

# CHAPTER – I

## INTRODUCTION

### 1.1 Background of the Study

The nature of equity ownership depends on the form of the business or organization. When a large scale firm is to be established, it must fulfill its financial requirements by issuing equity shares, preference share, debenture and bond. A growing firm also requires finance to expand its business. Some firms need to raise fund to comply with the direction of the higher authority. For example, Nepal Rastra Bank (NRB) promulgated a directive to all commercial banks must have the minimum paid up capital of Rs.2000 million. And now other recent directive has issued by the objective is enhance the liquidity position of banks, to preserve the shareholders wealth and to make the resource easily available from the banking system inside the country to support large projects. Firms usually exercise various financial instruments to cope with various financial situations; one major instrument is the issue of rights share.

When a company is formed, it obviously must be financed. Often the seed money comes from the founders 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 Horn, 1998:15)

A healthy capital market is a crucial element in the development of national economy. Capital market helps to national economy by mobilizing long-term capital needed for the productive sector. Development and expansion of capital market is essential for rapid economic growth of the country. The significance of capital market in the economic development of a developing country like Nepal is so great.

Nepalese capital market is in very early stage of development. There are various inconsistencies and hindrances exist on the way to run the market smoothly. The Nepalese capital market was established as Security Market Centre (SMC) in 1976. In

1984, the SMC was renamed as Security Exchange Centre (SEC). After converting SEC into Nepal stock Exchange (NEPSE) in 1993, it brought new atmosphere in Nepalese capital market. NEPSE is non-profit making organization. It is one and only secondary market for Nepalese corporate securities, operating under Security Exchange act 1983. NEPSE opened its trading floor on 13th January 1994 and started to calculate the NEPSE Index since 12th February 1994. NEPSE plays vital role for developing the efficient capital market. Managing public issue is one of the important roles of NEPSE.

If the preemptive right sells to the existing shareholders, the stock flotation is called a rights offering. Each stockholder is issued an option to buy a certain number of the new shares, and the terms of the option are contained on a piece of paper called a right. Each stockholder receives one right for each share of stock owned. Right offering is made generally with the purposes of 1) Maintaining the management control by existing shareholders, 2) Minimizing the floatation cost for new issue and 3) Protecting the existing shareholders from dilution of their wealth position.

This study mainly focuses on rights offering in firms existing capital structure and to its existing shareholders. Some times company is bound to issue new shares of existing stock to its existing shareholders simply because of Preemptive rights clause in an act of incorporation. Company act 2053 B.S. had also made provision about the preemptive rights of shareholders in the section 42(4). If the preemptive rights are contained in a firm's charter then the firm must offer any new common stock to the existing shareholders. If the charter doesn't prescribe the preemptive right the firm has a choice of making the sale to its existing shareholders or to an entirely new set of investors. Rights have intrinsic financial values because they are normally afforded at a price somewhat lower than the current market price of stock.

This study is also focused on the impact of rights offering announcement in the share price movement.

## **1.2 Introduction of the Right Issue**

If the new common stocks are issued giving the right to purchase first by the existing shareholders than it is called right offering. Each shareholder is issued an option to buy a certain number of new share and the terms of the option are contained on a piece of paper called right. Each stockholder receives one right for each shares of stock owned. (Weston & Copeland, 1992:35)

Instead of selling a security issue to new investors, some firms offer the securities first to existing shareholders on a privileged subscription basis. Some time the corporate charter requires that a new issue of common stock be offered first to existing shareholder because of their preemptive right. (Van Horne, 2002:74)

Right issue practice in Nepal has no long history as compare to other developing country. While looking the issue approval from the SEBO of Nepal researcher can easily notice an increasing trend of issuing right share. During the 14 years period, SEBON has granted right issue approval amounting Rupees 11755.75million. Among this 6081.1 million issue only two years so we can easily find out the increasing trend of right share. This amount comes to be the largest amount among various issue approved by SEBO. Right issue occupied 50.58% of total issue approval out of total listed companies given the issue approval only 43 companies issued right share to raise fund. In Nepal, company act 1997 has provisioned about the preemptive right of shareholder in the section 42 (4).It stated that if the right is contained in a firms charter then the firm must offer common stock to existing shareholders. If not the company has choice of right offering or public offering. But the law in India required that new common stock must be first issued to the existing shareholders on a pro-rata basis. In India right is a negotiable but in Nepal there has not been any provision here to make the right negotiable.

