

A STUDY ON DETERMINANTS STOCK PRICE IN NEPSE

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RECOMMENDATION

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DECLARATION

I hereby declare that the work reported in this thesis entitled “A STUDY ON DETERMINANTS OF STOCK PRICE IN” submitted to United College, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of requirement for the Master’s Degree in Business Studies (M.B.S) under the supervision of **Dr. Bal Krishna Shrestha** of United College.

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ABBREVIATIONS

\$:	Dollar
%	:	Percentage
A.D.	:	Anno Domini
ABBS	:	Anywhere Branch Banking System
ADBL	:	Agriculture Development Bank Limited
ADF	:	Augmented Dickey-Fuller
ADFL	:	Agriculture Development Finance Limited
AGM	:	Annual General Meeting
ATM	:	Automatic Teller Machine
B.S.	:	Bikram Sambat
BOD	:	Board of Director
BOK	:	Bank of Kathmandu
BPS	:	Book Value Per Share
BSE	:	Bombay Stock Exchange
BV	:	Book Value
BVPS	:	Book Value Per Share
CAMP	:	Capital Asset Pricing Model
CDS	:	Computerized Display System
CFA	:	Confirmatory Factor Analysis
CMIE	:	Center for Monitoring of the Indian Economy
CV	:	Coefficient of Variation
DDM	:	Dividend Discount Model
DPR	:	Dividend Payout Ratio
DPS	:	Dividend Per Share
DY	:	Dividend Yield
EBL	:	Everest Bank Limited
EPS	:	Earning Per Share
FOE	:	Foreign Exchange
GDP	:	Gross Domestic Product

HBL	:	Himalayan Bank Limited
i.e.	:	That is
IMF	:	International Monetary Fund
INFL	:	Inflation
INT	:	Interest
KFL	:	Kathmandu Finance Limited
LTD.	:	Limited
MBS	:	Master of Business Studies
MP	:	Market Price
MPS	:	Market Value Per Share
NBBL	:	Nepal Bangladesh Bank Limited
NEPSE	:	Nepal Stock Exchange
NFCL	:	National Finance Company Limited
NIBL	:	Nepal Investment Bank Limited
NIC	:	Nepal Industrial & Commercial Bank
NMB	:	Nepal Merchant Bank
No.	:	Number
NRB	:	Nepal Rastra Bank
NSE	:	Nigerian Stock Exchange
NWPS	:	Net Worth Price Share
P/E	:	Price Earnings
PEG	:	Price Earning Growth
PP	:	Philip-Perron
ROE	:	Return on Equity
SBI	:	State Bank of India
SCBNL	:	Standard Chartered Bank Nepal Limited
SD	:	Standard Deviation
SEBON	:	Security Board of Nepal
SEC	:	Securities Exchange Center
SP	:	Stock Price
T.U.	:	Tribhuvan University

UFCL : United Finance Company Limited
USA : United States of America
VAR : Vector Auto Regressive

Chapter-I

INTRODUCTION

1.1 Background of the Study

Financial markets play a fundamental role in the economic development of a country. They are the intermediary link in facilitating the flow of funds from savers to investors. By providing an institutional mechanism for mobilizing domestic savings and efficiently channeling them into productive investments, they lower the cost of capital to investors and accelerate economic growth of the country.

Financial intermediation between borrowers and savers is done by commercial banks. This credit market enables debt financing for investments. An alternative method of intermediation is through equity financing. This is only possible through the development of capital markets. Capital markets, which deal with securities such as stocks and bonds, are associated with financial resource mobilization on a long term basis. By raising capital directly from the public, they lower the cost of capital because capital markets allow for wider ownership among the public, thereby distributing risks and wealth amongst smaller investors. For investors, they provide an effective vehicle for making investment choices which suit their own preferences of risk and returns based on available information. As such, capital markets help the economy to generate more savings and productive investments. A basic feature of an efficient capital market is constant liquidity, i.e., an easy mechanism for entry and exit by investors. This requires sufficient volume and size of transactions in the market.

Typically in developing countries, for various economic and policy reasons, financial markets are underdeveloped. In those countries where a capital market does exist, it is in a very rudimentary state. Private wealth and investments are concentrated among several large companies and individuals. The choice of market instruments is also very limited. As a result, these capital markets are very narrow based. They are constrained by limited investment opportunities and low income and savings rates. In many cases, the economy has high inflation, leading to a savings disincentive and capital flight.

Financial sector development is a lengthy, evolutionary process. It is an indicator of the state of economic development of the country, since an efficient well-developed financial market is only possible when there is substantial income generation and investment opportunities.

Development of a Capital Market in Nepal

Nepal is a landlocked, mountainous country situated between India and China. It is a small, mostly agrarian based economy, sharing an open border with North India. With a nominal GDP of \$ 15.83 billion, Nepal has a per capital income of \$ 562, one of the lowest in the world. Nepal's gross domestic product (GDP) for 2008 was estimated at over \$12 billion (adjusted to Nominal GDP), making it the 115th -largest economy in the world. Agriculture accounts for about 40% of Nepal's GDP, services comprise 41% and industry 22%. Agriculture employs 76% of the workforce, services 18% and manufacturing/craft-based industry 6%. Agricultural produce – mostly grown in the Terai region bordering India – includes tea, rice, corn, wheat, sugarcane, root crops, milk, and water buffalo meat. Industry mainly involves the processing of agricultural produce, including jute, sugarcane, tobacco, and grain, (Economic survey, 2010).

Industrial development began in Nepal only in the mid-sixties, when the Government began establishing manufacturing industries such as the jute industry, cement factories, and sugar factories. In order to support this industrialization process, government actively promoted financial institutions, such as commercial banks and capital market institutions.

The Nepali capital market had its beginnings with the establishment of the Securities Marketing Center in 1976. In 1984, the Securities Exchange Act was promulgated and this institution was converted into the Securities Exchange Center (SEC) under the ownership of the Nepali Government, Nepal Rastra Bank - the Central Bank - and the Nepal Industrial Development Corporation – a government owned industrial development bank. The main function of SEC was to assist in the development of a capital market by performing the role of a broker, underwriter and share issuer, and to sell government bonds. It operated an over the counter market for company shares and government bonds. After the inception of the Securities Exchange Center, shares of various manufacturing, trading and banking companies became listed. Interestingly, the listed shares were dominated by public

enterprises during this stage. Between 1984 and 1990, 42 companies were listed, out of which more than 25 companies had some form of government ownership.

The real boost into the capital market in the form of a private sector led growth began with the financial sector liberalization. In the mid-eighties, Nepal opened its doors to foreign investors as joint venture partners in the banking sector, which revolutionized commercial banking services in Nepal. Since then, a variety of private sector based financial institutions have evolved. In 1992, the Finance Companies Act was amended. These enabled finance companies to be established to function in various areas such as leasing, housing finance, and hire-purchase. These institutions were also allowed to perform capital market functions such as share issue, portfolio management, market making and custodial services.

The growth of these financial institutions was complemented by the establishment of the Nepal Stock Exchange. In 1993, the Securities Exchange Act was amended. The Securities Exchange Center was converted into the Nepal Stock Exchange for securities trading by private brokers and the Securities Exchange Board was established for oversight functions as a regulatory body. This amendment also permitted private sector market intermediaries and set the operating guidelines for intermediary functions such as broking, market making, issue management, and portfolio management. The changes that were seen in the market with these regulatory and institutional changes were phenomenal. It is only since this change in 1993 that a true capital market has evolved where prices are actually determined on a market basis. This process of capital market development in Nepal holds valuable lessons for newly emerging markets. Many of the issues faced are common across developing countries with recent market economies and democratic governance. In trying to analyze the market development process, three key factors have been identified; whose changes influence the market behaviour.

These are:

- i. Environment (rules and regulations, other external factors such as Policies, economic conditions);
- ii. Products (items being traded); and
- iii. Players (buyers, sellers, intermediaries).

1.2 Organization under Study

1.2.1 Everest Bank Limited (EBL)

Everest Bank limited was established in 1993 A.D. It started its operation from 18th October 1994. This is also a joint venture bank with Punjab National bank, under the technical service agreement signed between the two banks Punjab National Bank has been providing top management services and banking expertise to Everest Bank Ltd. Punjab National Bank has helped the bank in laying down sound system and procedures. The bank operates with the objective of extending professionalized banking services to various section of the society in the kingdom of Nepal and thereby contributes to the economic development of the country. It's head office is in Katmandu, Baneshwor and has largest networks among the Private sector banks in Nepal having fourty branches across the kingdom. The major branches connected through anywhere branch banking system (ABBS) through which the clients can withdraw and deposit money from ABBS. The ownership structure of the Everest Bank Limited is: Nepalese promoters 50%, General public 30%, and Punjab National Bank 20%.

1.2.2 Himalayan Bank Limited (HBL)

Himalayan Bank Limited was established in 1992 by the distinguished business personalities of Nepal in partnership with Habib Bank Limited, one of the largest commercial bank of Pakistan. Banks operations were commenced from January 1993. It is the first commercial bank of Nepal with maximum shareholding by Nepalese Private Sector. Besides commercial activities, the bank also offers industrial and merchant banking facilities. The bank at present has the forteen branches in Kathmandu valley and twenty branches outside the valley. The bank is also operating a counter in the premise of the Royal Palace. The bank has a very aggressive plan of establishing more branches in different parts of the kingdom in near future. The bank's policy is to extend quality and personalized service to its customers as promptly as possible. The bank, as far as possible, offers tailor made facilities to its clients, based on the unique needs and requirements, to extend more efficient services to its customers. Himalayan Bank has been adopting innovative and latest banking technology. This has not only helped the bank to constantly improve its service level but has also kept it prepared for future adoption of new technology. HBL has listed on Nepal stock exchange in

July 5, 1993. The share participation of the bank is 51% Nepalese Promoters, 14% employment provident fund, 15% general public and 20% Habib Bank of Pakistan.

1.2.3 Nepal Bangladesh Bank Limited (NBBL)

Nepal Bangladesh Bank Ltd. was established in June 1994 with an authorized capital of Rs. 240 million and paid up capital of Rs 60 million as a joint venture bank with IFIC of Bangladesh. Currently the bank has an authorized capital of Rs 359.9 millions. Its head office is situated at New Baneshwor, Bijuli Bazar, Kathmandu and seventeen branches across the kingdom. The prime objective of this bank is to render banking services to the different sectors like industries, traders, businessmen, priority sector, small entrepreneurs and weaker section of the society and every other people who need banking services. During the period of 10 years of its operation it has been able to provide excellent services to its clients. The bank has introduced its first ATM facility at Kathmandu Plaza, Putalisadak branch to give 24 hours 365 days banking services to their valued customers. The bank has earned the glory of providing the services to almost all the top business houses of the country and it occupies one of the leading positions among the joint venture banks in Nepal. The bank is still pursuing to accommodate as many clients as possible.

1.2.4 NMB Bank Limited (NMB)

NMB Bank Limited (NMB) is the first commercial bank of Nepal that has been able to upgrade from a Finance Company to full- fledged Commercial Bank. Nepal Merchant Banking and Finance Ltd., the earliest while name of the institution, was amongst the leading financial institutions in its category till May 2008 when the transformation process for the up gradation was completed and changed its name to NMB Bank Limited. Its head office is in Babarmahal Kathmandu and fifteen branches across the kingdom.

NMB is the brainchild of leading Nepali entrepreneurs with dream of framing the ultimate in Merchant Banking and Financial Services. Harnessing from its strength on Merchant Banking the Bank has decided to broaden its scope of services by building synergies to its current operations. This unprecedented event has been possible by way of strong commitment and confidence of all the stakeholders' viz. customers, promoters, shareholders, regulators, and employees.

1.2.5 Kist Bank Limited (KIST)

With its vision of becoming the best bank on operational excellence and superior financial performance, KIST Bank was initially incorporated as a 'C' class financial institution in 2003 for undertaking limited banking activities. The Bank started commercial banking activities from May 7, 2009 after complying with all the conditions of Nepal Rastra Bank (Central Bank of Nepal) for becoming a commercial Bank. The Bank is a public limited company incorporated under the Bank and Financial Institution Act 2006 and the Companies Act 2006. The Bank is licensed by NRB to undertake commercial banking services and merchant banking activities in the country. The authorized capital of the bank is Rupees 5 Billion and the issued and paid-up Capital is Rupees 2 Billion. 60 percent of the paid-up capital is held by the promoter and remaining 40% is held by the general public. The share of the bank is listed at Nepal Stock Exchange Limited (NEPSE), the only Stock Exchange in the country, as 'A' category share. The Bank has a seven member Board of Directors (BOD) out of which four represents the promoters' group, two represents the general public and one represents the Professional Director. Till the end of fiscal year 2066/67 (2010/10) the bank has 53 branches across the country.

1.3 Statement of the Problem

Only a few investors of Nepalese share market may be aware of the factors affecting the share price. It means that most of the investors may be unknown about the financial performance of the company but tend to invest in the company without proper financial analysis. It causes the unusual relation of the financial indicators - EPS, BPS, DPS etc. with the market price of the share. The market rumors relating the financial position of the company is the major analytical tool for the most of Nepalese investors. MPS of most of the foreign joint venture commercial banks are high in comparison to other banks and manufacturing companies. In this context, the research problem of this study can be presented as following questions:

- What are the major determinants of the Stock price of Nepalese Commercial Banks listed in NEPSE?
- Is there any relation between MPS with the major financial indicators (EPS, BPS, DPS) ?

- Are the investors aware of financial indicators which influence the MPS of the company?

1.4 Objectives of the Study

The main objectives of this study are listed below:

- To determine the factors of stock price determination.
- To examine and evaluate the relationship between MPS with the various financial indicators like EPS, BPS, DPS etc.
- To analyze the market trends of MPS with financial indicators.
- To conduct the opinion survey of potential investors regarding various aspects of stock price determinants in Nepal.

1.5 Importance of the Study

This study attempts to construct the relation of MPS of the Nepalese Commercial Banks to the major financial indicators like EPS, BPS, DPS etc. The relation is hoped to show the current status of Nepalese Commercial Banks with respect to the determiners of the Share Price. These findings may be helpful to the potential investors to make the better investment decisions.

Likewise, this thesis provides the information about the position of Share Price in Share industry. Moreover, the industrial average regarding different financial indicators are helpful to compare with the individual banks. This information is expected to be helpful to the managers of the respective banks. This thesis delivers different information about the share market of Nepalese Commercial Banks which may be required to the further researcher. Hence this thesis is expected to be important to the further researchers.

1.6 Limitations of the Study

Due to the limitations of the time, cost and other resources, this study is limited to the following areas:

- Though this thesis tends to explore the major determinants of Market Price of Share, it is limited on the analysis of Share Price of Nepalese Commercial Banks only.

- This study covers only the relevant data of five years i.e. from Fiscal Year 2006 to 2010.
- This study is limited to the analysis of MPS of Nepalese Commercial Banks.
- The study is based on Primary and Secondary Data. So the validity and reliability of the data depends upon their source.

1.7 Organization of the Study

This study has been organized into five Chapters.

Chapter I [Introduction]

Chapter I introduce the major issues related to the share market of Nepal, objectives, significance and limitations of the study.

Chapter II [Literature Review]

This Chapter is the brief review of literature related to this study. It includes a discussion on the conceptual framework and review of the major studies. It gives an overview of the related literature done in the past related to this study.

Chapter III [Research Methodology]

Chapter III, Research Methodology, describes the different methodologies employed in this study. Sources of data are mentioned and described in this chapter.

Chapter IV [Presentation and Analysis of Data]

This Chapter presents and analyzes the data obtained during the study. Different tools and techniques of data analysis have been undertaken for the purpose of analysis of data.

Chapter V [Summary, Conclusion and Recommendations]

This chapter includes the summary, conclusion and the recommendations of the study. The findings are included in this chapter along with the suggestions and their recommendations.

The **Bibliography and Appendices** have been given at the end of the study.

Chapter-II

LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Theories of Stock Price Determinants

Broadly, there are three schools of thought concerning the valuation of securities and their price determinants: (1) Technical Analysis (2) Fundamental Analysis and (3) Random Walk or Efficient Market Analysis.

Technical Analysis

Technical analysis is, perhaps, the oldest form of security analysis. It is believed that the first technical analysis occurred in 17th century Japan, where analysts used charts to plot price changes in rice. Indeed, many present-day Japanese analysts still rely on technical analysis to forecast prices in their stock exchange, which is the second largest in the world. In the United States, technical analysis has been used for more than 100 years. This form of analysis was especially helpful at the turn of the century when financial statements were not commonly available to investors.

In recent years, the ever-increasing use of personal computers has led to substantial growth in technical analysis, and numerous software packages have been developed to meet these increased needs. Thus, technical analysis can be applied not only to stocks and their markets but also to bonds, commodities, fixed-income markets, industries within markets, and currencies. Moreover, one of the most popular current applications of technical analysis is for commodity market.

Technical analysis is research into the supply and demand of investments based on historic trade information, in terms of both price and volume. Technical analysts, often called chartists, believe that it is possible to detect the onset of a movement in stock or market value from one equilibrium condition to another. To do this, they use charts and computer programs of past stock, commodity, and market movements to identify trends that they believe will predict pricing movements. Chartists are not concerned about why conditions are changing, they only want to identify the beginning of the change to take advantage of

short- and intermediate-term gains. While most of these analysts predict short and intermediate pricing trends, some also forecast long-term market cycles based on their data.

