TREND OF STOCK PRICE MOVEMENT OF COMMERCIAL BANKS OF NEPAL

(With reference to Nabil Bank Ltd, Himalayan Bank Ltd, Everest Bank Ltd and Standard Chartered Bank Ltd.)
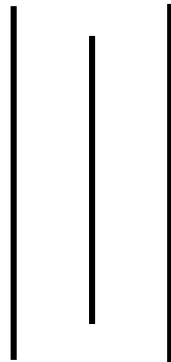
By
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A Thesis Submitted to:
Office of the Dean
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In partial fulfillment of the requirement for the degree of
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RECOMMENDATION

This is to certify that the thesis

Submitted by:
Ganesh Lama

Entitled:

TREND OF STOCK PRICE MOVEMENT
OF COMMERCIAL BANKS OF NEPAL
(With reference to Nabil Bank Ltd, Himalayan Bank Ltd, Everest Bank Ltd and Standard Chartered Bank Ltd.)

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

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Entitled:

TREND OF STOCK PRICE MOVEMENT
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Standard Chartered Bank Ltd.)**

And found the thesis to be the original work of the student and written

according to the prescribed format. We recommend the thesis to be

accepted as partial fulfillment of the requirement for the degree of

Master of Business Studies (MBS)

<u>Viva-Voce Committee</u>

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Member (External Expert)   ………………….…………

DECLARATION

I hereby declare that the work reported in this thesis entitled "**TREND OF STOCK PRICE MOVEMENT OF COMMERCIAL BANKS OF NEPAL (With reference to Nabil Bank Ltd, Himalayan Bank Ltd, Everest Bank Ltd and Standard Chartered Bank Ltd.)**" submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the degree of Master of Business Studies (MBS) under the supervision of **Shree Bhadra Neupane** of Shanker Dev Campus, T.U.

…………………………………..

Ganesh Lama

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ABBREVIATIONS

β	:	Beta Coefficient
ABBS	:	Any Branch Banking Service
ATM	:	Automated Teller Machine
CAPM	:	Capital Assets Pricing Model
CEO	:	Chief Executive Officer
CML	:	Capital Market Line
CPI	:	Consumer Index price
CV	:	Coefficient of Variance
DJIA	:	Dow Jones Industrial Average
DJTA	:	Dow Jones Transportation Average
DPR	:	Dividend Payout Ratio
DPS	:	Dividend per Share
EBL	:	Everest Bank Limited
EPS	:	Earning Per Share
GDP	:	Gross Domestic Productions
HBL	:	Himalayan Bank Limited
HPR	:	Holding Period Return
MPS	:	Market Price per Share
NABIL	:	Nepal Arab Bank Limited
NEPSE	:	Nepal Stock Exchange
NPV	:	Net Present Value
NRB	:	Nepal Rastra Bank
NWPS	:	Net Worth per Share
PNB	:	Punjab National Bank
ROE	:	Return on Equity
S.D	:	Standard Deviation
SCBNL	:	Standard Chartered Bank Nepal Limited
SCT	:	Smart Choice Technology
SEBON	:	Security Board of Nepal
SML	:	Security Market Line

CHAPTER - I

INTRODUCTION

1.1 General Background

Securities are financial assets that form the part of an investor's wealth. Common stocks, preferred stocks, bonds, convertibles, warrants, options, rights, etc. are examples of securities. Security is not an age-old investment alternative in our country. The history of corporate securities in Nepal dates back to 1936 A.D. when Biratnagar Jute Mill issued 8,000 ordinary shares of Rs.100 each for the first time. A year later, Nepal Bank Ltd too issued ordinary shares of the same par value. Biratnagar Jute Mill was also the first corporate body to issue debentures of Rs.500 each in early 1936. Yet other significant developments related to capital markets were – introduction of the Company Act in 1964, the first issuance of Government Bond in 1964, and the establishment of Securities Exchange Centre Ltd. in 1976.

The number of commercial banks has been growing considerably in Nepal after the introduction of liberalized financial policy by the Government in early 1980's. And this has reached to a greater height after reestablishment of democracy in 1990. Today, there are 31 commercial banks operating in Nepal. However, in 1984, there were only two commercial banks. Despite many of these banks are foreign based joint venture companies. Common stocks have been issued to the general public and are the major source of their capital funds.

In Nepalese context Nepal's capital market as developing one in comparison to other big and developed capital market characterized basically as a low trading volume, absence of professional brokers, limited movement of stock price. After the restoration of democracy (in 1990) by the interim government because of worldwide whim of privatization and economic changes have been brought in the country as following the economic doctrine of these developed countries where the economic are based on stock market development, according to this change stock market also get new life blood i.e. reformulation by separating security exchange centre (sec) into two distinct entitles Security Exchange Board(SEBO) and Nepal Stock exchange limited (NEPSE).

Nepal Stock Exchange, a solely organized securities exchange market in Nepal, was established in 1993. It has been named for Securities Exchange Center which had been established with the objective of facilitating and promoting the growth of capital market. Nepal Stock Exchange now has objectives of imparting free marketability and providing liquidity to the government and corporate securities by facilitating transactions in trading floor through market intermediaries. It is the place where securities are traded upon. Amongst the listed companies, commercial banks are the most performing ones. Common stock transactions of this sector hold major portion of total transaction. The difference between market price and paid up price of common stock of commercial banks are higher than that of any other companies. Fluctuation in prices of commercial banks' stocks usually gets major issues in stock market. In this regard, it is important to understand what factors really affect the market price of common stock of commercial banks.

SEBO was established as an apex regulator of the securities market in Nepal by HMG/N on June 7, 1993, under the Securities Exchange Act, 1983. It is solely responsible for framing policies and programs required in securities market, registering, monitoring, licensing, supervising and conducting research and various studies in the field of securities and on behalf of the investors. It is a board consisting of seven members including a Chairman. SEBO, in order to implement its policies and programs effectively, has two departments, six divisions and ten sections in the organizational structure. The main object of SEBO is to regularize and manage the securities market and protect investors' rights.

After lending peace or including Maoist n government the price of stock highly volatile in increasing rate. Trading system of the stock market is also hanged. It is performed by the electronic device (computerized), thus the stock market in Nepal is burning issue.

A simple economic phenomenon is that the price determined by the interaction of demand and supply also remains effective in case of common stock pricing. The forces of supply and demand interact to determine a stock market prices. Prices move in the trends because of an imbalance between supply and demand. When the supply of a stock is greater than the demand, the trend will be down as there are more sellers than buyers. But the question arises what are the factors that actually affect the demand and supply of common stock. What are the financial and non-financial factors and to what extent do affect the market price?

Despite of several efforts to promote the capital market, our capital market is still passing through infancy. The listing of securities in the secondary market is limited to only securities of a few companies. Till the date of this study, the numbers of companies listed in NEPSE are 226. Among them, the most traded ones and so called reliable in the public image are of financial sectors, especially, commercial banking sector, which comprises of 24 listed banks. Study of market efficiency and the investors' behavior provides some idea regarding the level of advancement of security market. Although overall economy and capital market is still considered to be young, the explosive growth of new stock listing and volume of shares in Nepal Stock Exchange (NEPSE) has attracted considerable interest from the investors. In this context, it is interesting to investigate the efficiency of market and the investors' rationality, formation of price, slacking of price, which may provide an empirical explanation to identify the situation of Nepalese stock market.

1.2 A Brief Profile of the Sampled Commercial Banks
1.2.1 Standard Chartered Bank Nepal Limited (SCBNL)
Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987 when it was initially registered as a joint-venture operation. Today the Bank is an integral part of Standard Chartered Group who has 75% ownership in the company with 25% shares owned by the Nepalese public. The Bank enjoys the status the largest international bank currently operating in Nepal.

An integral part of the only international banking Group currently operating in Nepal, the Bank enjoys an impeccable reputation of a leading financial institution in the country. With 16 points of representation (13 Branches) and 9 ATMs across the Kingdom and with over 300 local staff, Standard Chartered Bank Nepal Ltd. is in a position to service its customers through a large domestic network. In addition to which the global network of Standard Chartered Group gives the Bank the unique opportunity to provide truly international banking in Nepal. Standard Chartered Bank Nepal Limited offers a full range of banking products and services in Wholesale and Consumer banking, catering to a wide range of customers from individuals, to mid-market local corporate to multinationals and large public sector companies, as well as embassies, aid agencies, airlines, hotels and government corporations.

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

Table 1.1

Details of Ownership Capital (SCBNL)

Particulars	Rs. (in million)
Authorized Capital	1000
Issued Capital	1000
Paid up Capital	620.784
Par value of share = Rs. 100 each	

(Source: http//www.standardchartered.com/np)

1.2.2 Himalayan Bank Limited (HBL)

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan. Despite the cut-throat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits.

Legacy of Himalayan lives on in an institution that's known throughout Nepal for its innovative approaches to merchandising and customer service. Products such as Premium Savings Account, HBL Proprietary Card and Millionaire Deposit Scheme besides services such as ATMs and Tele-banking were first introduced by HBL. Other financial institutions in the country have been following our lead by introducing similar products and services. Therefore, we stand for the innovations that we bring about in this country to help our Customers besides modernizing the banking sector. With the highest deposit base and loan portfolio amongst private sector banks and extending guarantees to correspondent banks covering exposure of other local banks under our credit standing with foreign correspondent banks, we believe we obviously lead the banking sector of Nepal. The most recent rating of HBL by Bankers' Almanac as country's number 1 Bank easily confirms our claim.

All Branches of HBL are integrated into Globus (developed by Temenos), the single Banking software where the Bank has made substantial investments. This has helped the Bank provide services like 'Any Branch Banking Facility', Internet Banking and SMS Banking. Living up to the expectations and aspirations of the Customers and other stakeholders of being innovative, HBL very recently introduced several new products and services. Millionaire Deposit Scheme, Small Business Enterprises Loan, Pre-paid Visa Card, International Travel Quota Credit Card, Consumer Finance through Credit Card and online TOEFL, SAT, IELTS, etc. fee payment facility are some of the products and services. HBL also has a dedicated offsite 'Disaster Recovery Management System'. Looking at the number of Nepalese workers abroad and their need for formal money transfer channel; HBL has developed exclusive and proprietary online money transfer software- Himal Remit TM. By deputing our own staff with technical tie-ups with local exchange houses and banks, in the Middle East and Gulf region, HBL is the biggest inward remittance handling Bank in Nepal. All this only reflects that HBL has an outside-in rather than inside-out approach where Customers' needs and wants stand first.

Table 1.2

Details of Ownership Capital (HBL)

Particulars	Rs. (in million)
Authorized Capital	2000
Issued Capital	1013.51
Paid up Capital	1013.51
Par value of share = Rs. 100 each	

(Source: *http//www.hbl.com.np)*

1.2.3 Everest Bank Limited (EBL)

Everest Bank Limited (EBL) started its operations in 1994 with joint venture partner (holding 20% equity in the bank) of Punjab National Bank (PNB) a view and objective of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer-friendly services through its Branch Network and over 250 correspondent banks across the globe. All the branches of the bank are connected through Anywhere Branch Banking System (ABBS),which enables customers to do all their transactions from any branches other than where they have their account. With an aim to help Nepalese citizens working abroad, the bank has entered into

arrangements with banks and finance companies in different countries which enable quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, Singapore and UK. The bank has been focusing on expanding its operations outside Nepal and has identified some of the emerging economies which offer large business potential. Bank has also set up its representative offices at New Delhi (India) to support Nepalese citizen remitting money and advising banking related services.

The bank has been conferred with "Bank of the Year 2006, Nepal" by the banker, a publication of financial times, London. The bank was bestowed with the "NICCI Excellence award" by Nepal India chamber of commerce for its spectacular performance under finance sector. Recognizing the value of offerings a complete range of services, we have pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus (Future Lease Rental), Home Equity Loan, Vehicle Loan, Loan Against Share, Loan Against Life Insurance Policy and Loan for Professionals. EBL was one of the first banks to introduce Any Branch Banking System (ABBS) in Nepal.EBL has introduced Mobile Vehicle Banking system to serve the segment deprived of proper banking facilities through its Birtamod Branch, which is the first of its kind.

Table 1.3

Details of Ownership Capital (EBL)

Particulars	Rs. (in million)
Authorized Capital	1000
Issued Capital	843.20
Paid up Capital	831.40
Par value of share = Rs. 100 each	

(Sources: www.everestbankltd.com)

1.2.4 NABIL Bank Limited (NABIL)

NABIL Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. NABIL was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, NABIL provides a full range of commercial banking services through its 30 points of

representation across the kingdom and over 170 reputed correspondent banks across the globe.

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

Table 1.4

Details of Ownership Capital (NABIL)

Particulars	Rs. (in million)
Authorized Capital	500
Issued Capital	491.65
Paid-up Capital	491.65
Par value of share = Rs. 100 each	

(Source: www.nabilbank.com)

1.3 Statement of Problems

In Nepalese market several new practices are emerged. During this period a number of initial public offering were made. Many new stocks have been listed in NEPSE. By now a newly established banking industry are emerged as the largest partner in stock market. Similarly the trend of stock price is being fluctuated sometimes the stock price becomes too very high because of poor performance of the listed companies. Decrease in share price due to the lack of perfect information about investment.

Investors purchase the stocks of the commercial banks either in the primary market or in the secondary market. Most of these investors are not aware of the financial strength of the companies and they do not analyze companies' financial performances as well before investing their funds through secondary market. The market price of common stocks does not seem to be in accordance with the financial indicators. Instead, there has been major

influence of rumors rather than strength of the companies in determination of the market prices of shares. Market price per share (MPS) of foreign joint venture commercial banks has been found to be higher than MPS of other banks other sectors too. Moreover, it will not be inappropriate to say that the overall NEPSE is depended upon the MPS of such companies.

Generally, the trend is that the MPS of public quoted companies is above their book value. The market value is determined by the supply and demand functions. However, in the efficient market, MPS fully reflect all the historical information's publicly available. Now the question of efficiency of the Nepalese share market arises. Higher amount of share prices may be the outcome of the inefficient market behavior. Many commercial banks do not provide timely financial statement or annual report to the investors. The dubious and hazardous movement of the share prices has no sound fundamental backing of analysis and relationship to past results revealed in limited calculated dividend yield, net worth, and price multiplies. The investors conclude that there has been foul play using inside information. The reaction is based on the assumption of strong form of the market efficiency. The security exchange act strictly prohibits the misuse of inside information but the regulating authorities can make no advance notice of how there is the use of inside information. It denotes that every investor should be well aware of the degree of risks in which they are investing or going to invest their saving funds. There are very few practices of analyzing these aspects in the Nepalese context. Most of the investors are investing their funds haphazardly without considering risk involved in their investments. That's why, the major issues might be whether the MPS of listed companies are really representing the financial indicators i.e. NWPS, DPS, EPS.

The main problem in the stock market is the lack of knowledge for its regular Tory framework and market operations. Proper attitudes and knowledge of decision makers are very much necessary foot an effective policy framework. Fundamental requirement go missing when they have little knowledge about the issues. There is various causes that make fluctuation of stock price mainly two factors economic and non-economic factors are remarkable. The Nepalese stock market is suffering from a low trading volume because of professional brokers, early stage of growth, limited movement of share price and information available make confused which stocks is bad and which stock is good.

The fluctuation of stock market price is mainly due to unfair stock market practices that went undetected for long period in Nepal stock market.

The main concern of the problem is to understand the trend of prices movement of stock in the organized market places where the trading actually takes place. Moreover, to understand the cause of changes in the market price of stock. So the study will be focused on the following problem related to the subject chosen:

- What is the trend of stock price movement of the sampled commercial banks?
- Is there any specific relationship of MPS with fundamental financial indicators i.e. DPS & EPS or is the trend of MPS running in accordance with the trading in the secondary market.
- Are the stocks of sampled commercial banks at equilibrium price?
- What is cause of the fluctuation in stock price?

1.4 Objectives of the Study

The objectives of the study are as follows.

- To study the five yearly trend of price (common stock) movement of sampled commercial banks in the market.
- To find out the relationship of MPS with DPS & EPS.
- To identify if the stocks of the sampled bank are overpriced, under-priced or at equilibrium.
- To find out the reason behind the fluctuation in stock price of sampled banks.

1.5 Significance of the Study

Today's growing number of the interested investors and the individual organization, growing investment bankers etc. All are eager to know about the behavior of the capital market in Nepal. So, this study is conducted to give up confidence to the investors and interested parties. In reality, the Nepalese stock market is suffering from a low trading volume absence of growth, limited movement of share price and information available to the investors. The investors are not fully informed. The investors are confused either stock is overpriced or under-priced. The market research is expected to be very useful for further researchers. The research will be helpful to the Nepalese government for making

polices. It gives emphasis to invest in new concept in today's age. The significance of the study to different people and sector can be presented as follows:

- **Significance to Investors:**

  The study will be able to provide the data and other kinds of information about the financial performance of individual banks as well as the whole commercial banking sector, which will be of great significance to prospective as well as existing investors in making investment decisions.

- **Significance to Interest Parties and Researchers:**

  Study will be of great use to the various parties involved in the trading of shares of commercial banking sector. Furthermore, this study has opened up ample space for interested groups and researchers to conduct various detailed studies on this or related topics.

- **Significance to General Public:**

  The study will be of great importance to the general public as well in order to gain some useful information regarding the price formation mechanism and the consequences of some relevant factors on prices of common stock.

- **Significance to Policy Maker and Controller:**

  The study has tried to trace out the various factors that form or help in formation of prices of common stocks of commercial banks. Thus, I think, this study will also helpful for policy makers and concerned regulating bodies to have a glimpse on the mechanism of share price formation in the secondary market. Consequently more outstanding and investment friendly rules and regulations could be brought forwarded on behalf of the general investors.

1.6 Limitations of the Study

Due to various reasons this research work is not able to study the whole Nepalese capital market in details. For the sake of ease this tries to study its subject matter by concentrating on some important variables and ignoring others. That is why this research is also not free from limitations. The major limitation of the study is presented below:

- The core of this study will be based on the secondary sources of information. Hence any incorrectness in the key information like NEPSE index gathered from the secondary sources might affect the accuracy of the outcomes of study.

- The sample is only the part of population. Hence, the conclusion cannot be generalized on the total market.

- For the purpose of the study only common stock will be taken.

- There might be various techniques and method to perform the study on stock price movement but the study will be focus only the correlation and regression analysis risk and return, MPS, DPS and EPS, sensitivity analysis and some ratio analysis.

- The study includes 5 years' data from 2006 to 2011.

1.7 Organization of the Study

The entire study has been designed into five main chapters. They are:

Chapter-I Introduction

The first introduction chapter includes statement of problem, objectives of the study, need and significance of the study, limitations of the study and organization of study.

Chapter-II Review of Literature

The second chapter review of literature is done to know that research had been done in the related topic in previous days and what is to be done at present or in future. This chapter has been divided into two main aspects: (i) Conceptual framework and (ii) Review of related materials i.e. review of books, review of thesis, review of newspapers, magazines, journals etc.

Chapter-III Research Methodology

The third chapter includes research design, population and sampling, sources of data, procedure of data collection and tools used for analysis.

Chapter-IV Presentation And Analysis of Data

The forth chapter includes Presentation and analysis of data. The data collected from various sources is tabulated in their sequential order and described, analyzed and projected with statistical tool.

Chapter-IV Summary, Conclusion, Recommendations

This chapter includes the major findings, prevailing issues and gaps of the concerned banks. The recommendations are made according to the finding of the study.

Finally, essential bibliography and appendices have been presented at the end of the study.

