

## CHAPTER I

# INTRODUCTION

### 1.1 Background of the Study

The initiation of formal banking system in Nepal commenced with the establishment of Nepal Bank Limited in 1937 as the first Nepalese commercial bank. The country's central bank, Nepal Rastra Bank (NRB) was established in 1956. A decade after the establishment of NRB, Rastriya Banijya Bank (RBB), a commercial bank under the ownership of Government was established. Thereafter, government adopted open and liberalized policies in the mid 1980s reflected by the structural adjustment process, which included privatization, tariff adjustments, liberalization of industrial licensing, easing of terms of foreign investment and more liberal trade and foreign exchange regime was initiated. With the adoption of liberalization policy, there has been rapid development of the domestic financial system both in terms of number of financial institutions and as ratio of financial assets to the GDP.

These policies opened the doors for foreigners to enter into banking sector under joint venture. Consequently, the third commercial bank in Nepal, or the first foreign joint venture bank, was set up as Nepal Arab Bank Ltd( now called as NABIL Bank Ltd ) in 1984.

There after, two foreign joint venture banks, Nepal Indosuez Bank Ltd. (now called as Nepal Investment Bank) and Nepal Grindlays Bank Ltd (now called as Standard Chartered Bank Nepal Ltd.) was established in 1986 and 1987 respectively. Nepalese banking system has now a wide geographic reach and institutional diversification.

As of Mid January 2008, the number of commercial banks has reached to 23. A total of 58 development banks, 79 finance companies, 12 micro credit development banks, 16 Saving and Credit Cooperatives and 47 NGOs (financial intermediaries) are conducting their operations.

Nepal is now a member of World Trade Organization. NRB has implemented BASEL II, an international standard for banking, for the financial institutions of Nepal. Under this new standard, financial institutions have to maintain optimal capital adequacy ratio. For this financial institutions need additional fund to raise their capital as per the direction of NRB.

Besides any special directives every organization needs fund for its formation and operation. An organization needs to be financed from the very beginning to day-to-day operation. Generally firms fulfill their financial requirement by issuing equity share, preference share, debentures and long term bonds. Firms exercise various financial instruments to cope with various financial situations. One major instrument is the right share issue. “When a company is formed, it obviously must be financed. Often the seed money comes from the founder and their families and friends for some companies, this is sufficient to get things launched and with retained earnings, no more equity is needed. In other situation, equity infusions are necessary” (Van Horne, 1999)

Generally, firms fulfill their financial requirement by issuing equity share, preference share, debentures and long term bonds. A growing firm also requires finance to expand its business. Some firms need to raise fund to comply with the direction of higher authority. These types of directives are mainly backed by the objectives to enhance the liquidity of banks, to preserve the shareholders’ wealth and to make the resource easily available. Firms usually exercise various financial instruments to cope with various financial situations. One major instrument is the rights share issue. This study mainly focuses on the right share issue and impact of rights offering on market price of share.

We can describe the preemptive right or rights as the privilege offered to existing stockholders for buying specified number of additional shares of the company's stock before the stock is offered to outsiders for sale. The preemptive right gives the holder of common stock the first option to purchase additional issue of common stock. Theoretically, right offering affect the share price because it has some value. They have value because generally they are offered at a subscription price somewhat lower than the market price of share. In the secondary market, investors are willing to buy the share that has been attached to the preemptive right. Due to speculation, share price may go up and down.

## **1.2 Statement of Problem**

In a company, right offering is one of the ways of raising fund among others. In this type of offering, an existing shareholder is entitled to have proportionate number of new share at pre stated price which is somewhat lower than the market price of share. But to buy additional number of shares, the shareholder should have his/her name in company's book before the record date. Hence before the record date, there will be a great demand of share attached with rights. Demand is increased because large numbers of people rush to secondary market in order to enlist their name in the company's book before record date so that they can enjoy the benefits of right offering. On the other hand, existing shareholder generally have no willingness to sell the shares to exercise the rights. Due to this double pressure, the price of share goes upwards.

Theoretically price of share increases after right offering and decreases after the issue of right share but some practical cases in Nepalese companies have mixed result in this regard. Nepal Finance and Saving Company Ltd. announced issue of right share the first time (December 1, 1995) when market price of its share was constant at Rs. 110 for two months before announcement. But after announcement,

there was only one transaction before the record date that even at a price below its previous market price. Ace Finance Company Ltd. is another example whose stock price was Rs. 410 before the announcement but after announcement there was no transaction at all before the record date. Necon Air's stock was priced at Rs. 309 before the right share announcement but it grew up to Rs. 366 after the announcement. This is the case that follows the price movement consistent with the theory that right offering announcement appreciates the price of the share. Share prices of the majority companies were decreased after the rights share announcement and decreased rapidly after allotment. Only few companies met the theory. In this way, the negative price impact of right offering announcement on share price of majority of companies is one aspect of statement of problem of this study. Theoretically the holder of rights has three choices:

- ) Exercise them and subscribe for additional shares
- ) Sell them and
- ) Do nothing and let them expire

There arises a problem of under subscription in most of the companies in Nepal because of the lack of rights transfer provision and this absence also deprives the existing shareholders from enjoying the choice of selling the rights. If the Company Act had mentioned about the transferability of rights, shareholders who do not want to exercise the right could sell it. In the absence of such provision, most of the shareholders are affected by dilution in price of share. Hence the absence of transferable rights instrument and the implicit dilution of shareholders' wealth who do not exercise the rights is another aspect of the research problem.

It deals with the following issues.

1. What will happen to the movement of share price after the announcement of rights?

2. Is there any problem regarding rights share issue practice in Nepalese Capital Market?
3. What are the prospects of issuing rights share in Nepalese Capital Market?
4. What are the attitudes of investors for investing in rights share?

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

The study is mainly focused on practice of rights offering in Nepal and its impact on share price movement of sample organizations. This study covers two interrelated aspects: (a) Characteristics of right offering of listed companies and (b) Share price movement associated with right offering. The main objectives of the study can be indicated as follows.

- 1) To analyze the share price movement after the issue of right share.
- 2) To assess the problems regarding rights share issue practice in Nepalese capital market.
- 3) To assess the prospects of issuing right share in Nepalese capital market.
- 4) To analyze the attitude of investors for investing in rights share.

### **1.4 Statement of Hypothesis**

To analyze the data, t-statistics has been used to test the significance of difference between share price and price index under the following hypothesis.

- a) **Null Hypothesis (H<sub>0</sub>):** There is no significant difference between the share price before and after the announcement of right offering.
- b) **Alternative Hypothesis (H<sub>1</sub>):** There is significant difference between the share price before and after the announcement of right offering.

## **1.5 Significance of the Study**

Equity financing has become one of the major sources of financing. Many companies are issuing new shares. Right offering has become popular because of its low floatation costs. This study is helpful to investors, security dealers, students and the companies themselves which are the samples of the study. It helps these parties to know about the share price movement after the issue of right share. It also helps them to know about the attitude of investors regarding right offering.

## **1.6 Limitation of the Study**

This study is related with the share price movement due to right share offering by Nepalese firms. Therefore the scope is limited within the listed companies having right share issue. The limitations of this study are as follows.

1. The study covers the time period of 5 years only.( 2059-2064)
2. The study is mostly based on secondary data.
3. Only 5 right issuing companies out of 135 listed companies are considered in the study.

## **1.7 Organization of the Study**

This study consists of five chapters.

Chapter one includes general background of the study, statement of problem, objectives of the study, significance of the study and limitation of the study.

Chapter two consists of review of literature. This is another way to describe the purpose of the study and it tries to find out the answer that how other researchers did their work in the same or related topic.

Chapter three describes about the research methodology. It includes research design and research tools. Research methodology is totally concentrated with the theme that the research work should be done in very effective way then only the effective and desired result can be achieved.

Fourth chapter of the study is data analysis and presentation. This is the major part of the study. Obtained data are analyzed by using various statistical and mathematical tools and are presented in table and graphs.

Fifth chapter includes summary, conclusion and recommendations. The main aim of this part will be to recommend concerned authority about the initiatives to be taken by them in this regard. The issuance of right share is not so easy practice for the Nepalese firms therefore we can see in practice that they want to avoid issuing right share but the rules of government and international trend always compel them to issue right shares.

## CHAPTER II

# REVIEW OF LITERATURE

In this chapter, the researcher has reviewed various published and unpublished materials of various authors. This chapter is basically divided into two parts i.e. conceptual framework and review of related studies.

### **2.1 Conceptual Framework**

Right issue is relatively new practice for Nepalese corporate business. It is related to the primary issue or initial public offering to raise the equity fund. There are various ways of financing to a firm but when a new company is formed, the ways are limited. The easy and quick way of generating funds for new company is to issue the ordinary shares.

#### **2.1.1 Initial Financing**

Initial financing is primary financing to establish a firm which is collected through various sources. It is also called venture capital. Venture capital includes the common stock and debt fund. For new firm, generating debt capital is not easy, so most part of the venture capital involves common stock. Resourceful individuals and institutions are one of the major sources of initial financing. The enterprise seeking for the financing must convince any of the available sources that sizable return will offset the substantial risk involved.

#### **2.1.2 Initial Public Offering (IPO)**

After the establishment of an enterprise, the owners often want to expand the company with the announcement of sale of stock to outsiders. This announcement



for public to raise fund is called initial public offering. “If a private firm is successful, usually the owners will want to take the company with a sale of stock to outsiders. Often this is promoted by the venture capitalists who wish to realize a cash return on their investment. In other situations, the founders simply want to establish a value and liquidity for their stock. Whatever the motivation, a decision is reached to become a public corporation, while there are advantages to be a public corporation and there disadvantages as well. The public company in our context (and elsewhere) must confirm to SEC requirements in having a board of directors, disclosing sensitive information having to employ certain accounting conventions and incurring expenses as a public company not incurred by private one.” (Van Horne, 1999)

Public issue of equity means raising of share capital directly from the public (Pandey 1999). Issue of equity obviously creates a value of a company and no doubt it is the major sources of capital. But the company has to incur the cost for the public issue. This cost involves both direct and indirect cost. Direct cost involves legal auditing and administrative cost and underwriting commission. “Thus public offering involves raising of funds for government or corporations or the public through the only issuance of various securities in the primary market and is often the only major sources to obtain large sum of long term funds.” (SEBO/N Journal, 2004)

### **2.1.3 Rights Issue**

A publicly held corporation can raise equity capital either by selling equity directly to investors or by issuing subscription rights to its stockholders. When a company sells its shares to the existing shareholders, the sock floatation is called rights offering. Each stockholder is issued an option to buy a certain number of new shares and each stockholder receives one right for each share of stock owned.

If the preemptive right is contained in a firm's charter then the firm must offer any new common stock to its existing shareholders.

A corporate offering to existing shareholders prior to public distribution is termed as rights offering. A preemptive right is the privilege of existing shareholders to participate in a right offering. Shareholders are granted preemptive right either by common law or explicitly by the corporate charter. A corporation may have the right to amend the article of its incorporation to limit or deny this preemptive right. The preemptive right gives the holder the first option to purchase additional issue of common stock.

The law in India requires that the new ordinary shares must be first issued to the existing shareholders on a pro-rata basis. This preemptive right can be forfeited by shareholders through a special resolution. Obviously this will dilute their ownership. Stockholders have the choice of exercising their rights or selling them. If they have sufficient funds, they will exercise the rights, if they do not have sufficient fund or do not want to buy more stock, they will sell the rights.

#### **2.1.4 Features of Rights**

- ) The number of rights is equal to the number of shares held by the respective shareholder i.e. the number of rights that a shareholder gets equal to the number of shares held by him.
- ) The issuing company determines the number of rights required to subscribe an additional share
- ) The price per share for additional equity called subscription price is left to the discretion of the company.
- ) Rights are negotiable. The holder of right can sell them. Right can be detachable i.e. only right can be sold without selling the securities.

- ) Rights can be exercised only during a fixed period which is usually 30 days.

### **2.1.5 Preemptive Rights**

Preemptive right is a privilege offered to existing stockholders for buying a specified number of additional shares of the company's stock before the stock is offered to outsiders for sale. In other word, a provision in company's charter or bylaws that gives the existing shareholders right to purchase new share at subscription price on pro rata basis. Company can not sell their additional shares avoiding the existing shareholders and their rights. If the preemptive right is contained in a firm's charter then the firm must offer any new common stock to existing shareholder. If the charter does not prescribe a preemptive, the firm has choice of making the sale to existing shareholders or to an entirely new set of investors. If it sells to existing stockholders, the stock floatation is called a right offering. Each stockholder is issued an option to buy a certain number of the new shares and terms of the options are contained on a piece of paper called right. Each stockholder receives one right for each share of stock owned (Weston and Copeland, 1992). It protects shareholders against a dilution of value. We can clarify it by the following example:

Suppose there are 10,000 shares outstanding with Rs. 100 each making the value of the firm Rs. 1,000,000. If additional 5000 shares were sold @ Rs.75 share for Rs, 375,000 making the total market value of the firm from 1,375,000. But when total market value is divided by total number of share, a value of Rs. 91.67 is obtained. Here the old shareholders loose Rs. 8.33 per share. It is due to selling ordinary share at below market price. But if rights share is issued, it protects the current stockholder from dilution in the value.

### **2.1.6 Pros and Cons of Rights Issue**

Existing shareholders are the major beneficiaries from the issue of rights share because they can purchase additional share at a price somewhat lower than that of market. A company can also minimize its floatation cost through the issue of right share. So it is advantageous for the company too. But there are some disadvantages of issuing rights share. The pros and cons can be mentioned as follows:

#### **PROS**

1. The existing shareholder's control is maintained through the pro rata issue of shares.
2. In the case of profitable company, the issue is more likely to be successful since the subscription price is set much below the current market price.
3. Company does not have to incur more floatation cost in rights issue. It can avoid underwriting commission.

#### **CONS**

1. Those shareholders who fail to exercise their right loose in terms of decline in their wealth.
2. Sometimes negative impact of rights issue can be seen in the market price of share.

Rights issues are always welcomed by existing shareholder because they can get more shares at below the market price. So existing shareholders always prefer the right issue rather than public offering.

### **2.1.7 Rights Offering Procedure**

The issuing procedure of rights share in every organization is almost same. When a company sells securities by privileged subscription, it mails to its stockholders one right for each share of stockholder. This right gives the shareholders the option to purchase additional shares. A company generally publishes a prospectus containing rights required to purchase one additional share of stock, subscription price, application procedure etc before the rights issue. After receiving the rights, the right holder has three options; first exercise the rights, second sell the right and third do nothing and let them expire. Generally the subscription period is of three weeks. A stockholder who wishes to buy a share of additional stock but does not have necessary number of rights may purchase additional rights.

For example, if someone has 10 shares and if 3 rights are required to purchase one additional share then he will be able to purchase only three shares but after purchasing 2 rights he will be able to buy 4 shares of stock. Holder of record date is very important in rights issue. Board of Directors fixes this date and shareholders who purchase the share after this date will not be able to purchase the additional shares. The stock is said to sell with rights on through the record date. After the record date, the stock is said to sell ex right i.e. traded without the attachment of rights.

### **2.1.8 Valuation of Rights**

Since the right provides the privilege to existing stockholders, it must have a value. When companies announce right offering, the shareholders and investors generally rush to buy the stock of the company. Ultimately the rights get certain value. Theoretical value of rights can be calculated as follows:

$$V_r = \frac{P_0 Z p_s}{\# \Gamma 1}$$

Where,

$V_r$  = Theoretical value of one right

$P_o$  = Market price of a share

# = Number of rights required to purchase a share

$P_s$  = Subscription price

#### Example

If current market price of a share is Rs. 140 and subscription price is Rs. 100. Number of rights required to purchase one share is 3, then the value of one right using above formula is:

$$V_r = (140-100)/(3+1) = 10$$

Therefore Rs. 10 is the value of one right.

### 2.1.9 Market Price of Share

Market price means the price in which stocks are traded in the market. It is generally determined by demand and supply of market. But there are other factors which determine the market price of share.

- a) Dividend: If the dividend is paid in higher scale, then the share price goes higher and vice versa.
- b) Cost of Capital: Cost of capital refers to the cost of fund raised in the company. If cost of capital is higher, automatically return will be lower. Finally the share price goes down.
- c) Earning: Highly earning enterprises pay higher dividend that result in increasing price of share.
- d) Signaling Effects: Signaling effects are those rumors which are related to the stock market. For example, Budget speech, right offering, dividend announcement etc. Due to these rumors, investors buy and sell the stock which finally affects the price of share.

- e) Economic Condition: Overall economic condition of the country is one of the determinants of stock price. If the economy is in growing trend, price of share also increases and vice versa.

#### **2.1.10 Market Vs Theoretical Value of Rights**

Sale of rights over the subscription period, transaction cost, speculation and irregular exercise leads to difference between its actual value from the market value. Market value of rights may be higher or lower than theoretical value. “If the price of a right is significantly higher than its theoretical value, stockholders will sell their rights and purchase the stocks in the market. Such action will exert downward pressure on the market price of the stock. If the price of the right is significantly lower than its theoretical value, arbitragers will buy the rights, exercise their option to buy stock, and then sell the stock in the market. This occurrence will exert upward pressure on its theoretical value” (Van Horne, 1999)

#### **2.1.11 Effect of Rights Issue on Shareholder’s wealth**

After receiving the rights from issuing company, stockholders have the choice of exercising their rights or selling them. If the shareholders have sufficient fund then they exercise the right. If they don’t have sufficient fund or do not want to buy more stock, they will sell the rights. In either case provided that the theoretical value of the right holds true, stockholders will neither benefit nor lose by the rights offering. A stockholder may suffer a loss if he fails to exercise or sell his rights and brokerage cost of selling the rights is excessive.