Like many professionals in the security industry, chartists believe that the value of the market is determined by supply and demand of stocks. Furthermore, like others, chartists think that the supply and demand is influenced by many factors, not always rational, which are weighed continuously and subjectively by the market. Technical analysis differs from other schools of security forecasting, however, in the timing of stock price changes. Chartists believe that stocks move in trends lasting over long periods and that astute investors can profit from these trends if they act when the trends first begin. This supposition is based on two beliefs. First, chartists contend that information about stocks leaks into the market over extended periods. Stock prices change gradually as information moves from industry insiders to analysts and finally to investors. Second, chartists believe that a further time lag occurs because investors do not unanimously agree about the validity of the information or its impact upon the security in question. The gradual nature of price changes gives investors time to act to take advantage of a trend.

Thus, it is the job of the technical analyst to develop a system that can detect the beginning of a movement from one equilibrium price to a new higher or lower price. It must be underscored that chartists are overwhelmingly concerned with detecting the onset of a change in the supply and demand of a stock (or other investment) so that they can benefit from the price changes associated with finding a new equilibrium. (www.referenceforbusiness.com).

Fundamental Analysis

Fundamental analysis of a business involves analyzing its financial statements and health, its management and competitive advantages, and its competitors and markets. When applied to futures and forex, it focuses on the overall state of the economy, interest rates, production, earnings, and management. When analyzing a stock, futures contract, or currency using fundamental analysis there are two basic approaches one can use; bottom up analysis and top down analysis. The term is used to distinguish such analysis from other types of investment analysis, such as quantitative analysis and technical analysis.

Fundamental analysis is performed on historical and present data, but with the goal of making financial forecasts. There are several possible objectives:

- To conduct a company stock valuation and predict its probable price evolution,
- To make a projection on its business performance,
- To evaluate its management and make internal business decisions,
- To calculate its credit risk.

Two analytical models

When the objective of the analysis is to determine what stock to buy and at what price, there are two basic methodologies.

1. Fundamental analysis maintains that markets may misprice a security in the short run but that the "correct" price will eventually be reached. Profits can be made by trading the mispriced security and then waiting for the market to recognize its "mistake" and reprice the security.
2. Technical analysis maintains that all information is reflected already in the stock price. Trends 'are your friend' and sentiment changes predate and predict trend changes. Investors' emotional responses to price movements lead to recognizable price chart patterns. Technical analysis does not care what the 'value' of a stock is. Their price predictions are only extrapolations from historical price patterns.

Investors can use any or all of these different but somewhat complementary methods for stock picking. For example many fundamental investors use technical's for deciding entry and exit points. Many technical investors use fundamentals to limit their universe of possible stock to 'good' companies.

The choice of stock analysis is determined by the investor's belief in the different paradigms for "how the stock market works". See the discussions at efficient-market hypothesis, random walk hypothesis, capital asset pricing model, Fed model Theory of Equity Valuation, Market-based valuation, and Behavioral finance.

Fundamental analysis includes:

1. Economic analysis
2. Industry analysis
3. Company analysis

On the basis of these three analyses the intrinsic value of the shares are determined. This is considered as the true value of the share. If the intrinsic value is higher than the market price it is recommended to buy the share. If it is equal to market price hold the share and if it is less than the market price sell the shares.

Use by different portfolio styles, investors may use fundamental analysis within different portfolio management styles.

- **Buy and hold** investors believe that latching onto good businesses allows the investor's asset to grow with the business. Fundamental analysis lets them find 'good' companies, so they lower their risk and probability of wipe-out.
Managers may use fundamental analysis to correctly value 'good' and 'bad' companies. Eventually 'bad' companies' stock goes up and down, creating opportunities for profits. Managers may also consider the economic cycle in determining whether conditions are 'right' to buy fundamentally suitable companies.
- **Contrarian investors** distinguish "in the short run, the market is a voting machine, not a weighing machine". Fundamental analysis allows making decision on value, and ignoring the market.
- **Value investors** restrict their attention to under-valued companies, believing that 'it's hard to fall out of a ditch'. The value comes from fundamental analysis.
Managers may use fundamental analysis to determine future growth rates for buying high priced growth stocks.

Managers may also include fundamental factors along with technical factors into computer models (quantitative analysis).

Top-down and bottom-up

Investors can use either a top-down or bottom-up approach.

- The top-down investor starts analysis with global economics, including both international and national economic indicators, such as GDP growth rates, inflation, interest rates, exchange rates, productivity, and energy prices. That helps to search down to regional/industry analysis of total sales, price levels, the effects of competing products, foreign competition, and entry or exit from the industry which narrows search to the best business in that area.
- The bottom-up investor starts with specific businesses, regardless of their industry/region.

Procedures

The analysis of a business' health starts with financial statement analysis that includes ratios. It looks at dividends paid, operating cash flow, new equity issues and capital financing. The earnings estimates and growth rate projections published widely by Thomson Reuters and others can be considered either 'fundamental' (they are facts) or 'technical' (they are investor sentiment) based on your perception of their validity.

The determined growth rates (of income and cash) and risk levels (to determine the discount rate) are used in various valuation models. The foremost is the discounted cash flow model, which calculates the present value of the future.

- Dividends received by the investor, along with the eventual sale price. (Gordon model)
- Earnings of the company, or
- Cash flows of the company.

The amount of debt is also a major consideration in determining a company's health. It can be quickly assessed using the debt to equity ratio and the *current ratio* (current assets/current liabilities).

The simple model commonly used is the Price/Earnings ratio. Implicit in this model of a perpetual annuity (Time value of money) is that the 'flip' of the P/E is the discount rate appropriate to the risk of the business. The multiple accepted is adjusted for expected growth (that is not built into the model).

Growth estimates are incorporated into the PEG ratio, but the math does not hold up to analysis. Its validity depends on the length of the growth time that is supposed to will continue. IGAR models can be used to impute expected changes in growth from current P/E and historical growth rates for the stocks relative to a comparison index.

Computer modeling of stock prices has now replaced much of the subjective interpretation of fundamental data (along with technical data) in the industry. Since about year 2000, with the power of computers to crunch vast quantities of data, a new career has been invented. At some funds (called Quant Funds) the manager's decisions have been replaced by proprietary mathematical models.

Random Walk Analysis

For many years economists, statisticians, and teachers of finance have been interested in developing and testing models of stock price determinants. One important model that has evolved from this research is the theory of random walks. This theory casts serious doubt on many other methods for describing and predicting stock price determinants- methods that have considerable popularity outside the academic world. For example, if the random- walk theory is an accurate description of reality, then the various "technical" or "chartist" procedures for predicting stock prices are completely without value.

In general, the theory of random walks raises challenging questions for anyone who has more than a passing interest in understanding the determinants of stock prices. Unfortunately, however, most discussions of the theory have appeared in technical academic journals and in a form which the non-mathematician would usually find incomprehensible.

Common Predictive Techniques

In order to put the theory of random walks into perspective, it must be discuss in two ways, in brief and general terms, the two approaches to predicting stock prices that are commonly

espoused by market professionals. These are (1) “chartist” or “technical” theories and (2) the theory of fundamental or intrinsic value analysis.

The basic assumption of all the chartist or technical theories is that history tends to repeat itself, that is, past patterns of price determinants in individual securities will tend to recur in the future. Thus the way to predict stock prices (and, of course, increase one’s potential gains) is to develop a familiarity with past patterns of price determinants in order to recognize situations of likely recurrence.

Essentially, then, chartist techniques attempt to use knowledge of the past determinants of a price series to predict the probable future determinants of the series. A statistician would characterize such techniques as assuming that successive price changes in individual securities are dependent. That is, the various chartist theories assume that the sequence of price changes prior to any given day is important in predicting the price change for that day.

The techniques of the chartist have always been surrounded by a certain degree of mysticism, however, and as a result most market professionals have found them suspect.

Thus it is probably safe to say that the pure chartist is relatively rare among stock market analysts. Rather the typical analyst adheres to a technique known as fundamental analysis or the intrinsic value method.

The assumption of the fundamental analysis approach is that at any point in time an individual security has an intrinsic value (or, in the terms of the economist, an equilibrium price) which depends on the earning potential of the security. The earning potential of the security depends in turn on such fundamental factors as quality of management, outlook for the industry and the economy, etc.

Through a careful study of these fundamental factors the analyst should, in principle, be able to determine whether the actual price of a security is above or below its intrinsic value. If actual prices tend to move toward intrinsic values, then attempting to determine the intrinsic value of a security is equivalent to making a prediction of its future price; and this is the essence of the predictive procedure implicit in fundamental analysis.

Theory of Random Walks

Chartist theories and the theory of fundamental analysis is really the province of the market professional and, to a large extent, of teachers of finance. Historically, however, there has been a large body of academic people, primarily economists and statisticians, who subscribe to a radically different approach to market analysis-the theory of random walks in stock-market prices.

Random-walk theorists usually start from the premise that the major security exchanges are good examples of “efficient” markets. An “efficient” market is defined as a market where there are large numbers of rational profit-maximizers actively competing, with each trying to predict future market values of individual securities, and where important current information is almost freely available to all participants.

In an efficient market, competition among the many intelligent participants leads to a situation where, at any point in time, actual prices of individual securities already reflect the effects of information based both on events that have already occurred and on events which as of now the market expects to take place in the future. In other words, in an efficient market at any point in time the actual price of a security will be a good estimate of its intrinsic value.

Now in an uncertain world the intrinsic value of a security can never be determined exactly. Thus there is always room for disagreement among market participants concerning just what the intrinsic value of an individual security is, and such disagreement will give rise to discrepancies between actual prices and intrinsic values. In an efficient market, however, the actions of the many competing participants should cause the actual price of a security to wander randomly about its intrinsic value. If the discrepancies between actual prices and intrinsic values are systematic rather than random in nature, then knowledge of this should help intelligent market participants to better predict the path by which actual prices will move toward intrinsic values.

When the many intelligent traders attempt to take advantage of this knowledge, however, they will tend to neutralize such systematic determinants in price series. Although

uncertainty concerning intrinsic values will remain, actual prices of securities will wander randomly about their intrinsic values.

2.1.2 Capital Asset Pricing Model

The mechanical complexity of the Markowitz's portfolio model kept both practitioners and academics away from adopting the concept for practical use. Its intuitive logic, however, spurred the creativity of a number of researchers who began examining the stock market implications that would arise if all investors used this model. As a result, what is referred to as the Capital Asset Pricing Model (CAPM) was developed (Bhalla, 2001: 554).

The CAPM is an economic model that describes how securities are priced in the marketplace. It has its roots in the normative mean-variance approach to investing that was first developed by Markowitz. That is, if certain assumptions are made, one of which is that all investors follow Markowitz's approach, then it can be shown that the expected return of an asset will be positively and linearly related to the level of its beta (Bhalla, et. al. 2001: 554).

Investment practitioners have been more enthusiastic and creative in adapting the CAPM for their uses. The CAPM has been used to select securities, construct portfolios, and evaluate portfolio or equity share performance. Securities for which super-normal returns are forecast are considered undervalued, that is, attractive candidates for purchase. Overvalued securities are those with below-normal anticipated returns and are thus candidates for sale. The degree of over-valuation or under-valuation is determined by the security's alpha, or the distance that the risk-return plot for the security lies from the market line. Securities with positive alphas are attractive while negative alpha securities were considered (over-valued). Attractive (undervalued) securities are those whose risk-return characteristics are plotted, the security market line.

Fair priced securities lie directly on the line. The degree of under-valuation or over-valuation (the alpha) is simply the distance from the security's plot to the line represents the analysis forecast of the security's relative attractiveness. In prospect, all forecasts should fall on the market line because beta and expected return are directly and linearly related (theoretically). In practice forecasts do not fall on the market line, and practitioners believe

that this process can be used effectively to select securities. In addition to selecting securities, beta has been used to control the risk level of portfolio. Although the desired level of risk will depend upon each investor's preference, many portfolio optimization models use a linear programming approach with a particular beta as the risk level constraint. In using a linear-programming technique, some variable returns, for instance is maximized while another factor or factors (risk, for instance) is controlled. Although this is a simplistic description of the more complex portfolio optimization methods, it does convey the essence of how beta is used in managing the level of portfolio risk (Bhalla, 2001: 596).

2.1.3 Common Stock

Common stock is legal representation of equity for ownership position in a corporation. It can be bought and sold in the secondary market. The holders of common stocks are called shareholders or stockholders. The common stocks are the permanent and vital source of capital since they do not have a maturity date. As a return to the contribution of shareholders investment, they are entitled to dividends. It means, in the case of organizational profit, the shareholders are provided a certain sum of money as dividend. The amount or rate of dividend is fixed by the Board of Directors. Hence, the common stock is a kind of variable income security. Being the owner of the company, the shareholders bear the risk of ownership. They are entitled to dividends after the claims of outsiders' are satisfied.

2.1.4 Features of Common Stock:

i. Claim on Income:

The common stockholders bear a right to claim on income, which is earning available for ordinary shareholders, after paying expenses, interest charges, taxes and preferred dividend, if any. The income may be distributed among shareholders in the form of dividend or retained earnings. Dividends are immediate cash flow to shareholders, whereas retained earnings are the income reinvested in the organization, which ultimately increase the net worth of shareholders. Claim on Assets: The common stockholders have a residual claim on the company's assets in case of liquidation. Out of the realized value of assets, first the claims of debt-holders and then preference shareholders are satisfied, and the remaining balance, if any, is paid to the common stockholders.

ii. Right to control

The ordinary shareholders have the legal power to elect directors to the board. If the board fails to protect their interests, they can replace the directors. They are able to participate in the management of the company through their voting right and right to maintain proportionate ownership

iii. Voting Right:

For each share of common stock owned, the common stockholder has the right to cast one vote at the annual meeting or Annual General Meeting (AGM) of stockholder. Common stockholders have the right to vote on stockholders matter, such as the selection or the board of directors, sale of fixed assets, merger of the company etc.

iv. Pre-emptive Right:

The law grants shareholders the right to purchase new shares in proportion to their current ownership. Thus the pre-emptive right entitles a stockholder to maintain his proportionate share ownership in the company. The stockholder's option to purchase, a stated number of new shares at a specified price during a given period, is called rights which can be exercised at a subscription price which is generally much below the current market price of shares.

v. Limited Liability:

The Common Stockholders are the true owners of the company, but their liability is limited to the amount of their investment in shares. If a stockholder has already fully paid the issue price of shares purchased, he/she has nothing more to contribute in the event of financial distress or liquidation. The limited liability feature of share encourages unwilling investors to invest their funds in the company which helps company to raise funds (*Pandey; 1999: 905-908*).

2.1.5 Rights of Common Stockholders

i) Right to income

Common Stockholders are entitled to share in the earnings of the company only if cash dividends are paid. Shareholders also prosper from the market value appreciation of their shares but they are entirely dependent on the board of directors for the declaration

of dividends that give them income from the company. Thus the priorities of common stockholders differ markedly from that of the creditors who provides loan to the entity.

ii) Voting Right

Because the common stockholders of a company are its owners, they are entitled to elect a board of directors. In a large corporation, shareholders usually exercise only indirect control through the board of directors they elect. The board, in turn, selects the management and management actually controls the operations of the company. Voting can be done either in person at the shareholders annual meeting or by proxy.

iii) Right to Purchase new Share

A firm's corporate charter or state statute may require that a new issue of common stock or an issue of securities convertible into common stock be offered first to existing common stockholders because of their pre-emptive right. If the pre-emptive right applies to a particular firm existing common shareholders would have the right to preserve their proportionate ownership in the corporation. Thus, if the corporation issues common stock, the common shareholders must be given the right to subscribe to the new stock so that they can maintain their pro rata interest in the company (*Van Horne and Wachonicz; 2000: 561-564*).

2.1.6 Earning per Share (EPS)

Earnings per Share (EPS) are calculated by dividing a company's net revenues by the outstanding shares. This gives a number that can be used to compare the earnings of companies since it is unlikely any two companies will have the same number of shares outstanding. Accounting earnings that represent the different revenues and expenses, including the expenses associated with non-equity source of funds (such as interest to debt, dividend of preference shares) is known as total earning available for common stock. If this portion of income is divided by number of outstanding shares, we get earning per share (*Francis, et al.; 2001: 622*).

EPS = Total Earning of organization/ No. of Shares Outstanding

2.1.7 Retained Earning

The total amount of earning of the firm that has not paid out as dividend throughout its history and indicated in the Balance Sheet as earning is known as Retained Earnings. These earnings are reinvested in the firm.

2.1.8 Dividend per Share

Dividends per share are calculated by dividing the total dividend amount paid for the financial period by the number of ordinary shares in issue. The directors may pay an interim dividend during the accounting period and then recommend a final rate of dividend per share for approval by shareholders at the Annual General Meeting (AGM).

Forms of Dividend

- a. **Cash Dividend:** Payments made in cash to shareholders are termed as cash dividends. Distribution of cash dividend causes the reduction in total assets and net worth of the company.
- b. **Stock Dividend:** Distribution of bonus shares as dividend to the stockholder is known as Stock Dividend. This increases the number of shares of the company.

$$\text{DPS} = \text{Total Dividend Paid} / \text{No. of Shares Outstanding}$$

2.1.9 Book Value per Share [BPS]

The book value of the equity reflects the historical costs of - brick and meters the physical assets of the company. A well run company with strong management and an organization that functions effectively should have a market value greater than the historical book value of its physical assets (*Weston and Brigham; 1987: 674*).

$$\text{BPS} = \text{Net Worth} / \text{No. of Shares}$$

2.1.10 Market Value per Share

Market value per share is the current price at which the stock is traded. For activity traded stocks that have thin markets, prices are difficult to obtain. Even when obtainable, the information may reflect only the sale of a few shares of stock and not typing the market

value of the firm as a whole. For companies of this sort, care must be taken in interpreting market price information (*Van Horne and Wachonicz; 1996: 561-64*).

$$\text{MPS} = \text{Total Market Capitalization} / \text{No. of Shares Outstanding}$$

The market price of share gives the value of shares, and the value of the organization. The market price is that price in which shares are traded or the amount which is paid by the buyer to the seller to purchase the stock of company. Since the common stock holders are owner of organization and have least priority to claim in liquidation, the share price is highly volatile and very sensible to environmental factors.