CHAPTER - II
REVIEW OF LITERATURE

Before getting into the core subject matter of the stock price movement in the market, it is essential to be familiar with the general concepts of the share and its price movement. This chapter basically highlights the existing literature and research work related to the present research being conducted with the view of finding out what had already been explained by the previous researchers and how the current research adds further benefits to the field of research. Here, review of various books, research studies and articles have been used to make clear about the movement in stock price of banks as well to recall the previous studies made by various researchers.

2.1 Conceptual Review

2.1.1 Stock

The capital stock (or just stock) of a business entity represents the original capital paid into or invested in the business by its founders. It serves as a security for the creditors of a business since it cannot be withdrawn to the detriment of the creditors. Stock is distinct from the property and the assets of a business which may fluctuate in quantity and value.

Basically, the stock of a business is divided into shares, the total of which must be stated at the time of business formation. Given the total amount of money invested in the business, a share has a certain declared face value, commonly known as the par value of a share. The par value is the minimum amount of money that a business may issue and sell shares for in many jurisdictions and it is the value represented as capital in the accounting of the business. In other jurisdictions, however, shares may not have an associated par value at all. Such stock is often called non-par stock. Shares represent a fraction of ownership in a business. A business may declare different types of shares, each having distinctive ownership rules, privileges, or share values. Ownership of shares is documented by issuance of a stock certificate. A stock certificate is a legal document that specifies the amount of shares owned by the shareholder, and other specifics of the shares, such as the par value, if any, or the class of the shares. "Stock typically takes the form of shares of either common stock or preferred stock. As a unit of ownership, common stock typically carries voting rights that can be exercised in corporate decisions.

Preferred stock differs from common stock in that it typically does not carry voting rights but is legally entitled to receive a certain level of dividend payments before any dividends can be issued to other shareholders. Convertible preferred stock is preferred stock that includes an option for the holder to convert the preferred shares into a fixed number of common shares, usually anytime after a predetermined date. Shares of such stock are called convertible preferred shares". *(Lowenstein; 1995: 118-119).*

"New equity issues may have specific legal clauses attached that differentiate them from previous issues of the issuer. Some shares of common stock may be issued without the typical voting rights, for instance, or some shares may have special rights unique to them and issued only to certain parties. Often, new issues that have not been registered with a securities governing body may be restricted from resale for certain periods of time. Preferred stock may be hybrid by having the qualities of bonds of fixed returns and common stock voting rights. They also have preference in the payment of dividends over common stock and also have been given preference at the time of liquidation over common stock. They have other features of accumulation in dividend". *(Malkiel; 1993: 107).*

2.1.2 Security Market

Security markets exist in order to bring together buyers and sellers of securities, meaning that they are mechanisms created to facilitate the exchange of financial assets. There are many ways in which security markets can be distinguished. One way has already been mentioned primary and secondary markets. Here the key distinction is whether or not the securities are being offered for sale by the issuer. Interestingly, the primary market itself can be subdivided into seasoned new issue refers to the offering of an additional amount of an already existing security, whereas an unseasoned new issue involves the initial offering of a security to the public. Unseasoned new issues are often referred as initial public offering or IPO's.

"A security market is financial market can be defined as a mechanism for bringing together buyer and sellers of financial assets in order to facilitate trading. One of it main function is "price discovery that is to cause security price to reflect correctly available more information the more quickly and accurately price discovery is achieved, the more efficiently financial markets will direct capita to its most productive opportunities, there

by trading to greater improvement in public welfare". *(Sharpe, Alexander & Jeffery, 2000: 9-10).*

A security market can be divided into:

Primary Market

A primary market is the place, where corporation and government issue new securities. All securities, whether in money or capital markets are initially issued in the primary market. This is the only market in which the company or government is directly involved in the transaction and receive direct benefits from issue that is the company actually receives the proceeds from the sale of securities. The term 'primary market' is used to denote the market for the original sale of securities by an issuer to the public.

Secondary Market

Secondary market is the market for the existing securities second hand securities are bought and sold in the secondary market. Its main function is to provide liquidity to the purchasers of securities. The secondary market is not keeping pace with the growth of the primary market.

Organized Securities Exchanges are the physical locations where trading of securities is done under a set of rules and regulations. Investors usually purchase securities in the secondary market by calling securities brokers. In the secondary market investors buy and sell securities themselves, the issuer never gets any cash flow from the trades. Nepal Stock Exchange (NEPSE) is an example of organized stock exchange and this is the only stock exchange in Nepal. Similarly, the New York Stock Exchange (NYSE), Tokyo Stock Exchange, American Stock Exchange (AMEX), Bombay Stock Exchange (BSE) are the example of organized stock exchanges.

Function Performed by Securities Market
- One of the most important functions performed by a securities market is to maintain active trading. It facilities the immediate buying and selling of securities by the investors. It provides liquidity to the asset.

- It also facilitates the price discovery process. It is possible through the demand and supply of security from the investors.
- It aids new financing indirectly by providing facilities to resell the securities.

"Over the Counter Market (OTC) exchange is not an organized but an intangible market for the purchaser and seller of securities not listed by the organized exchanges. It is not formal exchange like organized stock exchanges. It neither requires membership for trading of securities nor listing of securities for trading, meaning that formal listing of securities are not necessary in the OTC market. A sophisticated telecommunication network links active traders in the market. The prices at which securities are treaded over the counter are determined by competitive bids and negotiation". *(Bhattarai; 2007:22).*

Money Market

"Money market refers to that financial market in which securities with a short term (one year or less) and highly liquid debt securities are traded. Thus money market comprises the securities that have short maturity period (life span), easily marketable, liquid and even lower risk in comparison to other securities".*(Bhattarai & Thapa, 2006:4).*

Capital Market

"Capital market refers to the financial market in which long-term securities are traded. Specifically speaking, securities having life spans of more than one year are traded in the capital market. Long term financial instrument such as stocks issued by corporation are basically traded in capital market". *(Bhattarai & Thapa, 2006:4).*

2.1.3 Financial Intermediaries

Financial intermediaries (financial institution) are organizations that issue financial claims against themselves and use the proceeds to purchase primarily the financial assets of others.

2.1.4 Market Price of Shares

"The market price of any asset, indeed, depends on the future earning power of the asset or the value of an asset depends on the future cash flows that the asset is expected to generate". *(Pradhan, 1996: 2).*

2.1.5 Buying and Selling of Stock

Various people are likely to be involved, when a stock is sold and bought. Although it is possible for two investors to trade with each other directly, usually the brokers, dealers and markets provide the service. "When buying or selling the common stock the investor places an order involving a round lot or both. Generally round lot means that the order is for 1000 shares multiple of 100 shares. An odd lot orders generally are for 1 to 99 shares". *(Sharpe, Alexander & Bailey, 1996:21).*

2.1.6 Market Size

"Relative's market capitalization and the number of listed companies can measure stock market size. The market capitalization ratio is determined by dividing the value of all share listed on a national exchange by the host country's gross domestic product". *(World Bank, 1995).*

2.1.7 Market Liquidity

Liquidity or the ability to buy and sell securities is indicated by the two measures. One is the total value of share traded on the stock exchange dividend by GDP. The second measure of liquidity is the turnover ratio, the value of total shares traded divided by market capitalization.

2.1.8 Common Stock

Common stocks represent ownership capital in a company. The holders who own the shares of common stocks are called shareholders or stockholders. They are the legal owners of a company. Common stocks represent the permanent and vital source of capital since they do not have a maturity date. Shareholders are entitled to receive dividends as return for their capital contribution to the company. The amount and the rate of dividend is fixed by the company's Board of Directors. Common stock is therefore known as the variable income security. Being the owners of the company, stockholders bear the maximum risk of ownership. They are entitled to dividends after the claims of others fixed income securities are satisfied. Similarly, at the time of liquidation of a company, they are the ultimate claimers on assets that are left after settling various outsiders.

"The commons stocks are issued by the firms to raise ownership capital and the investors buy them with the expectation that they receive a share of profit periodically. The

common stocks legally represent the equity of business firms, and the holders are the owners who share all the profits and losses of the business. They enjoy all earnings after meeting the obligations of interest on debts and dividends on preferred stocks. Thus, they enjoy all net benefits of the business by assuming the risk of losing their capital". *(Pradhan, 1996: 132-133 & 333).*

2.1.9 Stock Certificates

"The ownership of a firm's stock has typically been represented by a single certificate with the number of shares held by the particular investors noted on it such a stock certificate is usually registered, with the name, address, holding of the investor included on the portion's books. Dividend payment, voting material, annual and quarterly reports and other mailing are sent directly to the investors, taking into account the size of his or her holding". *(Sharpe, Alexander & Jeffery, 2000: 12-14).*

Shares of stock held by investors may be transferred to a new owner with the Assistance of either the issuing corporation or more commonly its' designated transfer agent. This agent will cancel the old stock certificate and issue a new one in its place made out to the owner. Frequently a register will make sure that this canceling and issuing of certificates have been done properly. Usually banks and trust companies act as transfer agent and registers. Many stockholders have chosen to avoid these rather cumbersome procedures. Instead depository arrangement are used which substitute computerized records for embossed certificates. However the above mentioned process may not go exactly to the Nepalese practice but in the theoretical ground these are the procedures to be followed when executing the shares transaction.

2.1.10 Earning Per Share (EPS)

Accounting earnings that represent the difference between revenues and expense, including the expenses associated with non-equity source of fund (such as interest to debt, dividend to preference share) is also known as total earnings available for common stock. "If this portion of income is divided by number of outstanding shares, we get earnings per share". *(Sharp, Alexander and Bailey, 2001: 622).*

2.1.11 Retained Earnings

The balance account which indicates the total amount of earnings the firm has not paid out as dividend throughout its history; these earnings have been reinvested in the firm as retained earnings.

2.1.12 Dividend Per Share (DPS)

"The percentage of earnings the firm pays in cash to its shareholders is known as dividend. The dividend, of course reduce the amount of earnings retained in the firm and affect the total amount of internal financing ". *(Source: Horne, 2000: 305).*

Nothing is more important than dividends to stockholders. They buy shares of firm with the hope of sharing profits earned by firms. The sole motive of stockholders is to receive return on their investment; nothing pleases them more than knowing the firm's earning and more profits mean more dividends coming in.

Krishman opines that of two stocks with identical earnings record and prospect but the one paying a large dividend than the other, the former will undoubtedly command a higher price merely because stockholders prefer present to future values. Stockholders often act upon the principle that a bird in the hand worth more than two in the bush and for this reason, that are willing to pay a premium for the stock in with the higher dividend rate.

2.1.13 Net Worth Per Share (NWPS)/ Book Value Per Share

A corporation will generate income, much of which is paid out to creditors (as interest) and to shareholders (as dividend). Any remainder is added to the amount shown as cumulative retained earrings on the corporation's books. The sum of cumulative retained earnings and other entries (such as common stocks and capital contributed in excess of the par value) under shareholders' equity is the book value of the equity. The book value per share is obtained by dividing the book value of the equity by the number of shares outstanding.

"The book value of equity reflects the historical costs of brick and meter-the physical assets of the company. A well run company with strong management and an organization that functions efficiently should have a market value greater than the historical value of its physical assets". *(Weston and Copeland: 1992:695).*

"Book value is generally considered to be relatively unimportant in determination of the value of company. Since it represents only the historical investments made in the company-investments that may have little relating to current values of price". *(Weston and Copeland; 1992:1113).*

2.1.14 Market Price per Share (MPS)

"The market price of any asset, indeed, depends on the future earning power of the asset or the value of an asset depends on the future cash flows that the asset is expected to generate ". *(Pradhan: 1996:20).*

Once the shares, issued in the primary market, are listed in the stock exchange, investors are able to buy and sell the shares among themselves with the help of brokerage firm. Generally, the prices of shares are determined by demand and supply preferences.

Due to the market imperfection and uncertainty, shareholders may give a higher value to the near dividends and capita gains. Thus, payment of dividend may significantly affect the market price of share. Higher dividends increase the value of share and lower dividends reduce the value.

2.1.15 Stock Valuation

Financial managers use different analytical techniques for valuing common stock. The stockholder expert's regular earnings in the form of dividends and capital gain by upward movement of the stock price. To maximize the stock price valuation model can be used as important tools. Mainly three basic models can be used to valuation of stock.

Stock Valuation Model

Net Assets Value Model

$$NW = TA - (CL + LTD)$$

Dividend Value Model

$$Po = \sum_{t=1}^{n} \frac{D_1}{\left(1 + k_e\right)}$$

Earning Valuation Model

$$P_o = P/E \times EPS$$

Source: - Richard Pike & Neale (1996). Corporate finance and investment decision strategy India.

Where,

NW = Net worth ;	TA = Total Assets
CL = Current liabilities	Po = Value of stock today
LTD = Long Term Debt ;	Do = Dividend expected in nth year
K_e = Cost of equity capital	T = 1, 2, 3….n year ;
P/E = price earning ratio	EPS = Earning per share

2.1.16 Capital Assets Pricing Model (CAPM) or (SML)

Sharpe & Linter developed, 'The capital assets pricing Model' (CAPM). This model provides the intellectual basis for a number of the current practices in the investment. "The capital assets pricing model specifies the relationship between risk and required rate of return on assets when they are held in well diversified".

CAPM is based on the following assumptions.

- All investors focus on a single holding period, and they seek to maximize the
- expected utility of their wealth by choosing among alternative portfolios on the
- basis of each portfolio's expected return and standard deviation.
- All investors can borrow and lend an unlimited amount at a given risk free rate of interest, and there are no restriction on short sales of any assets.
- All investors have identical estimates of the expected returns, variances, and co-variance among all assets; that is, investors have homogenous expectations.
- All assets are perfectly divisible and perfectly liquid.
- There are no transaction costs.
- There are no taxes.
- All investors are price takers (that is, all investors assume that their own buying and selling activity will not affect stock price.)
- The quantities of all assets are given and fixed.

Figure 2.1

The Capital Assets Pricing Model or SML
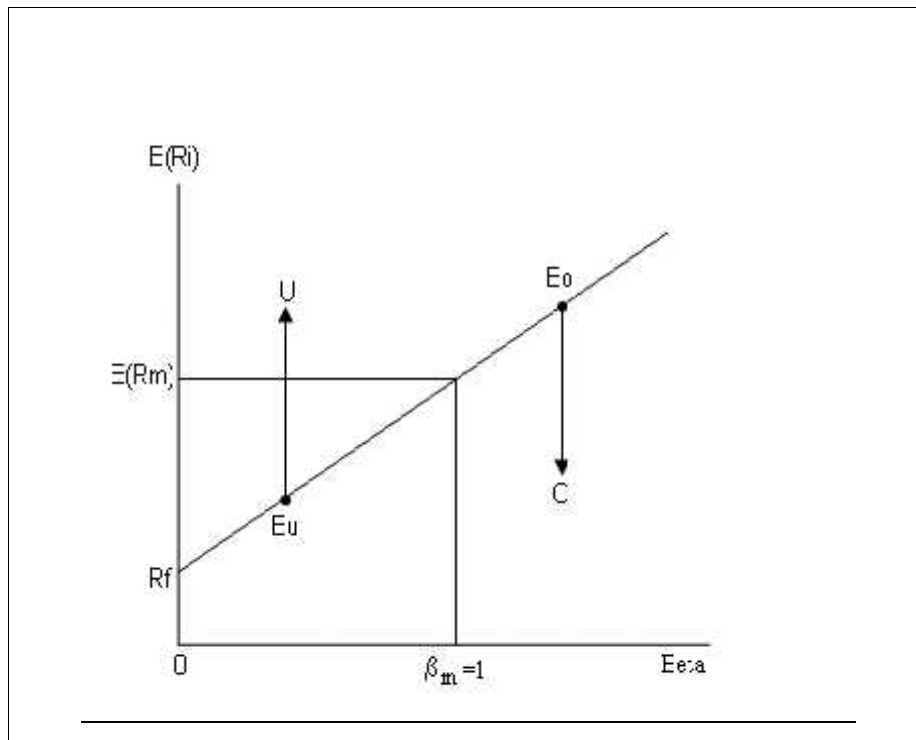
Sources: Bhattarai & Thapa 2006:199

2.1.17 The General Awareness of Risk

Some of the sources of uncertainty that contribute risk of investment are citing below:-

Interest Risk

Interest rate risk is destined as the potential variability of return caused by changes in the market interest rates. More succinctly, value of securities move inversely with changes in the market rate of interest. In more general terms, if market interest rise, then investments' values and market prices will fall, and vice versa. The variability of return that results in interests risk. This interest rate risk affects the price of bonds, stock, real estates, gold, puts, and calls future contracts and other investment as well.

Purchasing Power Risk

Purchasing power of risk is the variability of return and investor/suffers because of inflation. Economists measure the rate of inflation by using a price index. The consumer price index (CPI) or simply price index (PI) is popular coinage to the changes in the

concept. Rate of inflation directly affects rate return, hence the changes in the purchasing power cause the price of securities move that result the risk.

Bull- Bear Market Risk

As its name suggests, bull-bear market arises from the variability in market returns resulting from alternating bull and bear market forces. When a security index rises fairly, consistently from a low point, called a trough, for a period of time, this upward trend is called a bull market. The bull market ends when the market index reaches a peak and starts a downward trend. The period during which the market declines to the next through is called a bear market. It is inferential to quote that bear market is followed by bull markets that usually rise more than enough to compensate for the bear market losses. But, the alternating bull and bear market forces create a perennial source of investment risk.

Management Risk

Though many top executives earn princely salaries, occupy luxurious offices, and wield enormous power within their organization, they are mortal and capable of making a mistake or a poor decision. Further more, errors made by business managers can harm those who invested in their firms. Hence, it also is capable of poring risk to investment.

Default Risk

Default risk is that portion of an investment total that results from changes in the financial integrity of the investment. For instance, when a company that issues securities moves either further away from bankruptcy closer to item these changes in the firms financial integrity will be reflected in the market price of its securities. The variability of return that investor's experiences as results of changes in the creditworthiness of a firm in which they invested is their default risk.

Liquidity Risk

Liquidity risk is that portion of an asset's total variability of return, which results from price discount given or sales commission paid in order to sell the assets without delay.Perfectly liquid assets are highly marketable and suffer no liquidity price discount costs. Illiquidity assets are not readily marketable either price discounts must be given or sales commission must be paid or both of these costs must be incurred by the seller, in order to find a new investor for an illiquid asset.

Call ability Risk

Call ability risk is that portion a security's total variability of return that derives from the possibility that the issue may be called call ability risk command a risk premium that comes in the form of a slightly higher average rate of return.

Convertibility Risk

Convertibility risk is that part of the total variability of return from a convertible bond or convertible preferred stock that reflects the possibility that the investment may be converted into the issuer's common stock at a time or under terms harmful to the investor's best interest.

Political Risk

Political risk arises from the exploitation of a politically weak group for the benefit of a politically strong group, with the efforts of various groups to improve their relative positions increasing the variability of return for the affected assets.

Regardless of whither the changes that cause political risk are sought by political or by economic interests, the resulting variability of return is called political risk if it is accomplished through legislative, judicial or administrative branches of the government.

Industry Risk

Industry risk is that portion of an investment's total variability of return caused by events that affect the products and firms that make up an industry. The stage of the industry's life cycle, international tariffs and /order quotes on the products produced by an industry product-or industry –related taxes, industry wide labor union problems, environment restrictions, raw material availability, and similar factors interact and affect all the firms in an industry simultaneously. As a result of these commonalties, the price of the securities issued by competing firms tends to rise and fall together.

Total Risk

The uncertainties discussed above are the major sources of investment risk, but by no means do they make up an exhaustive list. If all the uncertainties could be listed, they would add up to total risk, or total variability of return.

