0802}{0.2349}=\mathbf{0 . 3 4 1 5} \mathbf{O r}, \mathbf{3 4 . 1 5 \%}$
(b) Unsystematic risk $-\operatorname{Var}(\mathrm{E})=0.1547$
.; Portion o Unsystematic risk on total risk $=\frac{\text { Unsystemetic risk }}{\text { total risk }}=\frac{0.1547}{0.2349}=0.6585$ Or, 65.85\%
Hence, the total risk of Nabil stock consists of systematic $34.15 \%$ and $65.85 \%$ unsystematic risk system.
Note: - the systemic risk can also be measured by coefficient of the determination i.e. $\mathrm{r}^{2}$ of the return of the stock and market return.
(II)Segregation of risk of the SCBNL

Total risk measured by variance ( $\sigma^{2}$ ) has segregation into systemic and unsystematic
$\sigma^{2}$ SCBNL $=\beta^{2}$ SCBNL $* \sigma^{2} \mathrm{~m}+\operatorname{Var}(\mathrm{E})$
Or, $(0.3020)^{2}=(0.3583)^{2} *(0.4398)^{2}+\operatorname{Var}(E)$
Or, $0.0912=0.1284 * 0.1934+\operatorname{Var}(E)$
Or, $0.0912=0.0248+\operatorname{Var}(E)$
Or, 0.0912-0.0248 = Var (E)
$\operatorname{Ver}(\mathrm{E})=0.0664$
$\therefore$ Unsystematic risk $=0.0664$ or $6.64 \%$
(a)Systematic Risk $=0.0248$
.; Portion of systematic risk on total risk $=\frac{\text { Systemetic risk }}{\text { total risk }}=\frac{0.0248}{0.0912}=0.0 .2726$ Or, 27.26\%
(b) Unsystematic risk $-\operatorname{Var}(\mathrm{E})=0.0663$
.; Portion o Unsystematic risk on total risk $=\frac{\text { Unsystemetic risk }}{\text { total risk }}=\frac{0.0663}{0.0912}=0.0 .7274 \mathrm{Or}, \mathbf{7 2 7 4 \%}$
Hence, the total risk of SCBNL stock consists of systematic risk $27.26 \%$ and $72.74 \%$ unsystematic risk system.
*.Summary of segregation of total risk of the 2 following commercial bank i.e. Nabil \& SCBNL
Table no-16

| S.N. | Bank | total risk | systemic risk | proportion | Unsystematic <br> risk | proportion |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Nabil | 0.2349 | 0.0802 | 0.3415 | 0.1547 | 0.6585 |
| 2 | SCBNL | 0.0912 | 0.0249 | 0.2726 | 0.0663 | 0.7274 |

Following data also can be seen in the diagram (PIE chart)
Figure-12

## Nabil



- $\mathbf{1}$ proportion of systemetic risk
\#1 proprtion of unsystemetic risk

Figure no-13

## SCBNL



- proportion of systemetic risk
proprtion of unsystemetic risk


### 4.1.10. Trend analysis:

Trend analysis is a statistical tool, which helps to forecast the future values of different variables on the basis of the past tendencies of variable. Trend analysis informs about the expected future values of the various variables. Amongst the various methods to determine trend the least square method is widely used in practice. Hence in this study also least square method has been adopted to measure the trend behaviors of these selected banks. However, trend analysis is based on the assumption that past tendencies continues in the future. Under this heading the effort has been made to calculate trend values of the following variables from the fiscal year 2002/03 to 2008/09 and the forecast done for the next five year.
In another words, this is known as time series analysis. The objectives of this analysis are to analyze the trend of MPS, EPS and DPS Nabil and SCBNL and also market (NEPSE). This topic analyzes the MPS, DPS, EPS and its projection for the next five years the basis of past performance and records available.

The projections are based on the following assumptions:

- The bank will run in this present position i.e. trend will repeat itself.
- Other things will remain constant or unchanged.
- The economy will remain in the present stage.
- Nepal Rastra Bank will not change its guidelines relating to commercial banks.
- The forecast will hold true only when the limitation of least square method is carried out.


### 4.1.10.1. Trend analysis of the MPS of the observed banks.

Under this topic, based on the trend values of Market price per share from F/Y 2002/03 to 2013/14, an attempt has been made to forecast the projection for next five years, i.e. up to $F / Y$ 2013/14.