Due to the market imperfection and uncertainty, shareholders may give a higher value to the near dividends and capital gains. Thus, payment of dividend may significantly affect the market price of shares. Higher dividends increase the value of shares and low dividends reduce the value (*Pandey; 1999: 681*).

2.2 Reviews of Previous Studies

Different studies have been conducted in the field of share price determinants by various researchers in the past. Some of them have been reviewed in this study in order to avoid possible duplication and bridge the gap-ness.

The Venerable Present Value Model presented by Francis said that “the process used to find the value of a security varies with the types of security. But the following present value formula is the basic economic model that can be employed to value any security (with varying degrees of success):

$$\text{Present Value}_0 = \frac{\text{Cash Flow}}{(1+k)^1} + \frac{\text{Cash Flow}}{(1+k)^2} + \frac{\text{Cash Flow}}{(1+k)^T} \dots\dots\dots(I)$$

The present value model shown in equation (i) says that the present value at time = 0 equals the discounted present value of all the investment's future cash flows at times t=1,2,3,...T, where T is the terminal (or final) period in the investment's life. The convention k represents a risk-adjusted discount rate. The cash flows could be cash dividends from a common stock (*Francis, et al.; 2003: 208*).

The Continuous Equilibrium Model presented by Samuelson says, “Economists who have studied the intrinsic-value random-walk model have accepted and/or modified it in varying degrees. The Nobel-Prize-winning economist, Paul Samuelson, for example, has theorized about how securities prices would behave if securities markets were what economists call 'perfectly competitive' or 'perfectly efficient'.

Samuelson supplemented the intrinsic value random-walk model defining perfectly efficient prices to be market prices that reflect all information. Samuelson suggests that a security with perfectly efficient prices would be in 'Continuous equilibrium". This Continuous equilibrium will not be static through time, however. Every time a new piece of news is released, the security's intrinsic value will change and the security's market price will adjust toward the new value. It is the speed of this price adjustment process which gauges the efficiency of a price. A perfectly efficient security price is in a continuous equilibrium such that the intrinsic value of the security vibrates randomly and the market price equals the fluctuating intrinsic value in every instant in time. If any disequilibrium (of even a temporary nature) exists, then the security's price is less than perfectly efficient. Of course, actual market prices are not perfectly efficient because different securities analysts typically assign different value estimates to any given security.

Actual market price can only pursue a consensus estimate of any given security's intrinsic value since securities analysts' value estimates differ. If most securities analysts' value estimates happen to be similar at a point in time, then the consensus value estimate may only vary within a small range. In this case, the security's price will be almost perfectly efficient as it fluctuates in a narrow range around its changing equilibrium economic value (*Francis, et al.; 2003: 214-215*).

Similarly, Professor James E. Walter argues that “dividend policies almost always affect the value of the enterprise .The investment policy of a firm cannot be separated from its dividend policy, which is just the opposite of what MM said. The key argument in a support of the relevant proposition of the model is the relation between the return of firm's investment or its internal rate of return (r) and its cost of capital (k). As long as the internal

rate is greater than the cost of capital (k), the stock price will be enhanced by retention and will vary inversely with dividend payout.

The basic assumptions of the model are:

- The firm finances all investment through retained earnings that is the firm does not use debt or equity financing.
- The firm's 'r' and 'k' are constant.
- The firm distributes its entire earnings or retains it for investment immediately.
- There is no change in values of earnings per share and dividend per share.
- Perpetual life of the firm.

Based on the above assumption, Walter's formula to determine the market price per share is as follows:

$$P = \frac{DPS}{K} + r \frac{EPS - DPS}{\frac{K}{k}}$$

$$\frac{DPS + R \frac{D}{EPS - DPS}}{k}$$

Where:

- P = Price of share;
- EPS = Earnings per share;
- R = Internal rate of return;
- K = Cost of capital.

Walter referred different dividend policies to different types of firms, which are as follows:

Growth firms (r>K)

Growth firms are those firms which expand rapidly because of ample investment opportunities yielding returns higher than the opportunity cost of capital. In such firms, correlation between dividend and stock price is negative. For such firm optimal payout ratio is zero.

Normal Firms ($r=K$)

The firms whose internal rate of return and cost of capital are same are called normal firms. In such firms dividend payout ratio does not affect the share price.

Declining Firms ($r < k$)

In contrast of growth firm, if a firm does not have profitable investment opportunities, the shareholders will be better off if earning is paid out to them so as to enable them to earn a higher rate by using the relation between dividends and stock prices per share (*Gautam; 1999: 14-16*).

International Monetary Fund [IMF], examined the general relationship between stock price and macro economic variables in Zimbabwe, using the revised DDM, error-correction model, and multi factor return generating model. Despite the large fluctuation in stock prices since 1991, the analysis indicated that the Zimbabwe Stock Exchange functioned quite constitently during the period. Whereas sharp increases in the Share Price during 1993/94 were mainly due to the shift of the risk premium that was caused by partial capital account liberalization (*IMF; 1997: 17*).

Similarly, Myron Gordon says, dividend policy affects the value of shares even in a situation in which return on investment is equal to the capitalization rate i.e. $r = K_e$. It is assumed that investors have a preference for present dividends to future capital gains under the condition of uncertainty. An increase in dividend payout ratio leads to an increase in the stock prices for the reason that investors consider that the dividend yield (d_1/p_0) is less risky than expected capital gain. The basic assumptions are as follows:

1. The firm is an all equity form.
2. No external financing is available so retained earnings will be used to finance any expansion.

The internal rate of return (r) and cost of capital (k) are constant.

- The firm and its stream of earnings are perpetual.
- The corporate taxes do not exit.

- The retention ratio (b) once decided upon is constant. Thus, growth rate, $g = b \times r$ is constant.
- ' K_e ' must be greater than 'g' to get meaningful value.

The market value of share is equal to the present value of the future streams of dividends. A simplified version of Gordon's model can be symbolically expressed as; $P = \frac{EPS}{K_e - g}$, where: P = Price of Share; EPS = Earnings per Share; b = retention ratio; 1-b = Dividend payout ratio; K_e = Capitalization rate or cost of capital; $b \times r$ = growth rate.

First Case: Growth Firm

Share price tends to decline in correspondence with an increase in payout ratio or a decrease in retention ratio, i.e. high dividend corresponding to earning leads to decrease in share price, which are negatively correlated in growth firm.

Second Case: Normal Firm

Share value remains constant regardless of changes in dividend policies, which means dividends and stock prices are free from each other.

Third Case: Declining Firm

Share price tends to rise in correspondence with a rise in dividend payout ratio. It means dividend and stock prices are positively correlated with each other in the declining firm (*Gordon; 1962: 187*).

The study appeals that investors are not indifferent between dividends and retention of earnings. The conclusion of the study is that investors value the present dividend more than the future capital gains. An increase in dividend payout ratio leads to an increase in stock prices for reason of investor's capital gain.

Another study conducted by Pettit on "Dividend Announcements, Security Performance and Capital Efficiency" has the objective of providing further support or evidence about the validity of the efficient market hypothesis by estimating the speed and accuracy, with which market price reacts to announcements of changes in the level of dividend payment. He analyzed 625 announcement dates of all dividend changes collected from New York Stock

Exchange for the period of January 1964 through January 1968, within which 1000 dividend changes were announced and daily price information was also studied for 135 announcements in 1967-1969. For analysis, the market model is used. The study draws the conclusion that the market makes use of announcements of changes in dividend payments in assessing the value of a security and most of the information implicit in the announcement is rejected in the securities' price as of the end of the announcement period (*Pettit; 1972: 63*), and the study strongly supports the proposition that the market is reasonably efficient both on a monthly and daily basis.

A study conducted by Michele, Thaler and Wamack on Price Reactions to Dividend Initiations and Omissions: Overreaction or Drift”, finds out that “the short run price impact of dividend omissions is negative and that of initiation is positive, that there are long term drifts in prices following announcements of initiations and especially omissions, and that there is no evidence of important change in volume or clientele, which mitigates price pressure as a potential explanation for the anomalous drift (*Michele, et al.; 1995: 217*).

Sundaram on “Stationary of Market Risk: Random Coefficient Test for individual Stocks” is undertaken by analyzing 891 individual bonds, containing quarterly rates of return from the fourth quarter of 1968 through the third quarter of 1973 for every corporate bond listed in the NYSE, in order to test whether the market risk of a given stock over a given time series is stationary. Or whether the market risk follows random walk and knows the effect of portfolio diversification on non –stationary of the market risk of portfolios. The cross – sectional correlation and regression estimate tools are used for the study. Finally, the study concludes that: investor may be willing to pay a premium for positive skewness assets in their portfolios, that the inference that co-skewness in addition to variation is required to explain individual assets prices, which is significantly affected by the different market indexes used and other testing and estimation procedures, and that the estimated risk- free rate of return is significantly higher than the actual risk free rate of return (*Sundaram; 1980: 215*).

2.3 Reviews of Journal

Uddin (2009), “*Determinants of market price of stock: A study on bank leasing and insurance companies of Bangladesh*” Journal of Modern Accounting and Auditing, ISSN 1548-6583, USA, Jul. 2009, Vol.5, No.7 (Serial No.50)

Objectives:

- To have an idea about the factors affecting the equity return of company’s stock.
- To identify the relationship between market return of listed financial firms of Bangladesh.
- To identify how much the micro economic factors influence individually to the stock return by using confirmatory factor analysis (CFA).

Methodology: Archival research methodology was used in this study. Two regression models were applied on the data of Bank, insurance and leasing companies listed on Dhaka Stock Exchange in Bangladesh.

Results:

The multiple regression analysis in this study found significant relationship between market price of stock and net asset value per share; market price of stock and dividend percentage; and market price of stock and earnings per share of market returns of bank leasing and insurance companies of Dhaka Stock Exchange in Bangladesh. Used two models such as linear function model, and logarithmic function model linear function model provided accepted result supporting to hypothesis one and logarithmic function model does not accept the second hypothesis i.e. non-linearity among the variables.

Singhania (2008), “*Determinants of Equity Share Prices in Indian Chemical Industry*” Faculty of Management Studies, University of Delhi, ISSN – 160, Year: December 2008 Volume 2, Issue 4/4

Objectives:

- To understand and analyze the significant determinants of equity share prices in the Indian chemical industry.
- To analyze the empirical relationship between equity share prices and various explanatory variables

Methodology:

The research is based on the secondary data collected from CMIE (Center for Monitoring of the Indian Economy). This study covers the period from 2000 to 2007 covering 51 chemical industries listed on Bombay Stock Exchange (BSE). Different statistical tools such as Mean, Standard Deviation, Correlation, Regression have been used to measure the combined effects of explanatory variables on the dependent variable as well as a linear multiple regression model were used.

$$MP = f(BV, DPS, EPS, DC, GH, P/E, DY)$$

Results:

The mean values have shown that during the period 2000 to 2007, the market price was far lower due to various uncertainties prevailing at that time in the country. The correlation analysis shows positive significant (1 percent) association of only dividend cover and book value with market price (MP) and positive significant (5 percent) association of price earnings ratio with market price (MP). At the same time, there is a negative significant (1 percent) association between dividend yield and market price (MP). DPS, EPS and growth are positive but insignificant.

While regression analysis depicts that book value, earnings per share and price earnings ratio are significant determinants, whereas, dividend cover and yield are insignificant with negative value. Growth and dividend per share remained insignificant but with positive value. Finally, it can be concluded from correlation and regression analysis that earning per share, price earnings ratio, book value and dividend yield were the variables which contributed most in determining share prices followed by dividend cover and dividend per share.

Somoye, et. al. (2009), “*Determinants of Equity Prices in the Stock Markets*” International Research Journal of Finance and Economics, ISSN 1450-2887, Issue 30 (2009)

Objectives:

This study aims at examining the extent to which some information factors or market indices affect the stock price.

Methodology:

The study is based on the secondary data of 12 companies listed on the Nigerian Stock Exchange (NSE) covering the period from 2001 to 2007. Weights are attached to EPS and DPS for each of the companies. Weight is derived as a ratio of the company’s EPS or DPS to the total EPS or DPS of all the companies thereafter multiplied with the respective EPS or DPS to derived Weighted Stock Price (SP). To test the stated hypotheses a simple linear regression model derived from Al-Tamimi (2007) is used. To test the significant the following function is established:

$$SP = f(\text{EPS, DPS, GDP, INT, OIL, INFL, FX})$$

To explain the effects of multi co linearity test is conducted using multiple regression software (WASSA) among the independent variables before conducting the regression analysis.

Results:

The multicollinearity test is conducted for all the independent variables and found that there is no significant correlation between earnings per share and dividend per share. There is a strong correlation between crude oil price and GDP. A strong correlation also exists between INFL and INT, FX and GDP. The regression analysis shows that the coefficient of variation is positive for DPS, EPS and GDP where as negative for lending interest (INT) after excluding OIL, INFL and FX. The hypothesis that EPS affect stock price significantly is accepted. The positive GDP’s coefficient in relation to the stock price reveals the hypothesis that the GDP affects stock price significantly is accepted. In the same way the coefficient of interest which is negative also verifies the hypothesis that lending interest rate affects the stock price significantly. The foreign exchange rate’s coefficient is also negative at

significant level of 10% too accepted the hypothesis that foreign exchange rate affects the stock price significantly. Lastly, the research also concluded that the stock price is also affected by other important variables which are not considered in the study.

Cristopher (2009), “*Dynamic Relationship between Stock Prices and Exchange Rates: Evidence from Three South Asian Countries*” International Business Research, April 2009, Vol.2, No.2

Objectives:

To investigate the interactions between stock prices and exchange rates in three emerging countries of South Asia i.e. Bangladesh, India and Pakistan.

Methodology:

The research work is based on time series analysis. The two unit root tests Augmented Dickey-Fuller (ADF) test and Philip-Perron (PP) test are used to investigate the stationary ness of the time series data. The result obtained is further test to identify the co integrating relationship between integrated variables and Johansen Procedure has been used which applies maximum likelihood procedure to determine the presence of co integrating vectors in non-stationary time series as a vector autoregressive (VAR). Again if there does not exist any co integrating relationship between the variables, the Standard Granger Causality test base on Granger (1998) method is applied. If again the co integration exists between Share price and Exchange rate the VECM is applied to Granger causality test.

Results:

The study conducted on two important component of macro economy like stock price and exchange rates finds the results that all the data series of the variables are non stationary and integrated of order one by two unit root tests Augmented Dickey-Fuller (ADF) test and Philip-Perron (PP) test. The results for co integrating relationship test shows there is no co integrating relationship between stock prices and exchange rates. The Granger causality test find out that stock prices does not Granger cause exchange rates and exchange rates does not Granger cause stock prices. There for the researchers’ state that variables are not predictable on the basis of the past values or other variables and the information of one market does not affect the other market.

2.4 Review of Master's Thesis

Number of thesis relevant to this study has been reviewed for the purpose of finding previous studies and their findings. Some of the important findings are presented here below:

Baral (2003) has conducted research on “*Stock Price Movement in Nepalese Securities Market*”, submitted to Tribhuvan University, Nepal. The main objectives of his research is to explore the stock price movement in Nepalese security market as well as to obtained the view of investors of Nepalese stock market.

Baral concluded that even though Nepalese stock market is in the growth stage; it has crossed the initial stage but not reached in the matured stage as defined stock price trend is running unsystematically. Majority of investors of Nepalese stock market price invests their money from the view point of income and investors process and its other factor like NEPSE index price trend and investments facilitators are not doing their work in systematically way.

Dhamala (2004) has conducted research on “*Determinants of Share Price in Nepalese Financial Market*”, submitted to Tribhuvan University, Nepal to examine and evaluate the relationship of MPS with the various financial indicators like EPS, NWPS, DPS, FOE etc..

The major findings of the research pointed out by Dhamala are HBL's MPS is negatively correlated with major financial indicators. But it has positive relationship with DPS and DPR respectively. NBL's MPS positive relationship with EPS and ROE whereas it has negative relationship with order financial variable. NIBL's MPS is reversely correlated with major financial variable. However, MPS and DPS is statistically significant and 1% level of significance. He also finds on his research SCBNL's MPS is negatively correlated with major financial indicator. But it has higher positive relationship with ROE with it has negative relationship. The relationship of MPS with EPS and NWPS is statistically significant at 5% level.

Dhamala concluded that there is not a single financial indicator that has dominant role to determine MPS. The same financial indicator that has significant role in the fixation of MPS for one company is not significant for another company. The degree of interrelationship of

MPS with different financial indicators varies from one company to another. There is no uniformity in the relationship of MPS with various financial indicators of the sampled companies. If considered on the basis of the average data for the past five years, MPS of ten financial institutions has higher positive correlation with major financial indicators such as EPS, NWPS and DPS, and such relationship is significant.