2.2 Theories of Stock Price Movement

There are two approaches to explain share price fluctuation. Market efficiency is the basis for both approaches. Conventional approach has considered that market is inefficient, which includes technical analysis theories and fundamental analysis of theory. Contrary approach was argued the market is efficient under which there are forms of efficient market hypothesis. Prior to development of the efficient market theory, investors were generally divided into two group fundamentalists and technician. Based on incorporation of various type of information set with spend and accuracy in price stock there are three forms of efficient market theories such as weakly efficient market or random walk , semi-strongly efficient and strongly efficient market theory.

2.2.1 Technical Analysis Theory

Technical theory involves study of the past volume and price date of the stock to predict future price fluctuations. This approach studies various graph and chat of the past share price and deduce form the analysis about the future price movement of seeking to interpret past pattern on the assumption that history trends to repeat it self .

Main assumption of the technical theories is:-

- Price is determined by the interaction of demand and supply.
- Demands and supplies are governed by various factors, both rational and irrational.
- Series of price content trends that persist for appreciable length of time.
- The changes in trend caused by shifts in demand and supply are detectible in the analysis of past price and volume data.
- The patterns trend to repeat it self.

Technical analysis discerns past pattern or trend, which they believe to repeat in the future and recommended for the timely holding and disposing mechanism which is profitable or that recommended for short-term speculation based in its forecast of profitable patterns, "the technicians usually attempts on predict short-term price movements and thus makes recommendations concerning the timely of purchase and sales of either specific stocks or groups of stocks".*(Sharp and Alexander, 2000: 683)*

Typically, the technical analysts record historical financial data on charts, study these charts in search of patterns that they find meaningful, an endeavor to use the patterns to predict future prices. Some charts are used to predict movements of market index and, still others are used to predict the function of both individual assets and the market.

2.2.2 Fundamental Analysis Theory

Fundamental analysis theory claims that at any point of time an individual stock has an intrinsic value, which is equal to present value of future cash flows from security discounted at appropriate risk, adjusted discount rate." the value of common stock is simply the present value of all future income which the owner of share will received". The actual price should reflect the intrinsic value if the stock. Good anticipation if cash flows and capitalization rates corresponding to future time period. but in practice first, it is not known in advance what a stocks income woo be in the future period, and second, it is not clear what the appropriate discount rate should be for a particular stock, so fundamentalists attempt to reach best estimate of the intrinsic value of share by studying companies sales, profit, dividends, management competent, and numerous other economic and industrial factors, which determine its future income and prospect of business opportunities.

Since, in world if uncertainty, the anticipation of values cannot be known exactly, there will be disagreement on the option about the estimation among the market participations, then actual prices fluctuate closely around the economic value of share because too far than true value is profitable for the participants and they do not miss to exploit it situation. Over the time, with continuous generation of new information related to company's coming prospect the instructive value of changes. As a result price stocks just too new intrinsic value, the actual of securities therefore is considered to be function of a set of anticipation. Price changes as anticipation changes which in turn change as a result of new information.

"In this simplest form, fundamental analysis begins with the assertion that the true value of any financial assets equals the present value of all cash flows. The owner of the asset expects to forecast the timing and size of these cash flows and then converts the cash flows to their equivalent present value using an appropriate discount rate ".*(Alexander, Sharpe & Bailey, 2000 :12)*

2.2.3 Efficient Market Theory

Market efficient may be defined in the context of number of areas for instance organizational efficiency, investment efficiency allocation efficient, informational efficiency and so on. The world "efficiency" as applied to securities market has

unfortunately been used to represent a variety of logically distinct concept. In particular it may mean (a) Exchange efficiency (b) production efficiency (c) information efficiency. however, in this study it is concerned only with informational efficiency in pricing of stock efficient market theory contend that in tree and perfect competitive market, stock price always reflects all available information and adjust instantaneously every influx of new information is an efficient markets security prices. About the assumption of the efficient market theory asserts that, first it is east to determined sufficient conditions for the capital market efficiency. for example, consider a market which (i) there is no transactions cost in trading securities (ii) all information are cost less available to all market participants and (iii) all agree in the implications if current information for the current prices and distribution if future prices of each security. In such a market the current price of a security obviously all available information.

"An efficient market is an assumed perfect market in which there are many small investors, each having the same information and expectations with respect to others. There are no restrictions on investment, no taxes, and no transaction costs; and all investors are rational view securities similarly, and are risk-averse, preferring higher returns and lower risk". *(Gitman, 2000: 265-66).*

"In an efficient market, a security's price would correctly reflect the important of variable for that security and would represent an unbiased estimate of his investment value". *(Cheney & Moses. 1992: 746).* The efficient market hypothesis suggests that investors cannot expect to outperform the market consistently on a risk-adjusted basis over an extended period of time. This hypothesis is based on the premise that security prices reflect all available information concerning a firm and that security prices change rapidly in response to new information. Market efficiency also implies that as new information become available, the market quickly analyzes it, and any necessary price adjustments occur rapidly.

The requirements for a securities market to be efficient are:
- A large number of rational, profits – maximizing investor exist who actively participate in the market by analyzing, valuing, and trading stocks. These investors are price takers; that is, one participant alone connote affect the price of a security.

- Information is free of cost and widely available to market participants at approximately the same time.

- Information is generated in random fashion such that announcements are basically independent of one another.

- Investors react quickly and accurately to the new information, causing stock prices to adjust accordingly.

2.2.4 The Random Walk Theory

"The weakly efficient hypothesis stipulates that historical price and volume data for securities contain no information, which can be used to earn a trading profit above what could be attained with naïve buy-and-hold investment strategy".*(Francis, 1991:543).* The past prices have no meaningful information to predict future course of price fluctuations, which can be used to earn above average return. The movements of future prices are independent from past prices, so the series of price changes are in random phenomenon.

If the price changes could be used to predict future prices changes, investors could make easy profits. But in competitive markets easy profits don't last. As investors try to take advantage of the information in past prices, prices adjust immediately until the superior profits from studying past prices will be reflected in today's stock price, not tomorrow's. Patterns in prices will no longer exist and prices changes in one period will be independent of changes in the next. In other words, the share price will follow a random walk.

The weak form says that the current prices of stocks already fully reflect all the information that is contained in the historical sequence of prices. Therefore, there is no benefit-as far as forecasting the future is concerned in examining the historical sequence of prices. This weak form of efficient market hypothesis is popularly known as the random-walk theor.

Of the two hypotheses independence is much more important assumption which means that the previous price changes following the current change will not be influenced by the sequence of preceding price changes. Mathematically, independence means that.

$$P_r \left[X_t = X \ / \ X_{t-1}, X_{t-2\ldots\ldots\ldots} \ X_{t-n} \right] P_r = \left(X_t = X \right)$$

Where left hand side of the equation is the conditional probability that the price will take the value of X conditional upon knowledge of previous changes X(t-1), X(t-2) …………X(t-n).

"The stock market is always subjected to a steady inflow of information, much of which will have an effect on the set of anticipations that constitute price of a particular security. Some of the information has whole market-wide impact such as change in monetary and fiscal policy on security prices. Some other information has an influence upon a group of stock price i.e. industry – wide impact. And still some information such as announcement of dividend, bonus shares may have an influence on the price of a particular security i.e. company –side impact". *(King, 1996:136).*

The random walk theory says nothing more than that successive price changes are independent. This independence implies that prices at any time will on the average reflect the intrinsic value of the security. If a stock's price deviates from its intrinsic value because among other thing, different investors evaluate the available information differently or have different insights into further prospects of the firm, professional investors and smart non professionals will seize upon the short term or random deviations from the intrinsic value, and though their active buying and selling of the stock in question will force the price back to its equilibrium position.

If the random walk hypothesis holds, the weak form of efficient market hypothesis must hold (though no vice-versa). Thus, evidence supporting the random walk model is evidence supporting weak from of efficiency. If prices follow a random walk, price changes overtime are random (independent). The price change fro today is unrelated to the price change on pervious days. Any new information arrived randomly in the market results in the random changes in the prices. Random walk theory that involves random selection of securities is represented as the modern approach to investment decision.

2.3 Review of Journals and Articles

Dong & Hirshleifer (2008) in their article, "*A Generalized Earnings-Based Stock Valuation Model",* have introduced an earnings-based stock valuation model which

generalizes the model of allowing stocks that have a positive probability of zero or negative earnings per share. By adding one new earnings-adjustment parameter, buffer earnings, and introducing adjusted earnings and adjusted earnings growth concepts to the BC model, the Generalized Earnings Valuation Model (GEVM) inherits the appealing properties of the BC model, but prices stocks with much improved flexibility and precision. The GEVM removes the BC model's singularity at zero earnings point, and therefore performance is especially improved for stocks with earnings that are close to zero. Because the buffer earnings tend to smooth out earnings growth rate, the GEVM also improves pricing performance for firms with more volatile earnings. The study finds that the empirical predictive performance of the GEVM is superior to that of the BC model, with smaller pricing errors, greater stability and stronger mean-reversion of the model mispricing. Further, the buffer earnings variable, which is crucial for the GEVM's superior pricing performance, is positively related to a variety of the firm's expense variables (even though it is not estimated directly from these accounting variables). The GEVM as developed here provides a general means of pricing stocks based upon current earnings, forecasted future earnings and interest rates data. The relaxation of the negative earnings condition therefore makes the GEVM particularly attractive for large scale asset pricing or corporate event studies.

The study also develops an extended version of the GEVM which separately models stochastic revenue and cost processes, instead of a single combined earnings process. The valuation formula is broadly similar in form, but has more parameters and requires more inputs than the earnings approach. An advantage of the revenues/costs approach is there are more input variables relative to the number of parameters to be estimated, but data availability and accuracy may be greater for the earnings approach. Therefore which approach yields better performance is an open empirical question. One direction for extending the model is to incorporate the possibility of bankruptcy and stochastic liquidation value.

Maglin, Mingle, Yeske & Zott (2009) in their article, *"An Investigation of Stock Valuation Models: Market-wide & Industry Factors",* have stated that the CAPM was based on the assumption that a single factor, variability, could identify which stocks were likely to have high returns. Research has shown that beta is not a good predictor of return, and has become less reliable over time. This may partly be due to its ease of use and

popularity. This study suggests that the CAPM model can be improved by the use of a three factor model, which added two factors, book to market and market capitalization. This model generated a hedged return, but that return was less than investing in the non-hedged portfolio. A better model was constructed based off the data that included sales growth and dividend payout ratios. The hedged return for this model greatly outperformed the average market return for the total portfolio. The hedged portfolio method showed the results of the models much more clearly than R_2 values. The use of hedged portfolios was clearly successful in determining successful valuation approaches.

The three factor model helped distinguish the differences between industries. Different industries had different R_2 values and generated different hedged returns. When given a choice of characteristics, the industry level model selected different factors. CART generated a different style of model but split based on the most important factors used in the best model. These splits were not always intuitive, as after market size and book to market ratio, which are both heavily influenced by the age of the company, income and dividend factors become more important. These factors reflect more about growth and profitability. Because the factor premiums and betas are volatile, the additional benefits gained from moving from the CAPM to more complex models regression models may be short lived. Additional research is required to quantify the beta and the factor premiums. However, the three factor model does a good job of achieving an overall general valuation model.

Bakshi & Chen (2009) in their article, *"Stock Valuation in Dynamic Economies",* have separated the stock valuation problem from the firm's production, dividend and financial policies. As per the study, while this partial equilibrium approach leaves out important corporate issues, it does afford a more focused problem: that is, to value an exogenous stochastic cash flow stream. Under this framework, the task is to search for the appropriate specifications of the pricing-kernel and the earnings processes. The parameterization of these processes embeds a stochastic term structure for both interest rates and expected EPS growth.

The study demonstrates that modeling the earnings growth properly has a first-order impact: omitting the stochastic EPS growth feature considerably worsens the pricing performance of the valuation model. Adding a stochastic yield curve to the framework

further improves the pricing fit. The performance of valuation model is significantly better than its variants, with its average (out-of-sample) absolute pricing errors ranging from 8.17% to 23.87%. The pricing-error metrics reveal worse model performance for growth-oriented technology stocks than for blue-chip stocks. The study also shows that the pricing errors are serially correlated and often experience long cycles of high/low errors, suggesting missing state variables from the model's earnings dynamics. Furthermore, within the sample of stocks the pricing errors are highly correlated across stocks, implying the existence of systematic factors that are important in the market's valuation but excluded from our model.

Mohamad & Nassir (2010) in their article, *"Factors Associated with Stock Price Volatility and Evaluation of Gordon's Share Valuation Model on the Kuala Lumpur Stock Exchange"* have the objectives: (1) to isolate the value-drivers associated with stock price volatility and (2) to evaluate the relevance of Gordon's share valuation model to firms listed on the Kuala Lumpur Stock Exchange (KLSE). With respect to the first objective, factors suggested by valuation theories and investment practices were isolated and then related to price changes in a test model with share price volatility at firm levels. Both the general and a parsimonious model were examined. It appears that dividend yield, payout ratio, debts to assets ratio, asset growth and firm size variables explained 23 per cent of the price changes in the Kuala Lumpur market for the period 1975 to 1990. Only the asset growth and debt usage variables were significant at 0.05 confidence level, and the other three variables were not significant in the model fitted for the Kuala Lumpur market. These findings are consistent with the leverage theory's prediction about the magnifying effects on value of a firm by leverage and the positive effect of asset growth on price changes.

A limitation of this study on price volatility is that linear relation is assumed in the test. Though theory does not provide any cue on this issue, it might be that the relationship is nonlinear. If firms experience an increase in competition from other firms for maintaining their higher rates of return, it is more difficult to maintain higher rates than moderate or small rates of abnormal returns. This suggests that the relation is unlikely to be monotonically increasing as modeled by a linear relation and the relation may well be concave. This issue will be addressed in the next phase of this research. With regard to the applicability of Gordon's model in valuing shares, the findings suggest that the model

holds well. For both the book and market value version of k, the model holds well as the F-statistic was significant at the 5 per cent level and the adjusted R-squared is about 70 per cent. The signs of the dividend and earnings growth variables are in the predicted direction and significant at the 0.05 confidence level. However, for the market value measure of k, the variable k-g is not significantly different from zero. This implies that Gordon's model with a book value measure of k can be reliably used by investors to value common stock prices of listed firms on the KLSE in their effort to identify mispriced stocks.

Ghezzi & Piccardi (2010) in their article, *"Stock Valuation Along a Markov Chain",* have stated that the forecasts on each dividend growth rate are made once and for all. As a consequence, time cannot convey information and update such forecasts, thus calling for changes in the dividend–price ratios. However, actual dividend–price ratios can change through time. Changes in the dividend–price ratios can stem from changes in the forecasts or the required rates of return. In the most general case, future prospects are state dependent so that forecasts are implicitly updated when moving from a state to another. This explains why a different dividend–price ratio is associated to each state by the resulting valuation model. If a handy existence condition is met, the dividend– price ratios can be conveniently calculated by solving a system of linear equations.

The study enables the reader to grasp the rationale underlying a stock market without any involvement in misleading analytical subtleties. Discrete random variables and linear equations are both easy to handle. Moreover, the study is amenable to the operational use. Needless to say, if reliable estimates of the transition probabilities are to be obtained, the range of the dividend growth rate has to include few representative values. In other words, the Markov chain has to include few states. Finally, the study makes clear that bankruptcy cannot be escaped in the long run and that the mean time to bankruptcy can be readily computed. This provides a helpful check when estimating the transition probabilities.

2.4 Review of Thesis
Yadav (2005) in his study, *"The Movement of Stock Price (Analysis of Joint Venture Commercial Banks)",* has the main objective to examine the causes behind the movement of stock price. The other specific objectives of the study are;

- To present whether the trend of the movement of stock market price in relation to Nepal joint ventures commercial banks are either dependent or independent to historical prices of stocks.
- To evaluate return and risk proportion of investments on stock of joint ventures commercial banks.
- To categorized the nature of stock tendency in relation to price stability.
- To study group wise overall behavior of NEPSE index.

The major findings of the study are;
- Trade off relationship exists between the risk and return i.e. higher the risk higher the return and vice versa.
- The variation of MC highly depends up on the PC and Inv. made by the banks.
- Investors are not much aware of risk and return portfolio of the investment. They are added their funds on the basis of assumption and expectations rather than analysis.
- A risk aversion investor prefers secured and safe return by bearing of less risk; whereas a risk taking investor would like bearing of additional risk to maximize his/her return.
- The stocks of all sampled companies are under priced since their expected rate of returns is higher than the respective required rate of returns. Since, the stocks are under priced therefore it is better to buy and hold the stock.

Khanal (2006) in his study, "*Stock Price Movement in Nepalese Securities Market",* has the main objective to study the movement trend of stock in NEPSE. The other specific objectives of the study are;
- To study and analyze stock price and volume.
- To study and analyze the rate of newly listed companies and maintenance of already listed companies in NEPSE.
- To study and analyze the investors views regarding the decision on stock investment.
- To suggest the finding of the study to the interested parties related to stock investment.
- To study and examine the signaling factors impact on stock price with the help of NEPSE index.

The major findings of the study are;

- Most of the respondents were asked about the major influencing factors of stock price movement, they said that company's dividend affect the stock price.

- Founding to the respondents bullish trend of the stock price movement is suitable for Nepalese security market.

- Most of the investors were asked for their preference of investment sector major portion of them said that they were attaching with income.

- Most of the investors were asked for their preference of investment sector major portion of tem said that they were attached with banking sectors for investment.

- According to the major problem of respondents, international environment direct moves the price of stock market.

- According to the major portion of respondents of Nepalese stock market, it were found that Nepal Government's policy is not clear and perfect in Nepalese stock price market.

- According to the field survey in the Nepalese stock market, it was found that investors are not aware about investment.

- Most of the respondents said that underwriters of Nepalese stock market are honest which was found at the time of field survey.

- It was found that investors of Nepalese stock market take decision on the basis of their own analysis.

Chaudhary (2007) in his study, "*A Study on Share Price Movements of Joint Venture Commercial Banks in Nepal",* has the main objective to have deep surveillance on the movements of the share price. The specific objectives of the study are;

- To examine Nepal Stock Exchange Market and to judge whether the market shares of different banking indicators explain the share price movements.

- To analyze the scenario why the shares of selected banks emerge as blue-chips to the potential investors and to make a conclusion on the basis of financial ratios analysis.

- To examine how risky the investments in commercial banks' share are.

The major findings of the study are;

- The market share and the growth rate of different banking indicators used are not captured by the market shares of these banks.

- The ordinary least square equation of book value per share on market value per share reveals that the independent variable does not fully explain the dependent variable on the basis of the above mentioned two points; Nepal Stock Exchange operates in a weak form of efficient market hypothesis, indicating that the market price move randomly. The market value per share does not accommodate all the available historical information.

- Having good track record of the financial position, the market potential investors buy the shares of joint venture commercial banks. Therefore, the shares of joint venture commercial banks emerge as blue chip in the Nepalese stock market.

- The beta coefficient, which measures the risk of individual security in relative term, suggests that none of the shares of eight samples banks are risky. Therefore, even a risk averter can go for making an investment in shares of these banks. The shares of publicly quoted joint venture commercial banks are less risky as compared to other average stocks traded in the stock exchange.

Phyual (2008) in his study, *"Share Price Behavior of Listed Companies in Nepal",* has the main objective to find out the reasons behind the changing behavior of share price. The other specific objectives of the study are;

- To evaluate the trend of trading turnover.
- To analyze the trends in paid value and market capitalization.
- To analyze the share price behavior of listed companies.
- To identify the market behavior in Nepal.