The following table shows the trend value of MPS of the both observed commercial banks from $\mathrm{F} / \mathrm{Y}$ 2003/2004 to 2013/14 (For detail refer Appendix - 8 \& 9)

Table no-17

| F/Y | Nabil | SCBNL |
| :---: | :---: | :---: |
| $2002 / 03$ | 740 | 1640 |
| $2003 / 04$ | 1000 | 1745 |
| $2004 / 05$ | 1505 | 2345 |
| $2005 / 06$ | 2240 | 3775 |
| $2006 / 07$ | 5050 | 5900 |
| $2007 / 08$ | 5275 | 6830 |
| $2008 / 09$ | 4899 | 6010 |
| $2009 / 10$ | 6469 | 7869 |
| $2010 / 11$ | 7346 | 8827 |
| $2011 / 12$ | 8224 | 9785 |
| $2012 / 13$ | 9101 | 10744 |
| $2013 / 14$ | 9979 | 11702 |

From the above comparative table no - 17 it is clear that trend values of SCBNL and NABIL are in an increasing trend. If other things remain unchanged the MPS of NABIL is predicted to be Rs. Rs. 9979 and that of SCBNL to be Rs. 11702 by the end of F/Y 2013/14.

From the above trend analysis, it is quite obvious that SCBNL's MPS has grown much better than Nabil onwards. The trend values of MPS of both NABIL and SCBNL are fitted in the trend lines given in figure.

Figure no-14


### 4.1.10.2. Trend Analysis of Earning per share

Here, the trend values of Earning per share of NABIL and SCBNL have been calculated for five years from F/Y 2002/03 to 2013/14 and the forecast for next five years. I.e. from $F / Y$ 2009/2010 to 2013/14 has been made (for detail refer Appendix-10 \& 11)

Table no-18

| F/Y | Nabil | SCBNL |
| :---: | :---: | :---: |
| $2002 / 03$ | 85 | 149 |


| $2003 / 04$ | 93 | 144 |
| :---: | :---: | :---: |
| $2004 / 05$ | 105 | 143 |
| $2005 / 06$ | 129 | 176 |
| $2006 / 07$ | 137 | 167 |
| $2007 / 08$ | 108 | 132 |
| $2008 / 09$ | 107 | 109 |
| $2009 / 10$ | 128 | 113 |
| $2010 / 11$ | 132 | 109 |
| $2011 / 12$ | 137 | 105 |
| $2012 / 13$ | 141 | 101 |
| $2013 / 14$ | 146 | 97 |

The above table no 18 clearly shows that the Earning per share of both the banks are in an increasing trend. Assuming that other things will remain constant, the EPS of NABIL at the end of F/Y 2013/14 is predicted to be Rs.146. Similarly, the projection for SCBNL at the end of F/Y 2013/14 is Rs 97.

From the above trend analysis, it is quite clear that NABIL's EPS in relation to SCBNL is comparatively higher throughout the trend projection period. The above Earning per share of NABIL and SCBNL are fitted in the trend line given in Figure No. 15

Figure no-15


### 4.1.10.3. Trend Analysis of Dividend per share

Under this topic, based on the trend values of Dividend per share from F/Y 2002/03 to 2013/14, an attempt has been made to forecast the projections for next five years i.e. up to F/Y 2013/14.

The following table shows the trend value DPS from F/Y 2002/03 to 2013/14 (for detail refer Appendix-12 \& 13)

Table no-19

| F/Y | Nabil | SCBNL |
| :---: | :---: | :---: |
| $2002 / 03$ | 50 | 100 |


| $2003 / 04$ | 65 | 120 |
| :--- | :---: | :---: |
| $2004 / 05$ | 70 | 110 |
| $2005 / 06$ | 85 | 120 |
| $2006 / 07$ | 140 | 140 |
| $2007 / 08$ | 100 | 130 |
| $2008 / 09$ | 85 | 130 |
| $2009 / 10$ | 120 | 141 |
| $2010 / 11$ | 139 | 146 |
| $2011 / 12$ | 146 | 151 |
| $2012 / 13$ | 155 | 156 |
| $2013 / 14$ | 161 |  |

From the above table no 19 it is clear that the trend value of both the banks are in an increasing trend. If other things remain unchanged Dividend per share of NABIL is predicted to be Rs. 155 in F/Y 2013/14 and that of SCBNL to be Rs. 161. These values are highest under the review period.

The above table reveals that SCBNL's DPS is higher than that of Nabil throughout the trend projection period. It can be said that both NABIL and SCBNL have followed the policy of maximizing their Dividend policy. The above calculated trend values of NABIL and SCBNL are fitted in the trend line given in Fig.