## **2.2 Historical Development and Current Status of Nepalese Security Market**

### **2.2.1 Establishment of NEPSE**

Nepalese security market is still in premature stage. It has no long span of life. Nepal Rastra Bank (NRB) and Nepal Industrial Development Corporation (NIDC) made a joint effort to establish a Security Market Centre (SMC) to mobilize public saving for ensuring public ownership in the share of public limited companies. “ In the beginning of its establishment the centre performed studies of the public limited companies and devising the ways and means of undertaking the business buying and selling securities. (Gautam 2007). But the centre couldn't perform independently rather it worked as a subsidiary of NRB to reduce its work load relating to government securities. In 1983, SMC passed a securities exchange act and also mentioned the provision of listing. In its early period of incorporation, the centre focused much on long list of objectives without really understanding the operational mechanism of security exchange activities. Though the centre was established to facilitate and promote the growth of capital market, it was only undertaking the job of brokering, underwriting and managing public issues etc. The security exchange act 1983 was amended to fulfill the objective of eighth plan of establishing security exchange board.

HMG initiated to reform capital market converting SEC into NEPSE in 1993 under SEC Act 1983. It is an organized secondary market for listed securities. The basic objective of NEPSE is to make impart free marketability and liquidity to government bonds and corporate securities by facilitating transaction in the trading floor through market intermediaries such as brokers and market makers. After the conversion of SEC in NEPSE, 24 brokers and 5 market makers were appointed. It started 'open cry out system' of trading through brokers and market makers on 13<sup>th</sup> January 1994. Currently there are 135 listed companies (2006/07)

### **2.2.2 Security Exchange Board of Nepal (SEBO/N)**



SEBO/N was established in 26<sup>th</sup> May 1993 under Security Exchange Act 1983. Since its establishment, SEBO/N has been concentrating its effort to improve the legal and statutory framework of capital market which are the bases for healthy capital market. Second amendment was made in Securities Exchange Act to make SEBO/N an open regulator of Nepali securities market.

#### **a) Objectives of SEBO/N**

The major objective of SEBO/N is to regularize and manage the securities market.

The other objectives are:

- ) To promote and protect the interest of the investors by regulating the issuance, sale and distribution of securities and purchase, sale or exchange of securities.
- ) To supervise, look after and monitor the activities of the stock exchange and of corporate bodies carrying on securities business.
- ) To render contribution to the development of capital market by making securities transactions fair, healthy, efficient and responsible.

#### **b) Functions of SEBO/N**

The main functions of SEBO/N are as follows:

- ) To advise Government on the issues related to development of capital market and the protection of shareholder's interest.
- ) To approve stock exchanges for the operation and oversee them for healthy trading of securities.
- ) To register and regulate market intermediaries involved in the primary issues as well as the secondary trading of the securities.
- ) To regulate the public issues of securities including the mutual and trust funds.
- ) To monitor and supervise the securities transactions.
- ) To conduct the researches and studies along the area of security market.

J To conduct conferences, workshops and seminars and participate in such programs conducted in the regional and international level and join the forum and exchange with outside regulators.

### **2.2.3 Procedures for Issuing Rights in Nepal**

The procedure for issuing right share in Nepal is almost similar with other country's practice. Company Act 2063 has not mentioned about rights issue but it has a provision that rights share can be issued following the same procedure as ordinary regulation to issue the rights. Nepali companies generally adopt the following procedure to issue right share:

1. The Board of Directors should decide the proportion by determining quantum of further capital requirement.
2. AGM should pass the proposal of BOD by its majority.
3. Company should notify concerned institutions like NRB, SEBO/N and NEPSE about the rights issue and get permission from them.
4. Objectives of raising fund by right issue should be justified in the prospectus of the company.
5. Appointment of issue manager.
6. A letter of provisional allotment including price, number of shares, proportion and terms should be sent to the existing shareholders after the date of announcement.
7. After the receipt of the letter of provisional allotment, the allotment must be made for those shares which are renouncing.
8. Certificates are distributed to the shareholders who have participated in the rights offering announcement.
9. Listing of the share in the NEPSE again with increased number which must be approved by the stock exchange after which an application for listed new share could be made.

## 2.2.4 Nepalese Securities Market and Rights Issue

46 companies out of 135 listed companies (2006/07) have issued the right share till 2006/07 according to the annual report of SEBO/N. In the year 2006/07 total issue was 2295.60 million and out of this issue of securities through rights share is 1265.30 million. Structure of total issue approval from 1993/94 to 2006/07 is as follows:

Table 2.1 : Structure of Security Issuance from 1993/94 to 2006/07

Tools	Proportion on Total Public Floatation
Right Share	41.73%
Ordinary Share	34.82%
Debenture	18.10%
Preference Share	5.35%
<b>Total</b>	<b>100.00%</b>

Source : Annual Report of SEBO/N, 2006/07, Kathmandu

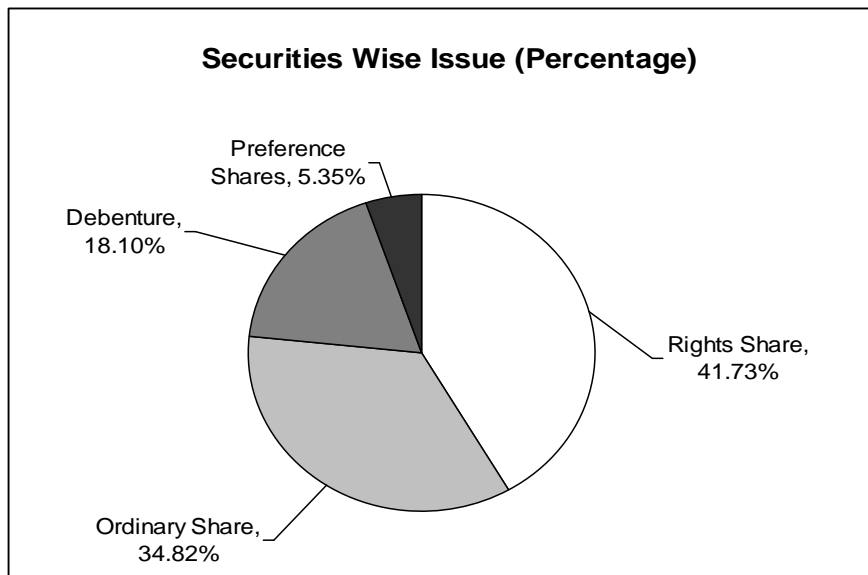


Figure 2.1 : Structure of Security Issuance from 1993/94 to 2006/07

## 2.2.5 Rules and Regulations Regarding Rights issue in Nepal

Company Act 2063 which looks after establishment and issue of securities of any company is silent about the rights issue procedure. Some of the provisions made by SEBO/N mention some regulations regarding rights issue. The firm that has already gone to public can issue right share to acquire additional capital. The procedure regarding rights share issue is similar to ordinary share issue. Besides this the firm that wants to issue rights share should have enlisted in stock exchange after the full payment of face value of securities issued earlier.

## **2.3 Review of Related Studies**

### **2.3.1 Review from journals**

“Rights issue is generally used to raise new equity capital in UK. It is the cheapest way of raising additional capital. Generally, to sell shares, underwriting procedure is used. Companies can guarantee the subscription of their issue by having them underwritten and in recent years; this procedure has been adopted for over 90% of UK rights issue” (Marsh, 1980).

Rights issue is a cheaper way of raising additional capital. It appears to be less expensive way of raising money than underwritten public offerings. But if they are cheaper than underwritten public offerings, there is a paradox. *Hansen and Pinkerton* contend that the direct comparison of costs of rights with underwritten public offering may be misleading because other things are not equal. A third variable ownership structure confuses the comparison companies heavily concentrated ownership pre determinately, undertakes us rights issue and the costs of rights issues decline as the ownership concentration increases.

**Market Capitalization crosses Rs. 100 billion ( The Kathmandu Post, October 10 2006)**

Market capitalization in the Nepal Stock Exchange (NEPSE) crossed 100 billion rupees marked for the first time led by share prices and entry of new companies. Market capitalization reached to Rs. 100.67 billion on today's closure of NEPSE, which is a 15- fold rise since its inception 12 years ago. The capitalization was around 6.62 billion in January 1994 when NEPSE began operation. The commercial bank group accounts for around Rs 71 billion of the total market capitalization, shows the data of NEPSE. Apart from cash dividends, original investors of the bank have been able to see their number of shares rise by six fold during the period, thanks to its frequent right issuance.

Terming the growth a milestone in the history of the country's stock market., Ishwori Rimal, president of Securities Broker's Association said the economic liberalization has driven market capitalization upward. A total of 135 companies are listed in NEPSE by now.

**Banks' shares at stock market overvalued ( The Kathmandu Post, August 18, 2006)**

A senior official at the Security Exchange Board (SEBO) said that the prices of banks' shares were overvalued and the recent crash of the stock market has served to cool the overvalued market. "Our stock market suffers from the problem of overvaluation and we have no mechanism to intervene in the market to make corrections", said Dipak Raj Kafle, chairman of SEBO. Citing the example of India, he said Indian Security Board puts companies in the red when their price earning ratio crosses 20 percent. "But in the absence of proper mechanism, we can do nothing even when the ratio has gone up 74 times higher in case of some companies."

He also pointed out the need of immediate reform in the secondary market to protect the interest of investors. Strong regulatory framework, tools, institutions and mechanisms were necessary for carrying out capital market operations in a fair and efficient manner.

### **Ojha's Study**

Mr. Khagendra P Ojha (2058) had conducted a research on “Financial Performances and Common Stock Pricing” in the year 2057 BS. The main objectives of his research were:

- ) To study and examine the difference of performances and stock prices
- ) To examine the relationship of dividend and stock price
- ) To explore the signaling effects on the stock price

The main findings of his study were:

- ) Nepali stock market is still in infancy age. In general, it is very new and just started to develop.
- ) Dominance of banking sector is prevalent in the market.
- ) Elder firms have been issuing bonus share more time than newer one.
- ) Dividend per Share (DPS) is relatively more stable than the Dividend Payout Ratio (DPR) that's why payout ratio and dividend yields have been highly fluctuating.
- ) People have misconception that the issuance of bonus shares and rights share, which actually determines the net worth per share and resultantly ought to decrease the market price of share.

### **2.3.2 Review of Thesis**

Many studies have been performed related to stock price behaviour, impact on market price by various variables such as EPS, DPS and signaling effects till the date but only two or three thesis are directly related to the rights issue. However, there are other studies about signaling effect on share price. Some of them have been review below:

### **Shrestha's Study**

Mr. Surya Kumar Shrestha has performed a study on “ Daily Price Behaviour of Stock of Commercial Banks in Nepal”. The focus of the study was to analyze the daily stock price behaviour of listed commercial banks and to find out whether Nepalese Stock Market is efficient in pricing the shares or not. Seven commercial banks were selected as the samples of the study. Major findings of the study were as follows.

- ) The index of commercial banks has higher variation than NEPSE index. Banking sector is more sensitive than others.
- ) Nepalese stock market is inefficient in pricing the shares.
- ) Most of the sampled stocks exhibit large variation in their prices.

### **Sigdel's Study**

Another study was conducted by Mr. Basanta Sigdel on “ Security Analysis of Listed Companies in Nepal.” Major findings of the study were as follows.

- ) Increasing trend of NEPSE index reveals the importance and growth of capital market in Nepalese scenario. Growing banking and financial companies justify the potentiality in Nepalese market in financial sectors.

- ) Paid up value and market capitalization shows the development or progress of the sectors. Banking sector has the dominant power in the capital market.
- ) Manufacturing industry index is decreasing heavily.
- ) Market index of trading industry is improving slowly in average five points each time.

### **Baral's Study**

Mr. D.R. Baral has performed a study on stock price movement in 2059 BS. The major objectives of this study were:

- ) To study and analyze the stock price and volume.
- ) To suggest the findings of the study to the interested parties related to stock investment.
- ) To study and examine the signaling factors' impact on stock price with the help of NEPSE index.

After the study, he concluded that the Nepalese securities market is still in its premature stage. It has crossed initial but not reached up to the matured stage. So the stock price movement is not running systematically. His other findings can be pointed as follows:

- ) Signaling effect has played major role in fluctuation in the price of stock.
- ) Most of the investors want to invest their capital in banking sector.
- ) It was found that stock market in Nepal is in developing stage as investors are not much aware about this sector.
- ) Government policy is nor clear and adequate.

Bar diagrams, t-test and charts have been used to justify his research by the researcher in his study. He analyzed the market price behaviors in three point of



time i.e. at the time of Royal Massacre, Ashoj 18 and state of emergency. He didn't use correlation analysis of market price with NEPSE index and did not consider other signaling effects such as rights issue and dividend declaration etc. These variables are also equally important to analyze the overall situation as they determine the market price of share.

### **Gautam's Study**

Another study about the major determinant of share price was conducted by Mr. Rishi Raj Gautam in the year 2055. The major objectives of his study were:

- ) To examine the impact of dividend on share price.
- ) To identify what type of dividend policy is being followed and find out whether the policy followed is appropriate or not.

His major findings after the study were:

- ) There was a largest fluctuation in EPS and DPS
- ) There may be various other factors except EPS affecting the market price of share

He had mentioned almost all the factors that influence the market price of share. But he missed to analyze the rights issue as one of the most affecting and influencing factor to determine the market price of share. So here the researcher is trying to examine the impact of rights issue on market price of share.

### **B. Gautam's Study**

Mr. Bamshidhar Gautam conducted another study relating to share price movement attribute to rights announcement. The objectives of his study were:

- ) To find the effect of rights offering on the share price movement.
- ) To find out if there is any problem in the primary issue of securities.

- ) To analyze the inadequacy of the contents of the company act 2053 with regard to Section 21, that emphasis about the matter to be disclosed in the issue prospectus.

To conduct his study, he had taken the data from 2052 BS to 2056 BS. The major conclusion of his study was:

- ) Change in price of share due to rights offering can not be generalized.
- ) There is lack of legal provision in company act regarding the issue of rights share.
- ) There is lack of Investor Protection Act.
- ) Nepalese securities market has failed to use various capital market instruments such as warrants, convertibles, options etc.
- ) Security board has failed to establish a one window policy to support the primary issue of shares

In course of his study, he had used correlation analysis between share price movement and NEPSE index i.e. general market movement and t-statistics between share price before and after rights issue announcement. T – statistics was used to test if there was significant change in share price before and after the issue of right. But he did not consider the value of right. Further his analysis only covers the data of 2052-2056 BS which does not represent the present market scenario. He had taken only three companies as sample but the researcher is taking five companies to reach to a accurate conclusion.

### **Lamsal's Study**

Mr. K.R. Lamsal has made a study on impact of information on share price in 2059 BS. The major objective of his study was:

- ) To determine the impact of various information such as dividend declaration, return on equity and earning per share.

After the completion of the study, he concluded as follows:

- ) There is significant difference in share prices of four samples out of five because of the information of dividend declaration.
- ) It was found that share price of the sample organization has decreased significantly after the directives made by NRB.
- ) In most cases, MPS is negatively correlated with EPS, DPS and ROE.

He used t-test and correlation to analyze and test his study.

After going through above studies, it was found that various studies have been conducted on the topic of share price and its determinants. But no one has considered the rights issue as important aspect that affects the market price heavily. So here, this study is trying to find the impact of rights issue on market price of share of sample organization. This study may be an important effort to inform the shareholders to protect their money and wealth.

### **2.3.3 Research Gap**

In this study, the researcher has tried to analyze the market movement by using data from 2057-2064 BS. Moreover primary data has also been collected and used in this study.

## CHAPTER III

# RESEARCH METHODOLOGY

### 3.1 Research Design

Research Design is a plan for the collection and analysis of data. “Research design is a plan, structure and strategy of investigation conceived so as to obtain answers to the research questions and to control variances” (Kerlinger, 1978). So research design is thinking before doing. The study is based on historical data and an ‘expost facto’ research because no variables are in the control of the researcher and no variables in this research are manipulated during the study period.

### 3.2 Population and Sample

As per the annual report of SEBO/N for FY 2006/07, there are 135 listed companies in the Nepal Stock Exchange categorized under different sectors. Among them only 46 companies have issued rights share till FY 2006/07. All the listed companies that have issued rights share have been taken as population. The major portion of Nepalese securities market is controlled by banks, finance companies and insurance companies. Any fluctuation in those companies’ share price directly affects NEPSE index. Stratified Random Sampling method has been used for this study. Five right issuing companies have been taken as sample to conduct the research. They consist of three from banks and two from finance companies.

### 3.3 Sources of Data

Data used for this study were collected mostly from secondary sources including the records available with the SEBO/N, annual reports of respective companies and the directories of the stock exchange. The share prices were collected from the

official quotation list of NEPSE published in the national daily newspapers such as Kantipur, Gorkhapatra, and The Kathmandu Post as well as trading report of NEPSE.