Giri (2005) has made a research on “*A study on Share Price Behaviour of Listed Commercial Banks*”, submitted to Nepal Commerce Campus, Nepal. The main objectives of her research are providing glimpse of the present Nepalese stock market and analyze the share price determinants of the commercial banks listed at Nepal Stock Exchange. She examined the risk involved in the common stock investment of the simple commercial banks. In lastly suggest viable option on the basis of finding.

The major findings of this study revealed that large number of serial correlation daily log price changes of ten commercial bank's stocks for the sample period is significantly departed from zero. This depicts that past and present price changes can screen out some valuable information in forecasting future price changes. Thus there exists sufficient opportunity for the sophisticated investors. She finding on his thesis to make more profit, acute fundamental and other analyses are required which accurately predicts the appearance of the new information in the market, which has impact on the prices than the buy and hold strategy. Through the coefficient of variation analysis, it is found that there is highest percent of per unit risk for the stocks of SBI. Due to negative realized returns, NIC and NBL have negative coefficient of variation. Stocks of NBBL are more aggressive to market changes as revealed by the highest beta coefficient of 3.93.

She concluded that the serial correlation coefficients of the daily price changes lead to weakly efficient market hypothesis does not offer a satisfactory explanation to these speculative price series. The independence in the series of the price changes observed implies that the price changes in the future market will not be independent from the price changes of the previous days. It brings about that the information of the past price changes is helping in predicting future price changes. In the meanwhile, the statistical analysis

regarding the risk and return of the sampled stocks show that most of these stocks seem to be risky than the average stock.

Regmi (2006) submitted dissertation on “*Role of Financial Indicators in Determining Share Price in Nepalese Financial Market*” to Shanker Dev Campus. The main objectives of his research are to examine and evaluate the relationship of MPS with various financial indicators like NWPS, EPS, DPS, ROE, etc. Regmi focused on his objective whether stocks of the sampled companies are equilibrium priced or not. He also focused on the qualitative factors affecting the stock price.

The major findings of this study pointed that NABIL’s MPS is positively correlated with all financial indicators but these values are not statistically significant at either 5% or 10% level of significance. He also finds NIBL’s MPS has negative correlation with all financial indicators. Similarly, for relationship with all financial indicators of MPS for NFCL is positively correlated and the relationship is statistically significant at 5% level of confidence with EPS and at 10% level of confidence with NWPS and DPS. In lastly, the other Finance Companies, the correlation coefficient of MPS with other financial indicators, are both positively and negatively correlated and the relationship is statistically significant for KFL and UFCML and for others it is insignificant.

Regmi concluded that MPS of NABIL, NFCL and ACE is positively correlated with all the financial indicators studies. Similarly, MPS of BOK, KFL, UFCML and HISEF is positively correlated with most of the financial indicators studied. For other company like NIBL, MPS is negatively correlated with all of the financial indicators studied, and for SBI, MPS is negatively correlated for most of the financial indicators. The relationship is statistically significant for some of the financial indicators for some of the companies. The market price of share in Nepal is not indicative of a Company’s financial performance in the stock market. The share market is imperfect and is not efficient and is liable to manipulation.

Sharma (2008) has conducted a study on the topics “*Rights Announcement and It’s Impacts on Shareholder Wealth Position in Nepalese Context.*” The main objectives of his study were to evaluate the effect in market price per share after the allotment of right share, to examine the procedure and mechanism of right issue in the context of Nepal. To conduct his

study he used correlation analysis between market price of share and NEPSE Index. T statistics is used to test if there was significant Change in price before and after the issue of rights. He also considers the value of right to find out different between market price before and after announcement of right share. His analysis only covers 2056/57 to 2063 B.S. The result may not represent the present economic Scenario. He has taken only nine companies as sample to complete his study.

Major objectives in this study were examined the procedure and Mechanism of rights issue in the context of Nepal. He also evaluates the effective in market price per share after allotment of right share.

Major Finding in this study were categorized in to two parts, first the entire shareholders are mostly unknown about the right share and secondly its benefits and effect on their wealth position.

He concluded that unrealistic income statement is published. It is found that the entire sample company did not follow the theory of the rights share.

Poudel (2009) has conducted the study on “*Effect of Right Share and Bonus Share in MPS of Listed Companies*” with reference to Nepalese Financial Institution. In This study his objective was to examine and analysis various aspect of bonus share and right share. To evaluate the problems vegarclity to investors in associated both right share and bonus share. To suggest and recommend on the basis of major findings. To, analysis this study he has used hypothesis analysis to find out difference of MPS before and after announcement of the right offering. He has also used co-efficient of correlation to describe degree to which are variable is linearly related to another. He has also used valuation of rights to find out different between MPS before and after announcement date. He analysis only to covers the data last time years i.e. 2005/06 to 2009/10.

Major Finding of this study pointed that the sample company does not follow the theory of right and bonus share and all of investor does not know about the wealth position after issue right and bonus share.

Ghimire (2010) submitted dissertation on “*Right Share Practice and its Impact on Stock Price: the Nepalese Evidence*” to Shanker Dev Campus. The main objectives of his research are to evaluate the effect in market price per share after the allocation of right share and examine the procedure and mechanism of right share in the context of Nepal. Similarly, test the significance different between the share price movement of bank & financial institution before and after announcement of right share.

Major Finding of this study depicted that shareholder of Nepalese companies lacks the knowledge about the right share and its impact their wealth position, Due to this ,free movement of share movement of share price during right on ex-right is not confirmed. Right share practice in Nepal is in increasing trend in recent year. It contributes 53.09% in total public issue till the end of fiscal years 2064/65 which is in the largest position among all other instruments. Very few Nepalese investors are all aware about the phenomenon of rights share and they are ready to buy right share if their company offers right share to increase the value of share, to increase the number of shares and to increase the dividend. Some investors still don't have the knowledge about right share and large number of shareholders holds small number of share and they generally ignored rights share.

Conclusion:

As the capital market is growing since few decades it is undergoing through drastically changes in terms of microstructure changes in secondary markets. Different study has been conducted on capital market to add some new phenomena in the financial literature. The above stated literature concern about the stock price and its relationship among different independent variables. Uddin, M., (2009) in his study found significant relationship between market price of stock and net asset value per share; market price of stock and dividend percentage; and market price of stock and earnings per share of market returns of bank leasing and insurance companies of Dhaka stock Exchange in Bangladesh by conducting linear and non linear relationship among the variables. He used two models such as linear function model and logarithmic function model where first model supported that there is a significant linear relationship between Market price of Stock and Net Asset Value per Share, Dividend Percentage, and Earnings per Share whereas the second model did not accept that there is a non-linear association among the variables. Thus, this results determination of

stock price is affected by Net Asset Value per Share, Dividend Percentage, and Earnings per Share. Another study made by Singhania, M., (2009) Equity Share Prices in Indian Chemical Industry shows that Book value per share, dividend per share, dividend yield, cover, growth, price earning ratio and earnings per share affect the equity share price. The study carried by Christopher on determinants of equity prices in the stock markets of Nigeria covering some macro economic variables like GDP, Interest rate, and foreign exchanges found the result close to the Singhania, M. In other words there is a significant relationship among the variables. However, Somoye, et al. (2009) has a different view on relationship between stock price and exchange rate. They argue that the information of one market does not affect the other market.

Finally, the result obtained from the various research work shows different and similar views in some context. In my view the factors that they consider are not static in nature. The market scenarios and its development could also results in different anticipation of the variables. It could not be wise to compare the study even in same variables because of the environmental effects on the variables.

Number of thesis relevant to this study has been reviewed for the purpose of finding previous studies and their conclusion. Some of the important conclusion are made on the basis of previous studies are as follows.

- Majority of investors of Nepalese stock market price invests their money from the view point of income and investors process and its other factor like NEPSE index price trend and investments facilitators are not doing their work in systematically way.
- There is not a single financial indicator that has dominant role to determine MPS.
- The degree of interrelationship of MPS with different financial indicators varies from one company to another.
- The independence in the series of the price changes observed implies that the price changes in the future market will not be independent from the price changes of the previous days.

- The relationship is statistically significant for some of the financial indicators for some of the companies.
- The market price of share in Nepal is not indicative of a Company's financial performance in the stock market.
- The share market is imperfect and is not efficient and is liable to manipulation.
- Unrealistic income statement is published.
- The company does not follow the theory of right and bonus share and all of investor does not know about the wealth position after issue of right and bonus share.
- The shareholder of Nepalese companies lacks the knowledge about the right share and its impact in their wealth position.
- Some investors still don't have the knowledge about right share and large number of shareholders holds small number of share and they generally ignored rights share.

2.5 Research Gap

Since the above mentioned studies on share price behaviour in Nepal offer limited findings, more extensive testing measures, more close time period (in most of the study data were taken as weekly or monthly basis which is not real representation of the market) and adjustment of necessary variables are needed in order to be more conclusive about the efficiency of Nepalese stock market.

Most of the studies on share price behaviour conducted in the context of Nepal were based on secondary sources of information only. No study has been conducted on price behaviour related to stock market efficiency by using share brokers and individual investors as primary sources of information. There was a need to conduct a survey with the share brokers, market analyzers and individual investors who are the major stakeholders of the stock market, in order to find out more subjective facts on share price behaviour which cannot be tested through the use of the secondary source of information. The present study is conducted to fulfill such gaps.

Chapter-III

RESEARCH METHODOLOGY

3.1 Research Methodology

Research methodology refers to the various sequential steps that are to be adopted by a researcher during the course of studying a problem with certain objectives. It tends to solve the search problem in a systematic way. Hence, the overall research method adopted by the researcher is mentioned. These study covers quantitative methodologies in a greater extend and also uses the descriptive part based on both technical aspects and logical aspect. This research tries to perform a well designed quantitative and qualitative research in a very clear and direct way using both financial and statistical tools. The purpose, hypothesis or research question and format are covered in this research.

3.2 Research Design

Research design refers to the definite procedure and techniques which guides to study and provide ways for research viability. It is arrangements for collection and analysis of data.

The main objective of this study is to examine the interrelation of MPS with NWPS, EPS, DPS and other financial indicators. To achieve this objective, descriptive and exploratory research designs have been adopted. Some financial and statistical tools have been applied to examine facts and descriptive techniques have been used to determine factors determining stock prices of commercial banks in the NEPSE.

3.3 Study Population

As per the data of Feb, 2011, there are 200 public companies that are listed with Nepal Stock Exchange Ltd. (NEPSE) consisting 68 from finance companies, 18 from manufacturing, 32 from commercial banking sector, 21 from insurance company, 4 from trading, 48 from Development Banks, 4 from hotel, 4 from hydropower and 2 from other sectors.

Since the study concentrates only on the determinants of stock price of Commercial Banks of Nepal, all the Commercial Banks listed in NEPSE were taken as population for the study.

Five commercial banks were randomly selected as sample for this study. Which are as follows.

- Everest Bank Ltd.
- Himalayan Bank Ltd.
- Nepal Bangladesh Bank Ltd.
- NMB Bank Ltd.
- KIST Bank Ltd.

3.4 Sources of Data

For the effective and efficient findings, both primary and secondary data has been collected as source of data. For the purpose of primary data, a questionnaire was presented to the 50 respondents. The respondents were from the NEPSE courtyard that have either invested in share or willing to invest in share soon. The secondary data are collected from different sources of related companies and organizations as follows:

- The year-ended equity share data sheet showing MPS, BPS, EPS, DPS, Balance Sheet, Profit and Loss a/c etc.
- Information relevant to the study available in various web-sites.
- Relevant books, journals, magazines, reports, bulletins etc.
- Previous thesis and studies.

3.5 Data Collection Techniques

A questionnaire was prepared and sample survey was made to identify the viability of question. Then the final questionnaire containing 12 sets of questions was prepared and primary data was collected by presenting the questionnaire to 50 respondents - all either professional investor or potential investor or market analyzer of the NEPSE floor. All the respondents thoroughly filled the questionnaire, which has been analyzed in the following chapters in qualitative and qualitative way.

For the collection of secondary data, the official website of Nepal Stock Exchange, www.nepalstock.com was visited from where the financial reports of the concerned companies and other relevant information were taken. Likewise, the website of Nepal Rastra

Bank, www.nrb.org.np was visited and the required data were downloaded. The financial statements of the concerned organizations are taken from the library of Security Board of Nepal [SEBON], NEPSE and the share departments of respective banks.

In the same way, frequent visits were made to Central Library, TU, Public Youth Campus Library, to review different books and previous studies. Similarly, in order to collect relevant documents, frequent visits are made to NEPSE office, SEBON office, Nepal Rastra Bank and respective banks etc.

3.6 Data Processing

Data gathered in this way have been verified and simplified for the purpose of analysis first. Then it has been arranged and presented in a systematic way. Moreover, it has been checked, edited and tabulated in such ways that provide convenience for computation and interpretation.

The relevant data have been inserted in meaningful tables. Only the data that are relevant to the study have been presented in the tabular form in the understandable way and unnecessary data have been excluded. Wherever the data suits, different types of charts and diagrams have been made to clarify the tabulated data in systematic way. An attempt has been made to find out the conclusion from the available data, with the help of various financial as well as statistical tools.

3.7 Data Analysis Tools

Several tools and techniques are used to analyze the primary and secondary data collected from various sources for obtaining the logical conclusion. The following financial as well as statistical tools using MS excel have been used to analyze the data:

3.7.1 Statistical Tools

Statistical tools measure the data and give the result in numeric form which helps to analyse the data in logical way. The following statistical tools have been used in this study.

3.7.1.1 Average/Mean

Average, in general, is calculated by adding the numbers of all observations and dividing by the total number of observations. It is in fact, a value which is represented to stand for whole group of which it is a part, as typical of all the values in the group.

3.7.1.2 Standard Deviation

The standard deviation (σ) is the other measure of investment risk. It is absolute measures of dispersion. The smaller the standard deviation the lower will be the degree of risk of the stock. In other words, a small standard deviation means a high degree of uniformity of the observations as well as homogeneity of a series and vice versa. The formula for calculating the standard deviation is:

$$\text{Standard Deviation} = \sigma = \sqrt{\frac{\sum (X - \bar{X})^2}{n}}$$

3.7.1.3 Coefficient of Variation

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

$$\text{Coefficient of Variation (CV)} = \frac{\sigma}{\bar{X}} \times 100$$

3.7.1.4 Karl Pearson's Coefficient of Correlation

“Karl Pearson's Coefficient of Correlation is a statistical tool for measuring the intensity or magnitude of linear relationship between the two variables series. Karl Pearson's measure, known as Personian Correlation Coefficient between two variables (Series) X and Y, usually denoted by 'r(X,Y)' or 'rxy' or simply 'r' can be obtained as;

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

Where,

N	:	Number of observations in series X and Y
$\sum X$:	Sum of observations in series X
$\sum Y$:	Sum of observations in series Y
$\sum X^2$:	Sum of squared observations in series X
$\sum Y^2$:	Sum of squared observations in series Y
$\sum XY$:	Sum of product of observations in series X and Y

The value of correlation coefficient 'r' lies between -1 to 1, i.e. $-1 < r < 1$.

If $r = 1$, there is perfect positive relationship. If $r = -1$, there is perfect negative relationship. If $r = 0$, there is no correlation at all." (Gupta; 1999: 519-521.)

"The closer the value of 'r' is 1 or -1, the closer the relationship between the variables and the closer 'r' is to 0, the less close relationship." (Shrestha and Manandhar; 1999: 234).

3.7.1.5 Coefficient of Determination

"The coefficient of determination between the two variable series is a measure of linear relationship between them and 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'." (Gupta; 1999: 585).

Thus,

$$\text{Variance Total Variance Explained } r^2 = \frac{\text{Explained Variance}}{\text{Total Variance}}$$

3.7.1.6 Regression Analysis

Simple Regression Analysis

Regression is the estimation of unknown values or prediction of one variable from known values of other variables. It is a mathematical measure of the average relationship between two or more variables in terms of the original units of the data. The known value which is used for prediction (or estimation) is called independent (or regressor or predictor or explanatory) variables and the unknown value that we are going to predict is called dependent (or regressed, predicted or explained) variable. (*Pant & Chaudhary; 2000: 237*).

Line of regression of X on Y

The line of regression of X on Y is the line which gives the best estimates of X for any given amount of Y. The regression equation is expressed as:

$$Y = a + bx$$

We shall get the normal equation for estimating 'a' and 'b' as:

$$\Sigma Y = na + b \Sigma x \dots\dots\dots(i)$$

$$\Sigma XY = a \Sigma X + b \Sigma x^2 \dots\dots\dots(ii)$$

Where, Y = the value of dependent variable,

a = Y-intercept

b = Slope of the trend line/coefficient of regression

X = Value of independent variable

3.7.1.7 Coefficient of Regression

The coefficient 'b', which is the slop of line of regression of Y on X is called the coefficient of regression of Y on X. It represents the increment in the value of the independent variable Y for a unit change the values in value of the independent variable X. In other words, it represents the rate of change. The convenient way to calculate the value of 'b' is as:

$$b = \frac{n \Sigma XY - \Sigma X \Sigma Y}{N \Sigma X^2 - (\Sigma X)^2}$$

Similarly, the value of Y-intercept can be computed as:

$$a = \frac{(\sum X^2)(\sum Y) - \sum X \sum Y}{N \sum X^2 - (\sum X)^2}$$

Multiple Regression Analysis

Multiple regression analysis consists of two or more independent variables. It derives an equation which provides estimates of the dependent variable from values of the two or more independent variables. It obtains a measure of the proportion of variance in the dependent variable which is explained by the independent variable and a measure of error involved in using the regression equation as a basis for estimation using this regression equation as a basis for estimation of the dependent variable.