Figure no-16


### 4.1.10.4. Trend Analysis of NEPSE index

Here, the trend values of market (i.e. NEPSE index) have been calculated for five years from F/Y 2002/03 to 2013/14 and the forecast for next five years. i.e. from F/Y 2009/10 to 2013/14 has been made (for detail refer Appendix-14) .

Table no-20

| F/Y | NEPSE index |
| :--- | ---: |
| $2002 / 03$ | 204.86 |
| $2003 / 04$ | 222.04 |
| $2004 / 05$ | 286.67 |
| $2005 / 06$ | 386.83 |
| $2006 / 07$ | 683.95 |


| $2007 / 08$ | 963.36 |
| :--- | ---: |
| $2008 / 09$ | 749.1 |
| $2009 / 10$ | 1201.168 |
| $2010 / 11$ | 1326.619 |
| $2011 / 12$ | 1452.071 |
| $2012 / 13$ | 1577.522 |
| $2013 / 14$ | 1702.973 |

The above table no 20 clearly shows that the NEPSE index is in an increasing trend. Assuming that other things will remain constant, the NEPSE index F/Y 2013/14 is predicted to be 1702.973

The above trend values of NEPSE index is fitted in the trend line given in Figure No.. 17

Figure no-17


### 4.1.11. Test of Hypothesis

Under this topic, an effort has been made to test the significance level regarding the parameter of the population on the basis of sample drawn from the population. The following steps have been followed in the test of hypothesis.

## 1. Formulating of hypothesis

- Null Hypothesis
- Alternative Hypothesis


## 2. Computing the test statistic

3. Fixing the level of significance

## 4. Deciding two tailed or one tailed test

## 5.Having decision

## i) t-test

In this research study the sample is small i.e., $n=5$. Hence, to deal with small sample' $\mathrm{t}^{\prime}$ test is used. Suppose we want to test if two independent samples have been drawn from two normal populations having the same means, the population variances being equal.

We set up the Null hypothesis Ho: $\mu=\mu$ y i.e., the samples have been drawn from the normal population, or the sample means $\bar{x}$ and $\bar{y}$ do not differ significantly. Under the assumption that $\mathrm{a}^{2}=6 \mathrm{a}^{2}$ i.e., population variances are equal but unknown, the test statistic under Ho is:

$$
\begin{aligned}
& =\frac{\bar{x}-\bar{y}}{\sqrt{S^{2} \times \sqrt{\frac{1}{n_{1}}+\frac{1}{n_{2}}}}} \sim \ldots \text { w.d.f. } \mathrm{n}_{1}+\mathrm{n}_{2}-2 \\
& \text { Where } \bar{x}=\frac{\sum x}{n_{1}} \quad \bar{y}=\frac{\sum y}{n_{2}}
\end{aligned}
$$

And $\mathrm{S}^{2}=\frac{1}{n_{1}+n_{2}-2}\left[\Sigma(x-\bar{x})^{2}+\sum(y-\bar{y})^{2}\right]$
is an unbiased estimate the common population variance $6^{2}$ based on both the samples. By comparing the tabulated value of ' t ' for $\mathrm{n}_{1}+\mathrm{n}_{2}-2$ d.f. at the desired level of significance. Usually $5 \%$ we reject or retain the mull hypothesis $H_{0}$.

### 4.1.11.1. Test of Hypothesis on between market return and return on common stock of NABIL.

Let return on common stock of NABIL and return of market be denoted by $\mathbf{X}$ and $\mathbf{Y}$ respectively.

Calculated $\mathrm{S}^{2}=23.14$ (for detail see Appendix 15)

## Solution:

Null Hypothesis $\left(H_{0}\right): \mu_{1}=\mu_{2}$ i.e., there is no significant difference in return of common stock of NABIL and return of market.