### **1.3 Statement of the Problem**

Rights offering announcement by company serves goods news to its existing shareholders. A shareholder, whose name is in the company's book before the record date, there will be high demand of shares attached with rights, Demand of share increases because large no. of people rushes to the secondary market in order to enlist their name in company's book before the record date, so that they can enjoy the benefit of rights offering.

The use of rights will permit shareholders to preserve their share of ownership positions. However, if investor feels that the new financing is not well-advised, the rights offering may cause the price of the stock decline even after adjustments because rights offerings used can reduce the costs of floating the new issue.

The Share price of majority of companies was decreased after the rights announcement and decreased rapidly after the allotment. In this way what is the impact of rights offering on share price of sample companies is one aspect of the statement of problem of this study.

If the preemptive right is contained in a company charter then the company must offer any new common stock to existing stockholders.

The problem of the study can be mentioned as;

- ) What is the impact of rights offering announcement on share price?
- ) Are there any problem regarding rights issue practice in Nepal?
- ) Are there under subscription of the rights share in all cases under consideration?
- ) Is there any inadequacy in the content of the company Act, 2053 B.S. in regard to section 21 that explains about the matters to be disclosed in the issue prospectus?

#### **1.4 Objectives of the Study**

The overall objectives of this study are to examine the effect of rights issue announcement on share price movement. This research covers two interrelated aspects the features of rights offerings by the listed companies and the share price movement associated with the rights offering. It makes available analysis of prevailing practices among Nepalese companies regarding the issue of rights share.

The specific objectives of the study are as follows;

- ) A Case Study on Relationship between Rights Share and Movement in Various Share Price of Listed Companies.
- ) To examine rights issue practice in Nepalese financial market.
- ) To evaluate problems regarding under subscription of the organizations under study.
- ) To examine the impact of rights offering in earning per share and provide suggestions to the concerned on the basis of study findings.

#### **1.5 Importance of the Study**

This study is important to throw light on the role of rights offering companies in limited companies of Nepal. This topic is probably a new topic in the context of Nepal can be beneficial for many companies and new researchers. It also analyzes the impact of rights offering on share price that will be quite important information for the shareholders and companies practicing rights offering.

#### **1.6 Limitation of the Study**

It has been tried to make this study more comprehensive and clear by collecting, tabulating, compiling and presenting recent information as far as possible. This study emphasis and helps those, who want to study in further detail and widely in this field. It is only mini-research and hence researcher subject to have some limitations, which are as follows:

- ) Only the rights issuing listed companies are considered for the study.

- ) While analyzing the data, price indices of total equity capital is taken every where simply because sector wise indices are not available for the period of the study.
- ) Only the Eight rights issuing companies out of 43 are considered for the study.
- ) Data used in the study are mostly of secondary nature.
- ) The study highly focuses on the rights offering and current legal aspects associated there in.
- ) Secondary data have been used in the study and duration of the study is from 2003 to 2008.

### 1.7 Organization of the Study

The study is organized in five major chapters.

- ) **Introduction:** The first chapter of the study serves as an introduction to the study. It includes the introduction and general background, statement of the problem, objective of the study, significance of the study, statement of hypothesis and limitation of the study.
- ) **Review of Literature:** Include the review of previous research on the same field especially from some relevant books, journals.
- ) **Research Methodology:** Includes the research design, data collection procedure tools for analysis and presentation.
- ) **Data Presentation and Analysis:** It is the main body of research. It includes data analysis. The collected data are analyzed and interpreted by the research design set in methodology chapter and concludes with the main findings of the study.
- ) **Summary, Conclusion and Recommendation:** The last chapter concludes summary, conclusion and makes some recommendation obtained from the whole study.

## **CHAPTER- II**

### **REVIEW OF LITERATURE**

This chapter deals with the literature of previous studies on rights issue practice and its impact on share price. Regarding the review of literature various books, journal and articles some research reports related with the topic is reviewed. It covers those studies that are conducted within and outside the country, but no important studies have been conducted in Nepal. This chapter provides some conceptual theory of equity rights issues.