The multiple regression equations is explained by :

$$X_1 = a + b_1 X_2 + b_2 X_3 \dots\dots\dots(i)$$

Where, a = point of intercept on Y-axis = The value of X_1 when $X_2 = X_3 = 0$

b_1 = Slope of X_1 with variable X_2 holding variable X_3 constant = corresponding change in X_1 for each unit change in X_2 while X_3 is held constant

b_2 = Slope of X_1 with variable X_3 holding variable X_2 constant = Corresponding change in X_1 for each unit change in X_3 while X_2 is held constant.

X_1 = Dependent variable

X_2 and X_3 = Independent variable

The values of constants a, b_1 and b_2 are determined by solving simultaneously following three normal equations obtained by the method of least squares.

$$\sum X_1 = na + b_1 \sum X_2 + b_2 \sum X_3 \dots\dots\dots(ii)$$

$$\sum X_1 X_2 = a \sum X_2 + b_1 \sum X_2^2 + b_2 \sum X_2 X_3 \dots\dots\dots(iii)$$

$$\sum X_1 X_3 = a \sum X_3 + b_1 \sum X_2 X_3 + b_2 \sum X_3^2 \dots\dots\dots(iv)$$

We get the multiple regression equation (i) by putting the values we get from solving equation ii, iii and iv.

3.7.1.8 T- Test

T-test, commonly known as Student's T-Distribution, is used when sample size is equal to or less than 30, the parent population from which the sample is drawn is normal, the population standard deviation is unknown. In order to test the significance of an observed sample correlation coefficient, the following procedure has been applied:

The following formula is used to test an observed sample correlation coefficient:

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{(n-2)}$$

Where, r = simple correlation coefficient

N = number of observation

S.N Methods of Data Presentation

The collected data are presented in simple and clear way summarizing in table, charts and diagrams wherever applicable. Then, it has been analyzed in a systematic way using various statistical, mathematical and financial tools and techniques from MS excel 2003 and 2007.

Chapter-IV

DATA PRESENTATION AND ANALYSIS

4.1 Commercial Banks of Nepal

Commercial Banks refer to the banks which accept deposits of the public and organization, grant loan to them against securities, providing financial agency services to the client/customer as requested. Nepal Bank Ltd. was established as the first Commercial Bank in Nepal in 1937 A.D. Rastriya Banijya Bank was established in 1966 under Rastriya Banijya Bank Act, 1965 A.D. After the restoration of democracy in the country, the government adopted liberal economic policy and as a result, many commercial banks came into existence. The list of commercial banks of Nepal is presented in Table No. 4.1.

Table: 4.1
Operation Date of Nepalese Commercial Banks

<i>S. No.</i>	<i>Name of the Banks</i>	<i>Established Year(A.D.)</i>
1.	Nepal Bank Ltd.	1937
2.	Rastriya Banijya Bank Ltd.	1966
3.	NABIL Bank Ltd.	1984
4.	Nepal Investment Bank Ltd.	1986
5.	Standard Chartered Bank Nepal Ltd.	1987
6.	Himalayan Bank Ltd.	1993
7.	Nepal Bangladesh Bank Ltd.	1993
8.	Nepal SBI Bank Ltd.	1993
9.	Everest Bank Ltd.	1995
10.	Bank of Kathmandu Ltd.	1995
11.	Nepal Credit & Commerce Bank Ltd.	1996
12.	Lumbini Bank Ltd.	1998
13.	Nepal Industrial & Commercial Bank Ltd.	1998
14.	Machhapuchhre Bank Ltd.	2000
15.	Lumbini Bank Ltd.	2001
16.	Laxmi Bank Ltd.	2002
17.	Siddhartha Bank Ltd.	2002
18.	Agriculture Development Bank Ltd.	2005
19.	Global Bank Ltd.	2007
20.	Citizen International Bank Ltd.	2007

21.	Prime Commercial Bank Ltd.	2007
22.	Bank of Asia Nepal Ltd.	2007
23.	Sunrise Bank Ltd.	2007
24.	Kist Bank Ltd.	2003
25.	NMB Bank Ltd.	1996
26.	Development and Credit Bank Ltd.	2001
27.	Janata Bank Ltd.	2010
28.	Mega Bank Nepal Ltd.	2010
29.	Commerz & Trust Bank Nepal Ltd.	2010
30.	Civil Bank Limited Ltd.	2010
31.	Century Commercial Bank Ltd.	2011
32.	Sanima Bank Ltd.	2011

Source: NRB

Though Agricultural Development Bank Limited (ADBL) has also been allowed to serve the commercial functions from 2006, it has been excluded in this study because it specially focuses the agricultural sector.

4.2 Relationship between EPS, DPS and BPS to MPS

The relationship of EPS, DPS and BPS with MPS is determined separately to each of the sampled listed companies in this section. For their analytical purpose, the market price of share (MPS) is assumed to be influenced with the fluctuation occurred in EPS, DPS and BPS. Hence, MPS is taken as dependent variable whereas EPS, DPS and BPS are taken as independent variable. The correlation analysis is performed to determine the relationship of EPS, DPS and BPS with MPS. To determine the effect of DPS, EPS, and BPS on MPS, simple correlation as well as their coefficient of determination are calculated.

4.2.1 Everest Bank Ltd.

The financial performance of Everest Bank Ltd. for the past five years has been summarized in the following table. It tends to show the relationship of EPS, DPS and BPS to MPS along with their significance.

Table No. 4.2
Summary of the Financial Performance of EBL

Year	MPS	DPS	BPS	EPS
2005/06	1379	25	185.87	45.81
2006/07	2430	40	231.95	57.22
2007/08	3132	50	231.08	54.27
2008/09	2455	60	262.71	76.15
2009/10	2390	0	283.64	20.94
Total	11786	175	1195.25	254.39
Mean	2357.2	35	239.05	50.878
SD	627.1226	23.45208	37.04763	20.07716
CV	26.60455	67.00594	15.49786	39.46137

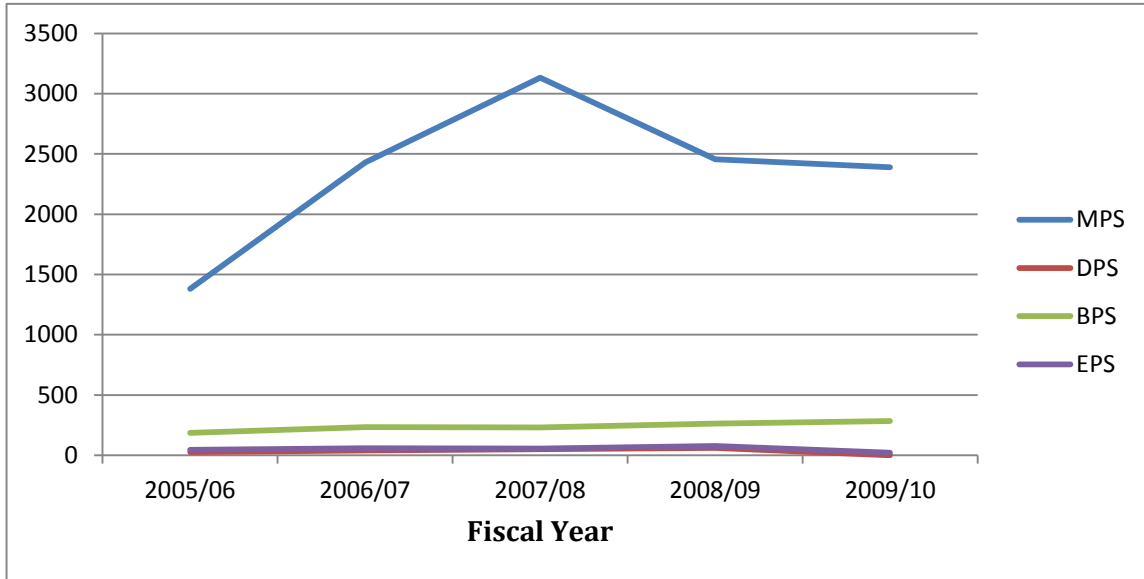
(Source: Annual Reports of EBL)

The above table (Table No. 4.2) presents the summary of financial performance of Everest Bank Limited for the last five years. The MPS has been decreased from year 2008/09. The MPS as well as EPS seems to be in increasing order in the previous years. High coefficient of variation (67.0059%) of DPS clears that the DPS distribution is highly volatile and inconsistent. In comparison with MPS, BPS and EPS possess low degree of Coefficient of Variation.

The industry average of CV of MPS, BPS, DPS and EPS equals to 26.60%, 67.005%, 15.49% and 39.46% respectively. This shows that MPS, DPS and EPS of this bank have higher degree of CV than that of BPS

The following line chart (Figure No.4.1) shows the linear relationship of Market Price per Share with BPS, DPS and EPS.

**Figure No. 4.1:
Relationship between MPS, DPS, BPS and EPS of EBL**



The relation of MPS with BPS, DPS and EPS has been presented in the following table (Table No. 4.3):

**Table 4.3
Relationship of BPS, EPS and DPS with MPS of EBL**

Variables	r	r ²	t-cal	a-value	b-value	t-table	Remarks
MPS Vs. DPS	0.392066	0.153716	0.852377	1990.257	10.48409	3.182	Insignificant
MPS Vs. BPS	0.528389	0.279195	1.244731	219.0661	8.944296	3.182	Insignificant
MPS Vs. EPS	0.189363	0.035858	0.385705	2056.263	5.914881	3.182	Insignificant

Where,

r : Coefficient of Correlation

r²: Coefficient of Determination

t-cal : Student's t-value

t-table : Tabulated value of Student's t-distribution (at 95% level of significance, n-2 i.e. 5-2=3 Degree of Freedom about standard error)

a-value : Y-intercept of Regression equation (MPS – dependent intercept)

b-value : Slope of the line (Variable Intercept)

Table No. 4.3 shows the relation of MPS with DPS, BPS and EPS. It shows that MPS is positively correlated with DPS, BPS and EPS. It means that there is positive relationship among the variable. Its shows that when MPS increases DPS, BPS and EPS increases and vice versa.

The **Simple Regression** equation of DPS, BPS and EPS taking MPS as dependent variable is given in Table No. 4.4:

Table No. 4.4
Simple Regression Equation of EBL

S.N.	Variables	Regression Equation
1	MPS Vs. DPS	$MPS = 10.48409 \text{ DPS} + 1990.257$
2	MPS Vs. BPS	$MPS = 8.944296\text{BPS} + 219.0661$
3	MPS Vs. EPS	$MPS = 5.914881\text{EPS} + 2056.263$

The first equation is the regression equation of MPS on DPS. The regression constant equals 1990.257 this means that when DPS is zero, MPS equals to Rs. 1990.257 Likewise, the coefficient for DPS equals to 10.48409. Meaning that when DPS increases/decreases by Re. 1, MPS increases/decreases by Rs. 10.48409 and vice versa.

The second equation refers to the regression equation of MPS on BPS. The regression constant equals to 219.06. This means that when BPS becomes zero, MPS equal to Rs. 219.06. Likewise, the coefficient for BPS equals to 8.94 means when BPS increases/decreases by Re. 1, MPS increases/decreases by Rs. 8.94 and vice versa.

Likewise, the last equation indicates the regression equation of MPS on EPS. The regression constant equals to 2056.26. This means, when EPS falls to zero, MPS equals to Rs. 2056.26. In the same way, the coefficient for EPS equals to 5.91 meaning that when EPS increases/decreases by Re. 1, MPS increases/decreases by Rs. 5.91 and vice versa.

The **Multiple Regression** equation of MPS of Everest Bank Limited on DPS and EPS is represented by the following equation.

MPS on DPS, EPS and BPS

$$\text{MPS} = 1262.68 + 75.51\text{DPS} - 75.76\text{EPS} - 9.65\text{BPS}$$

The above equation gives the result on MPS due to the joint effect on DPS, EPS and BPS. MPS intercept equal to 1262.68. It implies that when DPS, EPS, and BPS become zero, MPS is found to be 1262.68; coefficient of DPS is 75.51 meaning that when DPS is increased by Rs. 1 MPS increases by Rs 75.51. In the Same way coefficient of EPS is - 75.76, meaning that when EPS increase or decreases by Re. 1 MPS increase or increases by Rs.75.76. Similarly the coefficient for BPS is -9.65 it implies that when BPS increase or decrease by Re 1. MPS decrease and increases by Rs. 9.65.

4.2.2 Himalayan Bank Limited

The following table outlines the major financial performance of Himalayan Bank Limited over the past six years. The relationship of MPS with DPS, BPS and EPS has been explained thereafter.

Table No. 4.5
Summary of the Financial Performance of HBL

Year	MPS	DPS	BPS	EPS
2005/06	1100	35	228.72	59.24
2006/07	1740	40	264.74	60.66
2007/08	1980	45	247.95	62.74
2008/09	1760	43.56	256.52	61.9
2009/10	1495	0	277.98	9.46
Total	8075	163.56	1275.91	254
Mean	1615	32.712	255.182	50.8
SD	335.2238	18.68889	18.47589	23.14748
CV	20.75689	57.13161	7.240279	45.5659

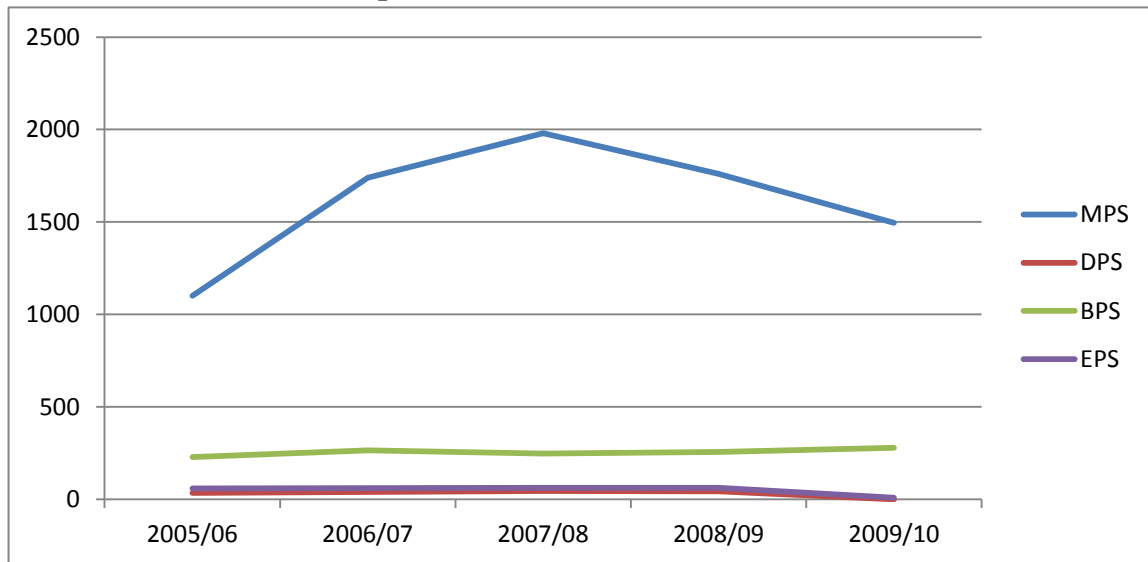
(Source: Annual Report of HBL)

The above table (Table No. 4.5) presents the summary of financial performance of Himalayan Bank Limited for the last five years. From the table, it can be revealed that the performance of the bank was lowered at the midterm of study period. It means the data

shows good financial performance first and then it was declined. But in the recent years it has been improved. The DPS seems to be in increasing order in the later years. Among these four indicators, DPS has more Coefficient of Variation whereas BPS has the lowest one. Here, the low degree of Coefficient of Variation of these indicators explains the more consistency of the banking performance in comparison with other banks.

The industry average of CV of MPS, BPS, DPS and EPS equals to 20.75%, 57.13%, 7.24% and 45.46% respectively. This shows that DPS and EPS of this bank have higher degree of CV than that of BPS and MPS.

Figure No. 4.2:
Relationship between MPS, DPS, BPS and EPS of HBL



The relation of MPS with BPS, DPS and EPS has been presented in the following table (Table No. 4.6):

Table No. 4.6
Relationship of BPS, EPS and DPS with MPS of HBL

Variables	r	r ²	t-cal	a-value	b-value	t-table	Remarks
MPS Vs. DPS	0.38772	0.150327	0.841244	1387.503	6.954554	3.182	Insignificant
MPS Vs. BPS	0.389164	0.151449	0.844937	-186.826	7.060943	3.182	Insignificant
MPS Vs. EPS	0.251763	0.063385	0.520285	1429.781	3.646052	3.182	Insignificant

Table No. 4.6 shows the relation of MPS with DPS, BPS and EPS. It means that there is positive relationship among the variable. Its shows that when MPS increases DPS, BPS and EPS increases and vice versa.

The **Simple Regression** equation of DPS, BPS and EPS taking MPS as dependent variable is given below (Table No. 4.7):

Table No. 4.7
Regression Equation of HBL

S.N.	Variables	Regression Equation
1	MPS Vs. DPS	$MPS = 6.954554DPS + 1387.503$
2	MPS Vs. BPS	$MPS = 7.060943BPS - 186.826$
3	MPS Vs. EPS	$MPS = 3.646052 EPS + 1429.781$

The first equation is the regression equation of MPS on DPS. The regression constant equals to 1387.50. This means that when DPS falls to zero, MPS equals to Rs. 1387.50 Likewise, the coefficient for DPS equals to 6.95 implies that when DPS increases by Re. 1, MPS increases Rs.6.95 and vice versa.