The major findings of the study are;

- The market capitalization value is in erratic trend in every group in each year. The proportion of market capitalization of banking group is highest among six groups.

- During the study, the number of transactions in baking group is the highest, where as it is lower in other groups. Hence, the investment on baking group is highly attractive and liquid.

- The correlation coefficient of 0.97 between the number of traded and listed companies is significant, where as it is negative in trading group and perfectly positive in the case of banking group.

- The capital market in Nepal was bullish in the initial periods but it turned bearish in the successive year. In the initial period, share prices, trading market capitalization, but they have negatively moved in the subsequent years. Thus now the capital market is passing through the bearish trend in Nepal there is lack of investor's opportunities and the economy is passing through the recession year by year.

Rajbahak (2009) in her study, *"Corporate Information Disclosure and its Effect on Share Price",* has the main objective to obtain an insight on corporate information disclosure with special reference to Nepalese stock market and its listed companies. The specific objectives of the study are;

- To highlight the corporate disclosure practice in Nepal.
- To identify the extent of disclosure of each of the item of information and to develop the information disclosure index.
- To check the quality of corporate disclosure of Nepalese listed companies measured by company characteristic namely asset size, number of shares outstanding and earning margin.
- To see the relationship between corporate information disclosure and stock prices.

The major findings of the study are;

- Most of companies do not disclose adequate and qualitative information on their annual reports, and most of disclosed information consisted of only relationship between disclosure scores and variables like earning margin, asset size etc.
- There is positive relationship between market price of share and disclosure score. In other words, the company having greater disclosure score had the higher prices of stock.
- The price of the stock has strong relationship with the internal financial indicators like EPS, DPS and BPS. More deeply, the MPS of the observed companies has been greatly influenced by the EPS.
- Besides these internal financial indicators, the MPS has also been influenced by other macroeconomic indicators, more specially the political instability of the nation.

Paneru (2010) in her study, *"Stock Market Behavior of Listed Joint Stock Companies in Nepal",* has the main objective to find out the behavior of stock market in Nepal. The specific objectives of the study are;

- To study and analyze stock price trend and volume of stock traded on the secondary market.
- To study and analyze companies and maintenance of listed companies in Nepal Stock Exchange Ltd.
- To study and analyze the investors views regarding the decision on stock investment.
- To study and examine the signaling factors' impact on stock price with the help of NEPSE index.

The major findings of the study are;
- Most of the investors were asked for their preference of investment sector major portion of them said that they were attached with banking sectors for investment.
- On analyzing primary data it was found that the stock market in Nepal is in developing stage as investors are not well aware about the stock market.
- Investment process and its other factors like NEPSE index, price trend and investments facilitators are not doing their work in systematic way.
- The investors were not satisfied with their investment as they were asked whether they were satisfied or not to their investment.
- It was found that the investors' motive for owning shares of company is to receive the dividends from the shares.
- The investors were found interested to be elected in company's management. When investors were asked if they faced any difficulties in the stock market, majority of them replied that they were facing difficulties in Nepal stock market.
- The efficiency of stock markets' different parties, brokers, market makers, security exchange limited were not found efficient by analyzing interviewers' expression as they were not getting required support from these parties.

CHAPTER -
RESEARCH METHODOLOGY

Research methodology is the way to solve systematically about the research problem. Methodology states the method with which data have been extracted and discussed the tool of that have been used in interpretation of such data to fulfill the stipulated objectives. This chapter deals about the research methodology by which the collected data are analyzed with different tools to get results.

3.1 Research Design

This study is carried out to get the empirical result of the stock price movements. To conduct the study, analytical and descriptive research approach is dropped for the readily available historical data. All the data used in this study are secondary in nature. Though the research tried to concert on quite a specified subject area, of could not ignore some other relevant area of study, which may give further support to the research. Moreover some subject matters are so interrelated that ignoring one may halt the whole research. Thus, this study is much diversified within the topic of market efficiency and Nepalese investors' behavior. It is historical data to develop a generalization. It is descriptive and analytical as well as in the sense that it tries to find some fact about the Nepalese stock market and the Nepalese investors.

Descriptive research is essentially a fact finding approach relative largely to present and abstracting generalization by the cross-sectional study of the current situation.

Analytical approach is followed to parametric and nonparametric test of data. It is the process of micro-analysis and appraisal of the data.

3.2 Nature and Source of Data

The data used in this study are secondary as they have been collected from concerned authorities. For any research work, information is considered the life blood. Thus it is the major task to gather the information and data collection. To fulfill the objectives of the study secondary data have been used. The data used in this study consist of daily closing

price of each of the listed commercial banks in NEPSE. Secondary data have been taken mainly from the following sources:

- Annual reports of sampled commercial banks.
- Journals, government and non-government publication. Other supportive book and website of related topic.
- Previous thesis and studies relevant to this study.

3.3 Population and Sample

Till the latest date of this research study, 226 companies are listed in NEPSE. Until now, there are 32 commercial banks operating in Nepal out of which 22 commercial banks are in trading list. Among 22 commercial banks operating in trading list 21 banks are the private commercial banks. Among these 21 private banks only 13 banks are operating since 5 years. Hence, the population of our study is 13 private commercial banks listed in NEPSE since we are covering the duration of 5 years starting form 06/07 to 10/11 in our study. For our study purpose keeping many factors into account we have taken only 4 commercial banks from among those 13 private commercial banks listed in NEPSE. While choosing the banks, random as well as convenient sampling method has been applied. The names of sampled banks are as follows.

1. NABIL Bank Limited
2. Himalayan Bank Limited
3. Everest Bank Limited
4. Standard Chartered Bank Nepal Limited

3.4 Method of Data Analysis

Different financial, statistical, and managerial tools will be used for the analysis of data. Some inferences and generalizations might also be made in the course of preparation of report as demanded by the situation.

3.4.1 Financial Tools

Financial tools are those instruments and techniques that help in analysis of financial position of the enterprise. Various financial tools have been used in the study, which helps to indicate the position of the company as targeted in the objective of the study.

3.4.1.1 Ratio Analysis

The most important tools of analysis of financial statements is the ratio analysis. it is an expression if the quantitative relationship between two numbers. it helps to diagnose financial health of the enterprise.

Dividend Payout Ratio

This ratio depicts the percentage of profit distributed it the shareholders as dividend. in other words, it is the ratio between DPS and EPS.

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend Per Share (DPS)}}{\text{Earning Per Share (EPS)}}$$

Return on Equity (ROE)

This ratio states the earning power of common shareholders book value of investment, which is calculated as:

$$\text{Return on Equity (ROE)} = \frac{\text{Net Profit Available to Common Stock Holders}}{\text{Total Shareholders Equity}}$$

Book Value Per Share

This ratio shows the total net worth available to each common stockholder after deducting the outsider's fund. It is obtained as follows:

$$\text{Book Value Per Share (BVPS)} = \frac{\text{Total Net Worth}}{\text{No of Common Stock Outstanding}}$$

3.4.1.2 The Expected Rate of Return

The expected rate of return is computed in the base of the expected cash receipts over the holding period and the expected ending or selling price (Weston & Brigham, 1990: P.146). The expected return on an investment is the mean value of the summation of the possibility distribution of its possible returns (Cheney and Mosses, 1992: P.34). It can be expressed as an equation.

$$E(rt) = \sum_{t=1}^{r} Pt \,.rt$$

Where,

       rt = Possible returns of each event

       Pt = Probability of the return for that event

       T = Different

In case of single holding period the expected rate of return can be computed by cash dividends paid during the together with an appreciation in market price, or capital gain realized at the end of the year.

$$E(r) = \frac{Dividend + (Ending\ Price - Beginning\ Price)}{Beginning\ Price}$$

Here, Ending price and Beginning price indicates the cost of investment and the return realizes from that investment at the end of holding period. The nature of investment should be in revenue type of expenditure. The investors expect a regular payment of dividends over the Holding period with less chance of risk and price variations. The high expected rate of return is appreciated by investors to invest such type of business and vice versa. Therefore, the investor decisions are larger influenced by the nature of investors.

3.4.1.3 Holding Period Return

Generally, single period return or holding period return is represented by R and expressed in terms of percentage basis. It is calculated as:

$$HPR = \frac{Ending\ Price - Beginning\ Price + Cash\ Dividend + Stock\ Dividend + Right\ Issue\ offering}{Beginning\ Price}$$

3.4.2 Statistical Tools

3.4.2.1 Karl Pearson's Coefficient of Correlation

It is a kind of statistical tool used for measuring the intensity or magnitude of linear relationship between the two variables. Also known as Pearsonian correlation coefficient between two variables (say X and Y), denoted by 'rxy' or simply 'r' can be obtained as:

$$r = \frac{\sum XY - \sum X \sum Y}{\sqrt{\left[\left\{n\sum X^2 - \left(\sum X\right)^2\right\} \times \left\{n\sum Y^2 - \left(\sum Y\right)^2\right\}\right]}}$$

Where,

 n = number of observations in series X and Y

The value of correlation coefficient, 'r', always lies between '-1' to '+1'.

If r = +1, it can be stated that there is perfect positive relationship between
        variables X and Y.

If r = -1, it can similarly be stated that there lies perfect negative relationship
        between the given two variables.

If r = 0, it states that there is no correlations at all between the two study   variables.
        Gupta; 1982: E-10-8 – E-10-15).

3.4.2.2 Coefficient of Determination

The coefficient of determination between the two variables is a measure of linear relationship between them and it indicates the amount of one variable which is associated with or accounted for another variable. It gives the percentage variation in the dependent variable that is accounted for by the independent variable. Moreover, it gives the ratio of the explained variance to the total variance and it is given by square of the correlation coefficient, i.e., 'r2'. Thus,

$$r2 = \frac{\text{Explained Variance}}{\text{Total Variance}}$$

3.4.2.3 Standard Deviation

It is quantitative measure of risk of assists. It provides more information about the risk of the assist. The standard deviation of a distribution is the square root of the variance of returns around the mean. The following formula is calculated to the standard deviation, using historical returns:

$$\text{Standard Deviation ( )} = \frac{\sum (Rj - \overline{Rj})^2}{n}$$

3.4.2.4 Coefficients of Variation

The risk per unit of expected return can be measured by coefficient of variation, which is computed as follows:

$$CV_j = \frac{\dagger_j}{R_j}$$

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Where,

CV_j = coefficient of variation.

R_j = expected realized rate of return

$\dagger_j$ = standard deviation of stock j.

3.4.2.5 Covariance

The covariance measures how two variables co-vary. It is a measure of the absolute association between two variables. Here, how the returns of individual stocks and the market return co-vary will be measured by covariance between the return of individual stocks and market return. It is computed as:

$$\text{cov}(R_j, R_m) = \frac{\sum (R_j - \overline{R_j})(R_m - \overline{R_m})}{n} = ..._{j,m} \dagger_m j \dagger_m$$

If two variables are independent, their covariance is zero.

3.4.2.6 Beta Coefficient

Beta coefficient may be used for ranking the systematic risk of different assets. Beta coefficient of stock j is denoted by S_j. It is functionally related to the correlation and the covariance between the security and the market portfolio. It is computed as:

$$S_{jm} = \frac{\text{cov}(R_j R_m)}{\text{var}(R_m)}$$

Where,

$COV(R_j, R_m)$ = covariance of returns of the jth asset with the market

$Var(R_m)$ = variance of returns for the market portfolio

Individual stocks can be classified as aggressive or defensive or average on the basis of beta coefficients.

Beta coefficients	Stock classification	Degree of risk
Less than 1	Defensive stock	Less risky than the market
Exactly 1	Average stock	Equally risky as the market
Greater than 1	Aggressive stock	More risky than the market

CHAPTER - IV

PRESENTATION AND ANALYSIS OF DATA

In this chapter, the data collected from various sources have been presented and analyzed to measure the various dimensions of problems of the study and in major findings of the study are presented systematically.

4.1 Major financial Indicators of Sample Commercial Banks

in order to find whether the trend of the market price of share run in accordance to the key performance indicator in terms of per share as EPS, DPS and BVPS or NWPS, have been used as follows. These data have also been represented in respective trend diagrams for individual's banks. All these data have been extracted from respective annual reports of the banks.

4.1.1 Major Indicator of NABIL Bank (NABIL)

Table 4.1

Major Indicator of NABIL Bank (NABIL)

Fiscal Year	EPS (Rs.)	MPS (Rs.)	DPS (RS.)	BVPS (Rs.)
2006/07	137.08	5050	100	418
2007/08	115.86	5275	60	354
2008/09	113.44	4899	35	324
2009/10	83.81	2384	30	265
2010/11	70.67	1252	30	225

Sources: www.nabilbank.com

Figure 4.1

Major Indicator of NABIL Bank
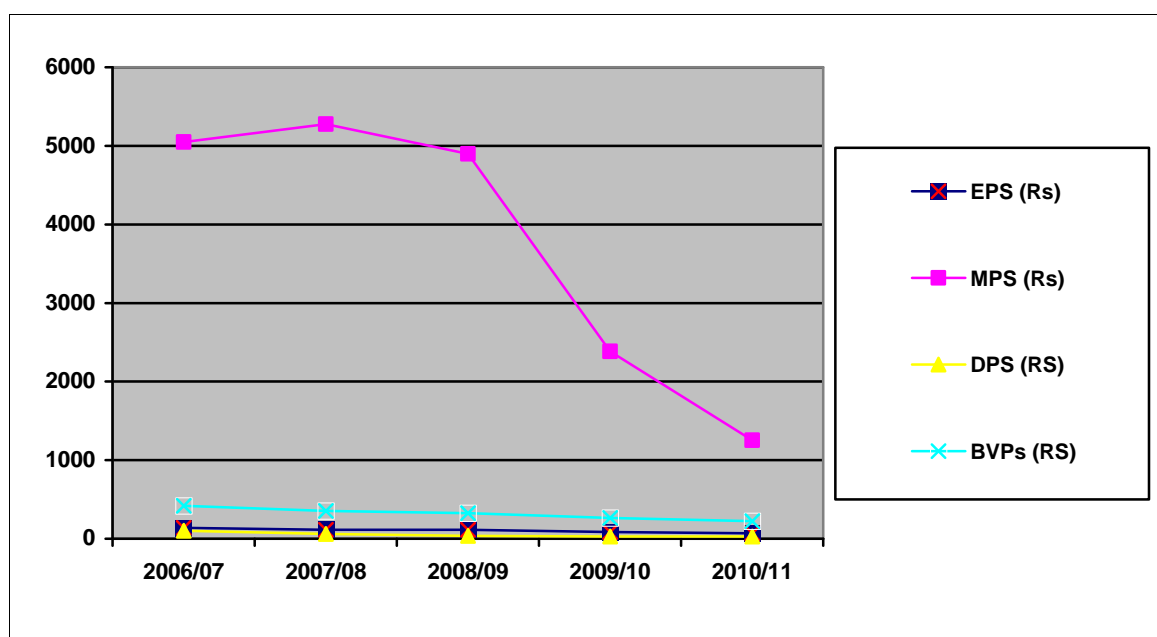
The table 4.1 depicted above portrays the absolute figures of EPS, BVPS, DPS and MPS of NABIL from the year 2006/07 to 2010/11 as given by the key five years indicators, annual report of NABIL. The market price per share of the bank showed a steeply decreasing trend as compared to trend of BVPS, DPS, and EPS for the same bank. The trend of BVPS, DPS and EPS of NABIL also showed a slight decreasing trend for the given period. However, the rate of trend is quite lower than that of MPS as observed from the figure 1 above. Using this trend analysis, we can thus state that there lies some role of these factors in forming the price off the common stocks.

4.1.2 Major indicator of Himalayan Bank Limited (HBL)

Table 4.2

Major indicator of Himalayan Bank Limited (HBL)

Fiscal Year	EPS (Rs.)	MPS (Rs.)	DPS (RS.)	BVPS (Rs.)
2006/07	60.66	1740	15	264.74
2007/08	62.71	1980	25	247.95
2008/09	61.90	1760	12	256.32
2009/10	31.80	816	11.84	226.79
2010/11	44.66	575	16.84	199.77

Sources: www.hblbankltd.com

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Figure 4.2

Major Indicator of Himalayan Bank Limited (HBL)

Similarly, the table no. 4.2 depicted above indicates the five years data of MPS, EPS, DPS, and BVPS of HBL. Despite of increase in the year 07/08 of MPS, the trend of MPS obtained from the figure 2 above is of steeply downward sloping. However, the rate was quite sluggish. BVPS, EPS and DPS of the bank showed an almost horizontal trend as reflect by the figure 2 above. Using the figure of above it can be said that the trend of MPS as slightly running in accordance to the trends of EPS, DPS and BVPS of the bank.

4.1.3 Major Indicator of Everest Bank Limited (EBL)

Table 4.3

Major Indicator of Everest Bank Limited (EBL)

Fiscal Year	EPS (Rs.)	MPS (Rs.)	DPS (RS.)	BVPS (Rs.)
2006/07	78.42	2430	10	292.75
2007/08	91.82	3132	20	321.77
2008/09	99.99	2445	30	345.23
2009/10	100.16	1630	30	332
2010/11	83.18	1094	50	277.91

Sources: www.everestbakltd.com

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Figure 4.3

Major Indicator of Everest Bank Limited (EBL)
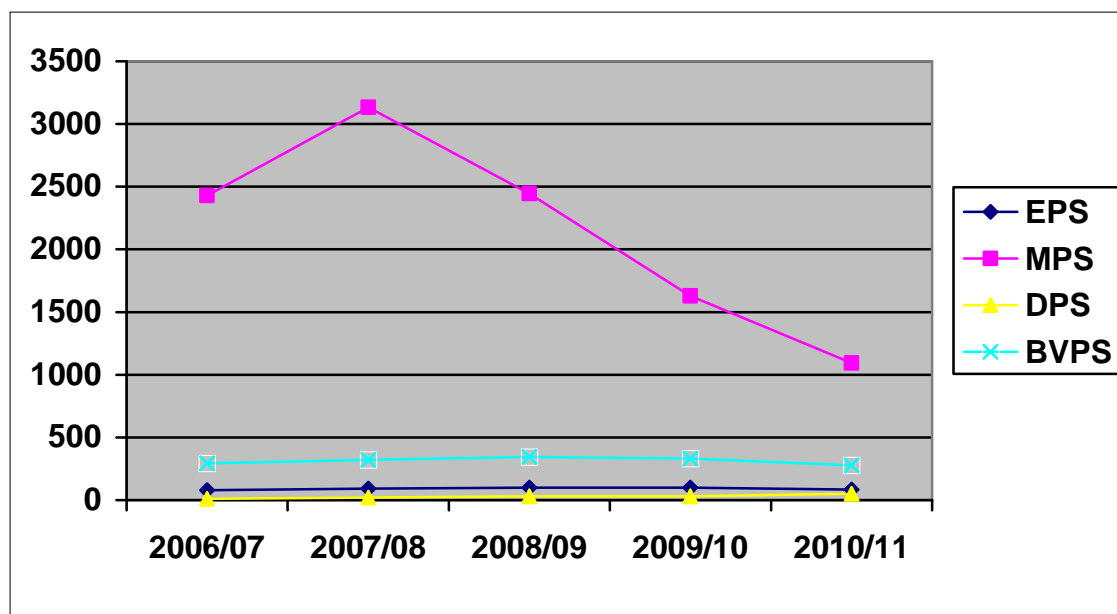
The table no 4.3 depicted above portrays the absolute figures of EPS, BVPS, DPS and MPS of EBL from years 2006/07 to 2010/11 as given by the key year's indicators, annual report of EBL. The market price per shares of the bank showed a sharply decreasing trend as compared to the trends of BVPS, DPS and EPS for the same bank. The trend of BVPS, DPS and EPS of EBL also shows a slightly increasing trend for the given period. However, the rate of trend is quite lower than that of MPS as observed from figure 3 above.