The following primary data collection methods have been used.

### **1. Questionnaire Method**

To get first hand and reliable information about the rights and its various aspects, questionnaire method has been used. The questionnaire was designed to get three kinds of responses.

-Yes/No Answer

-Multiple Choice Answers

### **2. Interview Method**

To make the study more relevant and reliable, interviews of some personalities were taken. The interview was basically focused on the rights issue, its characteristics and impact on share price, provision of rights issue in Company Act etc.

### **3.4 Coverage of Data**

Basically this study covers those companies which are listed in NEPSE and have issued rights share. In addition, this study covers the data of five years (2059-2064 BS) period. The research throws light on several aspects of the corporate financial policies and practices regarding rights offering such as subscription price, subscription ratio, total issue Vs total subscription of rights share, frequency of the rights offering by an individual company and legal provisions regarding the rights offering.

### **3.5 Rights Offering and Market Valuation of a Company's Equity**

This section deals with the issue whether the aggregate market valuation of a company's equity increases as a result of rights issue or not. It traces the immediate market reaction to a rights issue.

The real problem is how a decision regarding rights share affects the market valuation of the aggregate equity of an enterprise. Such effect takes place immediately after the decision becomes known and much before the date of actual issue of rights shares.

The decision to issue rights share is originally taken by the Board of Directors in shape of the recommendation to shareholders who have to approve it formally at the General Meeting of the company. All rights issues in Nepal are presently subject to government regulation and need the sanction of SEBO/N. This sanction is normally available if the right issue satisfies certain criteria laid down by SEBO/N.

### **3.6 Procedure and Tools of Data Analysis**

Various financial and statistical tools have been used to analyze the data. The major objective of this research is to find out the stock price movement before and after the issue of right share. The share price can move up or down due to various market information. So, the researcher has used some assumption to remove the effect of information.

#### **A. Allowance for leakage of information**

The Board of Directors always makes a decision of rights issue. The agenda papers of rights offering are distributed to the directors before formal meeting. This information may leak out to the market. There may also be the cases of insiders' taking advantage by making purchase in advance so that the market price

begins to rise before the actual announcement. For these reasons, the true price effect of the rights issue decision can be measured only going back at least some weeks before the actual announcement of the Board's decision to recommend rights issue. Therefore, for the present study, the base date for measuring relative change in share prices as a result of rights issue is the date three months prior to rights offering date.

## **B. Removing the effects of general market movement**

To analyze or measure the price effect of rights share issue, share price of different time points should be taken. In practice, share price moves up and down by some percentages. General Price Movement also affects a particular share price to some extent. If a particular share price is found to rise by 10% since rights announcement, this can't be attributed to the rights offering. On the other hand, if a particular share price just remains unchanged in the face of declining market trends, the strength may be due to rights issue. Hence the isolation of the effects of the rights issue necessarily requires the elimination of the general market movement.

For the purpose of analysis, five different time periods were selected for observing the price movement with the announcement date as the point of reference. The selected time points are as follows.

### **1. Three months before the date of announcement**

The researcher has taken the price before three months as base date simply because for that period the existing shareholders are supposed not have any information about the Board of Director's intention to issue rights shares. Hence, there will not be any kind of signaling effect on the share prices.

## **2. Ten days before the date of announcement**

Before ten days of rights offering announcement, only a very limited shareholders know about the announcement and does not bring any material influence on the share price behavior of the stock. So the researcher has taken the share price before ten days.

## **3. The day of announcement**

No more shareholders do know about the announcement even in the day of announcement of rights share. So this price should be taken as analytical variable to make the study reliable.

## **4. Seven days after the announcement**

After the announcement of rights offering, there will be high demand of share that is attached to a right. The high demand of rights attached share brings the price of the share up. The price of this period must be taken to produce reliable result.

## **5. Six months after announcement**

Generally there is time limit to subscribe the share after right offering. After the subscription of rights share, the price dilutes simply because the number of outstanding share increases and the new shares are sold at a price below the current market price. When the dilution process is complete after the reasonable period of time, say six months, the original share price will be restored and again the market shows normal price behaviour.

Although the price movements over the five points of time have been observed, our analysis is focused on the changes from the base date to the dates represented by (ii) and (iv).



For our analysis, the price quotation for each share was collected for all the five periods of time or reasonably close to them. These price quotations were then converted into price relatives with point (I) as the base date. Thus all price changes have been expressed relative to the base date price i.e. the price three months before the announcement date.

Against each price relative is noted the equity price index. The price index was also converted to a new set of index numbers again with point (I) as the base. The price relatives against each of five points of time were expressed as a percentage of the corresponding index number as adjusted above.

Stated in simple terms, our procedure for eliminating the effect of the general market movement boils down to adjusting the actual share price on any date downwards in proportion to an upward general movement since the base date and adjusting it upwards in proportion to a downward general movement.

Thus, we get a series of five percentage for each of the share in our sample representing relative changes in a share price of different points of time, after the effect of general market movement have been eliminated.

### **Correlation Analysis**

To complete this study, the researcher has conducted correlation analysis as a statistical tool. The Karl Pearson's method, popularly known as Pearson's coefficient of correlation is most widely used in practice. The formula for computing Pearson's correlation coefficient( $r$ ) using direct method is as follows.

$$r = \frac{\sum_{i=1}^N X_i Y_i - \frac{\sum_{i=1}^N X_i \sum_{i=1}^N Y_i}{N}}{\sqrt{\left(\sum_{i=1}^N X_i^2 - \frac{(\sum_{i=1}^N X_i)^2}{N}\right) \left(\sum_{i=1}^N Y_i^2 - \frac{(\sum_{i=1}^N Y_i)^2}{N}\right)}}$$

Where,

X = Share Price

Y = NEPSE indices for total equity capital

r = Correlation Coefficient

### Use of T-Test

To test out research hypothesis, t-statistics is used here. T-statistics is used to test the significance of the differences between the share price before and after the announcement of the rights offering by the companies. For our analysis t-statistics is suitable because the share price of some transaction days (i.e. less than 30 transactions) are taken. Here the researcher has used paired t-test.

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

$$S^2 = \frac{\sum_{i=1}^{n_1} (X_i - \bar{X})^2 + \sum_{i=1}^{n_2} (Y_i - \bar{Y})^2}{n_1 + n_2 - 2}$$

Where,

X = Price index of total equity capital before announcement

Y = Price index of total equity capital after announcement

n = Number of observation

t<sub>cal</sub> = Calculated value of t

S<sup>2</sup> = An unbiased estimate of the common population variance based on both the samples

In this analysis, the researchers have used 5% level of significance to test the hypothesis.

### 3.7 Valuation of Rights

Rights have certain market value because the rights shares are generally offered at lower price than the market price of share. So, people are interested toward that particular share attached with rights. After rights offering existing shareholders want to exercise the rights to purchase the share and some want to sell only rights. Valuation of rights is very important to analyze the share price movement. After the closing date of rights share offering, share price will drop to the extent of value of right.

$$\text{Value of One Right} = \frac{P_o - S}{\#}$$

Where,

$P_o$  = Current market price of share

$S$  = Subscription Price

$\#$  = Number of rights required to purchase one new share

## CHAPTER IV

# ANALYSIS AND PRESENTATION OF DATA

This chapter analyzes the data obtained from both primary and secondary sources. It has already been mentioned that this study is mostly based on secondary sources which include official quotation of share price, publication of NEPSE and SEBO/N, NEPSE issue prospectus e.t.c. Primary sources include personal interview and response of questionnaire.

### 4.1 Trend of Rights Offering in Nepal

There are a total of 135 listed companies in Nepal Stock Exchange out of which 46 have issued rights share (as on end of FY 2006/2007). This study has covered only five companies for the research purpose. Nepal Finance and Saving Company is the first rights issuing company in Nepal (FY 1995/96). The amount of issue approval was Rs. 2 Million. In the FY 1996/97, 3 other companies issued rights amounting Rs. 275.20 Million out of 332.20 Million of total public floatation. Till FY 2006/07, there had been 60 rights share issue. All the companies issued their rights share at par value i.e. Rs. 100 per share. Here a total of 5 rights issuing companies including 3 commercial banks and 2 finance companies have been selected as sample for the study .

1. Nepal Bank Ltd.
2. Nepal Investment Bank
3. Bank of Kathmandu
4. Peoples Finance Company Ltd.
5. NIDC Capital Markets Ltd.

The size and the amount of rights offering vary significantly from company to company which is highest in the case of Nepal Bank Ltd. amounting Rs. 241.95 million.

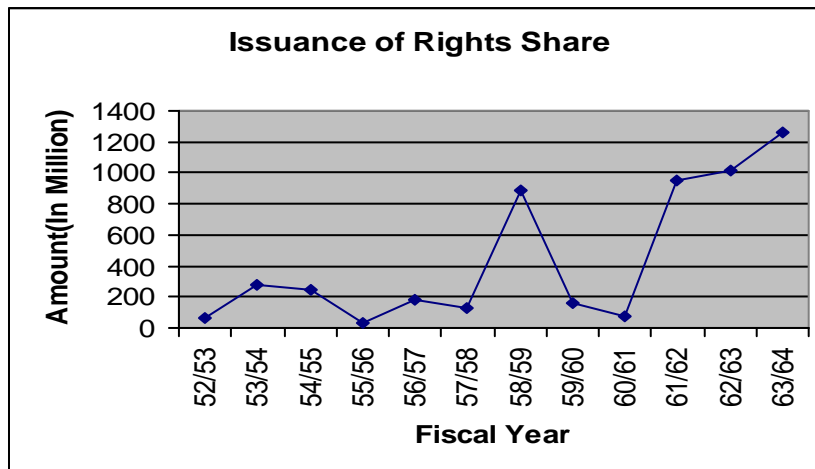
## 4.2 Share of Rights Issue on Total Public Flotation

The following table shows the contribution of rights issue in the total public flotation in each fiscal year in which rights issue had taken place.

Table 4.1 Share of Rights Issue on Total Public Flotation (Rs. In Million)

FY(A)	Total Public Flotation(B)	Number of Rights Offering(C)	Total Amount Raised Through Rights Offering(D)	D as % of B
2052/53	293.74	2	69.00	23.49%
2053/54	332.20	3	275.20	82.84%
2054/55	462.36	3	249.96	54.06%
2055/56	258.00	1	30.00	11.63%
2056/57	326.86	3	184.60	56.48%
2057/58	410.49	2	131.79	32.11%
2058/59	1441.33	5	885.45	61.43%
2059/60	556.54	4	162.24	29.15%
2060/61	1027.50	3	70.00	6.81%
2061/62	1626.82	6	949.34	58.36%
2062/63	2443.28	11	1013.45	41.48%
2063/64	11893.20	17	1265.30	10.64%
<b>Total</b>	<b>21072.32</b>	<b>60</b>	<b>5286.33</b>	<b>25.09%</b>

Source: Annual Report of SEBO/N, 2006/07



*Figure 4.1 Trend of Issuance of Rights Share*

It is clear from above table and graph that in the preliminary stage, the trend of rights offering in Nepalese share market was quite low. In the fiscal year 2052/53, there were two cases of rights offering in which the share of rights offering was 23.49% of the total public floatation. Similarly in the fiscal year 2053/54, 3 companies issued rights share amounting Rs. 275.20 million out of Rs. 332.20 million of total public floatation. Observing the above data, we can easily conclude that the share of rights offering on total public floatation was highest during the fiscal year 2053/54. In the fiscal year 2054/55, out of Rs. 462.36 Million of total public floatation, Rs. 249.96 million was raised through rights offering. In the fiscal year 2055/56, the contribution of rights share on total public floatation was just 11.63% i.e. Rs. 30 million out of Rs. 258 million of total public floatation. In FY 2056/57, three companies issued right share. The proportion of rights share is 56.48% i.e 184.60 million out of Rs 326.86 million of total public floatation. In that fiscal year, Necon Air, Paschimanchal Finance Company Ltd and Ace Finance Co. Ltd issued right share. Similarly Narayani Finance Ltd and Everest Bank Ltd issued right share in the FY 2057/58. The proportion of right share was 61.43% in the FY 2058/59. In the FY 2059/60, there were 4 cases of rights offering of Rs. 162.24 million which covers 29.15% of total public floatation of Rs. 556.54 Million.

In the FY 2060/61, three companies namely Alpice Everest Finance Ltd, Siddhartha Finance Ltd, NB Finance and Leasing company issued rights share of Rs. 70 million i.e 6.81% of Rs. 1027.50 million of total public floatation. The issuance of right share seems quite low in this fiscal year. Altogether 6 companies issued right share in FY 2061/62 amounting Rs. 949.34 million which is 58.36% of total public floatation of Rs. 1626.82 million. In FY 2063/64, 17 companies issued right share. The proportion of rights share was 10.64% i.e. Rs. 1265.30 million out of Rs. 11893.20 million of total public floatation.

After analyzing the table, it is clear that during the FY 2060/61, there is lower percentage of rights offering i.e. 6.81% in comparison to other fiscal years. The lowest amount of rights offering was in FY 2055/56 and highest amount of rights offering was in FY 2063/64. This was because of the NRB directives that the financial institutions have to maintain optimal capital adequacy ratio. So most of the financial institutions had to raise their capital and they issued right share.

### **4.3 Analysis of share price movement before and after the rights offering**

Five different points of time have been selected for observing the price movement with the announcement date as the point of reference. The selected points of time are:

1. Three months before the rights announcement date as base date
2. Ten days before the announcement date
3. Day of the rights announcement
4. Seven days after the announcement
5. Six months after the announcement

The price movements of a total of five companies including banks and financial institutions namely Nepal Bank Ltd(NBL), Nepal Investment Bank Ltd(NIBL), Bank of Kathmandu Ltd(BOK), People Finance Limited(PFL) and NIDC Capital Markets Ltd have been taken as sample for the study purpose.

### 4.3.1 Analysis of share price movement of Nepal Bank Ltd

Table 4.2: Movement of Share Price and Price Indices of Nepal Bank Ltd.

Selected Point of Time	Share Price	Price Relatives	Total Price Index of Equity Capital	Price Index Converted to New Base	% Change From Base	Adjusted Price Relative 2 as % of 4	% Change From Base
	1	2	3	4	5	6	7
1	470	100	169.67	100	-	100	-
2	480	102.13	170.59	100.54	0.54	101.58	1.58
3	370	78.72	171.70	101.20	1.20	77.79	(22.21)
4	370	78.72	170.83	100.68	0.68	78.19	(21.81)
5	380	80.85	161.13	94.97	(5.03)	85.14	(14.86)

The main objective of this method of analysis is to eliminate the effect of the general market movement from our analysis. Thus finally we get a series of five percentages for each of the shares in our sample representing relative change in a share price at different point of time after the effect of general market movement has been eliminated.

In the above table, we can see the price movement of share price of Nepal Bank Ltd at different points of time. The share price is Rs. 470 three months before the announcement date and reached to Rs. 480 with the announcement and afterwards the price reduced to Rs. 370, whereas the total price index of equity shares is not decreased by such substantial figure. It remained fluctuating in between three months before announcement date and seven days after announcement date i.e. there is not any decline in the general market movement. There is around 21% decline in the adjusted market price per share of the stock of Nepal Bank Ltd but the price index converted to new base is still increasing even at a very lower rate of below one percent. The movement of share price and price index has been shown in the following graph too.



Days	-90	-10	0	7	180
Share Price	470	480	370	370	380
Price Index	169.76	170.59	171.70	170.83	161.13

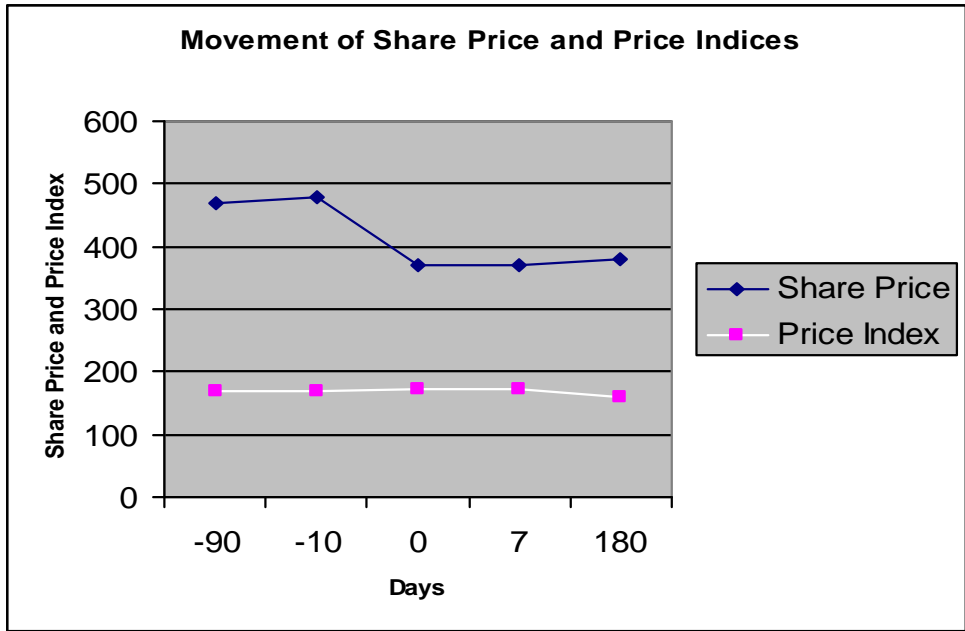


Figure 4.2: Movement of Share Price and Price Indices of Nepal Bank Ltd.