#### **2.1 Conceptual Review**

The easy way of raising capital is issue of common stock. When a company issue shares for public, the stock flotation is called initial public offering. But when a company issue shares to the existing shares holders the flotation is called right offering. Right offering is new phenomenon for Nepal it is relatively new practice for Nepalese organization. In this study some relevant books are studied. As the topic concentrates on Rights Issue Practice and its impact on share price, the researcher has dealt with the topic accordingly, which is discussed as under:

##### **2.1.1 Venture Capital**

Equity investment in the early stages of a business is often called venture capital. It represents funds invested in a new enterprise, it is key to the success of any growing business firm. Institutional investor especially financial institution, wealthy individual investors and specialist investor organized in partnership are the major sources of venture capital. The investment in venture capital is risky. So, investors are rewarded with high rate of return in successful ventures. The venture capital activity is quite advanced in the developed countries.

### **2.1.2 Initial Public Offering**

The timing of the decision to go public is also especially important, because small firms are more affected by variations in money market conditions than larger companies. During the period of tight money and high interest rates, financial institutions, especially at legally permissible and conventionally acceptable rates. Investment bankers manage the issuance of new securities to the public. Once the security exchange center has commented on the registration statement and a preliminary prospectus has been distributed to interested investors, the investment bankers organize "road shows" in which they travel around the country to publicize the imminent offering. These road shows serve two purposes. First, they attract potential investors and provide them information about the offering. Second, they collect for the issuing firm and its underwriters about the price at which they will be able to market the securities. Large investors communicate their interest in purchasing shares of the IPO to the underwriters, this indication of interest is called a book and the process of polling potential investors is called book building. The book provides valuable information to the issuing firm because large institutional investors often have useful insights about the market demand for the security and the prospects of the firm as well as its competitors. It is common for investment bankers to revise both their initial estimates of the offering price of a security and the number of shares offered based on the feedback from the investing community.

### **2.1.3 Rights Offering: A Theoretical Framework**

#### **2.1.3.1 Preemptive Right**

A publicly held corporation can raise equity capital either by selling equity directly to investors or by issuing rights to its share holders. When a corporate offers its shares to existing share holders prior to general public it is termed as right offering. Preemptive rights are the privilege of existing shareholders to participate in a right offering. That the preemptive right gives holders of common stock. The right is made part of every corporate charter in some places and it is necessary to insert the right specifically in the charter for others.

The Preemptive rights are of two types. First, it protects the power of control of present stockholders. If it were not for this safeguard, the management of corporation under criticism from stockholders could prevent stockholders from removing it from office by issuing a large number of additional shares at a very low price and purchasing these shares itself. It would thereby secure control of the corporation to discourage the will of the current shareholders. The Second and important is protection that the preemptive right affords stockholders concerns dilution of value.(Weston & Brigham,1992:148)

### **2.1.3.2 Rights Offering**

If the preemptive right is contained in a firm's charter, then the firm must offer any new common stock to its existing stockholders. If the charter does not prescribe a preemptive right, the firm has a choice of making the sale to its existing stockholder or to an entirely new set of investors. If it sells to the existing stockholders, the stock flotation is called a rights offering, each stockholder is issued an option to buy a certain number of the new shares, and the terms of the option are contained on a piece of paper called a right. Each stockholder receives one right for each share of stock owned.

When a company makes a rights issue, it sends a "letter of offer" to its existing shareholders indicating the amount of new shares or coupons to which they are entitled in proportion to their old shareholding. This "Letter of offer is like share purchase warrant in nature generally referred to as rights. These rights must be exercised within a given period, which is relating short, usually, not more than thirty days, unless the date is extended by the company.

The privileged subscription is fairly simple in the sense that after the issue has been approved by the company and the controller of capital issues, notices are sent to shareholders indicating that all those who are shareholders within certain recording date may get additional shares in a given proportion. Right of the shareholders when a rights issue is made is as follows.

First, Subscribed for the New Shares, if the shareholder has sufficient cash to buy the new shares, and if he/she feels that the company will use the money, so raised in a profitable way, and then he/she should take up the rights.

Second, Sells the rights, the new shares are cheaper than the current market price. Both new and old shares will rank on equal footing when the formulations have been completed. Thus, the new zero value paid shares have values for which a third party would be willing to pay. The shareholders who are not happy with the rights issues or equalities, they can sell the rights. The rights are sold through the broker who will charge commission.