4.1.4 Major Indicator of Standard Chartered Bank Nepal Limited

Table 4.4

Major Indicator of Standard Chartered Bank Nepal Limited (SCBNL)

Fiscal year	EPS (Rs.)	MPS (Rs.)	DPS (RS.)	BVPS (Rs.)
2006/07	167.37	5900	80	512.18
2007/08	131.92	6830	80	401.52
2008/09	109.99	6010	50	327.53
2009/10	77.65	3279	55	240.95
2010/11	69.51	1800	50	228.41

Sources: www.standardchartered.com.np

Figure 4.4

Major Indicator of Standard Chartered Bank Nepal Limited
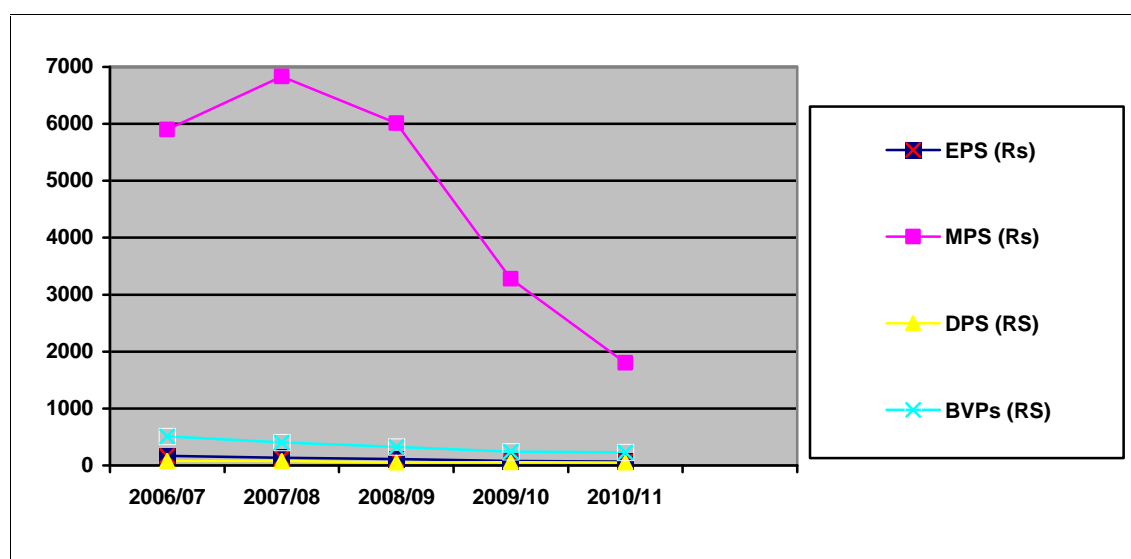
The table no 4.4 depicted above portrays the absolute figures of EPS, BVPS, DPS and MPS of SCBNL from years 2006/07 to 2010/11 as given by the key year's indicators, annual report of SCBNL. The market price per shares of the bank showed a sharply decreasing trend as compared to the trends of BVPS, DPS and EPS for the same bank. The trend of BVPS, DPS and EPS of SCBNL also shows a slightly decreasing trend for the given period. However, the rate of trend is quite lower than that of MPS as observed from figure 4 above. Using this trend analysis, we can thus state that the trend of MPS is running to some extent in accordance to the trend of BVPS, EPS and DPS of the bank. However the degree cannot be stated using this figure only.

4.2 Presentation of the five year trend of MPS of Sampled Banks

Table 4.5

Presentation of the five year trend of MPS of Sampled Banks

Fiscal Year	NABIL	HBL	EBL	SCBNL
2006/07	5050	1740	2430	5900
2007/08	5275	1980	3132	6830
2008/09	4899	1760	2445	6010
2009/10	2384	816	1630	3279
2010/11	1252	575	1094	1800

Figure 4.5

Presentation of the five year trend of MPS of Sampled Banks
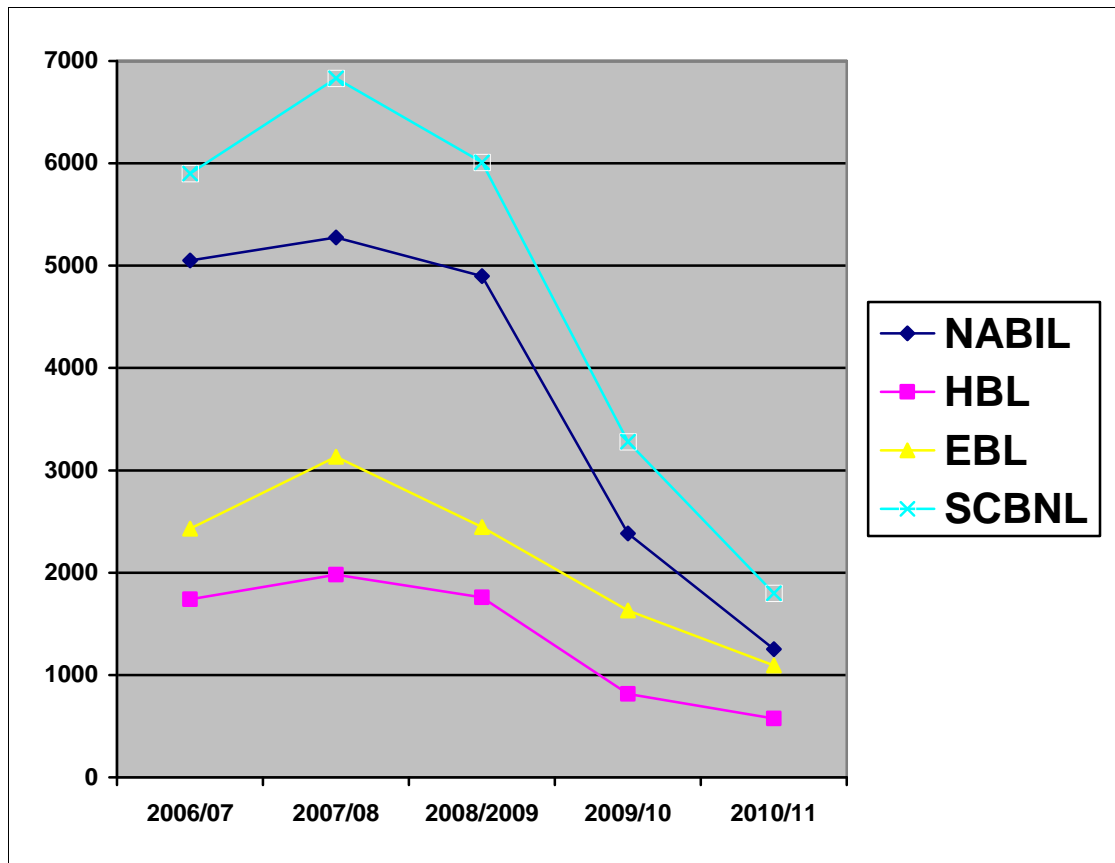
On the basis of table no 4.5 depicted above, the market price of common stock of all sampled banks are in decreasing tread. SCBNL remained highest for the period as reflect by figure 5. The market prices of HBL remained lowest trough out the years of the study. The trend of the market price of HBL over the five year period remained steeply downwards. Likewise, the market prices of NABIL were also showed an increasing trend. However the market price of HBL showed an almost horizontal trend. The market price of the share of common stocks of SCBNL occupy the leading position in the market, where as that of NABIL remained at the second highest position out of the sampled commercial banks. The prices of EBL were also higher but the seemed fluctuating over the years. Due to the unfavorable condition of he NEPSE, the share price of all sampled banks are in decreasing trend.

4.3 Correlation Analysis

Correlation analysis is performed in order to detect the relationship and to detect if there is any role of the various factors in forming the price of common stocks of sampled commercial banks.

In this analysis product moment method had been used to find out the relationship between EPS and MPS, DPS and MPS, and BVPS and MPS. Generally, the correlation analysis is used to describe the degree to which one variable is related to another. Hence, in statistics, it is used in order to depict the co-variation between two or more variables. It helps to determine that whether 1) a positive or a negative relationship exists. 2) The relationship is significant or in significant and 3) establish causes and effects relation if any. The statistical tools, correlation analysis is preferred in this study to identify the relationship between EPS, DPS, BVPS and MPS whether the relationship is significant or not.

For the purpose of decision making under correlation, decision-making based on following interpretation terms:

1. When, r = +1, there is perfect positive correlation.
2. When, r = -1, there is perfect negative correlation.
3. When, r = 0, there is no correlation.
4. When, 'r' lies between 0.7 and 0.999, (-0.7 to -0.999), there is a high degree of Positive (or negative) correlation.
5. When 'r' lies between 0.5 and 0.699, there is a moderate degree of correlation.
6. When 'r' is less than 0.5 there is low degree of correlation.

4.3.1 Correlation between EPS, DPS and BVPS of MPS of NABIL

4.3.1.1 Correlation between EPS and MPS

The above correlation between EPS and MPS of NABIL revealed the solution of the question: was there any relation between the EPS of NABIL and its MPS? In other words, was more MPS means more EPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.6

Correlation between EPS and MPS

Fiscal year	EPS (X)	MPS (Y)	$x = (X - \bar{X})$	$y = (Y - \bar{Y})$	x^2	y2	xy
2006/07	137.08	5050	32.908	1278	1082.936	1633284	42056.42
2007/08	115.86	5275	11.688	1503	136.6093	2259009	17567.06
2008/09	113.44	4899	9.268	1127	85.89582	1270129	10445.04
2009/10	83.81	2384	-20.362	-1388	414.611	1926544	28262.46
2010/11	70.67	1252	-33.502	-2520	1122.384	6350400	84425.04
Total	520.86	18860	0	0	2842.437	13439366	182756

Where,

X= EPS

Y= MPS

r = Correlation

$$\bar{X} = \frac{\sum X}{N} = \frac{520.86}{5} = 104.17$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{18860}{5} = 3772$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{182756}{\sqrt{2842.437 \times 13439366}} = 0.94$$

Decision:

From the above computation and table the conclusion can be drawn that there was high degree of positive correlation between EPS of NABIL and its MPS.

4.3.1.2 Correlation between DPS and MPS

The above correlation between DPS and MPS of NABIL revealed the solution of the question: was there any relation between the DPS of NABIL and its MPS? In other words, was more MPS means more DPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.7

Correlation between DPS and MPS

Fiscal year	DPS(X)	MPS (Y)	$x = (X - \overline{X})$	$y = (Y - \overline{Y})$	x^2	y2	xy
2006/07	100	5050	49	1278	2401	1633284	62622
2007/08	60	5275	9	1503	81	2259009	13527
2008/09	35	4899	-16	1127	256	1270129	-18032
2009/10	30	2384	-21	-1388	441	1926544	29148
2010/11	30	1252	-21	-2520	441	6350400	52920
Total	255	18860	0	0	3620	13439366	140185

Where,

X=DPS

Y= MPS

$$\overline{X} = \frac{\sum X}{N} = \frac{255}{5} = 51$$

$$\overline{Y} = \frac{\sum Y}{N} = \frac{18860}{5} = 3772$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{140185}{\sqrt{3620 \times 13439366}} = 0.63$$

Decision:

From the above computation and table 4.7, it can drawn the conclusion that there was lower degree of positive correlation between DPS of NABIL and its MPS.

4.3.1.3 Correlation between BVPS and MPS

The above correlation between BVPS and MPS of NABIL revealed the solution of the question: was there any relation between the BVPS of NABIL and its MPS? In other words, was more MPS means more BVPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.8

Correlation between BVPS and MPS

Fiscal year	BVPS (X)	MPS (Y)	$x = (X - \bar{X})$	$y = (Y - \bar{Y})$	x^2	y2	xy
2006/07	418	5050	100.8	1278	10160.64	1633284	128822.4
2007/08	354	5275	36.8	1503	1354.24	2259009	55310.4
2008/09	324	4899	6.8	1127	46.24	1270129	7663.6
2009/10	265	2384	-52.2	-1388	2724.84	1926544	72453.6
2010/11	225	1252	-92.2	-2520	8500.84	6350400	232344
Total	1586	18860	0	0	22786.8	13439366	496594

Where,

X= BVPS

Y= MPS

$$\bar{X} = \frac{\sum X}{N} = \frac{1586}{5} = 317.2$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{18860}{5} = 3772$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{496594}{\sqrt{22786.8 \times 13439366}} = 0.90$$

Decision:

From above computation and table, it can draw the conclusion that there was high degree of positive correlation between BVPS of NABIL and its MPS.

4.3.2 Correlation between EPS, DPS and BVPS of MPS of HBL

4.3.2.1 Correlation between EPS and MPS

The correlation between EPS and MPS of HBL revealed the solution of the question: was there any relation between the EPS of HBL and its MPS? In other words, was more MPS means more EPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.9

Correlation between EPS and MPS

Fiscal year	EPS (X)	MPS (Y)	$x = (X - \bar{X})$	$y = (Y - \bar{Y})$	x^2	y2	xy
2006/07	60.66	1740	8.31	365.8	69.0561	133809.6	3039.798
2007/08	62.74	1980	10.39	605.8	107.9521	366993.6	6294.262
2008/09	61.9	1760	9.55	385.8	91.2025	148841.6	3684.39
2009/10	31.8	816	-20.55	-558.2	422.3025	311587.2	11471.01
2010/11	44.66	575	-7.69	-799.2	59.1361	638720.6	6145.848
Total	261.76	6871	0.0	0	749.6493	1599953	30635.31

Where,

X= EPS

Y= MPS

$$\bar{X} = \frac{\sum X}{N} = \frac{261.76}{5} = 52.35$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{6871}{5} = 1374.2$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{30635.31}{\sqrt{749.6493 \times 1599953}} = .88$$

Decision:

From the above computation and table, the conclusion can be drawn that there was high degree of positive correlation between EPS of HBL and its MPS. That reveals more MPS means more EPS.

4.3.2.2 Correlation between DPS and MPS

The above correlation between DPS and MPS of HBL revealed the solution of the question: was there any relation between the DPS of HBL and its MPS? In other words, was more MPS means more DPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.10

Correlation between DPS and MPS

Fiscal year	DPS (X)	MPS (Y)	$x = (X - \bar{X})$	$y = (Y - \bar{Y})$	x^2	y2	xy
2006/07	15	1740	-1.136	365.8	1.290496	133809.6	-415.5488
2007/08	25	1980	8.864	605.8	78.5705	366993.6	5369.811
2008/09	12	1760	-4.136	385.8	17.1065	148841.6	-1595.669
2009/10	11.84	816	-4.296	-558.2	18.45562	311587.2	2398.027
2010/11	16.84	575	0.704	-799.2	0.495616	638720.6	-562.6368
Total	80.68	6871	0.0	0	115.9187	1599953	5193.984

Where,

X = DPS

Y= MPS

$$\bar{X} = \frac{\sum X}{N} = \frac{80.68}{5} = 16.136$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{6871}{5} = 1374.2$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{5193.984}{\sqrt{115.9187 \times 1599953}} = 0.38$$

Decision:

From the above computation and table 4.10, it can draw the conclusion that there was moderate degree of positive correlation between DPS of HBL and its MPS.

4.3.2.3 Correlation between BVPS and MPS

The above correlation between BVPS and MPS of HBL revealed the solution of the question: was there any relation between the BVPS of HBL and its MPS? In other words, was more MPS means more BVPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.11

Correlation between BVPS and MPS

Fiscal year	BVPS (X)	MPS (Y)	$x = (X - \bar{X})$	$y = (Y - \bar{Y})$	x^2	y2	xy
2006/07	264.74	1740	25.63	365.8	656.8969	133809.6	9375.454
2007/08	247.95	1980	8.84	605.8	78.1456	366993.6	5355.272
2008/09	256.32	1760	17.21	385.8	296.1841	148841.6	6639.618
2009/10	226.79	816	-12.32	-558.2	151.7824	311587.2	6877.024
2010/11	199.77	575	-39.34	-799.2	1547.636	638720.6	31440.53
Total	1195.57	6871	0.0	0	2730.645	1599953	59687.9

Where,

X= BVPS

Y= MPS

$$\bar{X} = \frac{\sum X}{N} = \frac{1195.57}{5} = 39.11$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{6871}{5} = 1374.2$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{59687.9}{\sqrt{2730.645 \times 1599953}} = 0.90$$

Decision:

From above computation and table, it can draw the conclusion that there was moderate degree of positive correlation between BVPS of HBL and its MPS.

4.3.3 Correlation between EPS, DPS and BVPS of MPS of EBL

4.3.3.1 Correlation between EPS and MPS

The correlation between EPS and MPS of EBL revealed the solution of the question: was there any relation between the EPS of EBL and its MPS? In other words, was more MPS means more EPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.12

Correlation between EPS and MPS

Fiscal year	EPS (X)	MPS (Y)	$x = (X - \bar{X})$	$y = (Y - \bar{Y})$	x^2	y2	xy
2006/07	78.42	2430	-12.29	281.8	151.0441	79411.24	-3463.322
2007/08	91.82	3132	1.11	983.8	1.2321	967862.4	1092.018
2008/09	99.99	2455	9.28	306.8	86.1184	94126.24	2847.104
2009/10	100.16	1630	9.45	-518.2	89.3025	268531.2	-4896.99
2010/11	83.18	1094	-7.53	-1054.2	56.7009	1111338	7938.126
Total	453.57	10741	0.0	0	384.398	2521269	3516.936

Where,

X= EPS

Y= MPSs

$$\bar{X} = \frac{\sum X}{N} = \frac{453.57}{5} = 90.714$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{10741}{5} = 2148.2$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{3516.936}{\sqrt{384.398 \times 2521269}} = 0.11$$

Decision:

From the above computation and table, the conclusion can be drawn that there was low degree of positive correlation between EPS of EBL and its MPS. That reveals more MPS means more EPS.

4.3.3.2 Correlation between DPS and MPS

The above correlation between DPS and MPS of EBL revealed the solution of the question: was there any relation between the DPS of EBL and its MPS? In other words, was more MPS means more DPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.13

Correlation between DPS and MPS

Fiscal year	DPS (X)	MPS (Y)	$x = (X - \bar{X})$	$y = (Y - \bar{Y})$	x^2	y2	xy
2006/07	10	2430	-18	281.8	324	79411.24	-5072.4
2007/08	20	3132	-8	983.8	64	967862.4	-7870.4
2008/09	30	2455	2	306.8	4	94126.24	613.6
2009/10	30	1630	2	-518.2	4	268531.2	-1036.4
2010/11	50	1094	22	-1054.2	484	1111338	-23192.4
Total	140	10741	0.0	0	880	2521269	-36558

Where,

X=DPS

Y= MPS

$$\bar{X} = \frac{\sum X}{N} = \frac{140}{5} = 28$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{10741}{5} = 2148.2$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{-36558}{\sqrt{880 \times 2521269}} = -0.78$$

Decision:

From the above computation and table, it can draw the conclusion that there was high degree of negative correlation between DPS of EBL and its MPS.