In case of Nepal Bank Ltd., the theory of rights offering does not match.

Proportion of right = 1:1

Market Price of Stock = Rs. 370.00

Theoretical value of one right = Rs. 135.00

Theoretical Ex-right price of share = Rs. 235.00

After the issue of rights share, NBL's share price didn't fall. The ex-right price i.e. Rs. 380 is more than its theoretical price.

### 4.3.2 Analysis of Share Price Movement of Nepal Investment Bank Ltd

Table 4.3 : Movement of Share Price and Prices Indices of Nepal Investment Bank Ltd.

Selected Point of Time	Share Price	Price Relatives	Total Price Index of Equity Capital	Price Index Converted to New Base	% Change From Base	Adjusted Price Relative 2 as % of 4	% Change From Base
	1	2	3	4	5	6	7
1	1170	100	247.41	100	-	100	-
2	1331	113.76	293.58	118.66	18.66	95.87	(4.13)
3	801	68.46	288.89	116.77	16.77	58.63	(41.37)
4	880	75.21	288.34	116.54	16.54	64.54	(35.46)
5	831	71.03	306.15	123.74	23.74	57.40	(42.60)

After having look at the table, column 1 shows the actual share price of Nepal Investment Bank Ltd increased from Rs. 1170 to Rs. 1331 from base date to ten days before the announcement date. The price is Rs. 801 at the day of announcement whereas it is Rs. 880 after 7 days and Rs. 831 after six months of rights share issue. Here the share price of NIB has increased before the announcement date but decreased on the announcement date.

By analyzing the share price movement of NIB and trend of general market movement, it can be concluded that the change in market price from period 1 to 2 is basically due to general market movement in which market index has increased to 293.58 from 247.41. Column 5 shows that price index was increased by 18.66% ten days before the announcement date. Similarly, it increased by 16.77% from point 1 to 3. Change in share price between 2 and 3 was not only solely due to general market movement but also caused by other factors. However slight increase in share price can be observed at point 4 in comparison to point 3. In the above table column 6 shows adjusted price relatives (APR). The APR increased to 64.54% from 58.63% between point 3 and 4. It clearly indicates that the increase

in share price was due to rights announcement. The graph of the movement of share price and price index has been shown in the following graph too.

Days	-90	-10	0	7	180
Share Price	1170	1331	801	880	831
Price Index	247.41	293.58	288.89	288.34	306.15

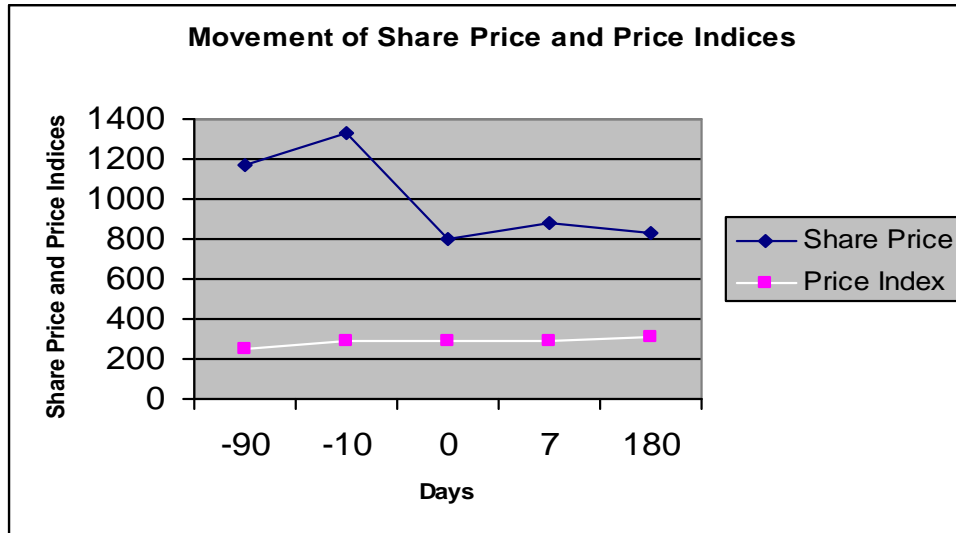


Figure 4.3 : Movement of Share Price and Prices Indices of Nepal Investment Bank Ltd.

Theoretically, the share price decreases after rights share allotment to the extent of value of right. But the price behaviour of NIB share does not follow that theory.

Proportion of Right Share	=	1:1
Market price of share	=	Rs. 801.00
Value of one right	=	Rs. 350.50
Ex-Rights Price of Share	=	Rs. 450.50

The theoretical value of share after the allotment is around Rs. 450.50 but the share price of NIB was Rs. 831.00 after six months. Thus the share price of NIB is overpriced.

Refer to ANNEX-2

### 4.3.3 Analysis of Share Price Movement of Bank of Kathmandu Ltd.

Table 4.4 : Movement of Share Price and Price Indices of Bank of Kathamndu Ltd.

Selected Point of Time	Share Price	Price Relatives	Total Price Index of Equity Capital	Price Index Converted to New Base	% Change From Base	Adjusted Price Relative 2 as % of 4	% Change From Base
	1	2	3	4	5	6	7
1	1015	100	367.37	100	-	100	-
2	801	78.92	323.51	88.06	(11.94)	89.62	(10.38)
3	815	80.30	334.64	91.09	(8.91)	88.15	(11.85)
4	460	45.32	321.96	87.64	(12.36)	51.71	(48.29)
5	315	31.03	259.75	70.71	(29.29)	43.88	(56.12)

Column 1 of above table shows that the actual price of BOK's share decreased from Rs. 1015 to Rs. 801 from base date to ten days before announcement date. It is Rs. 815 on the day of announcement where it is Rs. 460 seven days after announcement and Rs. 315 six month after announcement. This shows that there was a hasty decrease in the actual price except on the day of announcement. After announcement date, the market price of share decreased substantially to Rs. 460 despite the fact that general market movement was not going downward so rapidly. After 180 days of rights offering the share price went down to Rs. 315. Total price index of equity was Rs. 367.37 before 90 days of announcement date. It came to 323.51 ten days before announcement date and 334.64 on the day of announcement. The total price index of share went down to 259.75 after 180 days of announcement date.

While analyzing the percentage change in the adjusted price index from the base index, the price index was decreased by 11.94% ten days before announcement date. Similarly, it decreased by 12.36% and 29.29% after 7 and 180 days of

announcement date respectively. The adjusted share price in column 7 is decreased by 48.29% from the base price index after seven days of announcement date. Decrease in the adjusted share price is far more than the decrease in the price index converted to new base which is just 12.36%. Such a large percentage of decrease in the adjusted share price provides sufficient evidence to argue that this price decrease must have been attributed by the announcement of rights offering to the existing shareholders. The movement of share price and price indices has been shown in the following graph.

Days	-90	-10	0	7	180
Share Price	1015	801	815	460	315
Price Index	367.37	323.51	334.64	321.96	259.75

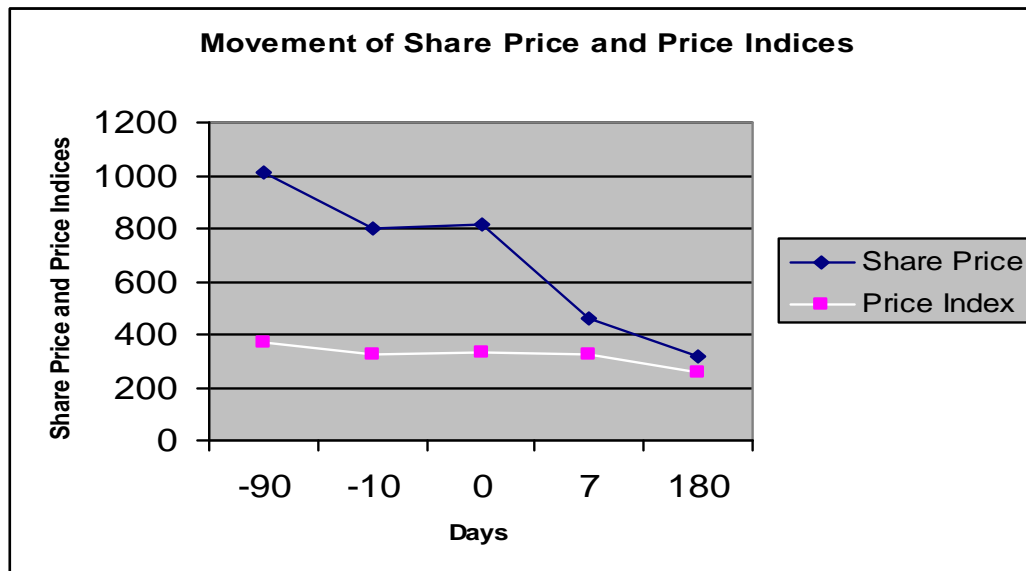


Figure 4.4 : Movement of Share Price and Price Indices of Bank of Kathamndu Ltd.

In case of BOK, the theory of rights offering does not match.

Proportion of Right = 1:1

Market price of stock = Rs. 815.00

Theoretical Value of One Right = Rs. 357.50

Theoretical Ex-right price of share = Rs. 457.50

After the issue of rights share, BOK share price fall more than its value of one right and ex-right price i.e. Rs. 315.00 is less than its theoretical value.

**Refer to Annex -2**

#### **4.3.4 Analysis of share price movement of People’s Finance Company Limited**

*Table 4.5 : Movement of Share Price and Price Indices of People’s Finance Company Ltd*

<b>Selected Point of Time</b>	<b>Share Price</b>	<b>Price Relatives</b>	<b>Total Price Index of Equity Capital</b>	<b>Price Index Converted to New Base</b>	<b>% Change From Base</b>	<b>Adjusted Price Relative 2 as % of 4</b>	<b>% Change From Base</b>
	1	2	3	4	5	6	7
1	105	100	207.15	100	-	100	-
2	95	90.48	208.48	100.64	0.64	89.90	10.10
3	95	90.48	209.10	100.94	0.94	89.73	10.27
4	95	90.48	208.99	100.89	0.89	89.63	10.32
5	95	90.48	206.76	99.81	(0.19)	90.65	9.35

We can observe both the share price movement of Peoples Finance Limited and general market movement after going through the above table. Column 1 of the above table shows that the actual share price of People’s Finance Ltd is decreased from Rs. 105 to Rs. 95 ten days before announcement date i.e. less than par value. The share price was Rs. 95 at the day of rights announcement and it remained unchanged after seven days and six months of announcement.

While observing the general market movement, it seems also constant. Before three months it was 207.15 and it went up to 208.48 with insignificant increment. In column 7, we can see the percentage change in price relative is 10.32 but percentage change in equity index is 0.89 after seven days of rights issue. After six month, it was normally expected that the share price comes to its original

condition but the case of peoples finance was quite different. Before three month share price was Rs. 105 but after six month it was only Rs. 95. This is due to dilution in capital by which the company had to be in loss and holder's record date was also prior to the announcement date i.e. 2062-02-10. The shareholders who purchased the share after that date had no right to purchase the share so the share price did not increase though there was right offering. The movement of share price and price indices can be analyzed with the help of following graph.

Days	-90	-10	0	7	180
Share Price	105	95	95	95	95
Price Index	207.15	208.48	209.10	208.99	206.76

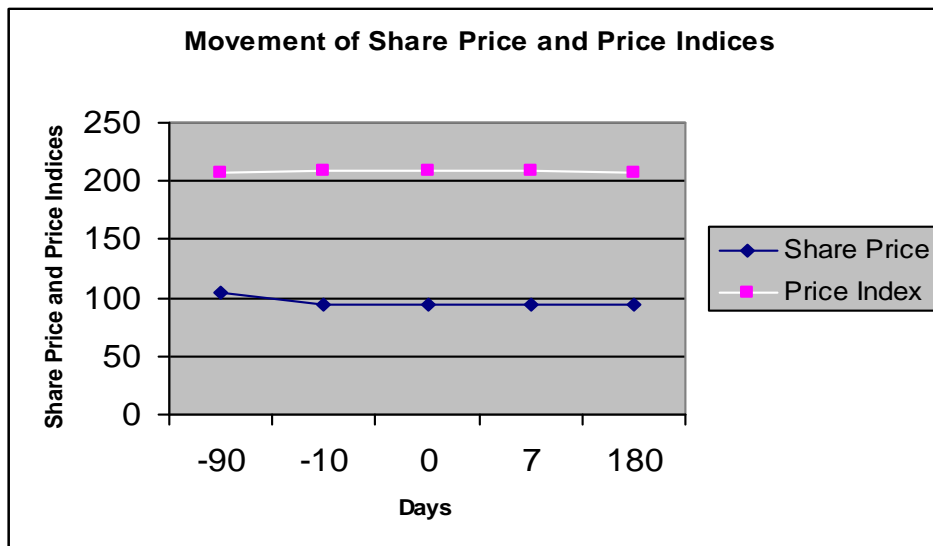


Figure 4.5 : Movement of Share Price and Price Indices of People's Finance Company Ltd

On the day of announcement, the market price was Rs. 95 which is below the par value. Therefore there was no value of rights because the value of rights can not be negative.

### 4.3.5 Analysis of Share price movement of NIDC Capital Markets Ltd.

*Table 4.6 Movement of Share Price and Price Indices of NIDC Capital Markets*

<b>Selected Point of Time</b>	<b>Share Price</b>	<b>Price Relatives</b>	<b>Total Price Index of Equity Capital</b>	<b>Price Index Converted to New Base</b>	<b>% Change From Base</b>	<b>Adjusted Price Relative 2 as % of 4</b>	<b>% Change From Base</b>
	1	2	3	4	5	6	7
1	400	100	265.62	100	-	100	-
2	410	102.5	204.28	76.91	(23.09)	133.27	33.28
3	410	102.5	201.06	75.69	(24.31)	135.42	35.41
4	220	55	216.39	81.47	(18.53)	67.51	(32.49)
5	180	45	223.87	84.28	(15.72)	53.39	(46.61)

We can have clear picture of share price before and after the announcement of rights issue after observing the above table. Column 1 shows that before three months of announcement, share price of NIDC Capital Market is Rs. 400 and it rose up to Rs. 410 before 10 days of announcement. There is small increment in share price but general market movement is in decreasing trend i.e. it decreased rapidly from Rs. 265.62 to Rs. 204.28. At the day of rights announcement, the share price remains same that of before 10 days i.e. Rs. 410 which means that there is no change in the price of share. But after seven days of rights issue, there is extreme decline in NIDC's share from Rs. 410 to Rs. 220. After six months, the price fell down to Rs. 180, a commendable reduction in price. But there is increasing trend in general market movement. Before three months of rights issue, general market index was 265.62 but at the day of announcement, it fell down to 201.06. Then after seven days, it goes up to 216.39 and finally after six months of the issue, it is 223.87. The general market movement is in increasing trend.



Days	-90	-10	0	7	180
Share Price	400	410	410	220	180
Price Index	265.62	204.28	201.06	216.39	223.87

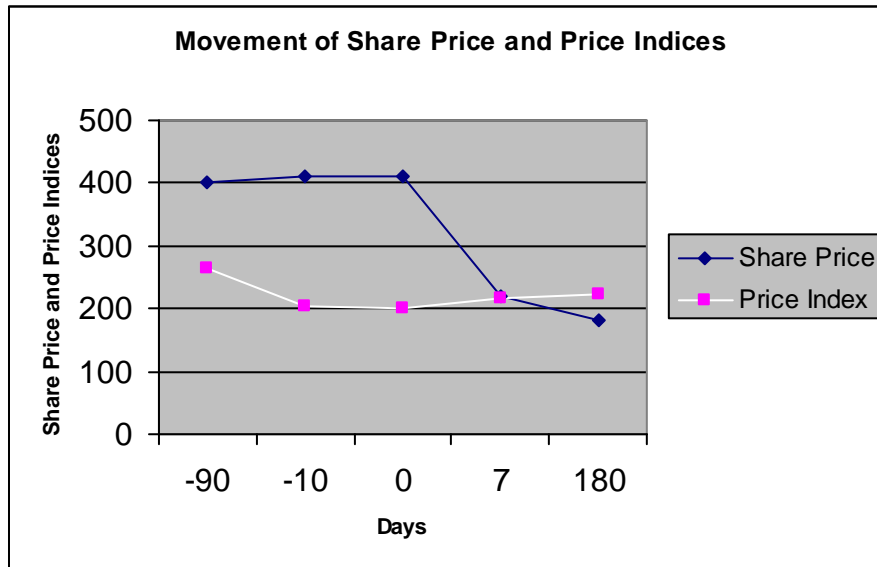


Figure 4.6 Movement of Share Price and Price Indices of NIDC Capital Markets

We can observe from the above table and graph that adjusted price relative is also in decreasing trend after the rights announcement. The share price behaviour of NIDC Capital Market is quite different and does not comply with the theory of rights issue. It is the theory that the price of share should increase after the rights announcement but the share price is decreased in this case. This is due to holder's record date and the expectation of investors. Holder's record date was 2058-12-09 where as announcement date was 2058-12-19. Investors who want to purchase NIDC's share were not entitled to buy the right share issued after the record date. So the investor's expectation could be as follows:

- ) Number of share were going to increase
- ) Earning per share was going to decrease and
- ) Ex-right price of share was going to decrease

Due to these expectations, the share prices fell down after the rights announcement. According to the theory, the price of share will decrease after the allotment of share to the extent of value of right.