### **2.1.3.3 Characteristic of Rights**

Studying about right offering the following characteristics of rights can be showed:

- a) The number of rights that a shareholder gets is equal to the number of shares held by him.
- b) The price per share, called the subscription price, is determined by the issuing company.
- c) The number of rights share required to subscribe additional shares is determined by the issuing company.
- d) Rights are negotiable. The holder of the rights can sell them.
- e) Right can be exercised only during a fixed period, which is usually about thirty days.

### **2.1.4 Rights Issue verses Public Offering**

- a) Right issue and public offering both are the issue of common stock. There are many differences exist between the two offerings.
- b) A Right issue has issue price lower than public offering.
- c) A Right issue is likely to be more successful then public offering because the right offering is made to the investor's who are familiar with the operations of the company.

- d) Right issue is not underwritten, so flotation cost of right is lower than public offering.
- e) The Principle sales tool in the right offering is the discount from the current market price, whereas with the public offering the major selling tool is the investment banking organization.

### **2.1.5 Stock Rights Distinguished from Privileged Subscription**

It is necessary to distinguish clearly between stock rights proper and privileged subscriptions. The term Privileged Subscription includes all offers to subscribe to new securities, whether to stocks, bonds, or notes, extended by a corporation to its security holders. Such offers are termed "Privileged" because the old security holders of the issuing corporation are given the first opportunity to purchase the new stocks or bonds, and presumably, at prices somewhat below current market values. The variety of privileged subscriptions is almost endless. Common stockholders may be given the privilege of subscription for new common stock, preferred stock, or bonds of the issuing corporation. Or they may be granted the first opportunity to purchase a stock or bond issue of same affiliated or Subsidiary Corporation. Similar privileges may be granted to the preferred stockholders or to the bondholders of the issuing company. Not infrequently, privileged subscriptions relate to units of assorted stocks and bonds.

In other words, stock rights include only those privileged subscriptions to which the stockholders are equitably and legally entitled by common statute law. Other privileged subscriptions may or may not be extended to corporate security holders, the option resting wholly with the corporation itself, but the privilege of subscribing to a new issue of securities which is subject to the pre-emptive right must be offered to the holders of that right.

### **2.1.6 Theoretical Price Effect of right Issue**

The forthcoming right issue should have no effect on the value of the stock during the interval between the announcement date and the record date that is while the old stock is selling rights-on. The equity of each share of the old stock in the corporate assets

and income remains absolutely unchanged during this period. The rights issue merely gives each stockholder the opportunity, sometime after the record date either to liquidate a part of his equity in the corporate assets by selling his rights, or to increase his investment in the corporation and thus to maintain his proportionate equity by exercising his rights.

When the stock goes ex-rights on the record date, the market price should immediately decline by the exact value of one right. The old stock selling rights-on actually represents two values, one being the value of the right and the other the value of stock ex-rights. On the record date, the first value is permanently detached from this joint valuation and there after, during the life of the right, is represented by the warrant certificate. The market value of the old stock, should decline immediately on the record date by the amount of this detached valuation or by the value of the right. The situation is precisely the same as when a stock loses a portion of its value through the payment of a cash or stock dividend.

So, the first quotation on the stock rights after the stock has gone ex-rights should be exactly the value of one right, for this is the precise theoretical valuation which has been lopped off the old stock through issuing the warrant certificate. Similarly, all subsequent quotations on the stock rights should equal the values obtaining at those times. In actual practice, however, these theoretical assumptions are not always borne out.

## **2.2 Review of Related Issue**

There are some related issue regarding rights issue of share and its practice. Related issues are divided into following sub-topics.

### **2.2.1 Review of Books**

There are many articles published on various journals about rights issues.

Rights issue involves selling of ordinary shares to the existing shareholders of the company. The law in India states that the new ordinary shares must be first issued to the existing shareholders on a pro rata basis. This Pre-emptive right can be forfeited by shareholders through a special resolution. Obviously, this will dilute their ownership. (Panday, 1999:45)

Rights offering can be used effectively by financial managers. If the new financing, associated with the rights offering represents sound decision, improved earnings for the firm, a rise in stock values will probably be the result. The use of rights will permit shareholders to preserve their position or improve that. However, if investors feel that the new financing is not well advised, the rights offering may cause the price of the stock to decline by more than the value of the rights. Because rights offering are directed to existing shareholders, its use can reduce the cost of flotation that is associated with the new issue. (Weston & Brigham, 1992:32)