The second equation refers to the regression equation of MPS on BPS. The regression constant equals to -186.82. This means that when BPS becomes zero, MPS will be equals to Rs. -186.82. Likewise, the coefficient of BPS equals to 7.06 meaning that when BPS increases by Re. 1, MPS decreases by Rs. 7.06 and vice versa.

In the same way the last equation indicates the regression equation of MPS on EPS. The regression constant equals to 1429.78. This means that when EPS falls to zero, MPS equals to Rs. 1429.78. Likewise, the coefficient of EPS equals to 3.64 meaning that when EPS increases/decreases by Re. 1, MPS increases/decreases by Rs. 3.64 and vice versa.

The **Multiple Regression** equation of MPS of Himalayan Bank Limited on DPS and EPS is represented by the following equation.

MPS on DPS, EPS and BPS

$$\text{MPS} = 361.93 + 89.53\text{DPS} - 64.46\text{EPS} + 6.26\text{BPS}$$

The above equation gives the result on MPS due to the joint effect on DPS, EPS and BPS. MPS intercept is 361.93. It implies that when DPS, EPS, and BPS become zero, MPS is found to be 361.93; coefficient of DPS is 89.53 meaning that when DPS is increased by Rs. 1 MPS increases by Rs 89.53. In the Same way coefficient of EPS is -64.46, meaning that when EPS increase or decreases by Re. 1 MPS increases or decreases by Rs.64.46. Similarly the coefficient for BPS is 6.26 it implies that when BPS increase by Re 1 MPS increases by Rs. 6.26.

4.2.3 NB Bank Limited

Table No. 4.8
Summary of the financial performance of NB Bank

Year	MPS	DPS	BPS	EPS
2005/06	199	0	-217	0
2006/07	550	0	-364	0
2007/08	1001	0	-295	80.16
2008/09	280	0	60	116.01
2009/10	265	0	115	54.9
Total	2295	0	-701	251.07
Mean	459	0	-233.667	83.69
SD	331.4068	0	215.1481	50.72161
CV	72.20193	0	-92.0748	60.60654

(Source: Annual Report of NB Bank)

The above table (Table No. 4.8) presents the summary of financial performance of NB Bank Limited for the last five years. The MPS has been decreased from year 2008/09. Bank has not distributed dividend any year. BPS has negative upto year 2007/08 and increases from Year 2008/09. High coefficient of variation (72.20%) of MPS clears that the MPS is highly volatile. In comparison with BPS and EPS possess low degree of Coefficient of Variation. Where BPS has negative coefficient of variation.

The industry average of CV of MPS, BPS and EPS equals to 72.20%, -92.07%, and 60.61% respectively. This shows that MPS and EPS of this bank have higher degree of CV than that of BPS.

The following line chart (Figure No.4.3) shows the linear relationship of Market Price per Share with BPS, DPS and EPS.

Figure No. 4.3
Summary of the financial performance of NB Bank

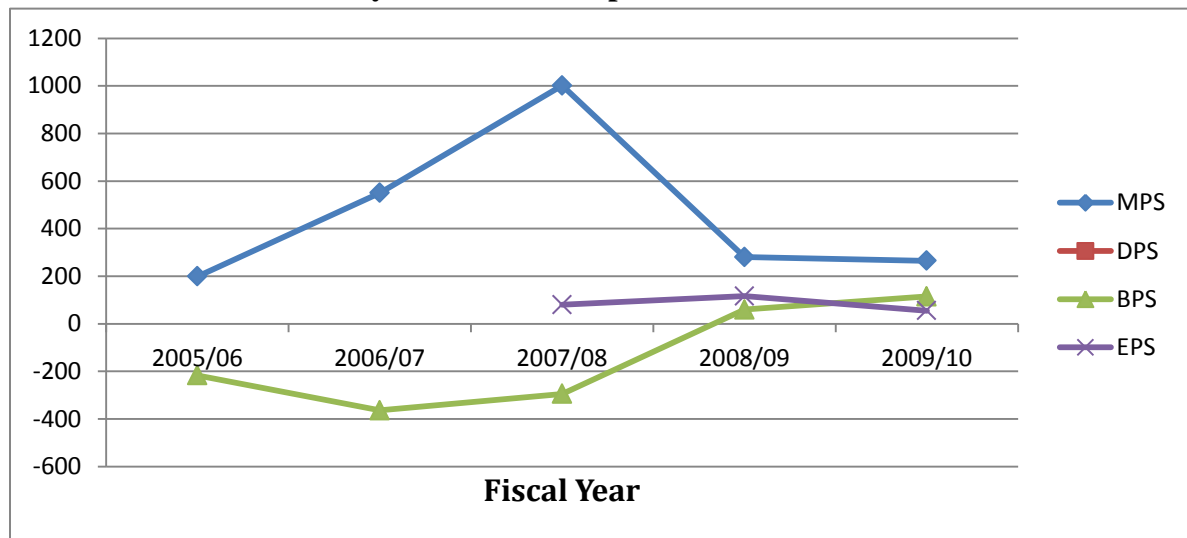


Table No. 4.9
Relationship of BPS, EPS and DPS with MPS of NB

Variables	r	r ²	t-cal	a-value	b-value	t-table	Remarks
MPS Vs. DPS	-	-	-!	459	-	3.182	Insignificant
MPS Vs. BPS	-0.59481	0.353801	-1.47988	330.5448	-0.91623	3.182	Insignificant
MPS Vs. EPS	0.178922	0.032013	0.363713	400.2975	1.169046	3.182	Insignificant

Where,

r : Coefficient of Correlation

r²: Coefficient of Determination

t-cal : Student's t-value

t-table : Tabulated value of Student's t-distribution (at 95% level of significance, n-2 i.e. 5-2=3 Degree of Freedom about standard error)

a-value: Y-intercept of Regression equation (MPS – dependent intercept)

b-value: Slope of the line (Variable Intercept)

Table No. 4.9 shows the relation of MPS with, BPS and EPS. It means that there is negative correlated with BPS. It means there is inverse relationship among the variable. Its shows that when MPS increases BPS decreases. But positive correlated with EPS it show that when MPS increases EPS also be increases.

The **Simple Regression** equation of DPS, BPS and EPS taking MPS as dependent variable is given in Table No. 4.10:

Table No. 4.10
Regression Equation of NB

S.N.	Variables	Regression Equation
1.	MPS Vs. BPS	$MPS = -0.91623 BPS + 330.5448$

The first equation refers to the regression equation of MPS on BPS. The regression constant equals to 330.54. This means that when BPS becomes zero, MPS equal to Rs. 330.54. Likewise, the coefficient for BPS equals to -0.91 means when BPS increases/decreases by Re. 1, MPS increases/decreases by Rs. -.091 and vice versa.

The **Multiple Regression** equation of MPS of Nepal Bangladesh Bank Limited on DPS and EPS is represented by the following equation.

MPS on DPS, EPS and BPS

$$MPS = -14.20 + 0 DPS + 4.99 EPS - 1.59 BPS$$

The above equation gives the result on MPS due to the joint effect on DPS, EPS and BPS. MPS intercept is -14.20. It implies that when DPS, EPS, and BPS become zero, MPS is found to be negative meaning that DPS has no effect upon MPS. In the Same way coefficient of EPS is 4.99, meaning that when EPS increase by Re. 1 MPS increase by Rs.4.99. Similarly the coefficient for BPS is -1.59 it implies that when BPS increases or decreases by Re 1 MPS increases or decreases by Rs. 1.59.

4.2.4 NMB Bank Limited

Table No. 4.11
Summary of the financial performance of NMB

Year	MPS	DPS	BPS	EPS
2005/06	276	24.29	177.98	18.25
2006/07	840	30	142.56	37.57
2007/08	930	10.53	125.47	7.28
2008/09	499	0	111.75	4.42
2009/10	295	20.53	120.65	10.65
Total	2840	85.35	678.41	78.17
Mean	568	17.07	135.682	15.634
SD	303.9663	11.88951	26.16971	13.30803
CV	53.51519	69.65147	19.28753	85.12238

(Source: Annual Report of NMB)

The above table (Table No. 4.11) presents the summary of financial performance of Everest Bank Limited for the last five years. The MPS has been decreased from year 2008/09. The MPS as well as EPS seems to be in increasing order in the previous years. High coefficient of variation (85.12%) of DPS clears that the DPS distribution is highly volatile and inconsistent. In comparison with DPS, MPS and BPS possess low degree of Coefficient of Variation.

The industry average of CV of MPS, DPS, BPS and EPS equals to 53.51%.69.65%, 19.28% and 85.13% respectively. This shows that MPS, DPS and EPS of this bank have higher degree of CV than that of BPS

The following line chart (Figure No.4.4) shows the linear relationship of Market Price per Share with BPS, DPS and EPS.

Figure No. 4.4
Summary of the financial performance of NMB

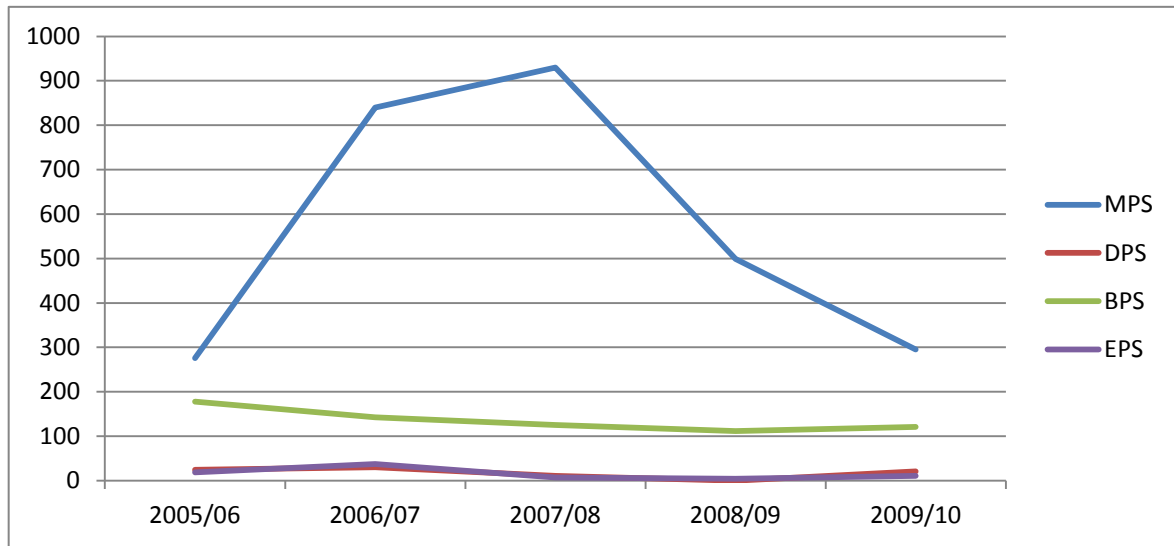


Table No. 4.12
Relationship of BPS, EPS and DPS with MPS of NMB

Variables	r	r ²	t-cal	a-value	b-value	t-table	Remarks
MPS Vs. DPS	-0.05019	0.002519	-0.1005	589.9023	-1.28309	3.182	Insignificant
MPS Vs. BPS	-0.26468	0.070057	-0.54894	985.1331	-3.07434	3.182	Insignificant
MPS Vs. EPS	0.266549	0.071048	0.553109	472.8171	6.088198	3.182	Insignificant

Where,

r : Coefficient of Correlation

r²: Coefficient of Determination

t-cal : Student's t-value

t-table : Tabulated value of Student's t-distribution (at 95% level of significance, n-2 i.e. 5-2=3 Degree of Freedom about standard error)

a-value : Y-intercept of Regression equation (MPS – dependent intercept)

b-value : Slope of the line (Variable Intercept)

Table No. 4.12 shows the relation of MPS with DPS, BPS and EPS. It means that there is negative correlated with DPS and BPS. Its shows that when MPS increases DPS and BPS decreases but positive relationship between MPS and EPS because there is positive relationship when MPS increases EPS also be increases and vice versa.

The **Simple Regression** equation of DPS, BPS and EPS taking MPS as dependent variable is given in Table No. 4.13:

Table No. 4.13
Regression Equation of NMB

S.N.	Variables	Regression Equation
1	MPS Vs. DPS	$MPS = -1.28309 \text{ DPS} + 589.9023$
2	MPS Vs. BPS	$MPS = -3.07434 \text{ BPS} + 985.1331$
3	MPS Vs. EPS	$MPS = 6.088198 \text{ EPS} + 472.8171$

The first equation is the regression equation of MPS on DPS. The regression constant equals to 589.90. This means that when DPS is zero, MPS equals to Rs. 589.90 Likewise, the constant for DPS equals to -1.28 meaning that when DPS increases/decreases by Re. 1, MPS increases/decreases by Rs. -1.28 and vice versa.

The second equation refers to the regression equation of MPS on BPS. The regression constant equals to 985.13. This means that when BPS becomes zero, MPS equal to Rs. 985.13. Likewise, the constant for BPS equals to -3.07 means when BPS increases/decreases by Re. 1, MPS increases/decreases by Rs. -3.07 and vice versa.

Likewise, the last equation indicates the regression equation of MPS on EPS. The regression constant equals to 472.81. This means, when EPS falls to zero, MPS equals to Rs. 472.81. In the same way, the constant for EPS equals to 6.08 meaning that when EPS increases/decreases by Re. 1, MPS increases/decreases by Rs. 6.08 and vice versa.

The **Multiple Regression** equation of MPS of NMB Bank Limited on DPS and EPS is represented by the following equation.

MPS on DPS, EPS and BPS

$$MPS = 999.05 - 17.25 \text{ DPS} + 22.54 \text{ EPS} - 3.6 \text{ BPS}$$

The above equation gives the result on MPS due to the joint effect on DPS, EPS and BPS. MPS intercept equal to 999.05. It implies that when DPS, EPS, and BPS become zero, MPS

is found to be 999.05; coefficient of DPS is -17.25 meaning that when DPS is increased or decreases by Rs. 1 MPS increases or decreases by Rs 17.25. In the Same way coefficient of EPS is 22.54, meaning that when EPS increase by Re. 1 MPS increase by Rs.22.54. Similarly the coefficient for BPS is -3.6 it implies that when BPS increase or decreases by Re 1 MPS increases or decreases by Rs. 3.6.

4.2.5 Kist Bank Limited

The summarized form of financial performance of KIST Bank Ltd. for the last five years has been presented in the following table (Table No. 4.14).

Table No. 4.14
Summary of the Financial Performance of KIST

Year	MPS	DPS	BPS	EPS
2005/06	153	10.53	114.6	18.55
2006/07	570	5	109.53	13.13
2007/08	998	5	103.29	5.91
2008/09	378	3.5	102.26	4.48
2009/10	199	5	104.46	7.21
Total	2298	29.03	534.14	49.28
Mean	459.6	5.806	106.828	9.856
SD	343.015	2.7195	5.164695	5.868951
CV	74.63338	46.83948	4.834589	59.54698

(Source: Annual Report of KIST)

The above table (Table No. 4.14) presents the summary of financial performance of Everest Bank Limited for the last five years. The MPS has been decreased from year 2008/09. The MPS as well as EPS seems to be in increasing order in the previous years. The bank has High coefficient of variation (74.63%) of MPS clears that the MPS distribution is highly volatile and inconsistent. In comparison with DPS, BPS and EPS possess low degree of Coefficient of Variation.

The industry average of CV of MPS, DPS, BPS and EPS equals to 74.63%,46.83%,4.83% and 59.54% respectively. This shows that MPS, DPS and EPS of this bank have higher degree of CV than that of BPS.

The following line chart (Figure No.4.5) shows the linear relationship of Market Price per Share with BPS, DPS and EPS.

Figure No. 4.5
Summary of the Financial Performance of KIST

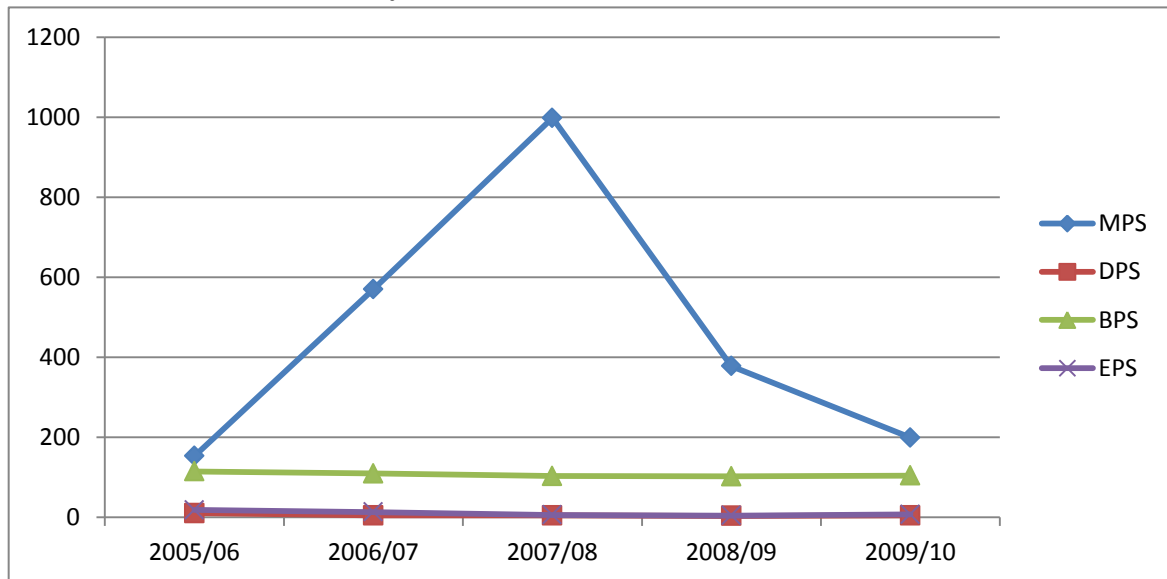


Table No. 4.15
Relationship of BPS, EPS and DPS with MPS of KIST

Variables	r	r ²	t-cal	a-value	b-value	t-table	Remarks
MPS Vs. DPS	-0.42159	0.177741	-0.92986	768.3413	-53.1762	3.182	Insignificant
MPS Vs. BPS	-0.4233	0.179181	-0.93444	3462.907	-28.1135	3.182	Insignificant
MPS Vs. EPS	-0.40986	0.167986	-0.89867	695.6968	-23.9546	3.182	Insignificant

Where,

r : Coefficient of Correlation

r²: Coefficient of Determination

t-cal: Student's t-value

t-table: Tabulated value of Student's t-distribution (at 95% level of significance, n-2 i.e. 5-2=3 Degree of Freedom about standard error)

a-value : Y-intercept of Regression equation (MPS – dependent intercept)

b-value : Slope of the line (Variable Intercept)

Table No. 4.16 shows the relation of MPS with DPS, BPS and EPS. It shows that MPS is negatively correlated with DPS, BPS and EPS. It means that there is inverse relationship among the variable. Its shows that when MPS increases DPS, BPS and EPS decreases and vice versa.