Proportion of Right = 2:1

Market price (Current) = Rs. 410.00

Value of right = Rs. 103.33

Share price should be around Rs. 306.67 after allotment of shares but after 6 months it was only Rs. 180. The share price had fallen below than the theoretical price. Therefore it can be concluded that after the rights issue, the share price of NIDC capital market stock was underpriced.

Refer to ANNEX-2

#### **4.3.6 Correlation coefficient between share price movement and general market movement during five different points of time**

According to the theory, after the rights share announcement the share price increases till the period of closing date. After the closing date, the shares are traded with ex-right price i.e. it will decline to the extent of value of right. But practical aspects are somehow different than that of theory. In practice, general market movement also affects the share price. So it is indeed important to study correlation between the share price movement of sample organizations and general market movement. It is seen in practice that sometimes not only rights offering but also general market movement cause the declination in share price. After calculating correlation between share price movements of sample organizations and general market movement following results have been obtained.

*Table 4.7 Correlation between share price movements of sample organizations and general market movement*

<b>Sample Organization</b>	<b>Correlation Coefficient</b>	<b>Coefficient of Determination</b>
Nepal Bank Ltd.	0.2170	0.0471
Nepal Investment Bank Ltd	-0.3987	0.1590
Bank of Kathmandu Ltd	0.8925	0.7965
People’s Finance Co. Ltd	-0.4915	0.2416
NIDC Capital Markets Ltd.	0.0257	0.0006

**Refer to Annex 3**

From the above table we can conclude that there is no consistency in the result of all the banks and financial institutions taken as sample for the study. There is lower degree of positive correlation i.e. 0.2170 between share price movement and general market movement in the case of Nepal Bank Ltd. Similarly coefficient of determination of Nepal Bank Ltd is 0.0471 which indicates that the general market movement has only 4.71% role in the share price behaviour of NBL and rest is by other unforeseeable factors. So we can not conclude that general market movement only is responsible for the decline in NBL’s share price.

In case of Nepal Investment Bank Ltd, correlation between NIB share and general market movement is in negative figure so there is no positive correlation between the general market movement and share price of NIB. General market movement explains only 15.90% variation in the share price of NIB which is represented by the coefficient of determination. Thus it can be concluded that rights offering have some effect in the share price movement of NIB. The case of Bank of Kathmandu is quite different than that of NBL and NIB. Correlation coefficient between the share price and general market movement is calculated as 0.8925 which indicates that there is high degree of positive correlation between share price and general

market movement. Similarly, coefficient of determination is 0.7965 which indicates that the general market movement has contributed 79.65% to determine the share price of BOK and the rest is determined by other factors such as rights issue.

Correlation coefficient between the share price of People's Finance Company Limited and general market movement is highly negative. It means there is no significant relation between the share price of PFCL and general market movement. Similarly, coefficient of determination is 0.2416 which indicates that the general market movement has contributed 24.16% to determine the share price of People's Finance Company Ltd and the rest is determined by other factors. In case of NIDC Capital Markets' stock, there is positive but low degree of correlation between its share price movement and general market movement. Rapid decline in its share price is caused by general market movement to the extent of 0.0006% i.e.  $r=0.0257$ . Thus the relationship between general market movement and company's share price has been in diverse trend depending upon the nature of transaction of the particular company.

#### **4.3.7 Use of t-statistics to measure the immediate impact of rights offering on the share price and general market movement**

Theoretically after the rights issue, share price of concerned company moves upward till the date of book close. To analyze whether there is any significant change in share price or not, t-statistics have been used. For this, the researcher has taken the share prices before 10 days and 7 days of announcement date. Following table shows the calculated and tabulated values of t-statistics of respective companies.

*Table 4.8: Calculated and Tabulated Values of t-statistics of respective companies.*

<b>Name of the Company</b>	<b>Test For</b>	<b>Level of Significance</b>	<b>Degree of Freedom</b>	<b>t<sub>tab</sub></b>	<b>t<sub>cal</sub></b>	<b>Result</b>
Nepal Bank Ltd.	Share Price	5%	8	2.306	4.65	Significant
	Price Index	5%	8	2.306	-0.8574	Insignificant
Nepal Investment Bank Ltd	Share Price	5%	8	2.306	1.9872	Insignificant
	Price Index	5%	8	2.306	3.2908	Significant
Bank of Kathmandu Ltd	Share Price	5%	8	2.306	45.9525	Significant
	Price Index	5%	8	2.306	1.4764	Insignificant
People's Finance Co. Ltd.	Share Price	5%	6	2.447	3.00	Significant
	Price Index	5%	6	2.447	2.1453	Insignificant
NIDC Capital Markets Ltd	Share Price	5%	6	2.447	23.754	Significant
	Price Index	5%	6	2.447	-11.924	Insignificant

**Refer Annex 4**

In the above table the calculated value of t and tabulated value of t at 5% level of significance for 8 degree and 6 degree of freedom have been presented. The calculated value of t in case of Nepal Bank Ltd is 4.65 but the tabulated value at 5% level of significance for 8 degree of freedom is 2.306 which show that there is declining pattern in the share price after the announcement of rights offering but not such pattern in general market movement. This suggests that there is significant difference between the share price few days before and after announcement of rights offering. Hence our hypothesis that the share price movement before and after the announcement of rights share does not differ significantly is rejected and it can be concluded that price declined significantly

after announcement of rights offering. But while calculating t-statistics for NEPSE indices,  $t_{cal}(-0.8574) < t_{tab}(2.306)$  at given level of significance for 8 degree of freedom. From this, it can be concluded that there is no significant difference in the market movement before and after announcement of rights. Hence if the market price had declined significantly, decline in the share prices could be attributed to the decline in the NEPSE indices.

In case of Nepal Investment Bank Ltd, the calculated value of 't' is 1.9872, whereas the tabulated value of 't' at 5% level of significance is 2.306 for 8 degree of freedom. Since  $t_{tab}$  is greater than  $t_{cal}$ , it can be inferred that the difference between the share prices few days before and after the announcement of rights offering is not significant. But the difference in the price indices of total equity capital is significant since  $t_{cal}$  for NEPSE index is 3.2908, which is greater than  $t_{tab}$  i.e. 2.306. Thus it can be concluded from the analysis that the decrease in share price of NIB is not attributed by the announcement of rights offering. In this case null hypothesis that the share price does not change significantly after the rights issue announcement can be accepted.

In case of Bank of Kathmandu Ltd, the calculated value of 't' for share prices is 45.9525 whereas the tabulated value at 5% level of significance for 8 degree of freedom is 2.306. Since  $t_{cal} > t_{tab}$ , the hypothesis that the share price does not change significantly is rejected and the alternative hypothesis that the share price has changed significantly is accepted. Thus it can be concluded that the heavy decrease in share price of the stock of BOK can be attributed to rights offering. But while calculating the t-statistics for NEPSE index  $t_{cal}(1.478) < t_{tab}(2.306)$ , which shows that there is no significant difference in general market movement before and after the announcement of right offering.

The case of People’s Finance Ltd is slightly different than that of other companies. The calculated value of ‘t’ for the share prices is 3 whereas the tabulated value at 5% level of significance for 6 degree of freedom is 2.447. Since  $t_{cal} > t_{tab}$ , it can be concluded that there is significant difference between the share prices before and after the rights offering. Moreover it is now clear that the change is occurred due to the rights offering.

Finally in case of NIDC Capital Markets, calculated value of ‘t’ is 23.754 whereas tabulated value of ‘t’ at 5% level of significance for 8 degree of freedom is 2.306. Since  $t_{cal} > t_{tab}$ , it can be concluded that there is significant difference between share prices before and after rights offering. We can draw the same conclusion for the total index i.e. NEPSE index because  $t_{cal}(-11.924) < t_{tab}(2.306)$ , which shows that there is no significant difference in general market movement before and after the announcement of rights offering.

Hence it has been observed from the above analysis that in case of NBL, BOK, NIDC and PFCL, there is obvious impact of rights offering in the share price movement of these companies. But the case is quite different for NIB. Change in the share price of NIB’s stock is not due to rights offering and can be attributed to general market movement.

### **T-test between share prices of Banking and Financial Company Group**

#### **Average Share Price of Banking Group**

*Table 4.9 : Average share price of Banking Group*

<b>Organization</b>	<b>Time Points</b>				
	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
Nepal Bank Ltd	470	480	370	370	380
Nepal Investment Bank Ltd.	1170	1331	801	880	831
Bank of Kathmandu Ltd.	1015	801	815	460	315
<b>Average Share Price</b>	<b>885</b>	<b>870</b>	<b>662</b>	<b>570</b>	<b>508</b>

### Average Share Price of Finance Companies Group

Table 4.10 : Average share price of Financial Group

Organization	Time Points				
	I	II	III	IV	V
NIDC Capital Markets	400	410	410	220	180
People's Finance Ltd.	105	95	95	95	95
<b>Average Share Price</b>	<b>253</b>	<b>253</b>	<b>253</b>	<b>158</b>	<b>138</b>

Here,

X = Share price of sample organization before rights issue.

Y = Share price of sample organization after rights issue

S<sup>2</sup> = An unbiased estimate of population variance

Table 4.11 : T-test between share prices of Banking and Finance Company Group

X	X - $\bar{X}$	(X - $\bar{X}$ ) <sup>2</sup>	Y	Y - $\bar{Y}$	(Y - $\bar{Y}$ ) <sup>2</sup>
885	186	34596	253	42	1764
870	171	29241	253	42	1764
662	-37	1369	253	42	1764
570	-129	16641	158	-53	2809
508	-191	36481	138	-73	5329
X = 3495 $\bar{X}$ = 176.86 † X 176.86		(X - $\bar{X}$ ) <sup>2</sup> = 118328	Y = 1055 $\bar{Y}$ = 211 † X 211.83		(Y - $\bar{Y}$ ) <sup>2</sup> = 13430

We have,

$$S^2 = \frac{(X - \bar{X})^2 \Gamma (Y - \bar{Y})^2}{n_1 \Gamma n_2 \Gamma 2}$$

$$= \frac{118328 \Gamma 13430}{5 \Gamma 5 \Gamma 2}$$



$$=12007$$

Now,

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

$$t_{cal} = \frac{699 - 211}{\sqrt{12007 \left( \frac{1}{5} + \frac{1}{5} \right)}}$$

$$= 7.07$$

$T_{tab}$  at 5% level of significance for 8 degree of freedom = 2.306

Since,  $t_{cal} > t_{tab}$ , it can be concluded that there is significant difference between share price of banking group and finance company group.

Standard deviation (s.d.) of banking group is 176.86 whereas s.d. of finance group is only 51.83. This shows that share price of banking group fluctuate significantly rather than finance company group. The share price of banking group is more sensational than that of finance company group.

#### **4.4 Analysis of Data Obtained from Questionnaire and Interview**

As already mentioned, this research is mostly based on secondary data. But some of the information was also collected by administering a structured questionnaire to different sectors, shareholders and official of the concerned institution to make the study more relevant and effective.

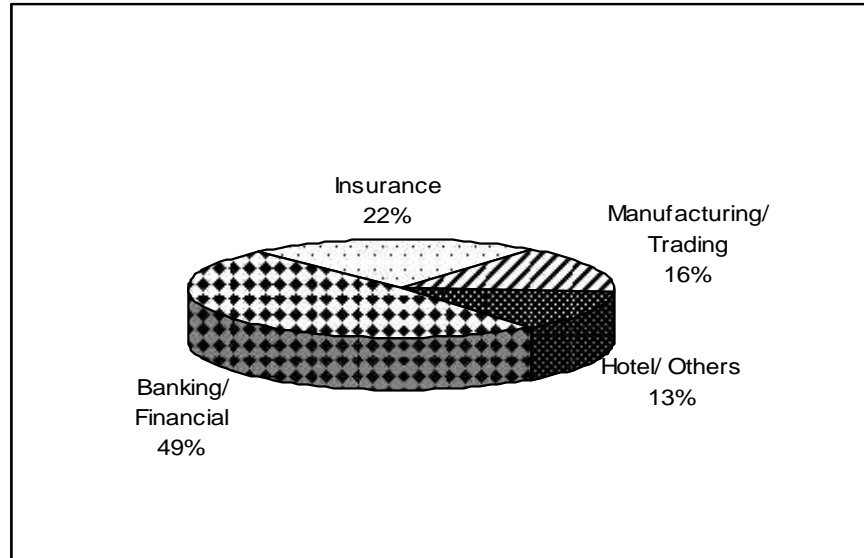
A total of 50 questionnaires were distributed to various persons out of whom 45 questionnaires were collected. The analysis of responses from different sectors has been presented as follows.

#### 4.4.1 Investors Preference

*Table 4.12: Investors' Preference for investment*

<b>Sector</b>	<b>Percentage</b>
Banking/ Financial	49
Insurance	22
Manufacturing/ Trading	16
Hotel/ Others	13

When asked regarding investors' preference to invest, most of the respondents give first priority to banking and financial sector. A total of 49% respondents chose banking and financial sector for investment purpose whereas 22% of the respondents prefer to invest in insurance companies. Similarly 16 % of the respondents like to invest in manufacturing and trading sector. Only 5% respondents chose hotel/other sector as their preferable sector for investment. This statistics clearly shows that most of the investors are keen on making investment in banking and financial sector. The above data can be shown effectively through following pie chart.



*Figure 4.7 Investor's preference for investment*

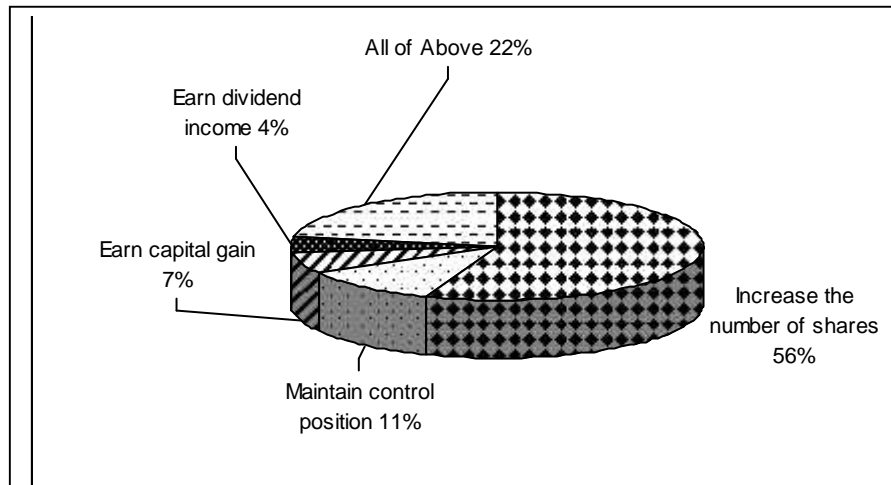
#### **4.4.2 Purpose of Rights Share Subscription**

*Table 4.13 Purpose of Rights Share Subscription*

<b>Purpose</b>	<b>Percentage</b>
Increase the number of shares	56
Maintain control position	11
Earn capital gain	7
Earn dividend income	4
All of Above	22

The researcher had also asked the respondents about the purpose of purchasing rights share. Replying the query, most of the respondents gave priority for the option to increase the number of shares. 56 % of the respondents like to subscribe rights share for the purpose of increasing number of shares. Similarly, 11% of the respondents like to subscribe rights share to maintain control position in the companies. 4% respondents like to increase dividend income by subscribing rights share. 22% of the respondents like to subscribe rights share to fulfill all the

purposes mentioned above. The above data has been presented in the following graph.



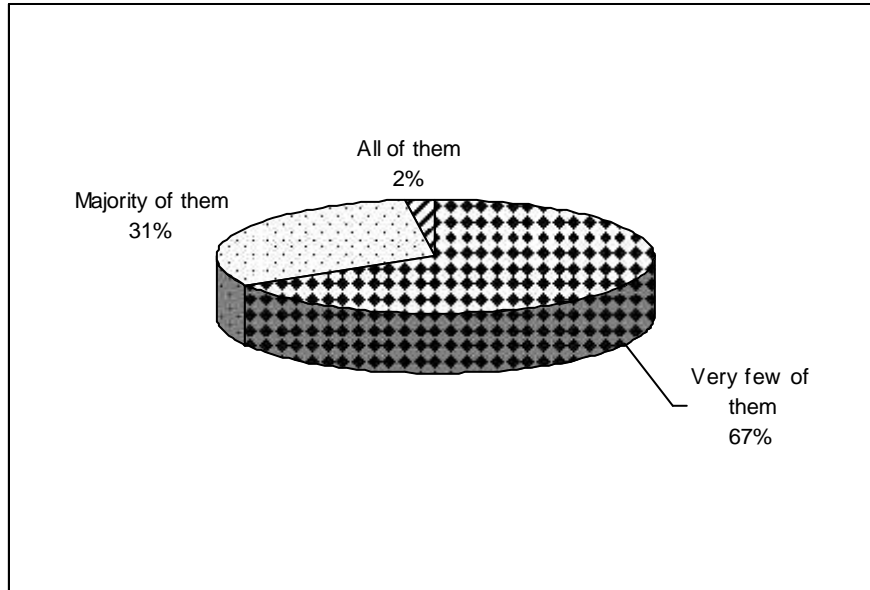
*Figure 4.8 Purpose of Rights Share Subscription*

#### 4.4.3 Awareness Regarding Rights Issue

*Table 4.14 Awareness Regarding Rights Issue*

<b>Level of awareness</b>	<b>Percentage</b>
Very few of them are aware	67
Majority of them are aware	31
All of them are aware	2

In response to the question related to awareness of investors regarding rights share issue practice, 67 % of the respondents replied that very few investors are aware. 31 % respondents replied that majority of the investors are aware about rights issue practice. Only 2% respondents replied that all of the investors are aware about the rights issue practice. This data show that the level of awareness about the rights share issue practice among investors is low. The following graph also presents this data effectively.