In Nepal size of the shareholders population has been growing constantly the government seems to have not taken any initiative in formulating the separate act which protects the shareholders rights. In Nepal, the concerned officials seem to be not relevant as they interfere in the shareholders get ignored. In the annual general meeting, shareholders can amend the internal by laws, elect directors, authorize the sale of assets enter into mergers, change amount of the authorized capital and so on. But in Practice, many annual general meeting have undermined the collective rights of the shareholders. National Life and General Insurance Company had suppressed the collective rights of shareholders by not adhering to the consent of shareholders members in the board though the proposal was put forward by the management. Same case is happened of Butwal Dhago Udhyog as the management wanted to have a control over the collective rights of shareholders. (Shrestha, 1992:97)

A Company can make rights offering to its existing shareholders after meeting the requirements specified by the Securities and exchange Board of India (SEBI) in India. Shareholders who renounce their rights are not entitled for additional shares. Shares becoming available on account of non-exercise of rights are allotted to shareholders who have applied for additional shares can be sold in the open market.

(Marsh, 1979:56)

When the rights are offered for raising funds, three major issues are involved. They are as follows.

- a) The number of rights needed to buy a new share,
- b) The theoretical value of a right, and
- c) The effect of rights offering on the value of the ordinary shares outstanding.

Pandey, further states that the existing shareholder does not benefit or lose from rights issue, whether he is selling ex-rights, or cum-rights.

What he receives in the form of the value of a right, he loses in the form of decline in share price. His wealth remains unaffected when he/she exercise his rights. He will lose if he does not exercise his/her rights or sells them. He/She loses under the third option. The shareholders have three options:

- a) Exercise the rights,
- b) Sell the rights, and
- c) Do nothing.

In terms of the impact on the shareholders wealth, subscription price is irrelevant. What the shareholders gain in terms of the value of rights, he will lose in terms of decline in the share price. The primary objective in fixing the subscription price below the current market price is that after the rights offering the market price should not fall below it.

Always the theoretical value of rights is not equal with market value because of three reasons. First, the high transaction cost can limit the investor arbitrage that would

otherwise push the market price of the right to its theoretical value. Second, large flotation cost can affect these two values. Third, specialization over the subscription period can push the market price above or below the theoretical value.

One of the most important aspects of successful rights offering is the subscription price. If the market price of the stock should fall below the subscription price, stockholders obviously will not subscribe to the stock, for they can buy it in the market at a lower price. Consequently, a company will set the subscription price at a value lower than the current market price, to reduce the risk of the market price's falling below it. (Van Horne, 2002:79)

If you study on the topic "The price effect of stock rights issue". In this study he uses 303 stock rights issued out of 422 privileged subscription recorded in NYSE. He classified these stock rights by various methods such as industry wise according to the years in which they were issued. In this study he defines a lot of key terms clearly with example. (Dolly, 1934:44)

The result of this study seems that the possibilities of a stockholder realizing an immediate profit from a right issue are barely limited. Investors is about as likely to lose , as he is to gain if he sells his stock at the announcement date and buys back just prior to the record date. If he sells his stock ex-rights together with his rights on the record date, in two cases of out of three he will realize a slight appreciation over the value of his stock on the preceding business day. If the stockholders decides to exercise his rights he would do well to exercise them toward the end of the subscription period, thus allowing for a possible decline in the market price of the stock ex-rights below the subscription price, which would render the stock ex-rights valueless.

Valuation of underwriting agreements for UK rights issue states that UK companies raise virtually all of their new equity capital via the rights issue. Companies can guarantee the subscription of their issue having them underwritten and in recent years

this procedure has been adapted for 90% of UK rights issues. Underwriting is usually carried out on a fixed fee basis representing at least 1.25% of the total money raised, it shows substantial money are involved. Underwriting is simply a put option giving the company the right to put a failed issue on to the underwriter. He explains an application of Black and Scholes model to the valuation of rights issue underwriting agreements over the period of 1962 to 1975. Prices are compared with the fees charged in order to assess whether the fees represent competitive prices. (Marsh, 1980)

Scholes used the market model to examine a sample of 696 issues made on the NYSE between 1926 and 1966. He found abnormal gains in the period leading up to the issue; a small price fall of, on average, some 0.3% in the month of the issue; and thereafter, no abnormal gains or losses. The price behavior in the issue month was independent of the size of the issue and thus Scholes was able to reject the price pressure hypothesis. (Scholes, 1991:142)