4.3.3.3 Correlation between BVPS and MPS

The above correlation between BVPS and MPS of EBL revealed the solution of the question: was there any relation between the BVPS of EBL and its MPS? In other words, was more MPS means more BVPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.14

Correlation between BVPS and MPS

Fiscal year	BVPS(X)	MPS (Y)	$x = (X - \bar{X})$	$y = (Y - \bar{Y})$	x^2	y2	xy
2006/07	292.75	2430	-21.18	281.8	448.5924	79411.24	-5968.524
2007/08	321.77	3132	7.84	983.8	61.4656	967862.4	7712.992
2008/09	345.23	2455	31.3	306.8	979.69	94126.24	9602.84
2009/10	332	1630	18.07	-518.2	326.5249	268531.2	-9363.874
2010/11	277.91	1094	-36.02	-1054.2	1297.44	1111338	37972.28
Total	1569.66	10741	0.0	0	3113.713	2521269	39955.72

Where,

X= BVPS

Y= MPS

$$\bar{X} = \frac{\sum X}{N} = \frac{10741}{5} = 2148.2$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{8491}{5} =$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{39955.72}{\sqrt{3113.713 \times 2521269}} = 0.45$$

Decision:

From above computation and table, it can drawn the conclusion that there was high degree of positive correlation between BVPS of EBL and its MPS. That reveals more MPS means more BVPS.

4.3.4 Correlation between EPS, DPS and BVPS of MPS of SCBNL

4.3.4.1 Correlation between EPS and MPS

The above correlation between EPS and MPS of SCBNL revealed the solution of the question: was there any relation between the EPS of SCBNL and its MPS? In other

words, was more MPS means more EPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.15

Correlation between EPS and MPS

Fiscal year	EPS (X)	MPS (Y)	$x = (X - \bar{X})$	$y = (Y - \bar{Y})$	x^2	y2	xy
2006/07	167.37	5900	56.08	1136.2	3144.966	1290950	63718.1
2007/08	131.92	6830	20.63	2066.2	425.5969	4269182	42625.71
2008/09	109.99	6010	-1.3	1246.2	1.69	1553014	-1620.06
2009/10	77.65	3279	-33.64	-1484.8	1131.65	2204631	49948.67
2010/11	69.51	1800	-41.78	-2963.8	1745.568	8784110	123827.6
Total	556.44	23819	0.0	0	6449.471	18101889	278500

Where,

X=EPS

Y= MPS

$$\bar{X} = \frac{\sum X}{N} = \frac{556.44}{5} = 111.29$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{23819}{5} = 4763.8$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{278500}{\sqrt{6449.471 \times 18101889}} = 0.82$$

Decision:

From the above computation and table the conclusion can be drawn that there was slight degree of positive correlation between EPS of SCBNL and its MPS.

4.3.4.2 Correlation between DPS and MPS

The above correlation between DPS and MPS of SCBNL revealed the solution of the question: was there any relation between the DPS of SCBNL and its MPS? In other

words, was more MPS means more DPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.16

Correlation between DPS and MPS

Fiscal year	DPS (X)	MPS (Y)	$x = (X - \bar{X})$	$y = (Y - \bar{Y})$	x^2	y2	xy
2006/07	80	5900	17	1136.2	289	1290950	19315.4
2007/08	80	6830	17	2066.2	289	4269182	35125.4
2008/09	50	6010	-13	1246.2	169	1553014	-16200.6
2009/10	55	3279	-8	-1484.8	64	2204631	11878.4
2010/11	50	1800	-13	-2963.8	169	8784110	38529.4
Total	315	23819	0.0	0	980	18101889	88648

Where,

X=DPS

Y= MPS

$$\bar{X} = \frac{\sum X}{N} = \frac{315}{5} = 63$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{23819}{5} = 4763.8$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{88648}{\sqrt{980 \times 18101889}} = 0.67$$

Decision:

From the above computation and table, it can draw the conclusion that there was high degree of negative correlation between DPS of SCBNL and its MPS.

4.3.4.3 Correlation between BVPS and MPS

The above correlation between BVPS and MPS of SCBNL revealed the solution of the question: was there any relation between the BVPS of SCBNL and its MPS? In other

words, was more MPS means more BVPS in it? If there is any relationship between these two variables, what sort of relationship exists: positive or negative?

Table 4.17

Correlation between BVPS and MPS

Fiscal year	BVPS (X)	MPS (Y)	$x = (X - \overline{X})$	$y = (Y - \overline{Y})$	x^2	y2	xy
2006/07	512.22	5900	170.094	1136.2	28931.97	1290950	193260.8
2007/08	401.52	6830	59.394	2066.2	3527.647	4269182	122719.9
2008/09	327.53	6010	-14.596	1246.2	213.0432	1553014	-18189.54
2009/10	240.95	3279	-101.176	-1484.8	10236.58	2204631	150226.1
2010/11	228.41	1800	-113.716	-2963.8	12931.33	8784110	337031.5
Total	1710.63	23819	0.0	0	55840.57	18101889	785048.8

Where,

X= BVPS

Y= MPS

$$\overline{X} = \frac{\sum X}{N} = \frac{1710.63}{5} = 342.13$$

$$\overline{Y} = \frac{\sum Y}{N} = \frac{23819}{5} = 4763.8$$

$$r = \frac{\sum XY}{\sqrt{\sum X^2 \sum y^2}} = \frac{785048.8}{\sqrt{55840.57 \times 18101889}} = 0.54$$

Decision:

From above computation and table, it can draw the conclusion that there was moderate degree of positive correlation between BVPS of SCBNL and its MPS.

4.4 Regression Equation of MPS(Y) on EPS, DPS and BVPS of Commercial Banks

In this section, the regression equation of MPS (Y) as a dependent variable on independent variable (X) such as EPS, DPS and BVPS have been calculated and the

regression coefficient of y on x have been interpreted accordingly. For the sake of ease of calculation and interpretation, only simple regression equation has used in terms of the following equation:

$Y = a + bx$................(1)

Where,

$a = \bar{Y} - b\bar{X}$...............(2)

$$b = b_{YX} = \frac{n\sum XY - \sum X \sum Y}{n\sum X^2 - \left(\sum X\right)^2}$$

We have direct method to fine the values of 'a' and 'b' as given by equation2 and replaced the obtained values individually for each bank and for each newer term.

Functionally,

MPS = f (EPS)......................... (i)

MPS = f (DPS)......................... (ii)

MPS = f (BVPS)....................... (iii)

MPS = f (other factor)............... (iv)

The above functional equations: (i), (ii), (iii), and (iv) indicate that mps is function of EPS, DPS, BVPS and other factor. All the three above equation have been functionally calculated, tested and interpreted. However, other factor that determined the MPS has not been incorporated in this research study due to several limitation of our study mentioned in the limitation of the study in the introduction chapter.

4.4.1 Regression Equation of MPS(Y) on BVPS

Table 4.18
Regression Equation of MPS(Y) on BVPS of NABIL

Fiscal Year	MPS (Y)	BVPS (X)	XY	X^2
2006/07	5050	418	2110900	174724.00
2007/08	5275	354	1867350	125316.00
2008/09	4899	324	1587276	104976.00
2009/10	2384	265	631760	70225.00
2010/11	1252	225	281700	50625.00
n= 5	$\sum Y$ =18860	$\sum X$ =1586	$\sum XY$ =6478986	$\sum X^2$ =525866

Where,

$$\bar{X} = \frac{\sum X}{N} = \frac{1586}{5} = 317.2$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{18860}{5} = 3772$$

b= 21.79

a= -3140.76

Correlation coefficient (r) =0.90

Coefficient of determination $= (r^2) = 0.81$

Thus the regression equation of the Y on X i.e. MPS on BVPS for the bank is

Y= -3140.76 + 21.79x............................. (3)

The constant term if the line 'a' was obtained as -3140.76 . The regression coefficient of MPS on BVPS of NABIL for the five year period given 'b' was obtained +21.79. It indicated that a unit increase in BVPS of NABIL caused to increase the market price on average by Rs 21.79. Since the coefficient of determination was found to be 0.81, it indicated that 81% of the change in independent variable (BVPS) is reflected and explained in the dependent variables (MPS) in case of NABIL and the rest is determined by other unexpected variables.

Table 4.19
Regression Equation of MPS(Y) on BVPS of HBL

Fiscal year	MPS (Y)	BVPS (X)	XY	X^2
2006/07	1740	264.74	460647.60	70087.27
2007/08	1980	247.95	490941.00	61479.20
2008/09	1760	256.32	451123.20	65699.94
2009/10	816	226.79	185060.64	51433.70
2010/11	575	199.77	114867.75	39908.05
n= 5	$\sum Y = 6871$	$\sum X = 1195.57$	$\sum XY = 1702640.19$	$\sum X^2 = 288608.17$

$$\bar{X} = \frac{\sum X}{N} = \frac{1195.57}{5} = 239.11$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{6871}{5} = 1374.2$$

b = 21.86

a = -3852.39

Correlation coefficient (r) =0.90

Coefficient of determination $= (r^2) = 0.81$

Thus the regression equation of the Y on X i.e. MPS on BVPS for the bank is

Y= -3852.39+ 21.86X............................. (4)

The constant term if the line 'a' was obtained as -3852.39. The regression coefficient of MPS on BVPS of NABIL for the five year period given 'b' was obtained +21.86. It indicated that a unit increase in BVPS of HBL caused to increase the market price on average by Rs 21.86. Since the coefficient of determination was found to be 0.81, it indicated that 81% of the change in independent variable (BVPS) is reflected and explained in the dependent variables (MPS) in case of HBL and the rest is determined by other unexpected variables.

Table 4.20
Regression Equation of MPS(Y) on BVPS of EBL

Fiscal Year	MPS (Y)	BVPS (X)	XY	X^2
2006/07	2430	292.75	711382.50	85702.56
2007/08	3132	321.77	1007783.64	103535.93
2008/09	2445	345.23	844087.35	119183.75
2009/10	1630	332	541160.00	110224.00
2010/11	1094	277.91	304033.54	77233.97
n= 5	$\sum Y = 10731$	$\sum X = 1569.66$	$\sum XY = 3408447.03$	$\sum X^2 = 495880.22$

$$\bar{X} = \frac{\sum X}{N} = \frac{1569.66}{5} = 313.93$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{10731}{5} = 2146.2$$

b = 12.73

a = -1850.65

Correlation coefficient (r) =0.45

Coefficient of determination $= (r^2) = 0.20$

Thus the regression equation of the Y on X i.e. MPS on BVPS for the bank is

Y= -1850.65+ 12.73X............................ (5)

The constant term if the line 'a' was obtained as -1850.65 the regression coefficient of MPS on BVPS of EBL for the five year period given 'b' was obtained +12.73. It indicated that a unit increase in BVPS of EBL caused to increase the market price on average by Rs 12.73. Since the coefficient of determination was found to be 0.94, it indicated that 94% of the change in independent variable (BVPS) is reflected and explained in the dependent variables (MPS) in case of EBL and the rest is determined by other unexpected variables.

Table 4.21

Regression Equation of MPS on BVPS of SCBNL

Fiscal Year	MPS (Y)	BVPS (X)	XY	X^2
2006/07	5900	512.18	3021862	262328.35
2007/08	6830	401.52	2742381.6	161218.31
2008/09	6010	327.53	1968455.3	107275.90
2009/10	3279	240.95	790075.05	58056.90
2010/11	1800	228.41	411138	52171.13
n= 5	$\sum Y$ =23819	$\sum X$ =1710.59	$\sum XY$ =8933912	$\sum X^2$ =641050.59

$$\bar{X} = \frac{\sum X}{N} = \frac{1710.59}{5} = 342.12$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{23819}{5} = 4763.8$$

b = 14.06

a = -46.87

Correlation coefficient (r) =0.54

Coefficient of determination $= (r^2) = 0.29$

Thus the regression equation of the Y on X i.e. MPS on BVPS for the bank is

Y= -46.87 + 14.06X............................ (6)

The constant term if the line 'a' was obtained as -46.87 the regression coefficient of MPS on BVPS of SCBNL for the five year period given 'b' was obtained +14.06. It indicated that a unit increase in BVPS of SCBNL caused to increase the market price on average by Rs 14.06. Since the coefficient of determination was found to be 0.29, it indicated that 29% of the change in independent variable (BVPS) is reflected and explained in the dependent variables (MPS) in case of SCBNL and the rest is determined by other unexpected variables.

4.4.2 Regression Equation of MPS on EPS

Table 4.22

Regression Equation of MPS on EPS of NABIL

Fiscal Year	MPS (Y)	EPS (X)	XY	X^2
2006/07	5050	137.08	692254	18790.9
2007/08	5275	115.86	611161.5	13423.5
2008/09	4899	113.44	555742.6	12868.6
2009/10	2384	83.81	199803	7024.12
2010/11	1252	70.67	88478.84	4994.25
n= 5	$\sum Y$ =18860	$\sum X$ =520.86	$\sum XY$ =2147439.94	$\sum X^2$ =57101.5

$$\bar{X} = \frac{\sum X}{N} = \frac{520.86}{5} = 104.17$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{18860}{5} = 3772$$

b = 64.29

a =-2925.58

Correlation coefficient (r) =0.94

Coefficient of determination $= (r^2) = 0.88$

Thus the regression equation of the Y on X i.e. MPS on EPS for the bank is

      Y= -2925.58+ 64.29X............................. (7)

The constant term if the line 'a' was obtained as -2925.58 the regression coefficient of MPS on EPS of NABIL for the five year period given 'b' was obtained +64.29. It

indicated that a unit increase in EPS of NABIL caused to increase the market price on average by Rs 64.29. Since the coefficient of determination was found to be 0.88, it indicated that 88% of the change in independent variable (EPS) is reflected and explained in the dependent variables (MPS) in case of NABIL and the rest is determined by other unexpected variables.

Table 4.23

Regression Equation of MPS on EPS of HBL

Fiscal Year	MPS (Y)	EPS (X)	XY	X^2
2006/07	1740	60.66	105548.4	3679.64
2007/08	1980	62.71	124165.8	3932.54
2008/09	1760	61.90	108944	3831.61
2009/10	816	31.80	25948.8	1011.24
2010/11	575	44.66	25679.5	1994.52
n= 5	$\sum Y$ =6871	$\sum X$ =261.73	$\sum XY$ =390286.5	$\sum X^2$ =14449.55

$$\overline{X} = \frac{\sum X}{N} = \frac{279.60}{5} = 55.92$$

$$\overline{Y} = \frac{\sum Y}{N} = \frac{6580}{5} = 1316$$

b = 64.08

a = -2267.35

Correlation coefficient (r) = 0.88

Coefficient of determination $= (r^2) = 0.77$

Thus the regression equation of the Y on X i.e. MPS on EPS for the bank is

Y= -2267.35 + 64.08X............................. (8)

The constant term if the line 'a' was obtained as -2267.35 the regression coefficient of MPS on EPS of NABIL for the five year period given 'b' was obtained +64.08. It indicated that a unit increase in EPS of HBL caused to increase the market price on average by Rs 64.08. Since the coefficient of determination was found to be 0.77, it indicated that 77% of the change in independent variable (EPS) is reflected and explained

in the dependent variables (MPS) in case of HBL and the rest is determined by other unexpected variables.

Table 4.24

Regression Equation of MPS on EPS of EBL

Fiscal Year	MPS (Y)	EPS (X)	XY	X^2
2006/07	2430	78.42	190560.60	6149.70
2007/08	3132	91.82	287580.24	8430.91
2008/09	2445	99.99	244475.55	9998.00
2009/10	1630	100.16	163260.80	10032.03
2010/11	1094	83.18	90998.92	6918.91
n= 5	$\sum Y = 10731$	$\sum X = 453.57$	$\sum XY = 976876.11$	$\sum X^2 = 41529.55$

$$\bar{X} = \frac{\sum X}{N} = \frac{332.82}{5} = 66.56$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{8491}{5} = 1698.20$$

b = 8.91

a = 1105.30

Correlation coefficient (r) = 0.11

Coefficient of determination $= (r^2) = 0.01$

Thus the regression equation of the Y on X i.e. MPS on EPS for the bank is

Y= 1105.30+ 8.91X............................. (9)

The constant term if the line 'a' was obtained as 1105.30 the regression coefficient of MPS on EPS of EBL for the five year period given 'b' was obtained +8.91. It indicated that a unit increase in EPS of EBL caused to increase the market price on average by Rs 8.91. Since the coefficient of determination was found to be 0.01, it indicated that 1% of the change in independent variable (EPS) is reflected and explained in the dependent variables (MPS) in case of EBL and the rest is determined by other unexpected variables.

Table 4.25

Regression Equation of MPS on EPS of SCBNL

Fiscal Year	MPS (Y)	EPS (X)	XY	X^2
2006/07	5900	167.37	987483.00	28012.72
2007/08	6830	131.92	901013.60	17402.89
2008/09	6010	109.99	661039.90	12097.80
2009/10	3279	77.65	254614.35	6029.52
2010/11	1800	69.51	125118.00	4831.64
n= 5	$\sum Y$ =23819	$\sum X$ =556.44	$\sum XY$ =2929268.85	$\sum X^2$ =68374.57

$$\overline{X} = \frac{\sum X}{N} = \frac{556.44}{5} = 111.28$$

$$\overline{Y} = \frac{\sum Y}{N} = \frac{23819}{5} = 4763.8$$

b = 43.18

a = -41.47

Correlation coefficient (r) =0.82

Coefficient of determination $= (r^2) = 0.67$

Thus the regression equation of the Y on X i.e. MPS on EPS for the bank is

Y= -41.47 + 043.18X............................ (10)

The constant term if the line 'a' was obtained as -41.47 the regression coefficient of MPS on EPS of SCBNL for the five year period given 'b' was obtained +43.18. It indicated that a unit increase in EPS of SCBNL caused to increase the market price on average by Rs 43.18. Since the coefficient of determination was found to be 0.67, it indicated that 67% of the change in independent variable (EPS) is reflected and explained in the dependent variables (MPS) in case of SCBNL and the rest is determined by other unexpected variables.

4.4.3 Regression Lines of MPS on DPS

Table 4.26

Regression Equation of MPS on DPS of NABIL

Fiscal Year	MPS (Y)	DPS (X)	XY	X^2
2006/07	5050	100	505000	10000
2007/08	5275	60	316500	3600
2008/09	4899	35	171465	1225
2009/10	2384	30	71520	900
2010/11	1252	30	37560	900
n= 5	$\sum Y$ =18860	$\sum X$ =255	$\sum XY$ =1102045	$\sum X^2$ =16625

$$\bar{X} = \frac{\sum X}{N} = \frac{255}{5} = 51$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{18860}{5} = 3772$$

b = 38.73

a = 1797.02

Correlation coefficient (r) =0.63

Coefficient of determination $= (r^2) = 0.40$

Thus the regression equation of the Y on X i.e. MPS on DPS for the bank is

Y= 1797.02+ 38.73X.............................(11)

The constraint term if the line 'a' was obtained as 1797.02 the regression coefficient of MPS on DPS of NABIL for the five year period given 'b' was obtained +38.73. It indicated that a unit increase in DPS of NABIL caused to increase the market price on average by Rs 38.73. Since the coefficient of determination was found to be 0.40, it indicated that 40% of the change in independent variable (DPS) is reflected and explained in the dependent variables (MPS) in case of NABIL and the rest is determined by other unexpected variables.

Table 4.27

Regression Equation of MPS on DPS of HBL

Fiscal Year	MPS (Y)	DPS (X)	XY	X^2
2006/07	1740	15	26100.00	225.00
2007/08	1980	25	49500.00	625.00
2008/09	1760	12	21120.00	144.00
2009/10	816	11.84	9661.44	140.19
2010/11	575	16.84	9683.00	283.59
n= 5	$\sum Y$ =6871	$\sum X$ =80.86	$\sum XY$ =116064.44	$\sum X^2$ =1417.77

$$\overline{X} = \frac{\sum X}{N} = \frac{80.86}{5} = 16.17$$

$$\overline{Y} = \frac{\sum Y}{N} = \frac{6871}{5} = 1374.2$$

b = 44.93

a = 647.72

Correlation coefficient (r) =043.18

Coefficient of determination $= (r^2) = 0.14$

Thus the regression equation of the Y on X i.e. MPS on DPS for the bank is

Y= 647.72+ 44.93X............................. (12)

The constant term if the line 'a' was obtained as 647.72. The regression coefficient of MPS on DPS of NABIL for the five year period given 'b' was obtained +44.93. It indicated that a unit increase in DPS of HBL caused to increase the market price on average by Rs 44.93. Since the coefficient of determination was found to be 0.14, it indicated that 14% of the change in independent variable (DPS) is reflected and explained in the dependent variables (MPS) in case of HBL and the rest is determined by other unexpected variables.