*Figure 4.9 Awareness Regarding Rights Issue*

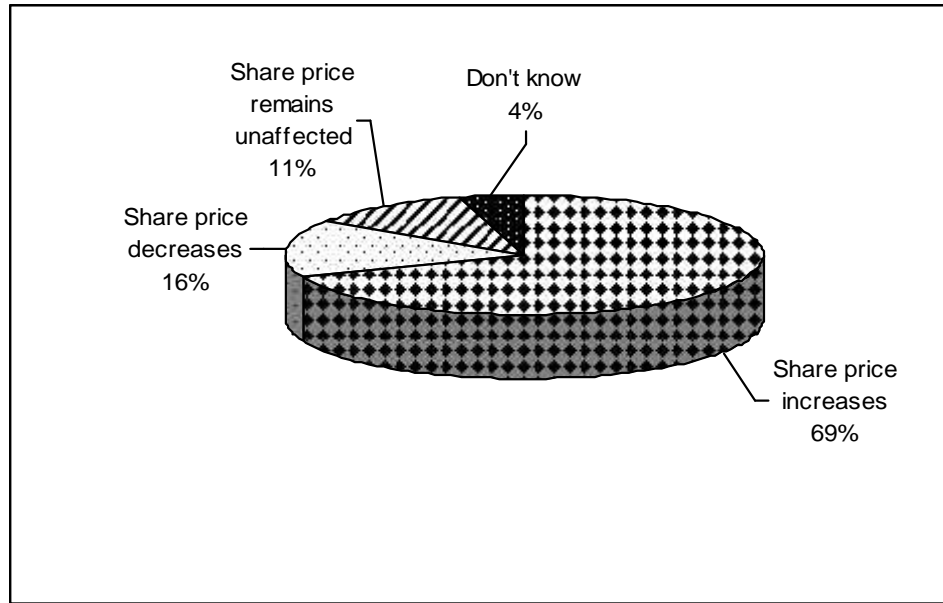
#### **4.4.4 Impact of Rights Issue Announcement**

*Table 4.15 Impact of Rights Issue Announcement*

<b>Impact</b>	<b>Percentage</b>
Share price increases	69
Share price decreases	16
Share price remains unaffected	11
Don't know	4

Another major question was asked about the impact of rights issue announcement on market price of share. A mixed result has been obtained regarding this. 69% respondents replied that share price increases after the announcement of rights share. 16% respondents replied that share price decreases after the announcement

of rights issued. Only 11% respondents believe that share price remains unaffected after the announcement of rights share. 4% of the respondents do not know about the impact of rights issue announcement on market price of the share.



*Figure 4.10 Impact of rights issue announcement*

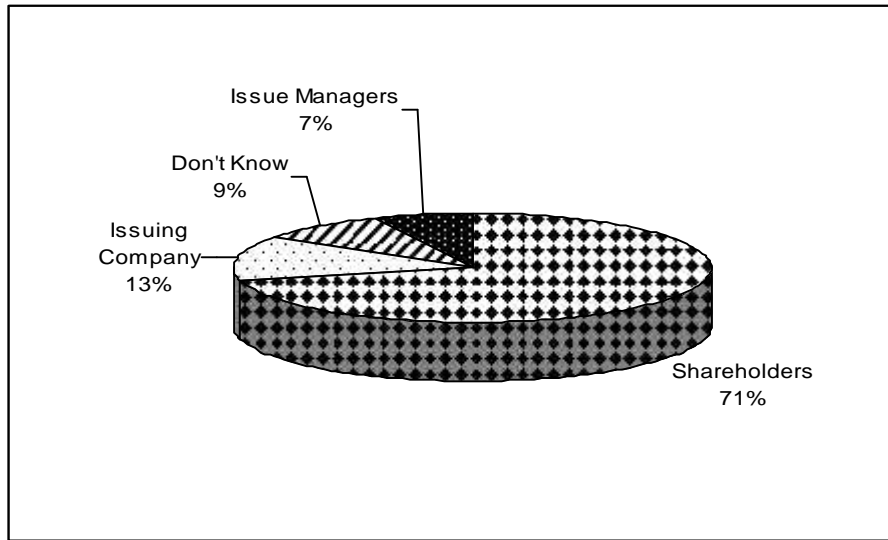
#### **4.4.5 Beneficiaries of Rights Issue**

*Table 4.16 Beneficiaries of Rights Issue*

<b>Beneficiaries</b>	<b>Percentage</b>
Shareholders	71
Issuing Company	13
Issue Managers	7
Don't know	9

Respondents were also asked about the beneficiaries of rights issue. Most of respondents i.e. 71% replied that shareholders are the beneficiaries of rights share. 13% respondents believe that issuing company is beneficiary of rights issue. 7% respondents said that issue managers are beneficiaries of rights issue. Finally 9 %

respondents replied that they do not know about the beneficiary of rights issue. The above data has also been presented in the following graph.



*Figure 4.11 Beneficiaries of Rights Issue*

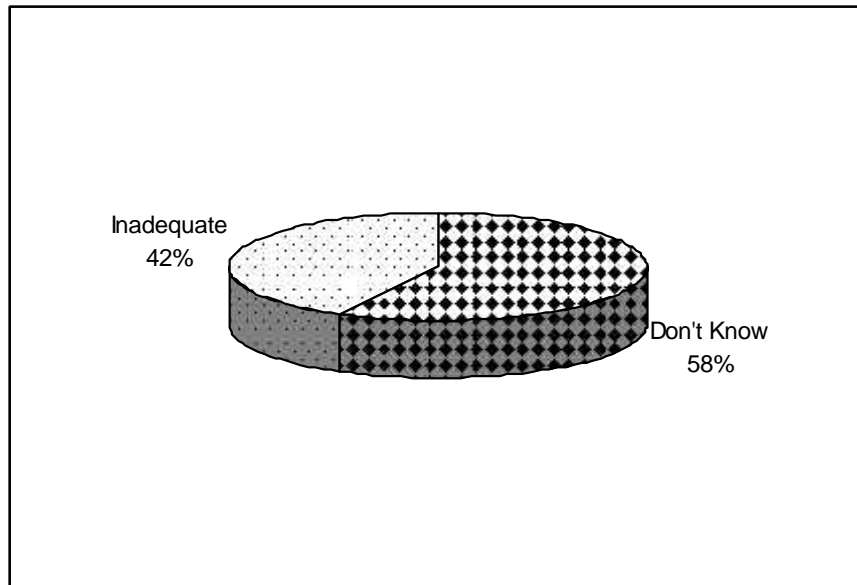
#### 4.4.6 Adequacy of legal provision regarding rights share

*Table 4.17 Adequacy of legal provision regarding rights share*

<b>Level of Adequacy</b>	<b>Percentage</b>
Adequate	0
Inadequate	42
Don't know	58

The respondents were also asked about the adequacy of existing legal provision regarding the rights issue. Replying the query, majority of the respondents (58) said that they do not know about the existing legal provision regarding rights

issue. 42 % of the respondents replied that the existing legal provision is inadequate.



*Figure 4.12 Adequacy of legal provision regarding rights share*

#### **4.4.7 Causes of under subscription of rights share**

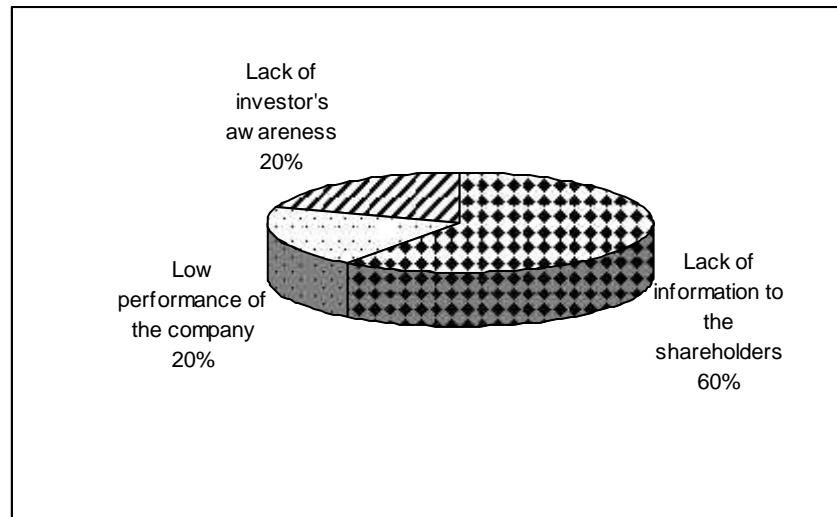
*Table 4.18 Causes of Undersubscription of Rights Share*

<b>Causes</b>	<b>Percentage</b>
Lack of information to the shareholders	60
Low performance of the company	20
Lack of investor's awareness	20

In response to the question regarding the causes of undersubscription of rights share, 60% respondents replied that lack of information to the shareholders is the



cause of undersubscription of rights share. Similarly, low performance of the company is regarded as second important cause of undersubscription of rights share. 20% respondents replied that lack of investor's awareness is the cause of undersubscription of rights share.



*Figure 4.13 Causes of undersubscription of rights share*

#### **4.5 Major Findings of the study**

After going through research on rights issue, a lot of things regarding rights issue have been explored which can be presented as follows.

- a) The trend of issuing rights share is increasing in Nepalese capital market.
- b) Subscription of rights share is in increasing trend.
- c) There are a large number of shareholders who are holding small quantities of share.
- d) Price behaviors shown by the stock of sample organizations do not satisfy the theory of rights offering. The share price of Nepal Bank Ltd and Nepal Investment Bank Ltd are overpriced while share price of Bank of Kathmandu Ltd, People's Finance Company Ltd. and NIDC Capital Market Ltd. are underpriced.
- e) In case of Nepal Bank Ltd, we can not see any decline in share price after the rights offering. The stock price of Nepal Investment Bank Ltd. declined rapidly

after the rights announcement. BOK's stock had to face sharp decline in price after rights offering. The share price declined by more than 40% in one week period after rights offering. The share price of People's Finance Company Ltd. was less than its par value and it remained constant even after the rights offering. The share price of NIDC Capital Market Ltd also declined by more than 40% in one week period after rights announcement.

- f) There is significant difference between share prices of Nepal Investment Bank Ltd. before and after the rights issue. But it does not follow the theory that the price of share should move upward after the rights announcement. The price of share has moved downward in case of NIB.
- g) There is sharp decline in the share price of Nepal Bank Ltd. after the announcement of rights share. But in the case of Nepal Investment Bank Ltd., it does not follow the theory of rights offering because its share price does not fall by its theoretical value of rights and ex-right share price is more than that of theoretical value.
- h) T-test of share price and price indices also showed mixed results. The t-statistics of Nepal Bank Ltd, Bank of Kathmandu Ltd, People's Finance Company Ltd and NIDC Capital Markets Ltd shows that there is significant difference between the price of share before and after rights offering. In case of Nepal Investment Bank Ltd, the result shows that there is no significant difference between the share price before and after the rights offering.
- i) The average share price of commercial banking group is relatively higher than that of finance company group and the standard deviation of average share price of banking group is 176.86 while standard deviation of average share price of finance company group is only 51.83. This shows that the share price of banking group fluctuates much more than finance company group.
- j) Most of the investors like to invest in banking and financial organizations.
- k) More than 50% investors like to subscribe rights share to increase the number of shares.

- l) Most of the investors know about the logical impact of rights offering on market price of share.
- m) Existing legal provision is not adequate and needs to be amended as soon as possible.
- n) Commercial banks occupy largest amount of total rights offering among all the sectors.
- o) The undersubscription of rights share is caused by various factors such as lack of investor's awareness, low performance of companies, and lack of adequate information. Among these factors and lack of adequate information to shareholders is major.

## CHAPTER V

# SUMMARY, CONCLUSION AND RECOMMENDATION

### 5.1 Summary

Nepalese security market is not developed enough in comparison with the market of other countries such as India, Japan and United States. So rights offering and its practices in Nepal has always been an exciting and challenging study. In Nepal very few investment instruments are in use such as ordinary share, debenture, preference share, mutual fund and rights share. But other instruments such as warrants, convertibles, option and transferable rights are not in use which deprives the public from investing their saving in highly productive sectors.

This study is mainly focused on various aspects of rights offering with special reference to five selected bank and financial companies of Nepal to know whether there is significant impact on share price after the rights issue or not. It covers the period of five year from 2059-2064.

Although it has been more than ten years since the practice of rights offering started in Nepal, the expected development is still in downside. Only 60 cases of rights offering by 46 companies out of total listed companies in Nepal till FY 2063/2064. In Nepal few cases of rights offering meet the theory. Theoretically, after the rights announcement, share price moves upward till the closing date. Mixed results have been obtained from the sample companies regarding rights offering in Nepal. For instance, share price of Bank of Kathmandu Ltd. Before rights share announcement was Rs. 801 but it went down to Rs. 450 after rights

share announcement. Similar trend was observed in the case of NIDC Capital Markets while mixed results have been observed in case of Nepal Investment Bank Ltd and Nepal Bank Ltd.

The study has been conducted to fulfill some specific objectives. The major objective of this study is to examine the movement of share price before and after the announcement of rights issues and to analyze the rights issue practice in Nepal. Since the frequency of rights offering in Nepalese security market is not so significant, very few researches have conducted research focusing this issue. Here the researcher has made full effort to go extensively through different aspects of rights issue in Nepal.

This study is mainly based on secondary data collected from SEBO/N, NEPSE and related organizations. Besides, annual reports, journals and bulletins have also been used as secondary sources of information. To make the study more relevant, primary data has also been used by conducting interviews and distributing questionnaire to concerned persons and institutions. Various statistical tools such as t-test, correlation analysis and valuation method of rights are also used.

## **5.2 Conclusion**

There are many things to work towards making rights offering an effective instrument of raising fund. It is known from the study that there are very few companies which have met the theory of rights offering i.e. the share price has increased significantly after the announcement of rights share and then traced on ex-rights price after the allotment of shares. After going through whole study, the following conclusions can be drawn regarding rights share issue in Nepal.

1. Theoretically, share price should increase after the announcement of rights share and decrease after the allotment of share. But this has not been the case (all time) in this study.
2. Share prices of most of the companies have been decreased after the announcement of rights share.
3. The overall procedure regarding the issuance of rights share is time consuming and lengthy.
4. Market price of share is greatly influenced by general market movement in Nepal.
5. Nepalese capital market is still in its infancy stage and rights issue has not been practiced properly by all sectors and companies.
6. There is no clear legal provision regarding rights issue.
7. Investors are greatly influenced by the information provided informally by the different participants of the capital market e.g. the brokers.
8. Average price of share of banking group is relatively higher than that of finance companies group. Analysis also shows that volatility is higher in share price of commercial banks.

### **5.3 Recommendations**

After going through rights share issue practices in Nepal and existing legal provisions regarding the issue of rights share, the following recommendations can be made.

1. It has been concluded from the study that all the investors are not well aware about rights offering. So various types of programme such as interaction, advertisement, radio talk etc should be conducted by related companies and government.

2. A new investor's protection act should be designed to overcome the problem of undersubscription of rights share. Such type of act helps the investors to build confidence over their investment.
3. One critical factor that affects the share price and subscription is the holder's record date. Presently, investors who purchase the share after that date are unable to get rights share. So, rights issuing companies should set the proper holder's record date so that the investors who want to enjoy the rights offering can purchase the share issued by them.
4. Company Act 2063 has not mentioned any provision regarding negotiable rights. To make a provision of transferable rights, the act should be amended. It will also help to solve the problem of undersubscription to some extent. Besides, it will also protect the shareholders from dilution in wealth who do not want to exercise rights and obviously it will enhance the dimension of security market.
5. Provision regarding the sale of undersubscribed rights share should be made.
6. The mechanism of information flow is not found to be appropriate and effective that results in heavy undersubscription of rights share. So effective alternative of information flow should be searched.
7. Free pricing concept should be implemented in rights offering to get rid off the problem of under subscription of rights share.

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# QUESTIONNAIRE

I have been conducting a study on “Rights Share Issue Practice in Nepal” for the partial fulfillment of the requirement of Master of Business Studies (MBS). This questionnaire has been developed and presented before you as a part of the study. So I humbly request you to fill it up at the best of your knowledge. Your kind cooperation in this regard will be of great value for me. I shall be highly obliged for prompt responses as far as possible.