Eckbo and Masulis find evidence consistent with this market reaction is most negative for underwritten offerings and least negative for uninsured rights, and in between for standby rights where the ex ante subscription rate is not as high as for uninsured rights offering. Many firms cannot expect to have their rights offering fully subscribed. As they noted rights subscription rates will depend on personal wealth constraints of shareholders, portfolio diversification considerations, transaction costs and tax liabilities of selling rights, and benefits from maintaining proportional voting power. (Eckbo and Masulis, 1991:32)

Sample accounted for less than ten percent of issue; whereas Britain and many other European countries, rights issues predominate. The price of the new shares in a rights issue is normally fixed at a level somewhat below the current market price of the shares. But this lower price should not generally diminish the wealth of the existing shareholders. The shareholders who do choose to take up the allocation, the fall in price is comparable to the consequential decline which accompanies a capitalization issue or stock-split. But, shareholders who do not choose to take up the allocation of

the new shares can sell their rights to the new shares in the period before the payment is due. Only irrational shareholders, who neither exercise their rights nor sell their rights, will see their wealth reduced. The company can, therefore, set a price for the rights issue sufficiently low to ensure that the rights will be exercised without fearing any adverse wealth implications for its existing shareholders.(smith's,1997:25)

### **2.2.2 Review of Thesis**

Now a days many studies have been done, related to the impact on market price of topics such as EPS, and Signaling effects. Out of them very few thesis directly consider the rights issue to study on share price some of them have been reviewed below:

#### **Lamichhane's Study**

Mr. Lamichhane had conducted a research on "The Rights Offering and its Impact on Market Price"2004.

The major objectives of his study are:

- a) To recommend some policies that will help to rectify the current problems in the rights issue of securities.
- b) To identify the significant change in share price after announcement of the rights offering.
- c) Analyze the relationship between rights share and equity share and rights share and NEPSE index.

To conduct his study he had used cross-sectional analysis by estimating the regressions. He analyzed only the relationship between rights share to equity share and rights share to NEPSE index. In this research he founds.

- a) Announcement of equity rights issue are associated with a positive effect on share price.
- b) Theoretical value of rights differs from company to company.

### **Dhakal's Study**

In the year 2005 Mr. dhakal has made study on the topic, 'Analysis of Share Price Movement Attributed to Rights Offering Announcement'.

The main objectives of his study were:

- a) To find the effect of rights offering on the share price movement.
- b) To find out, if there is any problem in the primary issue of securities.
- c) To analyze the adequacy of the contents of the company act 2053 B.S. in regard to section 21, that emphasis about that matter to be disclosed in the issue prospectus.

The major findings of his study are:

- a) There is lack of legal provision in company act regarding the issue of rights.
- b) Change in the share price due to rights offering can not be generalized.
- c) Security board has failed to establish one window policy to support the primary issue of shares.

### **Paudel's Study**

Mr. Paudel had made "Study on Impact of Information on share Price" in 2006. The main objective of his study was:

- a) To determine the impact of information, such as dividend declaration, return on equity and earning per share (EPS) on share price.
- b) The major findings of his study were:
- c) It is found that share price of the sampled organization has decreased significantly after the issuance of directives made by NRB.
- d) There is significant difference in share prices of four samples out of five, because of information of dividend declaration.
- e) In most cases MPS is negatively correlated with EPS, DPS & ROE.
- f) To analyze his study, he had use t-test and correlation.

To conduct 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 right 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, which is very important in share price determination after the issue of rights share. Finally, his analysis only covers data from 2053 to 2061 B.S. The result may not represent the present economic scenario. He had taken only three companies as sample to complete his study but here the researcher has taken eight companies as sample to complete the study.

### **Kandel's study**

Mr. Kandel had made study on the topic "Equity Rights Issue, its Practice and Impact in Nepal" in 2006.

The main objectives of his study were:

- a) To examine the relationship between the stock price reaction and announcement of rights issue.
- b) To analyze the relationship between rights share and equity share, and rights share and NEPSE Index.

The major findings of his study were:

- a) Theoretical value of right differs from company to company.
- b) Announcement of equity rights issue are associated with a positive effect on share prices.
- c) Firstly company issues rights share for increasing equity capital and to invest it in company's diversification and expansion. Secondly they issue rights share to increase capital to meet the level prescribed by Nepal Rastra Bank.
- d) The rights share and equity share has low degree of positive correlation. the correlation coefficient between right share and NEPSE has also positive correlation.