Table 4.28

Regression Equation of MPS on DPS of EBL

Fiscal Year	MPS (Y)	DPS	XY	X^2
2006/07	2430	10	24300.00	100.00
2007/08	3132	20	62640.00	400.00
2008/09	2445	30	73350.00	900.00
2009/10	1630	30	48900.00	900.00
2010/11	1094	50	54700.00	2500.00
n= 5	$\sum Y =10731$	$\sum X =140$	$\sum XY =263890$	$\sum X^2 =4800$

$$\bar{X} = \frac{\sum X}{N} = \frac{140}{5} = 28$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{10731}{5} = 2146.2$$

b = -41.57

a = 3310.05

Correlation coefficient (r) = -0.78

Coefficient of determination $= (r^2) = 0.61$

Thus the regression equation of the Y on X i.e. MPS on DPS for the bank is

Y= 3310.05- 41.57X............................ (13)

The constant term if the line 'a' was obtained as 3310.05 the regression coefficient of MPS on DPS of EBL for the five year period given 'b' was obtained -41.57. It indicated that a unit increase in DPS of EBL caused to decrease the market price on average by Rs 41.57. Since the coefficient of determination was found to be 0.61, it indicated that 61% of the change in independent variable (DPS) is reflected and explained in the dependent variables (MPS) in case of EBL and the rest is determined by other unexpected variables.

Table 4.29

Regression Equation of MPS on DPS of SCBNL

Fiscal Year	MPS (Y)	DPS (X)	XY	X^2
2006/07	5900	80	472000.00	6400.00
2007/08	6830	80	546400.00	6400.00
2008/09	6010	50	300500.00	2500.00
2009/10	3279	55	180345.00	3025.00
2010/11	1800	50	90000.00	2500.00
n= 5	$\sum Y = 23819$	$\sum X = 315$	$\sum XY = 1589245$	$\sum X^2 = 20825$

$$\bar{X} = \frac{\sum X}{N} = \frac{520}{5} = 104$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{20595}{5} = 4119$$

b = 90.45

a = -5288.54

Correlation coefficient (r) = -0.67

Coefficient of determination $= (r^2) = 0.45$

Thus the regression equation of the Y on X i.e. MPS on DPS for the bank is

Y= -5288.54+90.45X............................. (14)

The constant term if the line 'a' was obtained as -5288.54 the regression coefficient of MPS on DPS of SCBNL for the five year period given 'b' was obtained 90.45. It indicated that a unit increase in DPS of SCBNL caused to decrease the market price on average by Rs 90.45. Since the coefficient of determination was found to be 0.45, it indicated that 45% of the change in independent variable (DPS) is reflected and explained in the dependent variables (MPS) in case of SCBNL and the rest is determined by other unexpected variables.

4.5 Risk and Return Analysis

Risk measures the degree of volatility in the market price movement of individual securities. The higher the magnitude of fluctuations, higher will be degree of risk though

it is difficult to measure risk, some statistical tools like standard deviation, coefficient of variation and beta coefficient are used to measure the risk involved in individual security. All these are calculated by using the formula described in research methodology chapter.

4.5.1 Standard Deviation

Standard deviation is a strong statistical device to measure the total risk involved in an investment, which consists of both market risk and diversifiable risk. Moreover it denotes the volatility of the expected rate of return. The calculated value of expected realized return and standard deviation of four different banks are presented in the following table.

Table 4.30

Standard Deviation of Sampled Commercial Banks

Stock	Expected Realized Return $\left(\overline{R}_j\right)$ (%)	Standard Deviation $\left(\dagger_j\right)$ (%)	Ranking of riskiness based on Standard Deviation
NABIL	58.16%	39.84%	1
HBL	21.31%	20.87%	3
EBL	49.91%	18.22%	4
SCBNL	39.35%	21.53%	2

(source: Financial reports of sampled commercial banks)

Based on the assumption of the standard deviation, investment in the common stocks of Nabil bank are more risky followed by Standard Chartered Bank, stock of Everest Bank could be considered as less risky than the other three banks, being the standard deviation lower than other. The common stock of Nabil Bank is associated with 39.84% of the highest risk, which indicates that the expected return can be deviated, by 39.84% in case of common stock investment than the other three sampled banks taken into study. It is shown the above calculation in the Appendix-A (I), A (II), A (III) and A (IV) respectively.

4.5.2 Coefficient of Variation

The standard deviation may not be appropriate measure of risk when the realized rates of returns are not same in all of the companies taken under consideration. Hence also the average realized rates of return are not same for the entire sample. Therefore, it is recommended to use the coefficient of variation to measure the risk involved in individual

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bank. The coefficient of variation measures the risk per unit of return. The coefficients of variation of the realized rates of return of the sampled banks are shown in the following table.

Table 4.31

Coefficient of variation of Sample Commercial Banks

Stocks	Coefficient of Variation
NABIL Bank	0.3984
Himalayan Bank	0.9794
Everest Bank	0.3651
Standard Chartered Bank	0.5471

(source: Financial reports of sampled commercial banks)

On the basis of coefficient of variation common stock of Himalayan Bank Limited seems to be most risky. The common stock of Everest Bank Limited seems to be less risky in comparison with other banks. The above calculation has been derived in the Appendix-A (I), A (II), A (III) and A (IV) respectively.

4.5.3 Beta Coefficient

Standard deviation measures the total risk of an investment and the coefficient of variation measures the risk per unit of return. But the beta coefficient measures the market sensitivity or systematic risk of an investment. As we know, systematic risk is that portion of risk which is directly associated with market phenomenon and cannot be reduced by diversification. The beta coefficient of an individual stock provides the clear picture about the tendency of movement of the stock with market. It measures the stock volatility relative to that of the average stock. An average stock is that which trends to move up or down with the general market as measured by some index. Here, capital NEPSE index is taken into consideration to measure the movements of the general market regarding the stocks of listed commercial banks. Higher beta indicates the greater reaction by individual common stock with the given movement in the market status. The following table shows the degree of riskiness of each stock of entire sample in relation to the general market.

Table 4.32

Beta coefficient of Sampled Commercial Banks

Stocks	Beta Coefficient	Ranking of riskiness based on Beta Coefficient
Standard Chartered Bank	0.59	3
Himalayan Bank	0.90	2
Everest Bank	0.49	4
NABIL Bank	1.28	1

(source: Financial reports of sampled commercial banks)

By analyzing the above table, we note that Nabil Bank is much-more sensitive to the market than the other three sampled banks because the coefficient of variation of these Banks is more than one. The stocks of Himalayan Bank, Everest Bank and Standard Chartered Bank have beta coefficient less than one and following these Nabil Bank with 1.28 and Himalayan Bank with 0.90 as their coefficient of beta. For example in the case of Nabil Bank , the calculated beta coefficient imply that one percent variation on the market rate of return leads to 1.28% variations in their realized rate of return. Hence highly sensitive stocks make quick response to the market change. The above calculation has been derived from Appendix- C (V).

4.5.4 Price Analysis

In this section the pricing of the shares of the sample companies were analyzed and interpreted. The result derived from the calculation by using security market line equation was presented in the below table, studying the period of 03/04 to 07/08.

Table 4.33

Valuation of Stocks of Sampled Commercial Banks

Stocks	Required Rate of Return	Expected Rate of Return	Status of the Bank
Standard Chartered Bank	24.26%	39.35%	under valued
Himalayan Bank	34.70%	21.31%	over valued
Everest Bank	19.55%	49.91%	under valued
NABIL Bank	43.11%	58.16%	under valued

(source: Financial reports of sampled commercial banks)

From the table 4.33 it was found that the SCBNL, EBL and NABIL banks taken as samples were found under valued and HBL bank was found over valued. This shows that the market of the sampled banks was very much inefficient so there may be arbitrage opportunities. The detailed calculation of the values of shares is presented in Appendix – D (I)

4.6 Major Finding of the Study

The key financial performance indicators such as BVPS, EPS, and MPS of four sampled commercial banks for the past five year period were presented in respective table and were presented in respective trend diagrams.

Similarly, the five year market prices of the four sampled commercial banks were also individually compared with each other by presenting in a table and were shown in respective five year trend diagrams. On this course, the market price of SCBNL was found the highest of all in times giving an excessively increasing trend. The second highest position of market prices remained with the prices of NABIL, which also showed an upward trend. Likewise the price of EBL showed an almost horizontal and slightly increasing trend. It found that the market prices of all the commercial banks are at an increasing trend.

The correlation coefficients between EPS and MPS of NABIL, HBL, EBL and SCBNL were calculated as + 0.94, +0.88, +0.11, +0.82 respectively.

The correlation coefficients between DPS and MPS of NABIL, HBL, EBL and SCBNL were obtained as +0.63, +0.38 -0.78, +0.67 respectively.

Similarly, the correlation coefficients between BVPS and MPS of NABIL, HBL, EBL and SCBNL were obtained as +.90, +0.90, +0.45 and +0.54 respectively with reference to given five year data.

The regression equation of the lime MPS dependent variable on BVPS independent variable for NABIL on the basis of past five year data was obtained.

Y=-3140.76+30.68X

Similarly, the regression equation of the lime MPS dependent variable on BVPS independent variable for HBL on the basis of past five year data was obtained.

Y=-3852.39+21.86X

Similarly, the regression equation of the lime MPS dependent variable on BVPS independent variable for EBL on the basis of past five year data was obtained.

Y=-1850.65+12.73X

Similarly, the regression equation of the lime MPS dependent variable on BVPS independent variable for SCBNL on the basis of past five year data was obtained.

Y=-46.87+14.06X

Similarly, the regression equation of the lime MPS dependent variable on EPS independent variable for NABIL on the basis of past five year data was obtained.

Y=-2925.58+64.29X

Similarly, the regression equation of the lime MPS dependent variable on EPS independent variable for HBL on the basis of past five year data was obtained.

Y=-2267.35+64.08X

Similarly, the regression equation of the lime MPS dependent variable on EPS independent variable for EBL on the basis of past five year data was obtained.

Y=1105.30+8.91X

Similarly, the regression equation of the lime MPS dependent variable on EPS independent variable for SCBNL on the basis of past five year data was obtained.

Y=-41.47+043.18X

Likewise, the regression equation of the lime MPS dependent variable on DPS independent variable for NABIL on the basis of past five year data was obtained.

Y=1797.02+38.73X

Similarly, the regression equation of the lime MPS dependent variable on DPS independent variable for HBL on the basis of past five year data was obtained.

Y=647.72+44.93X

Similarly, the regression equation of the lime MPS dependent variable on DPS independent variable for EBL on the basis of past five year data was obtained.

Y=3310.05+41.57X

Similarly, the regression equation of the lime MPS dependent variable on DPS independent variable for SCBNL on the basis of past five year data was obtained.

Y=-5288.54+90.45X.

The coefficient of determination was found to be .90, it indicated that 90% of the change in independent variable (BVPS) is reflected and explained in the dependent variable (MPS) in case of NABIL and the rest is determined by other unexplained variables.

The coefficient of determination was found to be 0.90, it indicated that 90% of the change in independent variable (BVPS) is reflected and explained in the dependent variable (MPS) in case of HBL and the rest is determined by other unexplained variables.

The coefficient of determination was found to be 0.45, it indicated that 45% of the change in independent variable (BVPS) is reflected and explained in the dependent variable (MPS) in case of EBL and the rest is determined by other unexplained variables.

The coefficient of determination was found to be 0.54, it indicated that 54% of the change in independent variable (BVPS) is reflected and explained in the dependent variable (MPS) in case of SCBNL and the rest is determined by other unexplained variables.

The coefficient of determination was found to be 0.94, it indicated that 94% of the change in independent variable (EPS) is reflected and explained in the dependent variable (MPS) in case of NABIL and the rest is determined by other unexplained variables.

The coefficient of determination was found to be 0.94, it indicated that 94% of the change in independent variable (EPS) is reflected and explained in the dependent variable (MPS) in case of HBL and the rest is determined by other unexplained variables.

The coefficient of determination was found to be 0.88, it indicated that 88% of the change in independent variable (EPS) is reflected and explained in the dependent variable (MPS) in case of EBL and the rest is determined by other unexplained variables.

The coefficient of determination was found to be 0.82, it indicated that 0.82% of the change in independent variable (EPS) is reflected and explained in the dependent variable (MPS) in case of SCBNL and the rest is determined by other unexplained variables.

The coefficient of determination was found to be 0.63, it indicated that 63% of the change in independent variable (DPS) is reflected and explained in the dependent nt variable (MPS) in case of NABIL and the rest is determined by other unexplained variables.

The coefficient of determination was found to be 0.38, it indicated that 38% of the change in independent variable (DPS) is reflected and explained in the dependent variable (MPS) in case of HBL and the rest is determined by other unexplained variables

The coefficient of determination was found to be -0.78, it indicated that 78% of the change in independent variable (DPS) is reflected and explained in the dependent variable (MPS) in case of EBL and the rest is determined by other unexplained variables

The coefficient of determination was found to be 0.67, it indicated that 67% of the change in independent variable (DPS) is reflected and explained in the dependent variable (MPS) in case of SCBNL and the rest is determined by other unexplained variables.

The average five-year market return for all the stocks in the market using the overall five year closing market indices was found to be just 38.07%. The overall market return was low due to lower trend of the prices of common stocks of most of the companies in the market except for few financial institutions, a handful of manufacturing, insurance and hydropower companies. The average risk-free rate of the five year period given by the rate of treasury bills issued by Nepal Rastra Bank was found to be average 4.39%. Similarly, the beta coefficients from the given figures of five year period were 1.28, 0.90, 0.4.9 and 0.59 for the banks NABIL, HBL, EBL and SCBNL respectively. This stated that the market sensitivity of stock prices of NABIL was the highest of all banks which means more aggressive to market changes as revealed by the highest beta coefficient. Likewise, the market sensitivity of the stocks of HBL was also higher than the other two banks. The sensitivity of stocks of SCBNL was also higher. However, the stocks of EBL were defensive one as compared to the other three Banks. The realized average rates of returns over the five year period of NABIL, HBL, EBL and SCBNL were obtained as 58.12%, 21.31% 49.91% and 39.35% respectively. In the same way, the equilibrium rates

of returns given by the CAPM equation of the banks NABIL, HBL, EBL and SCBNL were calculated as just 43.11%, 34.70%, 19.55%, and 24.26% respectively. Since the required rates of returns for NABIL, EBL, and SCBNL banks were lower than the calculated average annualized rates of returns and HBL bank was higher required rates of returns, it can be clearly stated that the prices of the stocks of three commercial banks were under-valued and HBL was over valued. Therefore, the stock of NABIL, EBL and SCBNL are profitable for holding long position in the sense that they have a tendency to increase in the future rather the HBL.

Through the coefficient of variation analysis, it is found that there is highest percent of unit risk for the stocks of HBL, Which is 0.9749.And others 0.5471, 0.3651, 0.3984 NABIL, EBL, and SCBNL respectively. Regarding the total risk, Himalayan Bank Limited consists of highest risk 97.49% of the total risk which is risky among the sample.

CHAPTER – V
SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter deals with the findings and conclusions derived from the study of share price movement of four sampled commercial banks. The chapter consists of three sections: the first section provides the summary of the study the second section draws the conclusions of the study and finally, the third section propose recommendations to deal the problems observed on the basis of the findings.

5.1 Summary

The study was conducted with the main objective to analyze the trend of share price movement and relationship between MPS, EPS DPS and BVPS of four commercial banks namely Standard Chartered Bank, Everest Bank Limited, Nabil Bank and Himalayan Bank. It is mainly focused to developed the model accordingly and its empirical test in previous chapter. The model consists of trend analysis along with correlation regression; standard deviations, coefficient of variation, beta coefficient and under and overpricing of shares were adopted as test methodologies.

The trend analysis of the sampled banks for the five year, that the prices of shares do not remain same. Due to various factors like internal and external the prices of the shares are fluctuate sometimes valued at higher and sometimes lower. Hence, it can be concluded that the market of the four sampled banks is unpredictable.

The required rate of return of the three banks is less than expected rate of return except HBL Hence; the share prices of all the banks except Himalayan Bank are undervalued.

Beside these test, other statistical tools such as standard deviation, coefficient of variations and beta coefficient are also calculated to examine the risk involved in the common stock of commercial banks. And to measure the relationship of MPS with EPS, DPS and BVPS coefficient of correlation is taken. Common stocks seem to be riskier than that of average stock; lots of investors are attracted in trading these stocks. This is due to the good track record of financial position, market penetration and continuous declarations of dividends, which encourage the potential investors to buy the shares of commercial banks.

5.2 Conclusion

The study of the five years price of the four sampled commercial banks suggested that the price of the commercial banks were at an decreasing trend over the period, SCBNL's stock had the highest position in the market above all banks, that is they were trading at a higher market price. Similarly, NABIL's stocks price also occupied the second highest position in the market and the other bank's prices were also higher and they had the tendency of growing in the future. In sum, we can conclude that the demand of shares of commercial banks in the secondary market remained higher all the time above other sectors shares.

DPS, EPS and BVPS have direct role in forming the market prices (MPS). In other words, MPS is a function of DPS, EPS and BVPS. However, the positive correlation between profit and profitability of commercial banks also indicate that, these factors too also have a direct impact on determining prices of commercial banks in the stock market.

The study of the quantitative factors affecting share price suggests that there are also major determinant roles of other seen and unseen forces in the market that determine the shape of the stock prices, that means the quantitative factors studied here ate a part not all the factors that helps to determine the stock prices of commercial banks.

For all commercial banks, that realized rates of returns were too higher than the required or equilibrium rates of returns calculated using CAPM equation. This indicates that the prices of the stocks of commercial banks are nit correctly priced; they are under priced and hence rewarding for investment to the individual investors.

5.3 Recommendation

On the basis of review of existing studies and the major findings of the study, we can provide the following suggestions to the different parties involved:

Suggestions to Investors

Because of the persistence in stock price movements, professional traders either institutional or individual can beat the market. Thus, it is recommended that the inventors should be alert to exploit the opportunities through short-term speculation.

Investors need to be very careful and conscious before investing in shares of commercial banks in the secondary market. Wide range of information must be extracted, experts and brokers must be consulted and various techniques of analyzing the information obtained

should be applied before investing in the shares of the commercial banks. The investors should not run after the whim of the market changes.

Suggestions to the Companies

Companies should play a decisive role in providing the genuine information to the public on a non-discrimination basis. The data and the information regarding the performance management policy and practices, etc should be provided to the public without making any kinds of manipulations. Then only the correct picture and the information can be generated.

Suggestions to the government

Regulatory bodies should be watchful and alert all the time to cover up the issues of cartels, market makers, institutional investors and vested interests related with the shares and share prices. Public investors should be prioritized to invest.

There exist excessive price fluctuation as observed from the stock market while collection the data. To control such erratic price fluctuation the regulatory body should impose effective provision to the exchange members.