Table No. 4.16
Regression Equation of KIST

S.N.	Variables	Regression Equation
1	MPS Vs. DPS	$MPS = -53.1762 \text{ DPS} + 768.3413$
2	MPS Vs. BPS	$MPS = -28.1135 \text{ BPS} + 3462.907$
3	MPS Vs. EPS	$MPS = -23.9546 \text{ EPS} + 695.6968$

The first equation is the regression equation of MPS on DPS. The regression constant equals to 768.34. This means that when DPS is zero, MPS equals to Rs. 768.34 Likewise, the constant for DPS equals to -53.17 meaning that when DPS increases/decreases by Re. 1, MPS increases/decreases by Rs. -53.17 and vice versa.

The second equation refers to the regression equation of MPS on BPS. The regression constant equals to 3462.90. This means that when BPS becomes zero, MPS equal to Rs. 3462.90. Likewise, the constant for BPS equals to -28.11 means when BPS increases/decreases by Re. 1, MPS increases/decreases by Rs. -28.11 and vice versa.

Likewise, the last equation indicates the regression equation of MPS on EPS. The regression constant equals to 695.69. This means, when EPS falls to zero, MPS equals to Rs. 695.69. In the same way, the constant for EPS equals to -23.95 meaning that when EPS increases/decreases by Re. 1, MPS increases/decreases by Rs. -23.95 and vice versa.

The **Multiple Regression** equation of MPS of Kist Bank Limited on DPS and EPS is represented by the following equation.

MPS on DPS, EPS and BPS

$$\text{MPS} = 160872 + 74.22 \text{ DPS} + 1382.47 \text{ EPS} - 1633.18 \text{ BPS}$$

The above equation gives the result on MPS due to the joint effect on DPS, EPS and BPS. MPS intercept equal to 160872. It implies that when DPS, EPS, and BPS become zero, MPS is found to be 160872; coefficient of DPS is 74.22 meaning that when DPS is increased by Rs. 1 MPS increases by Rs 74.22. In the Same way coefficient of EPS is 1382.47, meaning that when EPS increase by Re. 1 MPS increase by Rs.1382.47. Similarly the coefficient for BPS is -1633.18 it implies that when BPS increase or decreases by Re 1 MPS increases or decreases by Rs. 1633.18.

4.3 Primary Data Analysis and Presentation

Another measure applied to gather information relevant to the topic is questionnaire method. For collecting primary data a questionnaire having a set of 23 questions were prepared and presented to 50 respondents. The respondents were selected randomly from the group of share- known personalities especially from the share buyer/ purchasers in broker's office and college students. The questions contained variety in types. The questions from 1 to 4 were of multiple choice types in which the respondent were asked to choose the best alternative from the list. Remaining question No. 5 (under 1 to 18), the degree of agreement over the statement was asked to mention and according to their degree of agreement, the score was provided. Besides this, some other influencing factor analysis are also done through various questions.

4.3.1 Classification of Respondents

50 respondents were surveyed randomly to conclude the determinants of share price of Nepalese Commercial Banks. Among these, 30 respondents were professional investors of share investment, 18 were potential investors who are willing or invest in share but have not invested yet and rests 2 were market analyzer.

Table No.4.17
Classification of Respondents

Basis of Classification	Number	Percentage
Professional Investor	30	60
Potential Investors (Management Students)	18	36
Market Analyzer	2	4
Total	50	100

A number of questions were put by means of copies of questionnaire.

1. Publication of financial reports changes a company's share price.

The first question asked the respondents that publication of financial reports changes a company's share price. Table No. 4.18 shows the result of the responses.

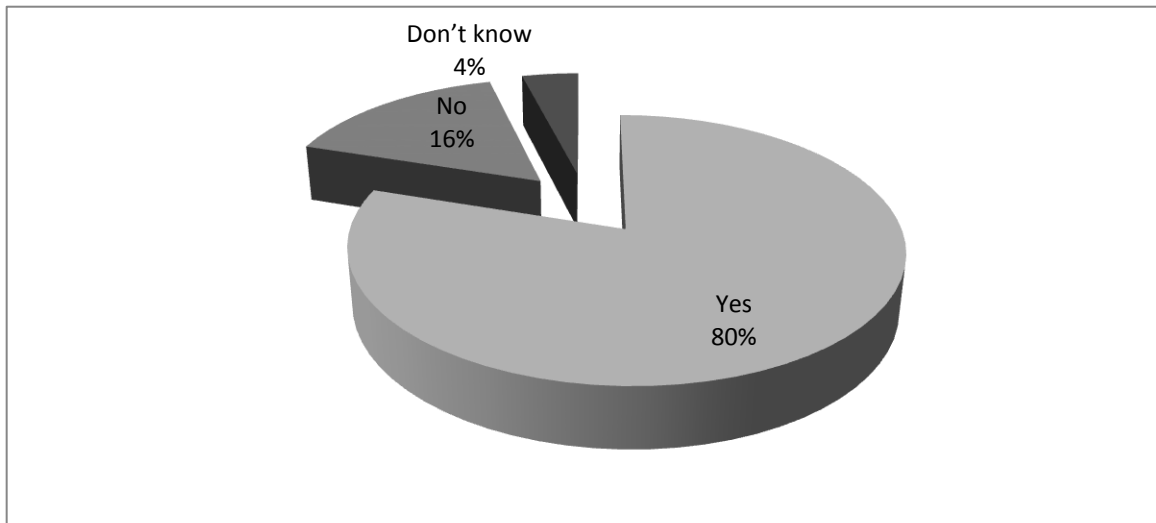
Table No.4.18
Publication of Financial reports changes a company's share price

S.N.	Responses	No. of respondents	Percentage
1.	Yes	40	80
2.	No	8	16
3.	Don't know	2	4
Total		50	100

Source: (Field survey with questionnaire 2010)

The above table shows the number of respondents and their percentage relating the changes a company's share price due to publication of financial reports. Majority of respondents i.e. 80% said yes to the statement, that means a company's share price is changed due to the publication of financial reports. It has been shown in following chart (figure No. 4.6) as follows:

Figure No.4.6
Publication of Financial reports changes a company's share price.



2. Financial reports of companies listed on stock exchange are only the publicly available information useful in identifying over or undervalued securities.

The following table (Table No.4.19) shows the responses against the statement that financial reports of companies listed on stock exchange are publicly available information useful in identifying over or undervalued securities.

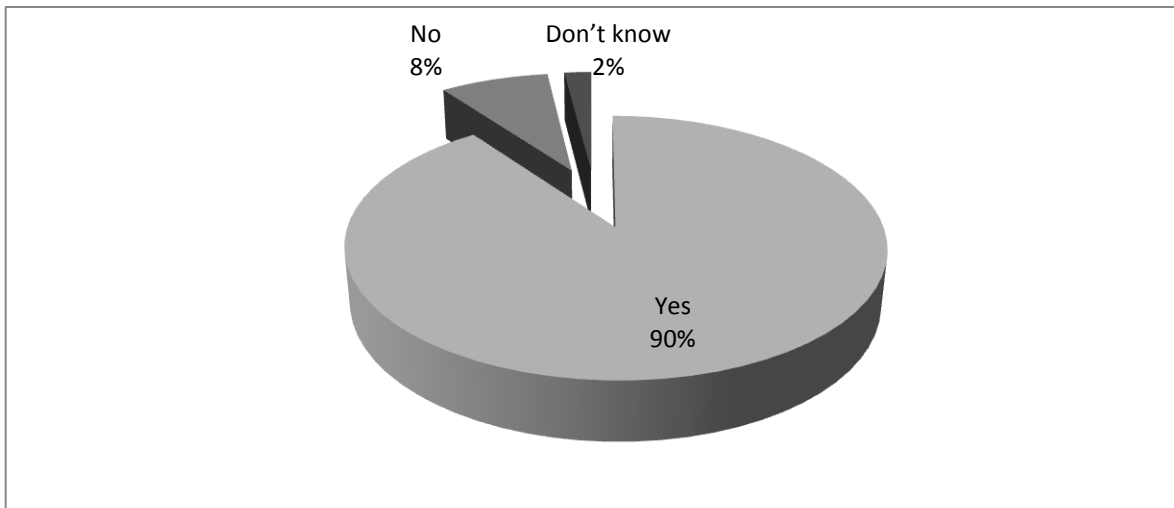
Table No. 4.19
Financial reports are useful in identifying over or under valued securities.

S.N.	Responses	No. of respondents	Percentage
1.	Yes	45	90
2.	No	4	8
3.	Don't know	1	2
Total		50	100

Source: (Field survey with questionnaire, 2010)

Over or undervaluation of securities are identified by financial reports of companies listed on stock exchange. 90 % of the respondents said yes, 8% said no and rest 2 respondents said do not know to this statement. This shows that financial reports of listed companies are one type of publicly available information useful in identifying over or undervalued securities. It has been shown in following chart (figure No. 4.7) as follows.

Figure No. 4.7
Financial reports of companies are useful in identifying over or undervalued securities



3. Listed companies are not serious towards shareholders interests.

The responses of the respondents regarding the seriousness of public listed companies towards shareholders interest are summarized and presented in Table No.4.20.

Table No. 4.20
Public listed companies are not serious towards shareholders interests

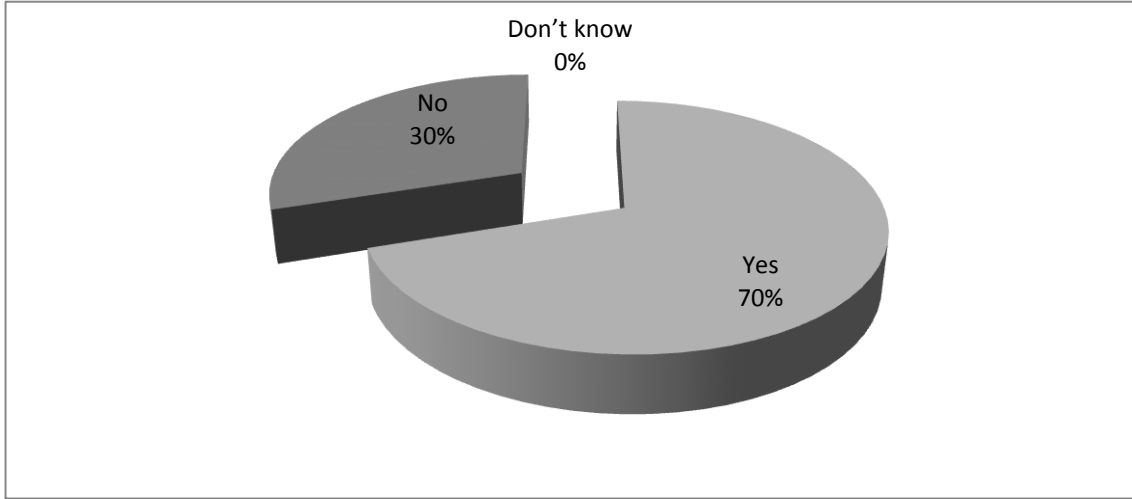
S.N.	Responses	No. of respondents	Percentage
1.	Yes	35	70
2.	No	15	30
3.	Don't know	0	0
Total		50	100

Source: (Field survey with questionnaire, 2010)

70 % of the respondents said yes and 30% said no to this statement. The response shows that public/ listed companies are not serious towards shareholders interests.

It has been shown in following chart (Figure No. 4.8) as follows.

Figure No. 4.8
Public listed companies are not serious towards shareholders interests



4. NEPSE and Securities Board are able to protect investor's interest effectively.

The following table (table No 4.21) shows the responses against the statement that NEPSE and Securities board are able to protect investor's interest effectively.

Table No. 4.21

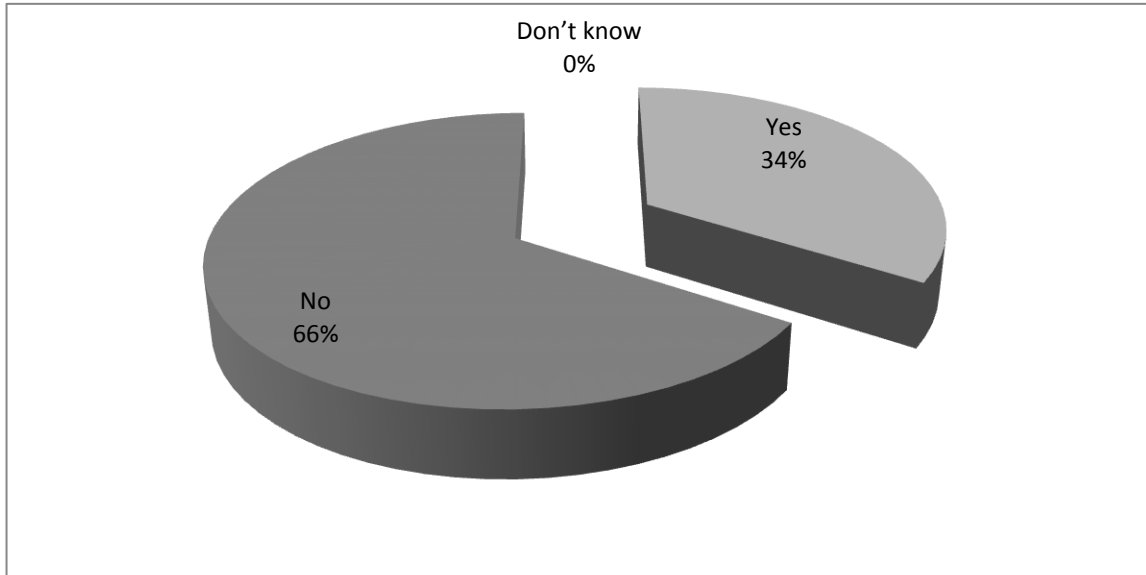
NEPSE and Securities Board are able to protect investor's interest effectively.

S.N.	Responses	No. of respondents	Percentage
1.	Yes	17	34
2.	No	33	66
3.	Don't know	0	0
Total		50	100

Source: (Field survey with questionnaire, 2010)

Only minority of the respondents agreed to the statement and the majority did not agreed. It means that NEPSE and Securities Board are not able to protect investor's interest effectively. It has been shown in following chart (Figure No. 4.9) as follows.

Figure No. 4.9
NEPSE and Securities Board are able to protect investor's interest effectively



5. How far does u agree or disagree with the following statement?

The mean value of the questionnaire of the total respondents is presented below:

S.N	Statement	Mean Value
1.	Higher the EPS, higher would be the share price.	1.17
2.	Higher the DPS/cash dividend, higher would be the share price.	1.5
3.	Lower the growth rate (g) of the company, higher would be the share price.	3.85
4.	Higher the retention ratio, better the market price of share.	2.35
5.	Higher the cost of equity (K_e) reduces the share price.	1.5
6.	If interest/reinvestment rate (r) increases, share price also increases.	1.80
7.	Larger companies have higher share price.	3.85
8.	Dividends have stronger effect in market price of share	1.75
9.	Higher the book value per share, higher would be the share price.	2.2
10.	Higher the risk associated with a company, higher would be the share price.	2.65
11.	Share price also affected by the instability of the government.	1.4
12.	Information on favorable future prospect would increase market price of share.	2.10
13.	Share price decreases with the increase in liquidity in market.	3.15
14.	Share price reacts positively/ negatively with the change in management.	1.63
15.	Better capital structure results higher share price.	2.15
16.	Annual general Meeting and the election of board of director influence the share price.	2.05
17.	Rumors and whims affects share price.	1.25
18.	NRB regulation and monitoring steps affects the share price.	1.75

From the above primary questionnaire asked to the investors, researchers and management students. Among them average respondents gave following response, which is presented below:

The strongly agreed statement is as follows:

- I. Higher the EPS, higher would be the share price.

The statement has high response that means in context of Nepal earning per share is the main determinant of share price. Share price is strongly affected by EPS. Increase in EPS significantly increases the market price of share and vice versa.