## **Khanal's Study**

Mr. Khanal had made "Rights Share practice and its impact on share price movement of commercial banks in Nepal" in 2007. The main objective of the study was:

- a) To measure the significant movement in stock price before and after the announcement of the right share.
- b) To describe the procedure and mechanism of rights issue in the context of Nepal.
- c) To identify the problem regarding the under subscription of the right issue.
- d) To identify the problems and recommend appropriate implications on the basis of findings associated with rights issue in Nepal.

The major findings of his study are:

- a) There is no uniformity in the impact of rights offering in the share price.
- b) After the rights announcement most of the company's share price sharp decline.
- c) Nepalese investors mostly prefer the banking and finance sectors share to invest rather than other sector.
- d) Majority of the investors are well aware about the rights share in Nepal.
- d) There is lack of investors protection act.
- e) Nepalese security market has failed to use various capital market instruments such as Warrants, convertible option etc.

After reviewing the above thesis, it is found that various studies have been done on the topic of share price and its determinant. But no one has considered the right issue as important information that affects the market price heavily. Further, more no one had test the correlation of share price with general market movement using data of 2053 to 2065 B.S. Besides that researchers had tried to find out the value of rights. The researcher had also making effort to highlight the under subscription problem. So, this study is trying to find the impact of rights issue on market price of share of sample companies. This study may be an important effort to inform the share holders and companies regarding the rights issue practice in Nepal.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research methodology used for this study. "Research Methodology is the research method used through the entire study", (Kothari, 1992:39). The main objective of the study is based on primary and secondary data. The basic objective of primary data analysis is to survey the opinions of rights shareholder and rights share issuing company management body. Secondary data were used on analyze the relationship between stock price reaction and announcement of rights issues, correlation coefficient between rights share and equity shares, correlation coefficient between rights shares and NEPSE Index, number of issue approval of rights share etc. The methodology consists of Research Design, The Selection of Sample, Source of Data, and Coverage of the Data, Data Analysis Tolls, Others Statistical Tools and Valuation of Rights.

#### **3.2 Research Design**

"Research design is a plan, structure and strategy of investigation concerned so as to obtain answer to researcher question and to control variance". This research is based on the analytical and descriptive design as well. For the analytical purpose, the annual reports published by SEBO/N, NEPSE and other concerned companies were collected for the year 1995/96 to 2007/08. (Kothari, 2000:65)

#### **3.3 The Selection of Sample**

The population comprises the companies those have already issued rights shares. Till the date of FY 2064/65, there are only Seventy four cases of rights offered by forty three companies. Among them, Nepal Share Markets Ltd has issued fourth, Ace financed Co. Ltd., Nepal SBI Bank Ltd. and Nepal Investment Bank Ltd. have issued twice where as other has issued only one time. Researcher has taken as Sample for better representative of the population, they are four cases from banking sector; (i.e. Nepal Investment Bank Ltd, Siddhartha Bank Ltd., NIC Bank Ltd. and Kumari Bank

Ltd.), and four cases from the finance companies ; (i.e. Premier Finance Co. Ltd., NIDC Capital Markets Ltd., Alpico Everest Finance. Ltd. and Standard Finance Ltd.).

**Table 3.1**  
**Population and Sample of Rights Issuing Companies.**

<b>Sector</b>	<b>No. of Companies issuing rights share</b>	<b>Companies taken as Sample</b>	<b>Sample as % of the Population</b>
Finance Company	21	4	19.05%
Banking	8	4	50%
<b>Total</b>	<b>31</b>	<b>8</b>	

Source: Annual Report of SEBO/N, FY 2007/08

### **3.4 Source of Data**

This study is mostly based on secondary data. Primary data has also taken to some extent. So, qualitative and quantitative data are taken for study. They are as follows:

#### **a) Primary Source**

Primary sources include the responsive of the questionnaires, personal interviews with managers of issuing companies, listed stockholders and resourceful persons in the regulatory offices.

#### **b) Secondary Source**

Secondary sources of data includes annual report of Security Board of Nepal, Statistical year book of Nepal, various publication of Nepal Stock Exchange, Income statement, Profits & loss account, Balance sheet of concerned companies, Dissertation, Previous Studies, Articles and Daily Newspapers. Some other important information has been collected from Internet of the related website.