Alternative Hypothesis $\left(H_{1}\right): \mu_{1} \neq \mu_{2}$ i.e., there is significant difference in return of common stock of NABIL and return of market

## Calculation of Test Statistic

Under $\mathrm{H}_{0}$, the test statistic is

$$
\mathrm{t}=\frac{\bar{x}-\bar{y}}{\sqrt{S^{2}}\left(\frac{1}{n^{1}}+\frac{1}{n^{2}}\right)} \quad \text { (with .......... d.f. }=\mathrm{n}_{1}+\mathrm{n}_{2}-2 \text { ) }
$$

$$
\begin{aligned}
& =\frac{48.09-27.97}{\sqrt{23.14}\left(\frac{1}{6}+\frac{1}{6}\right)}=\frac{20.11}{2.7772} \\
& |t|=7.2411
\end{aligned}
$$

## Calculation of tabulated value:

d.f. $=6+6-2=10$

The tabulated value of $\mathrm{t} @ 5 \%$ level of significance for 10 d.f. is 2.228

## Decision:

Since calculated' is much greater than tabulated' it is highly significant. Hence $H_{0}: \mu_{1}=\mu_{2}$ is rejected at $5 \%$ level of significance and we can conclude that there is significant difference in return of common stock of NABIL and return of market.

### 4.1.11.2. Test of Hypothesis on between market return and return on common stock of SCBNL.

Let return on common stock of SCBNL and return of market be denoted by $\mathbf{X}$ and $\mathbf{Y}$ respectively.

Calculated $\mathrm{S}^{2}=11.43$ (for detail see Appendix 16)

## Solution:

Null Hypothesis $\left(H_{0}\right): \mu_{1}=\mu_{2}$ i.e., there is no significant difference in return of common stock of SCBNL and return of market.

Alternative Hypothesis $\left(\mathrm{H}_{1}\right): \mu_{1} \neq \mu_{2}$ i.e., there is significant difference in return of common stock of SCBNL and return of market

## Calculation of Test Statistic

Under $\mathrm{H}_{0}$, the test statistic is

$$
\begin{aligned}
& \mathrm{t}=\frac{\bar{x}-\bar{y}}{\sqrt{S^{2}}\left(\frac{1}{n^{1}}+\frac{1}{n^{2}}\right)} \quad \text { (with .......... d.f. }=\mathrm{n}_{1}+\mathrm{n}_{2}-2 \text { ) } \\
&=\frac{37.67-27.97}{\sqrt{11.43}\left(\frac{1}{6}+\frac{1}{6}\right)}=\frac{9.7}{1.9519} \\
&|\mathrm{t}|=4.9695
\end{aligned}
$$

## Calculation of tabulated value:

d.f. $=6+6-2=10$

The tabulated value of $\mathrm{t} @ 5 \%$ level of significance for 10 d.f. is 2.228

## Decision:

Since calculated' is much greater than tabulated' it is highly significant. Hence $H_{0}: \mu_{1}=\mu_{2}$ is rejected at $5 \%$ level of significance and we can conclude that there is significant difference between return of common stock of SCBNL and return of market.

### 4.2. Major finding:

Having completed the basic analysis required for this study, the final and the most important task of the researcher is to enlist the findings. This will give meaning to the desired result. A comprehensive summary of the major findings of this study is presented below.
The main findings of the study derived from the analysis of financial data of NABIL and SCBNL are given below.

## - NAV Per share

The NAV of NABIL and SCBNL reveals that:
From the analysis it is found that the Nabil's NAV per share is slightly lower than SCBNL. The both of the bank's NAV per share is in the increasing trend and working on the top, actually it has to be. The NAV per share of the Nabil bank is 267, 301, 337,381, 418, 354, and 324, for the fiscal year 2002/03 to 2008/09; where as NAV per share of SCBNL is 403,399,422,468,512,402 and 328 , from the year 2002/03 to 2008/09, respectively.

## - According to the DDM,

From the analysis it is found that according to DDM we can conclude that if we will assume the growth rate will be the constant forever the value of the stock will be Rs 500 and 2000 for Nabil and SCBNL respectively, if take the growth rate as supernormal rate that I've take in according the greatest and the lowest among the g calculation we can find the value of the stock Rs. 1041.63 and 3523.59 for the Nabil and SCBNL respectively.

## - According to P/E ratio:

From the analysis it is found that according to P/E ratio method, it can be said that SCBNL's P/E ratio's is better than the Nabil's p/e ratio ,as for comparison both banks are doing their own effort to improve their market ratio's. The P/E ratio of the Nabil's is $8.74,10.80,14.27,17.34$, $36.84,48.70$, and 45.89. for the fiscal year 2002/03 to 2008/09, as for the P/E ratio's of SCBNL is $10.98,12.16,16.38,21.47,35.25,51.77$ and 54.64 , from the above data we can clearly say that SCBNL ratios is always in the increasing trend, where as Nabil's ratio is in the fluctuating trend.