Most of them are agreed on these statements as follows:

I	Higher the DPS/ cash dividend, higher would be the share price.
II	Higher the cost of equity (K_e) reduces the share price.
III	Share price also affected by the instability of the government.
IV	Higher the book value per share, higher would be the share price.
V	Information on favorable future prospect would increase market price of share.
VI	Regulation and monitoring steps of NRB influence the share price.
VII	Higher the retention ratio, better the market price of share.
VIII	Share price reacts positively/ negatively with the change in management.
IX	Annual general Meeting and the election of board of director influence the share price
X	Rumors and whims affects share price
XI	NRB regulation and monitoring steps affects the share price.

The above statement has just only agreed that higher cash dividend would increase the share price. The high retention ratio also leads to the better market price. The respondents also agreed that higher cost of equity (k_e) reduces the share price. Market price of share is strongly affected by dividends than retained earnings. The change or instability of the government also affects the share price. A company's risk also affects the share price and the information on favorable future prospect increases the market price of share. Regulation and monitoring steps of NRB also influence the share price. Share price is mostly affected by rumors and whims. This shows that share price are affected by cash dividend, dividends, political instability, company's risk, information regulation and monitoring steps and rumors and whims.

The disagreed statement is as follows:

- I. Lower the growth rate (g) of a company, higher would be the share price.
- II. Larger companies have higher share price.
- III. Better capital structure results higher share price.
- IV. If interest/reinvestment rate(r) increases, share price also increases.
- V. Share price decreases with the increase in liquidity in market.

The above statement states that the lower growth rate of a company does not have higher share price. It explains that larger companies do not have higher share price. It also explains that better capital structure alone do not results higher price. Similarly, most of people also disagree that interest rate increases, share price also increases. Thus, lower growth rate, better capital structure does not affect the share price.

Influencing factor analysis

Regarding the major influencing factors for the stock price, different brokers, individual investors, institutional investors and NEPSE staffs have given different views on their own ideas. Table 4.12 provides the clear picture on the subject as presented below;

6. Political Instability

To find out whether the current political instability is the major reason/cause for leading the capital market to the present context (i.e. NEPSE index declined to 485 points from 1150 points), here the question was asked to the respondents and the response shown by them is as below;

Table 4.22
Analysis of Political Instability

S.N.	Research variable	No. of Respondents	%
A	0-25%	10	20
B	25-50%	15	30
C	50-75%	20	40
D	75-100%	5	10
	Total	50	100

Source: (Field Survey with questionnaire, 2010)

7. Government's Policy Analysis

As the regulatory body of the Capital Market is the Government and the entities established under direct control of the Government, the policies issued by them are also linked with the Capital Market. So, to know the concerns view about it the question is forwarded and the obtained result is;

Table 4.23
Government's Policy Analysis

S.N.	Research variable	No. of Respondents	%
A	Yes	30	60
B	No	10	20
C	Don't know	10	20
	Total	50	100

Source: (Field Survey with questionnaire, 2010)

8. International Environment analysis

Regarding the international environment effect in the Nepalese Stock Market, different individual investors, institutional investors, brokers, NEPSE staffs and other gave their own ideas about this. The result obtained from this issue is cleared as below;

Table 4.24
International Environment analysis

S.N.	Research variable	No. of Respondents	%
A	Yes	25	50
B	No	21	42
C	Don't know	4	8
	Total	50	100

Source: (Field Survey with questionnaire, 2010)

9. Basis of Decision Making Analysis

The investment in security by the investor is made only after the proper decision is taken by them. So, to drag the view of investors and other concerns basis of decision was asked and the result obtained is;

Table 4.25
Basis of Decision Making Analysis

S.N.	Research variable	No. of Respondents	%
A	Family Advice	4	8
B	Rumors	6	12
C	Own Analysis	12	24
D	Market Price	8	16
E	Following Others	20	40
	Total	50	100

Source: (Field Survey with questionnaire, 2010)

10. Purpose of Investment in Share

The reasons behind the investment in shares of different companies by respondents can be summed up in the following table;

Table 4.26
Purpose of Investment in Share Analysis

S.N.	Research variable	No. of Respondents	%
A	Social Status	10	20
B	To Secure Future	5	10
C	Business Purpose	10	20
D	Above All	25	50
	Total	50	100

Source: (Field Survey with questionnaire, 2010)

Analysis of Free Opinions of Respondents

Out of 50 questionnaire papers only 80% respondents replied about this questions and rest 20% respondent gave no response about these questions. So, opinion is taken here only from 80% respondents. Actually making report as original from all the common as well as new suggestive point is presented here as follows:

Question No11): In your opinion, what are the major problems of Nepalese stock market?

Here, respondent said:

- Lack of awareness in the people.
- Lack of rules and regulation of government.
- Lack of another stock exchange limited.
- Annual general meeting is not timely.
- Information about stock was not coming timely.
- Lack of knowledge of investors and rural people.
- Instable government of country.
- Weak buying and selling system.
- Middle man tries to cheat.
- Companies are not honest.
- Proper information about the listed company.
- High rate of speculation.
- Lack of industries.
- Lack of investors.
- Number of brokers and investors are very few.
- Brokers are not working professionally.
- There is no timely presentation of financial statement.
- Less transparency.
- Downward economy of the country.

In another question about Nepalese stock market development, different parties gave their suggestions which are as follows;

Question No. (12): In your opinion, how to develop the Nepalese stock market?

Respondent said:

- Proper rules and regulation of the government.
- Every aspect of Stock Exchange should be properly managed.

- Awareness of the people about stock market.
- Improvement of economic condition of country.
- Transparency.
- Timely presentation of financial statement.
- Ownership transfer process should be computerized.
- Professional brokers.
- Number of brokers and investors should increase.
- Establish the other stock exchange limited in the different part of the country.
- Information about stock should be published timely.
- Stable Government in the country.
- Strong buying and selling system.
- Proper information publication about listed company.
- End the high rate of speculation.
- Development of the industrial sectors.
- Increasing the number of foreign investors.
- Implementation of CDS system.
- Low interest rate on share investment.
- Improvement of margin trading practice.

On studying primary data the study found out following;

- 40% of the respondents believed that 50-75% volatility in stock price is due to political instability.
- 60% of the respondents said Govt. Policy is responsible for present unwanted change in stock price.
- 50% of the respondents were agreed with the statement that international environment also affects the Nepalese Stock Market only 24% of the respondents believe that investors in the Nepalese Stock Market use own analysis for decision making in investing.

4.4 Major findings of the study

On the basis of primary as well as secondary data analyzed, the major findings of the study can be summarized as below:

1. BPS and DPS are positively correlated in the case of EBL whereas EPS is low positive correlated. This indicates that increases in DPS of this Bank contribute on the low increase of Share Price increase in BPS and DPS increase the Share Price and vice versa. DPS is much volatile in comparison with MPS, BPS and EPS.
2. In the case of HBL MPS is positively correlated with BPS, DPS and EPS. The volatility of MPS, DPS and EPS seems to be less than BPS.
3. NB Bank has not distributed dividend in the period of 2005/06 to 2009/10. The earning of this bank seems to be negative, meaning that the financial strength of this company is still not strong. Hence, the Book Value in the later year has been decreased and the total capitalization of the organization has also been decreased.
4. KIST Bank has positive correlation with DPS, and EPS. Where BPS has negative correlation with MPS. Hence, DPS and EPS influence the Share Price positively. The trend of MPS, EPS and DPS shows that the company is not very good trend in later years. The volatility of BPS is much more than other indicators like MPS, DPS and EPS.
5. NMB Bank's BPS is more volatile than other indicators like MPS, DPS and EPS. The MPS of this Bank is positively correlated with meaning these indicators influence their share price directly. DPS and BPS is not positively correlation with MPS.
6. The correlation between MPS and other indicators are found to be insignificant for most of banks. it shows that they individually influence very less but jointly they influence a lot. There can be other factors which influence the share price of the organization.
7. On the basis of SCBNL Deviation it can be concluded the MPS of EBL is seems to be more risky. The higher HBL, NMB, KIST shows that their Marker Price are more volatile than others.
8. Standard Deviation of BPS shows that of EBL and HBL are riskier than others. Volatility of BPS if greater in case EBL and HBL.

9. DPS is more volatile in case of NMB in comparison to other banks.
10. Highest standard Deviation and coefficient of Variation of EBL imply that is more volatile and inconsistent than others.

The findings from the survey are as follows:

1. The primary analysis shows that financial reports of companies listed on stock exchange helps in identifying over or undervalued securities. To change the share price of a company, publication of financial report has greater value. The majority of the respondents support the statement that public /listed companies are not serious towards shareholder's interests. Minority of the respondents support that NEPSE and Securities Board are able to protect investor's interest effectively.
2. On the specific opinion about the factors affecting the share price in commercial banks in Nepal, EPS was the most agreed observation. It means that share price is strongly affected by EPS.
3. The responses shows cash dividend, interest rate, political instability, risk of the company, information, rumors and whims, NRB rules and regulation, also affect the share price.
4. Similarly on influencing factor analysis ,40%of the respondent believe 50-75% volatility in stock price is due to political instability.60% of the respondent said that government policy are responsible for present unwanted change in stock price, 50% of respondent express international environment affect the Nepalese Stock market, only 24% respondent express that they purchase share on their own analysis.
 - Basically, most of the investors are intended to maximize their profit through share investment. They think share as a good sector of investment assuming that it gives good return in short and long term.
 - Investment in Nepalese Commercial Bank is the first choice of Share investors. It is because the banks are better controlled, and they distribute a good rate of dividend. it is found the investors think that banks are better managed hence making good rate of profit. They distribute regular dividend which attracts them to invest in the commercial banks.

- The majorities of Nepalese investors found to be either unknown about laws or like to say imperfect policies causing the problem in share market.
- The investors perceive the increase in EPS as better performance of the organization and hence they increase the demand of Share which causes the increase in share price. Majority of the investors are convinced that higher EPS cause higher share price.
- Dividend pattern plays a great role on share price movement. Higher the DPS, more will be the share price. Most of the investors like to analyze the dividend pattern of the company before they invest in their shares.
- Company assets structure and capital structure of the company plays a moderate role on share price movement. The potential investors tend to consider the assets and capital structure of the organization second to EPS and DPS analysis.
- Political fluctuation cause change in share price. They influence share market in very direct way. It means that fluctuating political situation badly damage the share price of an organization whereas stable political condition of the country is much favorable for upward movement of share price.
- AGM and Election of BOD also plays moderate role on share price movement. Good signaling after General Meeting could influence the market price of share.
- The risk of organization does not significantly influence the share price. Most of the Nepalese investors are risk avoider, who never wants to see the risky organization for their investment.

Chapter-V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

Nepalese Stock Market is in developing stage. Most of the general public i.e. average citizens are still unaware about it. Though share market plays a vital role on the mobilization of capital in national economy, in the case of Nepal, it is still crawling towards the betterment.

The history of Security Market in Nepal is not old. It was started with the floatation of shares by Biratnagar Jute Mills Ltd. and Nepal Bank Ltd. in 1937. Introduction Company Act in 1964, the first issuance of Government Bond in 1964 and the establishment of Securities Exchange Centers Ltd. In 1976 were other significant developments regarding the Capital Market?

Investors invest their savings in the Common Stock of public companies through Primary and Secondary Markets. Generally, the investors aimed to maximize their profit their investment. But due to the lack of proper knowledge and poor regulatory performance of Nepalese Capital Market, the investors may not achieve the returns as expected. Only the few educated city dwellers know what share market is and how they are regulated. Besides, government has not prioritized the development of capital market sufficiency.

The prime objective of this study is to find out the major determinants of Share Price of Nepalese Commercial Banks. Hence, 5 commercial banks presently listed in NEPSE are taken in consideration for the purpose. Market Price of these banks has been analytically tested here to compare with other financial indicators like DPS, EPS and BPS. For such analysis secondary data has been gathered from the different sources and different statistical tools have been used to analyze thoroughly in this thesis. Not only this, a set of question of presented to 50 respondents aiming to collect primary data related to share price of Nepalese commercial banks.

5.2 Conclusion

On the basis of primary and secondary data analysis, the following conclusions have been achieved.

- Due to the inadequate knowledge regarding the share market among Nepalese investors, capital market of Nepal has not been well developed yet.
- The investors generally tend to earn profit from share and they think that EPS and DPS are prime factors to be analyzed and to be considered on investing their savings on share price.
- Most investors are unknown to laws and policies regarding share market. Poor rules and regulations as well as ineffective regularity mechanism of market makers are the problems of Nepalese Capital Market.
- MPS of most of the Banks are insignificantly correlated with all the indicators (DPS, BPS and EPS) in most of the cases. This implies that they individually don't influence the share price but they jointly influence the Share Price. There can be other factor to which influence the share price.
- EPS and DPS are the major influence of the share price. Besides this, political situation, annual general meeting, assets structure and capital structure of the organization also influence the share price of the company.
- The reputed and established commercial banks have very good trend of their financial performance whereas new banks are penetrating their market. Most of the banks are operating profit in recent years though they suffered some losses during their initial stages. Still, the investors are positive towards the shares of these banks.

5.3 Recommendations

The following suggestions can be recommended regarding the share price of Nepalese commercial banks on the basis of the data analyzed in the previous sections:

- Since general public's are unaware about the share market, an organized effort is necessary to aware the public about it. A separate department in NEPSE or an independent organization is recommended which analyze, inform and create the awareness within the emerging potential investors about share and share market through different approaches like seminar, conference or print, air media.

- To control the speculation in share, an effective control mechanism is necessary. A clear system is to be employed to evaluate and punish such speculations so that no further influence can be observed in Share Price due to artificial reasons. The government should create a rational and sincere environment within share broker and share traders for controlling such speculations.
 - The investors are recommended to receive a clear picture of their financial track before investing in the company. They should be alert and aware about the misconduct of relative company, broker, NEPSE or government. They are required to boost their knowledge up regarding share and share market to get the expected returns from their investment.
 - An open policy to encourage and promote foreign investors in share price would be fruitful to strengthen the share market of Nepal considering the fact of present organization.
 - For the clear and absolute result regarding the determinants of share price, a population study of whole share market for a longer study period is required. This gives the only factual information about the actual determinants of share price.
 - The public companies should provide up-to-date information to the present and potential investors regularly so that they can be informed investors.
1. Government should formulate and implement a rigid rules and regulation for further development of share market. A mechanism to take immediate action for the faulty company is to be established.
 2. The ultimate objective of any firm is to maximize the wealth position of its investors, which largely depends upon the proper trends of EPS, DPS, BVPS and other dominant variables. This reality should be well imparted to the investors in order to make them rational in the field of investment for which the public companies themselves should frequently launch their well- designed awareness campaigns.
 3. The future study can be conducted by using more sample size, advanced, methodology, large no. of observations and by including more respondents' opinion.

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QUESTIONNAIRE

Pro- forma of Structured Questionnaire

A survey of share price determinants in Commercial Banks

Name (optional):.....

Position:.....

Institution.....

1. Publication of Financial reports changes a company's share price.

a) Yes.....b) No.....c) Don't Know.....

2. Public/ listed companies are not serious towards shareholders interests.

a) Yes.....b) No.....c) Don't know.....

3. NEPSE and Securities Board are able to protect investors' interest effectively.

a) Yes.....b) No.....c) Don't know.....

4. Financial reports of companies listed on stock exchange are only the publicly available information useful in identifying over or undervalued securities.

a) Yes.....b) No.....c) Don't know.....

5. How far do you agree/ disagree with the following statements? (Please tick- mark at the appropriate number as per following scheme.

1 = Strongly agree 2= Agree 3 = Don't know

4 = Disagree 5 = Strongly disagree

S.N.	Statement	1	2	3	4	5
1.	Higher the EPS, higher would be the share price.					
2.	Higher the DPS/cash dividend, higher would be the share price.					
3.	Lower the growth rate (g) of the company, higher would be the share price.					
4.	Higher the retention ratio, better the market price of share.					
5.	Higher the cost of equity (Ke) reduces the share price.					
6.	If interest/reinvestment rate (r) increases, share price also increases.					
7.	Larger companies have higher share price.					
8.	Dividends have stringer effect in market price of share					
9.	Higher the book value per share, higher would be the share price.					
10.	Higher the risk associated with a company, higher would be the share price.					
11.	Share price also affected by the instability of the government.					
12.	Information on favorable future prospect would increase market price of share.					
13.	Share price decreases with the increase in liquidity in market.					
14.	Share price reacts positively/ negatively with the change in management.					
15.	Better capital structure results higher share price.					
16.	Annual general Meeting and the election of board of director influence the share price.					
17.	Rumors and whims affects share price.					

Thank you for your time and effort.

(6) Do you agree with the statement ‘Political instability is the major reason for crash in Capital Market’?

- (a) 0-25% () (b) 25-50% ()
(c) 50-75% () (d) 75-100% ()

(7) Is Government’s Policy responsible for unwanted change in stock price?

- (a) Yes () (b) No ()
(c) Don’t Know ()

(8) Does international environment affects the Nepalese Stock Market?

- (a) Yes () (b) No ()
(c) Don’t know ()

(9) On which basis do you make decisions to invest in shares in the secondary market?

- (a) Family Advice () (b) Rumors ()
(c) Own Analysis () (d) Market price ()
(e) Following Others ()

(10) For what purpose do you want to own shares of a company?

- (a) Social Status () (b) To secure future ()
(c) Business Purpose () (d) Above all ()

(11) In your opinion, what are the major problems of Nepalese stock market?

- (a)
(b)
(c)

(12) In your opinion, how to develop the Nepalese Stock Market?

(a)

(b)

(c)