BIBLIOGRAPHY

Books:

Alexander, G. J., William, F. Sharpe & Jeffery, V.B. (2000). *Fundamentals of Investments*. New Delhi: Prentice Hall of India Pvt. Ltd.

Bhattarai & Thapa, (2006). *Investment Management*. Kathmandu: Asmita Books Publisher & Distributors.

Bhattarai, Rabindra. (2005). *Investment Theory & Practice*. Kathmandu: Buddha Academic Enterprises Pvt. Ltd.

Cheney, J.M. & Mosses, E.A.(1998). *Fundamental of Investment*. New York: West publishing Company.

Elton, E.J. & Martin, J.G. (1991). *Modern Portfolio Theory & Investment Analysis*. New Delhi: John Wiley & Sons Inc.

Fisher, D.E. & Ronald, J.J. (2000). *Security Analysis & Portfolio Management*. New Delhi: prentice Hall of India Pvt. Ltd.

Francis, J.C, Edwards & John, M. Jr. *Technical Analysis of Stock Trends*. (4th ed). New York: McGraw Hill Inc.

Francis, J.C. (1991). *Investment Analysis & Management*. New York: McGraw Hill Inc.

Gitman, Lawrece, J. (2000). *Principles of Management Finance*. New Delhi: Pearson Education Asia Pvt. Ltd.

Haugen, R.A. (2001). *Modern Investment Theory*. New Delhi: Prentice Hall of India Pvt. Ltd.

Nepal Stock Exchange Ltd. (17th July 2006–16th July 2007) Annual Trading Report. Kathmandu: Research & Planning Division. NEPSE.

Pandey, I.M. (1997). *Financial Management*. New Delhi: Vikash Publishing House Pvt. Ltd.

Pradhan, R.S. (2003). *Research in Nepalese Finance*. Kathmandu: Buddha Academic Enterprises Pvt. Ltd.

Reilly, F.K. & Keith, C.B. (2000). *Investment Analysis & Portfolio Management*. New York: Harcourt College Publishers.

Securities Board, Nepal. (1997). *An Introduction to SEBON*. Kathmandu: Securities Board, Nepal.

Sharpe, W.F., Alexander, G. J. & Jeffery, V. B. (2000). *Fundamentals of Investments*. New Delhi: Prentice Hall of India.

Shrestha, M.K., Poudel, R.B., Bhandari, D.B. (2003). *Fundamentals of Investments*. (1st edition). Kathmandu; Buddha Academic Publishers & Distributors.

Van Horne, J.C. (2000). *Financial Management & Policy*. New Delhi: Prentice-Hall of India Pvt. Ltd.

Weston, J.F. & Copeland, T.E. (1992). *Managerial Finance*. New York: The Dryden Press.

Journals, Articles & Reports:

Asness, Clifford (2003). *Fight the Fed Model*. The Journal of Portfolio Management. New Jersey: Elsevier. 30 (2): 11–24.

Bakshi, Gurdip & Chen, Zhiwu (2009). *Stock Valuation in Dynamic Economies*. Journal of Financial Research. Maryland: Direct Report Publishing. 18 (7): 42-96.

Dong, M. & Hirshleifer, D. (2008). *A Generalized Earnings-Based Stock Valuation Model*. Journal of Corporate Accounting & Finance. New York: John Wiley & Sons. 32 (12): 222-287.

EBL (F.Y. 2006/07 – F.Y. 2010/11). *Annual Reports*. Kathmandu: Everest Bank Limited.

Fama, E. F. & French, K.R. (1992). *The Cross-Section of Expected Stock Returns*. Journal of Finance. New York: American Association of Finance. 47 (9): 427–65.

Geske, R. (2001). *A Note on an Analytic Valuation Formula for Unprotected American Call Options on Stocks with Known Dividends*. Journal of Financial Economics. New Jersey: Elsevier. 17 (8): 375–80.

Ghezzi, Lucca L. & Piccardi, C. (2010). *Stock Valuation Along a Markov Chain.* Applied Mathematics & Computation. Rome: Donzelli Editore. *141 (5): 385-393.*

Grossman, S.J. & Stiglitz, J.E. (1990). *On the Impossibility of Information Efficient* Markets. American Economic Review. New York: John Hawkins & Associates Inc. 12 (8): 393–408.

HBL (F.Y. 2006/07 – F.Y. 2010/11). *Annual Reports.* Kathmandu: Himalayan Bank Limited.

Kester, George W. & Hoover, Scott A. (2005). FRICTO Analysis: *A Framework for Making Capital Structure & Financing Decisions.* Journal of Financial Education. Dallas: Kregel Publications. 31 (5): 61–68.

Maglin, P., Mingle, G., Yeske, D. & Zott, J. (2009). *An Investigation of Stock Valuation Models: Market-wide & Industry Factors.* Journal of Quantitative Research. London: Academic Press. 42 (11): 102- 157.

Malkiel, B.G. (1993). *Equity Yields, Growth, & the Structure of Share Prices.* American Economic Review. New York: John Hawkins & Associates Inc. 18 (3): 104–31.

Merton, R.C. (1993). *Theory of Rational Option Pricing.* Bell Journal of Economics & Management Science. Pittsburgh: Smithsonian Publishers. 4 (6): 141–83.

Mohamad, Shamsher & Nassir, Annuar M. (2010). *Factors Associated with Stock Price Volatility & Evaluation of Gordon's Share Valuation Model on the Kuala Lumpur Stock Exchange.* Pertanian Journal of Social Science &Humanities. Kuala Lumpur: Pertanian Malaysia Press. 6 (2): 179-186.

Myers, Stewart C. & Majluf, Nicholas S. (1984*). Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have.* Journal of Financial Economics. New Jersey: Elsevier. 6 (8): 187–221.

NABIL (F.Y. 2006/07 – F.Y. 2010/11). *Annual Reports.* Kathmandu: Nabil Bank Limited.

Roll, Richard (1997). *An Analytic Formula for Unprotected American Call Options on Stocks with Known Dividends.* Journal of Financial Economics. New Jersey: Elsevier. 12 (10): 251–58.

SCBNL (F.Y. 2006/07 – F.Y. 2010/11). *Annual Reports.* Kathmandu: Standard Chartered Bank Nepal Limited.

Whaley, Robert E. (1981). *On the Valuation of American Call Options on Stocks with Known Dividends.* Journal of Financial Economics. New Jersey: Elsevier. 4 (2): 207–211.

Thesis:

Chaudhary, M. (2007). *A Study on Share Price Movements of Joint Venture Commercial Banks in Nepal.* Kathmandu: Shankar Dev Campus, Faculty of Management, T.U.

Khanal, S. (2006). *Stock Price Movement in Nepalese Securities Market.* Kathmandu: Shankar Dev Campus, Faculty of Management, T.U.

Paneru, P. (2010). *Stock Market Behavior of Listed Joint Stock Companies in Nepal. .* Kathmandu: Shankar Dev Campus, Faculty of Management, T.U.

Phyual, I. (2008). S*hare Price Behavior of Listed Companies in Nepal.* Kathmandu: Shankar Dev Campus, Faculty of Management, T.U.

Rajbahak, S. (2009). *Corporate Information Disclosure and its Effect on Share Price* Kathmandu: Shankar Dev Campus, Faculty of Management, T.U.

Yadav, J.P. (2005). *The Movement of Stock Price (Analysis of Joint Venture Commercial Banks).* Shankar Dev Campus, Faculty of Management, T.U.

Website:

http//www.everestbankltd.com. (October 05, 2012)

http//www.hbl.com.np   (October 05, 2012)

http//www.nabilbank.com   (October 07, 2012)

http//www.nepalstock.com (October 07, 2012)

http//www.sebonp.com   (October 05, 2012)

http//www.standardchartered.com/np (October 10, 2012)

APPENDICES

Appendix – A

Principal indicators for last five years of sampled banks.

Appendix – A (I) NABIL.

Principal Indicators   Schedule 31

S. N.	Particulars	Indic- ators	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
1	Net Profit/Gross Income	%	34.33	35.52	32.16	29.68	30.56	24.11	22.29
2	Earnings Per Share	Rs.	105.49	129.21	137.08	115.86	113.44	83.81	70.67
3	Market Value per Share	Rs.	1,505	2,240	5,050	5,275	4,890	2,384	1,252
4	Price Earning Ratio	Times	14.27	17.34	36.84	45.53	43.19	28.45	17.72
5	Dividend (including bonus) on share capital	%	70.00	85.00	140.00	100.00	85.00	70.00	30.00
6	Cash Dividend on Share Capital	%	70.00	85.00	100.00	60.00	35.00	30.00	30.00
7	Interest Income/Loans & Advances	%	8.70	8.29	8.14	8.04	8.82	10.41	12.50
8	Employee Expense/Total Operating Expense	%	31.50	28.93	24.41	21.17	23.96	13.79	11.91
9	Interest Expense on Total Deposit and Borrowings	%	1.68	2.09	2.54	2.64	3.22	4.43	6.15
10	Exchange Gain/Total Income	%	12.74	10.51	10.02	7.81	7.47	6.17	4.60
11	Staff Bonus/ Total Employee Expenses	%	42.20	40.86	41.43	41.42	43.50	44.29	42.05
12	Net Profit/Loans & Advances	%	5.32	5.24	4.62	3.96	4.02	3.47	3.73
13	Net Profit/ Total Assets	%	3.06	3.23	2.72	2.32	2.55	2.37	2.43
14	Total Credit/Deposit	%	75.05	68.63	68.13	68.18	73.87	71.17	78.29
15	Total Operating Expenses/Total Assets	%	3.73	3.86	3.97	3.86	4.34	5.54	6.91
16	Capital Adequacy								
	a. Core Capital	%	11.35	10.78	10.40	8.75	8.74	8.77	8.83
	b. Supplementary Capital	%	1.09	1.52	1.64	2.35	1.96	1.73	1.75
	c. Total Capital Fund	%	12.44	12.31	12.04	11.10	10.70	10.50	10.58
17	Liquidity (CRR)	%	3.83	3.26	6.00	8.37	9.03	3.02	4.90
18	Non Performing Loans/Total Loans	%	1.32	1.38	1.12	0.74	0.80	1.48	1.77
19	Weighted Average Interest Rate Spread	%	5.01	4.90	4.15	3.94	4.16	4.40	4.37
20	Book Net Worth per Share	NRs.	337	381	418	354	324	265	225
21	Total Shares	Number	4,916,544	4,916,544	4,916,544	6,891,160	9,657,470	14,491,240	20,297,694
22	Total Permanent Employees	Number	426	441	427	416	505	557	657
23	Weighted Average Number of Ordinary Shares Outstanding	Number	4,916,544	4,916,544	4,916,544	6,442,910	9,089,256	13,590,702	18,929,598
24	Return on Equity	%	29.86	32.15	30.47	30.72	42.22	36.39	29.69
25	Return on Assets	%	3.08	3.23	2.72	2.32	2.55	2.33	2.43
26	Dividend Payout Ratio	%	66.36	65.78	102.13	92.33	79.62	89.05	42.45
27	Earnings Yield	%	7.01	5.77	2.71	2.20	2.32	3.52	5.64
28	Dividend Yield	%	4.65	3.79	2.77	1.90	1.74	2.94	2.40
29	Cost to Income Ratio	%	45.81	44.25	48.34	51.14	52.11	56.31	63.50
30	Total Assets to Shareholders' Fund	times	10.29	11.91	13.25	15.24	14.01	13.59	12.73
31	Shareholders' Fund to Liability Including Contingent Liability	%	8.25	7.22	6.66	5.74	5.98	6.21	5.61
32	Number of Offices	Number	18	18	19	28	328	39	49
33	Number of ATMs	Number	13	14	20	32	48	63	68

Appendix – A (II) HBL.

Principal Indicators for Last Five Years

Schedule 31
Amount: in NFR

PARTICULARS	UNIT	FY 2006/2007 2063/2064	FY 2007/2008 2064/2065	FY 2008/2009 2065/2066	FY 2009/2010 2066/2067	FY 2010/2011 2067/2068
Net Profit/Total Income	Percent	34.90	41.58	39.96	22.13	25.46
Per Share Income	Rs.	60.66	62.74	51.90	31.80	44.66
Per Share Market Value	Rs.	1740	1980	1760	816	575
Price Earning Ratio	Ratio	28.69	31.56	23.43	25.66	12.88
Dividend on Share Capital (Including Bonus)	Percent	40.00	45.00	43.56	36.84	36.84
Cash Dividend on Share Capital	Percent	15.00	25.00	12.00	11.84	16.84
Interest Income/Loan and Advances	Percent	9.98	9.73	9.18	10.81	13.12
Staff Expenses/Total Operating Expenses	Percent	47.40	45.91	47.54	46.83	47.06
Interest Expenses on Total Deposit	Percent	2.55	2.59	2.70	4.13	5.90
FX Fluctuation Gain/Total Income	Percent	6.71	8.27	8.51	4.80	3.66
Staff Bonus/Total Staff Expenses	Percent	19.78	24.51	22.81	15.41	19.30
Net Profit/Loan and Advances	Percent	2.89	3.26	3.04	1.82	2.83
Net Profit/Total Assets	Ratio	1.47	1.76	1.91	1.19	1.91
Total Loan/Deposits	Percent	59.22	68.37	73.58	77.43	80.57
Total Operating Expenses/Total Income	Percent	30.32	29.14	23.49	25.60	22.88
Capital Adequacy Ratio:						
a. Core Capital	Percent	9.61	9.36	8.81	8.68	8.88
b. Supplementary Capital	Percent	1.51	3.06	2.21	2.04	1.80
c. Total Capital Fund	Percent	11.13	12.42	11.02	10.72	10.68
Liquidity (CRR)	Percent	5.92	5.13	5.76	6.76	5.75
Non-performing Loan/Total Loan	Percent	3.61	2.36	2.16	3.52	4.22
Weighted Average Interest Rate Spread	Percent	3.57	3.66	3.66	4.21	3.96
Book Networth per share	Rs.	264.74	247.95	255.52	226.79	199.77
Total Share	Number	8,108,100	10,135,125	12,162,150	16,000,000	20,000,000
Total Staff	Number	584	591	591	577	647

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Main Indicators

Schedule 4.31

	Particulars	Indicator	Financial Years				
			2006/07	2007/08	2008/09	2009/10	2010/11
1	Net Profit/Total Income	%	21.62	24.17	24.92	16.49	14.27
2	Per Share Earning (after tax income)	Rs.	78.42	91.82	99.99	100.16	83.18
3	Market Price Per Share	Rs.	2430	3132	2455	1630	1094
4	Price/Earning Ratio	Times	30.99	34.11	24.55	16.27	13.15
5	Dividend on Share- Bonus Share	%	30	30	30	30	10
6	Cash Dividend	%	10	20	30	30	50
7	Interest Income/Loans & Advances	%	6.87	7.06	7.57	9.95	12.22
8	Employee Expenses/Total Operating Expenses	%	11.03	15.42	12.53	10.52	9.13
9	Interest Expenses/Total Deposits & Borrowing	%	2.70	2.61	2.98	4.18	6.06
10	Exchange Income/Total Income	%	2.07	3.45	2.44	-	0.06
11	Staff Bonus/Total Employee Expenses	%	52.80	41.70	47.68	52.48	45.41
12	Net Profit/Loans & Advances	%	2.10	2.40	2.61	2.95	2.94
13	Net Profit/Total Assets	%	1.38	1.65	1.73	2.09	2.10
14	Total Loans & Advances/Total Deposits	%	77.44	78.56	73.43	76.24	76.98
15	Total Operating Expenses/Total Assets	%	3.64	3.75	4.04	5.20	6.95
16	Capital Adequacy Ratio:						
	a) Core Capital	%	7.82	9.04	8.52	8.39	8.46
	b) Supplementary Capital	%	3.38	2.40	2.82	2.38	1.96
	c) Total Capital Funds	%	11.20	11.44	11.34	10.77	10.43
17	Cash Reserve Ratio (CRR)	%	2.94	4.56	14.26	16.53	9.55
18	NPAs/Total Loans & Advances	%	0.80	0.68	0.48	0.44	0.34
19	Weighted Average Interest Rate Spread	%	3.91	4.34	4.40	4.78	4.60
20	Book Net Worth (Rs. in Lacs)	Rs.	10615	15812	22064	27571	31115
21	Total Shares	Number	3780000	4914000	6389210	8304673	11196095
22	Total Employee	Number	393	449	534	558	585
23	Others						
	- Per Employee Business (Rs. in Lakh)	Rs.	821.1	953.5	1082	1146	1242
	- Employee Expenses/Total Income	%	6.3	8.5	7.29	4.50	4.49

Schedule 4.31:

Key Indicators

Particulars	Indicators	FY 2006/2007	FY 2007/2008	FY 2008/2009	FY 2009/2010	FY 2010/2011
1. Net Profit/Gross Income	Percent	34.55	54.94	30.84	50.47	31.40
2. Earning Per Share	Rs.	167.37	131.92	109.99	77.50	69.51
3. Market Value Per Share	Rs.	5,900	6,850	6,010	5,279	1,800
4. Price Earning Ratio	Ratio	35.25	51.77	54.64	42.23	25.90
5. Dividend (including bonus) on Share Capital	Percent	130	130	100	70	50
6. Cash Dividend on Share Capital	Percent	80	80	60	55	50
7. Interest Income/Loan & Advances	Percent	7.11	6.65	6.54	6.70	11.05
8. Staff Expenses/Total Operating Expenses	Percent	23.75	24.28	23.56	25.43	21.66
9. Interest Expenses on Total Deposit and Borrowings	Percent	1.66	1.59	1.53	1.54	2.62
10. Exchange Fluctuation Income/Total Income	Percent	15.44	14.75	15.36	15.40	10.66
11. Staff (statutory) Bonus/Total Staff Expenses	Percent	33.71	54.63	36.70	32.93	30.70
12. Net Profit/Loan and Advances	Percent	6.75	6.24	7.93	5.51	6.41
13. Net Profit/Total Assets	Ratio	2.42	2.46	2.56	2.70	2.56
14. Total Credit/Deposit	Percent	43.70	46.95	39.27	45.90	49.11
15. Total Operating Expenses/Total Assets	Percent	2.94	2.78	2.68	2.94	3.62
16. Adequacy of Capital Fund on Risk Weighted Assets						
a. Core Capital	Percent	13.77	11.52	13.05	12.52	12.10
b. Supplementary Capital	Percent	1.94	1.63	1.66	1.99	2.12
c. Total Capital Fund	Percent	15.71	13.15	14.70	14.51	14.22
17. Liquidity (CRR)	Ratio	6.46	6.54	8.18	6.74	6.10
18. Non-performing Credit/Total Credit	Percent	1.83	0.92	0.00	0.01	0.02
19. Weighted Average Interest Rate Spread	Percent	3.95	4.01	3.96	3.44	3.28
20. Book Net-worth	Rs'000	2,116,358	2,492,546	3,052,470	3,809,709	3,877,777
21. Total Shares	No.	4,132,548	6,207,840	9,319,564	13,964,635	16,101,680
22. Total Staff	No.	351	377	392	429	429
23. Net-worth Per Share	Rs.	512.12	401.52	327.53	270.95	228.71

Note: Adequacy of Capital Fund on RWA for FY 2007-08 onwards is as per Basel II Capital Accord of Nepal Rastra Bank.

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Appendix – B

Appendix B (I)

Yearly stock closing price

Fiscal Year	NABIL	HBL	EBL	SCBNL
2006/07	5050	1740	2430	5900
2007/08	5275	1980	3132	6830
2008/09	4899	1760	2445	6010
2009/10	2384	816	1630	3279
2010/11	1252	575	1094	1800

Sources: www.nepalstockexchange.com