From the above findings, we can conclude that the Market position of SCBNL is comparatively better than NABIL. It has the highest NAV per share, price of stock and the P/E ratios in more years rather than the Nabil. SCBNL is in a better position to meet its customer's satisfaction, where as Nabil's standard is also better around the customer's, because the both banks are the leading banks of the Nepal's commercial banks society.

## - Risk and return analysis of the Nabil's and SCBNL's and Market (NEPSE)

For Nabil bank, the return on the common stock is $48.09 \%$, and the risk of the common stock is $48.47 \%$, variance of the common stock is $23.49 \%$, and the coefficient of the variation is 1.0079
times. On the other hand, SCBNL 's common stock return is $37.67 \%$, the risk of the common stock is $30.2 \%$, variance of the common stock of SCBNL's is $9.12 \%$, and the coefficient of the variation is 0.8016 times. If we talk about the Market i.e. NEPSE, the return of the market is quite facultative but it is growing in the sound manner.

## - Comparison of Individual Securities Return with Market Return

Comparing the individual securities with the market, the expected return of NABIL has maximum i.e. 48.09 percent in respect to the only 2 commercial banks are selected for the sample, where as the expected return of the SCBNL is 37.67 percent, and the market expected rerun is 27.98 percent .
As there is high return of NABIL among 2 commercial bank, as the matter for the risk, there is high risk for the investors to invest their money in the Nabil bank. SCBNL will be the appropriate for the investors to invest their money because the risk of the SCBNL have only 30.20 percent where as Nabil risk is 48.47 percent, so Nabil is more risky then the SCBNL.As the matter for the market risk, it is 43.98 percent.
The coefficient of variation of the market is determined as 1.57 , which indicates that there are 1.57 units of risk in order to get, earn 1 more unit of return. Nabil has higher CV i.e. 1.0079 respect to other sample commercial bank i.e. SCBNL while SCBNL has the lower in respect to the Nabil, the C.V. of the SCBNL is 0.8016 only, if we talk about the market C.V. we'll get it to 1.57 unit.

## - Correlation between return of the market and the return of the commercial banks.

Correlation coefficient of the Nabil with the market is 0.893617 and it is more than 6 times the value of its P.E. and the even more than P.E., the correlation coefficient is significant. In other words, the return of the Nabil is correlated with the return of the market. The correlation coefficient is positive as the return of the common stock of the observed commercial banks and the return of the market. In case of the SCBNL, the correlation coefficient is 0.897888 , and this is also significant.

## - Analysis of market sensitivity (BETA)

Beta calculates the risk. Likewise, more beta more risk and vive versa. The beta of the Nabil's and the SCBNL's is 0.6443 and 0.3583 respectively. This shows that Nabil's stock is more risky than the SC BNL's stock.
In conclusion, we can say that there is a significant relationship between market risk and return to the individual's commercial banks. Because they correlates to each other.

## - Trend Analysis and projection for next five years

The trend analysis of MPS, DPS, EPS and Market i.e. NEPSE index and its projection for next five years of NABIL and SCBNL reveal that:

* The MPS of both the banks have an increasing trend. The MPS of NABIL is predicted to be Rs. 9979 and that of SCBNL to be Rs. 11702 on at the end of F/Y 2013/14. The MPS of SCBNL is much better than Nabil.
* The DPS of both the banks have a fluctuating trend. The total DPS of NABIL is predicted to be Rs. 146 and that of SCBNL to be Rs.97at the end of F/Y 2013/14. The DPS of NABIL is much better compared to SCBNL.

The EPS of both the bank have a fluctuating trend. The EPS of NABIL is projected at Rs. 155 and that of SCBNL at rs. 161 by the end of F/Y 2013/14. SCBNL seems to have good positions than NABIL.

## - Test of Hypothesis

The test of significance regarding the parameter of the population, on the basis of sample drawn from the population reveals that:

* There is significant difference in return of common stock of NABIL and return of market.
* There is significant difference between return of common stock of SCBNL and return of market.


## CHAPTER-5

## SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter is the final body of this research. It contains summarize description of the research. Beside it, conclusion drawn from this research and the recommendations to correct some aspects to improve the position of the Nepalese stock market is also presented in this chapter.

### 5.1. Summary

National development of any country depends upon the economic development of the country and economic development is supported by financial infrastructure of that country. Banks constitute an important segment of financial infrastructure of any country. Thus, Banks play an important role in the economic development of the country as the issue of development always rests upon the mobilization of resources.