Thanking you

Dhanesh Giri

Researcher

Prithiwi Narayan Campus

Name of the Respondent:

Address:

Age:

Gender:

*Instruction: Answer the following questions with tick mark in appropriate space and as required by the question.*

1. Have you hold the share of any listed companies?

Yes

No

2. Are you familiar with rights issue practice?

Yes

No

3. In which sector would you prefer to invest?

Banking / Financial

Manufacturing / Trading

Insurance

Hotel/Others

4. What will be your purpose to buy rights share?
- To increase the number of shares
  - To earn capital gain
  - To earn dividend income
  - To maintain control position
  - All of above
5. Do you think the investors are well aware of rights share?
- All of them
  - None of them
  - Very few of them
  - Majority of them
6. What impact do you think rights issue announcement on market price of share?
- Share price will increase
  - Share price will decrease
  - Share price will remain unaffected
  - Don't know
7. In your opinion, if rights had been transferable, what would you do?
- Sell the rights
  - Exercise the rights
  - Partially sell and partially exercise the rights
  - Neither sell nor exercise
  - Don't know
8. In your opinion, who are the beneficiaries of rights offering?
- Issuing company
  - Issue managers
  - Security Brokers
  - Shareholders
  - Don't know
9. What do you think about the current legal provision regarding rights share?
- Adequate
  - Inadequate
  - Don't know
10. What do you think the reason behind under subscription of rights share?
- Lack of information to the shareholders
  - Low performance of the company
  - Lack of investor's awareness
  - Others

**ANNEX – 1**  
**Rights Issue in Nepal**

Rs. In Million

SN	Issuer	Issue Amount	Issue Date	Subscription %	Issue Manager
	<b>1995/96</b>				
1	Nepal Finance & Saving Co. Ltd	2.00	01.12.1995	NA	N/A
2	Seti Cigarette Factory Ltd.	67.00	11.07.1996	77.90	N/A
		<b>69.00</b>			
	<b>1996/97</b>				
3	Himalayan General Insurance Ltd.	30.00	N/A	N/A	AFC
4	Bottlers Nepal Ltd	225.20	14.04.1997	N/A	CIT
5	Nepal Share Markets & Finance Ltd	20.00	06.07.1997	100	AFC
		<b>275.20</b>			
	<b>1997/98</b>				
6	Nepal United Co. Ltd	3.01	18.02.1998	44.41	NFCL
7	Nepal Bank Ltd.	241.95	25.12.1997	N/A	CIT
8	Annapurna Finance Co. Ltd	5.00	03.03.1998	81.72	NFCL
		<b>249.96</b>			
	<b>1998/99</b>				
9	Nepal Share Market Ltd.	30.00	09.06.1999	N/A	AFC
		<b>30.00</b>			
	<b>1999/2000</b>				
10	Necon Air Ltd.	89.60	03.03.2000	95.31	CIT
11	Paschimanlal Finance Co. Ltd	20.00	14.03.2000	129.65	NSML
12	Ace Finance Co. Ltd	15.00	11.04.2000	100.00	NSML
		<b>124.60</b>			
	<b>2000/2001</b>				
13	Narayani Finance Ltd.	12.58	28.03.2001	122.02	NSML

14	Everest Bank Ltd.	119.21	11.07.2001	27.17	CIT
		<b>131.79</b>			
	<b>2001/2002</b>				
15	Bank of Kathmandu	234.00	31.08.2001	98.30	NCML
16	Nepal Housing & Merchant Fin. Ltd.	15.00	07.01.2002	100.00	NSML
17	Ace Finance Ltd.	45.00	25.02.2002	100.00	NSML
18	Nepal SBI Bank Ltd	287.87	14.03.2002	97.26	NMB
19	NIDC Capital Markets Ltd.	40.00	08.04.2002	95.00	CIT
		<b>621.87</b>			
	<b>2002/2003</b>				
20	Nepal Investment Bank Ltd	57.24	27.09.2002	97.42	NCML
21	Nepal Share Market & Finance Ltd.	60.00	29.01.2003	85.35	CIT
22	Mahalaxmi Finance Ltd.	25.00	28.02.2003	N/A	NFCL
23	Peoples Finance Ltd	20.00	03.06.2003	56.69	NCML
		<b>162.24</b>			
	<b>2003/2004</b>				
24	Alpic Everest Finance Ltd.	20.00	04.09.2003	100.51	NEFINSCO
25	Siddhartha Finance Ltd.	20.00	09.12.2100 3	88.84	NEFINSCO
26	NB Finance & Leasing Co. Ltd	30.00	15.06.2004	66.84	NSMB
		<b>70.00</b>			
	<b>2004/2005</b>				
27	Nepal Bangladesh Bank Ltd	359.92	16.07.2004	95.26	NSMB
28	Annapurna Finance Co. Ltd	20.00	05.11.2004	97.33	NCML
29	Nirdhan Uthan Bank Ltd	15.00	25.04.2005	65.92	NMB
30	Nepal SBI Bank Ltd	215.93	03.05.2005	96.50	NMB
31	Nepal Investment Bank Ltd	295.29	13.05.2005	99.04	AFC
32	National Finance Co. Ltd	43.20	15.06.2005	97.06	NCML
		<b>949.34</b>			

	<b>2005/2006</b>				
33	Development Credit Bank Ltd	80.00	24.08.2005	95.87	NMB
34	Kumari Bank Ltd	125.00	21.12.2005	153.46	NCML
35	Fewa Finance Co. Ltd	30.00	18.01.2006	97.40	NMB
36	Om Finance Co. Ltd.	30.00	18.01.2006	99.66	NMB
37	Goodwill Finance Ltd.	25.00	03.03.2006	94.96	NCML
38	Janaki Finance Ltd	10.00	15.03.2006	98.33	NEFINSCO
39	Central Finance Ltd	12.00	26.03.2006	98.32	NCML
40	Taragaun Regency Hotels Ltd.	446.45	26.03.2006	57.45	NCML
41	Machhapuchhre Bank Ltd.	165.00	25.05.2006	87.13	NMB
42	Kist Merchant Banking % Finance Ltd.	50.00	30.05.2006	78.01	NMB
43	Nepal Share Markets & Finance Ltd	40.00	04.06.2006	90.94	CIT
		<b>1013.45</b>			
	<b>2006/2007</b>				
44	Pokhara Finance Ltd.	20.00	20.07.2006	99.00	NMB
45	Lumbini Bank Ltd.	100.00	13.08.2006	100.00	NCML
46	Pachimanchal Bikas Bank Ltd	28.00	20.08.2006	76.00	NCML
47	Alpic Everest Finance Ltd	20.00	07.09.2006	96.00	NMB
48	Peoples Finance Ltd.	40.00	28.09.2006	56.00	NCML
49	Chhimek Bikash Bank Ltd.	20.00	27.10.2006	81.00	NMB
50	Nepal Development Bank Ltd.	160.00	25.12.2006	54.00	NCML
51	Ace Finance Co. Ltd	194.00	31.01.2007	99.00	NCML
52	Navadurga Finance Co. Ltd	11.00	02.02.2007	99.00	NEFINSCO
53	Annapurna Finance Co. Ltd	80.00	09.02.2007	99.00	NCML
54	Laxmi Bank Ltd	122.00	25.04.2007	98.00	NMB
55	Capital Merchant Banking & Fin. Ltd.	84.00	27.04.2007	80.00	CIT
56	Yeti Finance Ltd.	6.30	29.04.2007	83.00	NCML

57	Business Development Bank Ltd.	30.00	11.05.2007	100.00	AFC
58	Kist Merchant Banking & Finance Ltd	100.00	23.05.2007	99.00	NCML
59	Siddhartha Bank Ltd	100.00	04.06.2007	99.00	AFC
60	Lumbini Bank Ltd.	150.00	19.06.2007	N/A	AFC
		<b>1265.30</b>			

NMB	=	Nepal Merchant Banking & Finance Ltd.
NFCL	=	National Finance Co. Ltd
AFC	=	Ace Finance Co. Ltd
NEFINSCO	=	Nepal Finance & Saving Co. Ltd
NSML	=	Nepal Share Markets Co. Ltd
UFL	=	United Finance Ltd.
NSMB	=	Nepal Sri Lanka Merchant Bank Ltd.
CIT	=	Citizen Investment Trust
NCML	=	NIDC Capital Markets Ltd

**ANNEX-2**  
**Share Price and Price Indices of Respective Companies**

**Table A 2.1**  
**Share Price and Index of Nepal Bank Ltd.**

Date	Share Price / Index	Date	Share Price / Index	Date	Share Price / Index
2054-08-30	370(170.16)	<b>2054-09-04</b>	<b>370(171.70)</b>	2055-03-08	380(161.34)
2054-08-11	480(172.39)	2054-09-07	370(170.57)	2055-03-18	355(166.13)
2054-08-10	480(173.28)	2054-09-20	325(170.21)	2055-03-25	350(166.13)
2054-08-02	455(172.80)	2054-09-27	300(170.69)	-	-
2054-08-01	450(172.02)	2054-10-20	350(179.42)	-	-
		2054-10-22	345(179.42)		

**Table A2.2**  
**Share Price and Index of Nepal Investment Bank Ltd**

2062-01-22	801(288.89)	<b>2062-01-24</b>	<b>801(288.89)</b>	2062-07-23	831(306.15)
2062-01-21	790(298.79)	2062-01-26	830(288.79)	2062-07-25	830(307.98)
2062-01-19	1430(296.11)	2062-01-27	880(288.34)	2062-07-29	830(305.01)
2062-01-09	1331(293.58)	2062-02-01	885(288.54)	2062-08-01	828(300.58)
2062-01-07	1326(293.58)	2062-02-04	880(289.31)	2062-08-07	801(300.57)

**Table A2.3**  
**Share Price and Index of Bank of Kathmandu**

Date	Share Price / Index	Date	Share Price / Index	Date	Share Price / Index
2058-03-26	805(322.74)	<b>2058-04-05</b>	<b>815(334.64)</b>	2058-10-05	315(259.75)
2058-03-22	801(323.51)	2058-04-12	450(321.96)	2058-10-08	310(257.73)
2058-03-20	801(325.71)	2058-04-15	485(322.01)	2058-10-09	306(255.91)
2058-03-19	810(327.95)	2058-04-16	480(323.64)	2058-10-10	301(254.99)
2058-03-18	805(330.10)	2058-04-17	488(325.21)	2058-10-11	305(255.13)
		2058-04-18	483(325.60)		



**Table A2.4**  
**Share Price and Index of People's Finance Ltd**

Date	Share Price / Index	Date	Share Price / Index	Date	Share Price / Index
2060-01-20	95(208.48)	2060-02-06	95(208.31)	2060-08-12	95(206.76)
2060-01-13	100(209.69)	<b>2060-02-13</b>	<b>95(209.10)</b>	2060-08-09	90(205.83)
2060-01-10	100(209.43)	2060-02-24	95(208.95)	2060-08-03	90(206.33)
2060-01-05	100(211.37)	2060-02-27	95(208.99)		

**Table A2.5**  
**Share Price and Index of NIDC Capital Markets Ltd**

Date	Share Price / Index	Date	Share Price / Index	Date	Share Price / Index
2058-12-02	380(187.88)	<b>2058-12-19</b>	<b>410(201.06)</b>	2059-06-16	175(217.13)
2058-12-03	380(186.22)	2059-01-05	220(216.39)	2059-05-28	180(223.79)
2058-12-06	370(180.94)	2059-01-06	220(216.94)	2059-05-27	180(223.87)
2058-12-07	370(192.17)	2059-01-07	205(217.14)		
2058-12-09	410(204.28)	2059-01-08	194(215.10)		

### ANNEX 3

#### Correlation between share price movement and general market movement during five different points of time.

X = Share Price

Y = NEPSE Indices for total equity capital

**Table A3.1  
Nepal Bank Ltd**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$	$(X - \bar{X})(Y - \bar{Y})$
470	56	3136	169.67	0.89	0.7921	49.84
480	66	4356	170.59	1.81	3.2761	119.46
370	-44	1936	171.70	2.92	8.5264	-128.48
370	-44	1936	170.83	2.05	4.2025	-90.20
380	-34	1156	161.13	-7.65	58.5225	260.10
$\Sigma X =$ 2070		$\Sigma (X - \bar{X})^2 =$ 12520	$\Sigma Y =$ 843.92		$\Sigma (Y - \bar{Y})^2 =$ 75.3196	$\Sigma (X - \bar{X})(Y - \bar{Y}) =$ 210.72

Karl Pearson's coefficient of correlation

$$r = \frac{\Sigma (X - \bar{X})(Y - \bar{Y})}{\sqrt{\Sigma (X - \bar{X})^2 \Sigma (Y - \bar{Y})^2}}$$

$$= \frac{210.72}{\sqrt{12520 \times 75.3196}}$$

$$= 0.2170$$

Coefficient of determination ( $r^2$ ) =  $(0.2170)^2 = 4.71\%$

**Table A3.2**  
**Nepal Investment Bank Ltd**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$	$(X - \bar{X})(Y - \bar{Y})$
1170	167.40	28022.76	247.41	-37.47	1404.00	-6272.48
1331	328.40	107876.56	293.58	8.70	75.69	2857.08
801	-201.60	40642.56	288.89	4.01	16.08	-808.42
880	-122.60	15030.76	288.34	3.46	11.97	-424.20
831	-171.60	29446.56	306.17	21.29	452.84	-3653.36
$\Sigma X = 5013$		$\Sigma (X - \bar{X})^2 = 220989.20$	$\Sigma Y = 1424.39$		$\Sigma (Y - \bar{Y})^2 = 1961.00$	$\Sigma (X - \bar{X})(Y - \bar{Y}) = -8301.37$

Karl Pearson's coefficient of correlation

$$r = \frac{\Sigma (X - \bar{X})(Y - \bar{Y})}{\sqrt{\Sigma (X - \bar{X})^2 \Sigma (Y - \bar{Y})^2}}$$

$$= \frac{-8301.37}{\sqrt{220989.20 \times 1961.00}}$$

$$= -0.3987$$

Coefficient of determination ( $r^2$ ) =  $(-0.3987)^2 = 15.90\%$

**Table A3.3**  
**Bank of Kathmandu Ltd**

X	$X Z \bar{X}$	$(X Z \bar{X})^2$	Y	$Y Z \bar{Y}$	$(Y Z \bar{Y})^2$	$(X Z \bar{X})(Y Z \bar{Y})$
1015	333.80	111422.44	367.37	45.92 4	2108.65	15328.10
801	119.80	14352.04	323.51	2.064	4.24	246.79
815	133.80	17902.44	334.64	13.19 4	173.98	1764.82
460	- 221.21	48929.44	321.96	0.514	0.26	-112.81
315	- 366.20	134102.44	259.75	-61.69	3806.89	22594.54
$\Sigma X$ = 3406		$(\Sigma X Z \bar{X})^2$ = 326708.80	$\Sigma Y =$ 1607.2 3		$(\Sigma Y Z \bar{Y})^2$ = 6094.02	$(\Sigma X Z \bar{X})(\Sigma Y Z \bar{Y})$ = 39821.43

Karl Pearson's coefficient of correlation

$$r = \frac{(\Sigma X Z \bar{X})(\Sigma Y Z \bar{Y})}{\sqrt{(\Sigma X Z \bar{X})^2 (\Sigma Y Z \bar{Y})^2}}$$

$$= \frac{39821.43}{\sqrt{326708.80 \times 6094.02}}$$

$$= 0.8925$$

Coefficient of determination ( $r^2$ ) =  $(0.8925)^2 = 79.65\%$

**Table A3.4**  
**People's Finance Company Ltd**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$	$(X - \bar{X})(Y - \bar{Y})$
105	8	64	207.15	-0.95	0.90	-7.60
95	-2	4	208.48	0.38	0.14	-0.76
95	-2	4	209.10	1.00	1.00	-2.00
95	-2	4	208.99	0.89	0.79	-1.78
95	-2	4	206.76	-1.34	1.80	2.68
$\Sigma X = 485$		$\Sigma (X - \bar{X})^2 = 80$	$\Sigma Y = 1040.48$		$\Sigma (Y - \bar{Y})^2 = 4.63$	$\Sigma (X - \bar{X})(Y - \bar{Y}) = -9.46$

Karl Pearson's coefficient of correlation

$$r = \frac{\Sigma (X - \bar{X})(Y - \bar{Y})}{\sqrt{\Sigma (X - \bar{X})^2 \Sigma (Y - \bar{Y})^2}}$$

$$= \frac{-9.46}{\sqrt{80 \times 4.63}}$$

$$= -0.4915$$

Coefficient of determination ( $r^2$ ) =  $(-0.4915)^2 = 24.16\%$

**Table A3.5**  
**NIDC Capital Markets Limited**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$	$(X - \bar{X})(Y - \bar{Y})$
400	76	5776	265.62	43.38	1881.82	3296.88
410	86	7396	204.28	-17.96	322.56	-1544.56
410	86	7396	201.06	21.18	448.59	-1821.48
220	-104	10816	216.39	-5.85	34.22	608.40
180	-144	20736	223.87	1.63	2.66	-234.72
$\Sigma X$ = 1620		$\Sigma (X - \bar{X})^2$ = 52120	$\Sigma Y$ = 1111.2 2		$\Sigma (Y - \bar{Y})^2$ = 2689.86	$\Sigma (X - \bar{X})(Y - \bar{Y})$ = 304.52

Karl Pearson's coefficient of correlation

$$r = \frac{\Sigma (X - \bar{X})(Y - \bar{Y})}{\sqrt{\Sigma (X - \bar{X})^2 \Sigma (Y - \bar{Y})^2}}$$

$$= \frac{304.52}{\sqrt{52120 \times 2689.86}}$$

$$= 0.0257$$

Coefficient of determination ( $r^2$ ) =  $(0.0257)^2 = 0.0661\%$

**ANNEX 4**

Test of hypothesis by using t-statistics for the test of significance of the difference between share price before and after the announcement of rights offering.