Banks deals in the process of canalizing the available resources to the needy sector causing overall economic development. Fair and timely information disclosure is essential ingredient to function the security market efficiently. Information deficiency in the capital market may be one of the reasons for determination of share price by excessive speculation. This may lead to the domination by the gamblers and speculators in the capital market. The regulatory norms on submission and disclosure of information by the listed companies are meant for ensuring good corporate governance, transparency and investor protection.
The first chapter of this research concludes background of the study, focus of the study, statement of the study and limitation of the study. This study was conducted to analyze the Investing in shares of commercial banks: An assessment of risk and return analysis practice in Nepalese banks. The first objective was to know the value of stock in stock market. Similarly, second objective of this research was to examine the valuation of the common stock. Third objective of this research was to analyze and evaluate the risk and return of common stock of some selected bank. Finally the last objective was to give suggestion and recommendation to the concern persons and office.
The second chapter is review of literature. The review is done on the topic the Investing in shares of commercial banks: An assessment of risk and return analysis practice in Nepalese banks. Review of literature is conducted separately through review of article, books, journals,
dissertations, company prospectus etc. In this chapter the major terms as well as tools has been described briefly. Similarly review of different research, articles and journals are also presented in the chapter.
The third chapter is research methodology. It relates to the overall approach to the research process. Research methodology is the way to solve a research problem systematically. It describes the methods and process followed in the entire research process. Hence this chapter deals with the method and process applied for this research study. This study covers quantitative methodology in a greater extent and also uses descriptive methods based on both technical and logical aspects. On the basis of historical data, different financial and statistical tools are used for the analysis of different variables. Component of research methodology are also presented to give clearer picture. In the fourth chapter, different data collected has been presented separately. This is the main body of the research which gave the different output to fulfill the objective of the research. To fulfill such objective, I have collected secondary data and analyze it in my best knowledge.
Beside it, I have gathered verbal information from different respondent of Nepal Stock Exchange concerned persons and security Board. It has been presented in the same chapter to know the investing in the Nepalese common stock.
Similarly, I have gathered secondary data from current annual report of SEBON. It is risk and return of different selected banks. The collected data has been analyzed and presented by using different financial and statistical tools in the same chapter.

Further, overall return of market is computed on the basis of closing NEPSE index. Side by side the comparison of individual stock return with market return is presented in the same chapter. In addition, secondary data have been used to full fill the objectives of this research. At the end of the chapter, some of the major findings of this analysis from both primary and secondary data are summarized and presented.

### 5.2. Conclusion

The awareness of investors about the company in which they are investing is not satisfactory as they give more emphasis on banking sector for investment. Investing without knowledge about capital structure, founder and management and future plan of the company may leads the investment towards the wrong way and there will be greater probability of suffering loss. There is high chance of exploitations of the investors by the market intermediaries, as the awareness of investors about the rules and regulations on the behalf of them is not satisfactory. Due to the high degree of dissatisfaction to the rules and regulations among investors, it is concluded that the existing rules and regulations are not appropriate and in favor of investors.
Most of the investors are not satisfied with the management attitudes towards them and thus it is concluded that the current attitudes towards public share holders is not appropriate. They are not
agreeing with the current performance of stock market and thus stock market performance is not adequate as it would be. Most of the investors prefer to invest in the banking sector. They do not like to invest in other sector because of their lack of sufficient knowledge. Most of the investors are buying shares of banking sectors only and making portfolios from the same sector. But investing in the same shares of same industry can not reduce risk as they correlate positively.
Since both the quality of information available to the investors and their rationality is low, they have very little knowledge of trading procedures, price formation mechanism and risk diversification. The lack of investor's education training and research has made capital market least prioritized sector of the state. Most of the investors in Nepalese capital market do not believe on statement published on prospectus by the company before going to public. Despite this fact they put their application for higher price in future. There is prevalent belief that buying share is a sure shot way of making profit. They do not think the decrement of share price from its par value. The rumor and whim is highly responsible in influencing the decision of the investors in share investment. Rather than analyzing to find out whether the company is worthwhile or not, they run behind the rumors and whim of the market.

### 5.3. Recommendations

There is no doubt that the level of awareness of investors in Nepalese capital market is quite low. It is thus necessary to increase the level of awareness of individual investors towards various aspects of capital market. Based on the finding of the study, the following recommendations have been made.

- Since the average return and risk of the SCBNL's highest and the Nabil's is lowest, the aggressive investors can go for the SCBNL's stocks.
- As the Net assets value trend is the good of the SCBNL's and it is in increasing trend, though the investor should go through the SCBNL's stock rather than Nabil's stock.
- As we talk about the P/E ratios the ratio of the SCBNL's is good and the sound position than the Nabil's stock.
- The Market per share, Earning per share, and the Dividend per share are of both banks are in the fluctuating trend, but we seen in average, we can find that the SCBNL's stock MPS,EPS and DPS are in quite good position. So I recommend that the investors can go through the SCBNL's stock and transact this stock.
- In the share trading the stock of the SCBNL's is heavily traded in the NEPSE market.

Beside that, the both bank i.e. Nabil and the SCBNL is the leading commercial bank of Nepal. They both have their own belief, identical stand and their own working management, though above recommendation are made only on the analysis relating to this thesis, both banks are doing good job in the Nepalese banking sector.

For the further Avenue some additional recommendation are as follow to cope up with share market. From this both investors and the market both will benefited.
> The transparency and openness of transactions, quality of professional service and improved legal regulatory and supervisory frameworks are the urgent needs to build up the confidence of the potential investors in Nepalese capital market. This requires an integral plan of action not piecemeal effort.
> Policy should be adopted to attract the investors towards the secondary market to mobilize high liquidity of market.
> Investors should make a proper analysis or consultation with experts before selling or purchasing the securities. NEPSE and SEBO/N should manage the sufficient, updated and relevant information about the listed companies that would help the investors in their investment decision making.
> Investors should be aware about the rules and regulation and the function of stock exchange and capital market to protect them from being exploited. The rules and regulation should be timely updated and its implementation should be effective.
> Policy should be adopted to reduce the exploitation of the investors by the market intermediaries and to stop manipulation practices. Effective measure should also be taken to make the market more efficient.
$>$ Investors should be adopted to reduce the exploitation of th3e investors by the market intermediaries and to stop manipulation practices. Effective measure should also be taken to make the market more efficient.
> Investor should analyze the financial performance of the company, its current position and future plans before investing in its securities. This is one game where self-knowledge, superior forecasting ability, and should understanding about the information can give a winning edge to the investor.
> Although SEBO/N has been trying to enhance the understanding of the existing stock investors and the potential investors by disseminating the information using various media and its own publications, it is not enough and satisfactory. Investors outside Kathmandu valley are facing various difficulties in getting information regarding securities market. So it should make necessary arrangements to increase the participation of investors outside of Kathmandu valley.
$>$ As investors are less informed and less aware there will be greater chance of exploitation. In this regard, suitable packages of information for investor's should be developed and awareness program should be lunched through different media.
> To protect investor's interest on capital market, the government should promulgate the suitable policies. The amendment of concerned act and its regulations should be made.
> Market professionalism should be developed. Research on emerging issues on capital market should be conducted. Programs should be lunched to educate investors. There should be effective contribution of public companies on investor's awareness program.
> Investors should consult brokers and professionals before making investment decision. Investors should change their perception about banking sector as an always profitable one. They must search other sectors that can provide high return with low risk. Brokers and professional services on stock market should be expanded.
$>$ Grievance handling mechanism of investors should be developed. Management should give high attention to satisfy their investors. They should preserve the interest of minorities.
> Informed and well aware investors are the back bone for the development of capital market. They should define their priorities themselves. Every investor should read journals and newspapers as well as there publications related to stock market issues of different organization. They should keep record of daily stock price and trading volume published by NEPSE.
$>$ In the age of modern developed technology, the trading system of NEPSE needs to be modernized. It needs to develop efficient and effective information channel to provide updated data and related information. NEPSE needs to initiate different programs for investor's education through investor's meetings and seminars in different subject matters of stock market.
> As a main regulatory body SEBO/N needs to take quick action against breaking rules and regulatory by any company or any other components of stock markets. Situation of getting benefit in breaking rules and regulation should be avoided. SEBO/N should examine the company's performance before giving approval to issue shares to the general public. Presentation of fake information and artificial data should be controlled and that should be punished to protect investors from exploitation.