$X$	=	Share Price before announcement date
$\bar{X}$	=	Mean of Share price before announcement date
$Y$	=	Share Price after announcement date
$H_0$	=	Null Hypothesis that there is no significant different between the share price before and after the announcement of rights offering
$H_1$	=	Alternative Hypothesis that there is significant difference between the share price before and after the announcement of rights offering.
$t_{cal}$	=	Calculated value of t
$t_{tab}$	=	Tabulated value of t at a given level of significance for certain degree of freedom
d.f.	=	Degree of freedom
$S^2$	=	An unbiased estimate of population variance

**Table A4.1**  
**Nepal Bank Limited**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
450	3	9	370	32	1024
455	8	64	325	-13	169
480	33	1089	300	-38	1444
480	33	1089	350	12	144
370	-77	5929	345	7	49
$\Sigma X = 2235$ $\bar{X} = 447$		$\Sigma (X - \bar{X})^2 = 8180$	$\Sigma Y = 1690$ $\bar{Y} = 338$		$\Sigma (Y - \bar{Y})^2 = 2830$

We have,

$$S^2 = \frac{\Sigma (X - \bar{X})^2 \Gamma \Sigma (Y - \bar{Y})^2}{n_1 \Gamma n_2 \Gamma 2}$$

$$= \frac{8180 \Gamma 2830}{5 \Gamma 5 \Gamma 2}$$

$$= 1376.25$$

Now,

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

$$= \frac{447 - 338}{\sqrt{1376.25 \left( \frac{1}{5} + \frac{1}{5} \right)}}$$

$$= 4.65$$

$t_{tab}$  at 5% level of significance for 8 degree of freedom = 2.306

Since  $t_{cal} > t_{tab}$ , the null hypothesis is rejected. So the difference is significant.



**Table A4.2**  
**Nepal Investment Bank Limited**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
1326	190.40	36252.16	801	-54.20	2937.64
1331	195.40	38181.16	830	-25.20	635.04
1430	294.40	86671.36	880	24.80	615.04
790	-345.60	119439.36	885	29.80	888.04
801	334.60	111957.16	880	24.80	615.04
$\Sigma X =$ 5678 $\bar{X} = 1135.60$		$\Sigma (X - \bar{X})^2 =$ 392501.20	$\Sigma Y =$ 4276 $\bar{Y} = 855.20$		$\Sigma (Y - \bar{Y})^2 =$ 5690.80

We have,

$$S^2 = \frac{\Sigma (X - \bar{X})^2 \Gamma \Sigma (Y - \bar{Y})^2}{n_1 \Gamma n_2 \Sigma Z^2}$$

$$= \frac{392501.20 \Gamma 5690.80}{5 \Gamma 5 \Sigma Z^2}$$

$$= 49774$$

Now,

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} \Gamma \frac{1}{n_2} \right)}}$$

$$= \frac{1135.60 - 855.20}{\sqrt{49774 \left( \frac{1}{5} \Gamma \frac{1}{5} \right)}}$$

$$= 1.9872$$

$t_{tab}$  at 5% level of significance for 8 degree of freedom = 2.306

Since  $t_{cal} < t_{tab}$ , the null hypothesis is accepted. So the difference is not significant.

**Table A4.3**  
**Bank of Kathmandu Limited**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
805	0.60	0.36	450	-27.20	739.84
801	-3.40	11.56	485	7.80	60.84
801	-3.40	11.56	480	2.80	7.84
810	5.60	31.36	488	10.80	111.64
805	0.60	0.36	483	5.80	33.64
$\Sigma X = 4022$ $\bar{X} = 804.40$		$(\Sigma (X - \bar{X}))^2$ $= 55.20$	$\Sigma Y = 2386$ $\bar{Y} = 477.20$		$(\Sigma (Y - \bar{Y}))^2$ $= 958.80$

We have,

$$S^2 = \frac{(\Sigma (X - \bar{X}))^2 / n_1 + (\Sigma (Y - \bar{Y}))^2 / n_2}{n_1 + n_2 - 2}$$

$$= \frac{55.20 / 5 + 958.80 / 5}{5 + 5 - 2}$$

$$= 126.75$$

Now,

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

$$= \frac{804.40 - 477.20}{\sqrt{126.75 \left( \frac{1}{5} + \frac{1}{5} \right)}}$$

$$= 45.9525$$

$t_{tab}$  at 5% level of significance for 8 degree of freedom = 2.306

Since  $t_{cal} > t_{tab}$ , the null hypothesis is rejected. So the difference is significant.

**Table A4.4**  
**People's Finance Co. Ltd**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
100	1.25	1.56	95	0	0
100	1.25	1.56	95	0	0
100	1.25	1.56	95	0	0
95	-3.75	14.06	95	0	0
$\Sigma X = 395$ $\bar{X} = 98.75$		$\Sigma (X - \bar{X})^2 = 18.74$	$\Sigma Y = 380$ $\bar{Y} = 95$		$\Sigma (Y - \bar{Y})^2 = 0$

We have,

$$\begin{aligned}
 S^2 &= \frac{(\Sigma (X - \bar{X})^2) \Gamma (\Sigma (Y - \bar{Y})^2)}{n_1 \Gamma n_2 \Gamma 2} \\
 &= \frac{18.74 \Gamma 0}{4 \Gamma 4 \Gamma 2} \\
 &= 3.12
 \end{aligned}$$

Now,

$$\begin{aligned}
 t_{cal} &= \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}} \\
 &= \frac{98.75 - 95}{\sqrt{3.12 \left( \frac{1}{4} + \frac{1}{4} \right)}} \\
 &= 3.00
 \end{aligned}$$

$t_{tab}$  at 5% level of significance for 6 degree of freedom = 2.447

Since  $t_{cal} > t_{tab}$ , the null hypothesis is rejected. So the difference is significant.

**Table A4.5**  
**NIDC Capital Markets Limited**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
380	5	25	220	10.25	105.06
380	5	25	220	10.25	105.06
370	-5	25	205	-4.75	22.56
370	-5	25	194	-15.75	248.06
$\Sigma X = 1500$ $\bar{X} = 375$		$\Sigma (X - \bar{X})^2 = 100$	$\Sigma Y = 839$ $\bar{Y} = 209.75$		$\Sigma (Y - \bar{Y})^2 = 480.74$

We have,

$$S^2 = \frac{(\Sigma (X - \bar{X})^2) \Gamma (\Sigma (Y - \bar{Y})^2)}{n_1 \Gamma n_2 \cdot 2}$$

$$= \frac{100 \Gamma 480.74}{4 \Gamma 4 \cdot 2}$$

$$= 96.79$$

Now,

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

$$= \frac{375 - 209.75}{\sqrt{96.79 \left( \frac{1}{4} + \frac{1}{4} \right)}}$$

$$= 23.7540$$

$t_{tab}$  at 5% level of significance for 6 degree of freedom = 2.447

Since  $t_{cal} > t_{tab}$ , the null hypothesis is rejected. So the difference is significant.

**Test of hypothesis using t-statistics for the test of significance of the difference  
between price indices before and after the announcement rights offering**

X	=	Price index before announcement date
$\bar{X}$	=	Mean of Price index before announcement date
Y	=	Price index after announcement date
$\bar{Y}$	=	Mean of price index after the announcement date

**Table A4.6  
Nepal Bank Limited**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
172.02	-0.11	0.01	170.57	-3.49	12.19
172.80	0.67	0.45	170.21	-3.85	14.84
173.28	1.15	1.32	170.69	-3.37	11.37
172.39	0.26	0.07	179.42	5.36	28.71
170.16	-1.97	3.88	179.42	5.36	28.71
$\Sigma X = 860.65$		$\Sigma (X - \bar{X})^2 = 5.732$	$\Sigma Y = 870.21$		$\Sigma (Y - \bar{Y})^2 = 95.82$
$\bar{X} = 172.13$			$\bar{Y} = 174.06$		

We have,

$$S^2 = \frac{\Sigma (X - \bar{X})^2 \Gamma \Sigma (Y - \bar{Y})^2}{n_1 \Gamma n_2 \Sigma 2}$$

$$= \frac{5.732 \Gamma 95.82}{5 \Gamma 5 \Sigma 2}$$

$$= 12.69$$

Now,

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} \Gamma \frac{1}{n_2} \right)}}$$

$$= \frac{172.13 - 174.06}{\sqrt{12.69 \left( \frac{1}{5} \Gamma \frac{1}{5} \right)}}$$

$$= -0.8574$$

$t_{tab}$  at 5% level of significance for 8 degree of freedom = 2.306

Since  $t_{cal} < t_{tab}$ , the null hypothesis is accepted. So the difference is not significant.

**Table A4.7**  
**Nepal Investment Bank Ltd**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
288.89	-0.61	0.37	288.89	0.12	0.01
298.78	-0.61	0.37	288.79	0.02	0.00
296.11	1.92	3.69	288.34	-0.43	0.18
293.58	4.59	21.07	288.54	-0.23	0.05
293.58	-5.3	28.09	289.31	0.54	0.29
$\Sigma X = 1470.95$		$\Sigma (X - \bar{X})^2 = 53.59$	$\Sigma Y = 1443.87$		$\Sigma (Y - \bar{Y})^2 = 0.54$
$\bar{X} = 294.19$			$\bar{Y} = 288.77$		

We have,

$$S^2 = \frac{(X - \bar{X})^2 \Gamma (Y - \bar{Y})^2}{n_1 \Gamma n_2 \Sigma Z^2}$$

$$= \frac{53.59 \Gamma 0.54}{5 \Gamma 5 \Sigma Z^2}$$

$$= 6.77$$

Now,

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

$$t_{cal} = \frac{294.19 - 288.77}{\sqrt{6.77 \left( \frac{1}{5} + \frac{1}{5} \right)}}$$

$$= 3.2908$$

$t_{tab}$  at 5% level of significance for 8 degree of freedom = 2.306

Since  $t_{cal} > t_{tab}$ , the null hypothesis is rejected. So the difference is significant.

**Table A4.8**  
**Bank of Kathmandu Ltd**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
330.10	4.10	16.81	321.96	-1.72	2.96
327.95	1.95	3.80	322.01	-1.67	2.79
325.71	-0.29	0.08	323.64	-0.04	0.00
323.51	-2.49	6.20	325.21	1.53	2.34
322.74	-3.26	10.63	325.60	1.92	3.69
$\Sigma X = 1630.01$ $\bar{X} = 326$		$\Sigma (X - \bar{X})^2 = 37.52$	$\Sigma Y = 1618.42$ $\bar{Y} = 323.68$		$\Sigma (Y - \bar{Y})^2 = 11.78$

We have,

$$S^2 = \frac{(\Sigma (X - \bar{X})^2) \Gamma (\Sigma (Y - \bar{Y})^2)}{n_1 \Gamma n_2 \Sigma 2}$$

$$= \frac{37.52 \Gamma 11.78}{5 \Gamma 5 \Sigma 2}$$

$$= 6.16$$

Now,

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

$$= \frac{326 - 323.68}{\sqrt{6.16 \left( \frac{1}{5} + \frac{1}{5} \right)}}$$

$$= 1.4764$$

$t_{tab}$  at 5% level of significance for 8 degree of freedom = 2.306

Since  $t_{cal} < t_{tab}$ , the null hypothesis is rejected. So the difference is not significant.

**Table A4.9**  
**People's Finance Co. Ltd**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
211.37	1.63	2.66	208.95	1.42	2.02
209.43	-0.31	0.10	208.99	1.46	2.13
209.69	-0.05	0.00	206.33	-1.2	1.44
208.48	-1.26	1.59	205.83	-1.7	2.89
$\Sigma X = 838.97$		$\Sigma (X - \bar{X})^2 = 4.34$	$\Sigma Y = 830.10$		$\Sigma (Y - \bar{Y})^2 = 8.48$
$\bar{X} = 209.74$			$\bar{Y} = 207.53$		

We have,

$$\begin{aligned}
 S^2 &= \frac{(X - \bar{X})^2 \Gamma (Y - \bar{Y})^2}{n_1 \Gamma n_2} \\
 &= \frac{4.34 \Gamma 8.48}{4 \Gamma 4} \\
 &= 2.14
 \end{aligned}$$

Now,

$$\begin{aligned}
 t_{cal} &= \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}} \\
 &= \frac{209.74 - 207.53}{\sqrt{2.14 \left( \frac{1}{4} + \frac{1}{4} \right)}} \\
 &= 2.1453
 \end{aligned}$$

$t_{tab}$  at 5% level of significance for 6 degree of freedom = 2.447

Since  $t_{cal} < t_{tab}$ , the null hypothesis is accepted. So the difference is not significant.



**Table A4.10****NIDC Capital Markets Ltd**

X	$X - \bar{X}$	$(X - \bar{X})^2$	Y	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
187.88	0.94	0.88	216.39	0.00	0.00
186.22	-0.72	0.52	216.94	0.55	0.30
180.94	-6.00	36.00	217.14	0.75	0.56
192.71	5.77	33.29	215.10	-1.29	1.66
$\sum X = 747.75$ $\bar{X} = 186.94$		$\sum (X - \bar{X})^2 = 70.69$	$\sum Y = 865.57$ $\bar{Y} = 216.39$		$\sum (Y - \bar{Y})^2 = 2.53$

We have,

$$S^2 = \frac{\sum (X - \bar{X})^2 + \sum (Y - \bar{Y})^2}{n_1 + n_2 - 2}$$

$$= \frac{70.69 + 2.53}{4 + 4 - 2}$$

$$= 12.20$$

Now,

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

$$= \frac{186.94 - 216.39}{\sqrt{12.20 \left( \frac{1}{4} + \frac{1}{4} \right)}}$$

$$= -11.9240$$

$t_{tab}$  at 5% level of significance for 6 degree of freedom = 2.306

Since  $t_{cal} < t_{tab}$ , the null hypothesis is rejected. So the difference is not significant.

**ANNEX 5**  
**Valuation of Rights**

$$\text{Value of One Right} \times \frac{P_o Z S}{\# \Gamma 1}$$

Where,

P<sub>o</sub> = Current market price of share

S = Subscription Price

# = Number of rights to purchase one new share

**1. Valuation of rights for Nepal Bank Ltd.**

Market Price of Share(P<sub>o</sub>) = Rs. 370.00

Subscription Price(S) = Rs. 100.00

No. of Rights Required to purchase one share(#) = 1

$$\begin{aligned} \text{Theoretical Value of One Right} & \times \frac{P_o Z S}{\# \Gamma 1} \\ & = \frac{370 Z 100}{1 \Gamma 1} \\ & = \text{Rs. 135} \end{aligned}$$

Theoretical ex-right price of share =Rs. 370-Rs.135  
=Rs. 235

**2. Valuation of rights for Nepal Investment Bank Ltd.**

Market Price of Share(P<sub>o</sub>) = Rs. 801.00

Subscription Price(S) = Rs. 100.00

No. of Rights Required to purchase one share(#) = 1

$$\begin{aligned} \text{Theoretical Value of One Right} & \times \frac{P_o Z S}{\# \Gamma 1} \\ & = \frac{801 Z 100}{1 \Gamma 1} \end{aligned}$$

=Rs. 350.50

Theoretical ex-right price of share =Rs. 801-Rs.350.50  
=Rs. 450.50

### 3. Valuation of rights for Bank of Kathmandu Ltd.

Market Price of Share( $P_o$ ) = Rs. 815.00  
Subscription Price(S) = Rs. 100.00  
No. of Rights Required to purchase one share(#) = 1

Theoretical Value of One Right  $X \frac{P_o Z S}{\# \Gamma 1}$   
 $= \frac{815 Z 100}{1 \Gamma 1}$   
=Rs. 357.50

Theoretical ex-right price of share =Rs. 815-Rs.357.50  
=Rs. 457.50

### 4. Valuation of rights for People's Finance Company Ltd.

Market Price of Share ( $P_o$ ) = Rs. 95.00  
Subscription Price(S) = Rs. 100.00

Since the market price of share is less than the subscription price, there is no value of right in this case.

### 5. Valuation of rights for NIDC Capital Markets Ltd.

Market Price of Share( $P_o$ ) = Rs. 410.00  
Subscription Price(S) = Rs. 100.00  
No. of Rights Required to purchase one share (#) = 2

Theoretical Value of One Right  $X \frac{P_o Z S}{\# \Gamma 1}$

$$= \frac{410 - 100}{2}$$

$$= \text{Rs. } 103.33$$

Theoretical ex-right price of share =Rs. 410-Rs.103.33

$$= \text{Rs. } 306.67$$