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Nabil Bank Limited
Principal Indicators

| Particulars | Indicators | Financial Year |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 200203 | 2003104 | 200405 | 2005/06 | 2006/07 | 2007/08 | 2008/09 |
| 1. Net Proft/Gross Income | \% | 29.16 | 31.92 | 34.33 | 35.32 | 32.16 | 29.68 | 30.5\% |
| 2. Earninos Per Share | Rs. | 34.66 | 92.61 | 105.49 | 129.21 | 137.08 | 108.31 | 106.76 |
| 3. Market Value per Share | Rs. | 740 | 1.000 | 1.505 | 2,24] | 5,050 | 5.275 | 4,899 |
| 4. Price Eaming Ratio | Times | 8.74 | 10.80 | 14.27 | 17.34 | 36.84 | 48.70 | 45.89 |
| 5 Mividend (including honus) on share. capital | \% | 5000 | 6500 | 7003 | 8500 | 14000 | 10000 | 8500 |
| 6 Cash Dividend on Share Capital | \% | 50 ก0 | 6500 | $70 \times 3$ | 8509 | 10000 | 60 ma | 3509 |
| 7. Interest IncomelLoans \& Advances | \% | 9.83 | 9.45 | 8.70 | 8.29 | 8.14 | 8.04 | 8.82 |
| 3. Employee Expense/Total Operating Expense | \% | 30.34 | 29.43 | 31.50 | 28.93 | 24.41 | 21.17 | 23.96 |
| 9. Interest Expense on Total Deposit and Borrowings | \% | 2.09 | 1.97 | 1.68 | 2.09 | 2.51 | 2.61 | 3.22 |
| 10. Exchange GainTotal Income | \% | 10.09 | 11.03 | 12.21 | 10.31 | 10.02 | 7.81 | 7.17 |
| 11. Staff Bonus/Total Employec Exocnscs | \% | 31.51 | 39.78 | 42.20 | 40.86 | 41.43 | 41.42 | 43.50 |
| 12. Ne: ГrofitiLoans \& Advances | \% | 5.27 | 5.33 | 5.32 | 5.24 | 4.62 | 3.95 | 4.02 |
| 13. Net Profiti Total Assets | \% | 2.43 | 2.73 | 3.05 | 3.23 | 2.72 | 2.32 | 2.55 |
| 14. Tolal Clecitivepusil | \% | 60.34 | 60.55 | 75.05 | 68.63 | 68.13 | 68.18 | 73.87 |
| 15. Tolal Opelaining ExperisesiToual Assels | \% | 4.06 | 3.69 | 3.73 | 3.83 | 3.97 | 3.83 | 4.34 |
| 16. Adequacy oi' Capilal Fund on Risk Weigiled Assels |  |  |  |  |  |  |  |  |
| a. Core Capital | \% | 11.45 | 12.12 | 11.35 | 10.78 | 10.40 | 8.75 | 8.74 |
| b. Supplementay Capital | \% | 1.60 | 1.44 | 1.09 | 1.52 | 1.64 | 2.35 | 1.90 |
| c. Total Capital Fund | \% | 13.05 | 13.56 | 12.44 | 12.31 | 12.04 | 11.10 | 10.70 |
| 1\%. Levidiry (CRK) | \% | 8.51 | 6.81 | 3.83 | 3.25 | 6.0] | 8.31 | 9.03 |
| 18. Non Perlorming Loars/ Iotal Loans | \% | 5.54 | 3.35 | 1.32 | 1.38 | 1.12 | 0.14 | 0.80 |
| 19. Weighted Average Interest Rate Spread | \% | 4.51 | 4.46 | 5.01 | 4.93 | 4.15 | 3.94 | 4.13 |
| 20. Book Net Worth per Share | Rs. | 267 | 301 | 337 | 381 | 418 | 354 | 324 |
| 21. Total Shares | Number | 4,916,544 | 4,916,544 | 4,916,544 | 4,916,544 | 4,916,544 | 6,892,160 | 9,657,470 |
| 22. Total Permanent Employees | Number | 326 | 372 | 420 | 441 | 427 | 413 | 505 |


[^0]:    ${ }^{1}$ Bhuvan Dahal and Sarita Dahal, "A Hand book of Banking", Asmita Books Stationery, Putalisadak, Kathmandu, Second Edition, 2002; p.8.
    ${ }^{2}$ Ronald Grywinshki; "The New Fashioned Banking", Harvard Business Review; May-June, 1993; p. 87

[^1]:    "Based on the behavior of risk averse investors there is an implied equilibrium relationship between risk and expected return for each security. In market equilibrium a security is supposed to provide an expected return commensurate with its systematic risk of a security. Greater the systematic risk greater the return that investor will expect from the security. The relationship between expected return and systematic risk and the valuation of securities that follow, is the essence to Nobel