### **3.5 Data Collection Technique**

In this study necessary data are collected from various sources, out of them only related data are considered for the study. Primary and Secondary data are collected through following method:

#### **a) Questionnaire Method**

Questionnaire method has been used to get information about the right share and its various aspects. Opened, Closed and mixed questionnaire methods are used to collect the data. Yes/No question, multiple choice question and descriptive questions are designed to get the response. Due to various limitations only 30 questionnaires are dispatched to the individual investors, brokers, and issue managers, corporate firm and related experts and out of this, 20 responses were obtained.

#### **b) Interview Method**

Interview of some persons are taken to make the study more reliable. Structured and unstructured interview has been used for the data collection. Formal and informal discussions with students, teachers and representatives of some companies make this study more reliable.

#### **c) Historical Data Record Method**

The main sources of the data are Historical Record Method. They are collected from various reports, prospectus of companies and newspaper. Previous data, which was used by other party, are also useful for this study. The announcement day is the day of first public announcement. This was the first day that the information was became public, the announcement date was confirmed or collected by reviewing each firm's official records in the SEBO/N. The share prices collected from the official quotation, lists of NEPSE published in the National Daily Newspaper as well as trading report of SEBO/N.

#### **d) Populations and Sample**

All other cases being excluded, this study is focused in stock rights issue. Privileged subscriptions issued to common stockholders permitting them to subscribe for

additional common stock of identical corporation were included in the sample. Till the FY 064/65, there are only 103 cases of rights offered by 74 companies out of total listed companies. Similarly out of total listed commercial banks and finance groups, many fluctuations in stock price directly affect the NEPSE Index. Due to various limitation researcher can not take all the companies as the sample. So, for this study out of eight companies were taken from NEPSE.

To measure the price movement of stock before and after the announcement of right share, some market prices are required. For this purpose researcher has taken price of the different time of period as the sample, which is based on purposive and judgmental sampling method.

### **3.6 Coverage of the Data**

This study covers the rights issue made by companies, whose name was listed in the SEBO/N. The analysis covers the period within fifteen Years (2052-2065 B.S.). Out of total listed companies, only 74 companies issued the rights for their existing shareholder. The study throws light on the several aspects of the corporate financial polices and practices regarding rights offering, such as, subscription price, subscription ratio, total issues verses total subscription of the rights shares, the frequencies of the rights offering by an individual company and the legal provisions regarding the rights offering.

### **3.7 Method of Analysis**

The data is analyzed by using various financial and statistical tools to achieve the research objectives. This study is based on share price before and after the rights share announcement. The share price moves up or down due to various market information. So, the researcher has used some assumption to remove the effect of information.

#### **3.7.1 Allowance for Leakage of Information**

The director's intention to issue right share for information may be find out in many cases before the director's meeting. If that happens the price should rise as a result of

the impending decision that may take place before the director's actual decision. There may be the cases of insiders taking advantage by making purchase in advance of the official announcement so that the market price begins to rise over before the actual announcement. Only going back at least some days before the formal announcement of the boards' decision use the true price effect of right issue decision case. Considering all the factors we decided to go back 90 days before from the date of right share announcement. Thus for the study, the base date of measuring relative changes in share price as a result of right issue is the date of 90 days prior to announcement date.

### **3.7.2 Removing the effect of Market Movement**

Measurement of the price effects of the rights issues involves a comparison of share prices of different points of time. In reality, general price movement also affects a particular share price. If a particular share price is found to be raised by 10% since rights announcement, this cannot be attributed to the rights offering over same period, share price, in general level also moved up by 10% more. On the other hand, if a particular share price just remains unchanged in the face of declining market trend, the strength may be due to rights issue. Hence, the isolation of the effect of the rights issue necessarily requires the eliminating of the general market movement.

- a) For the purpose of analysis five different times were selected for observing the price movement, with the announcement date as the point of reference. The selected points are as follows:
  - i. Three months before announcement date:- It is taken as a base date simply because for that period the existing shareholders are not supposed to have information about the BOD's intention to issue rights share. Hence there will not be any kind of signaling effect on the share price.
  - ii. Ten days before announcement date:- Few days before the announcement day a very limited shareholders do know it and does not bring any immaterial influence on the share price behavior of the stock.

- iii. The day of announcement
  - iv. Seven days after announcement:- when the company explicitly announces the issue of rights share, comparatively there will be a high demand of the rights attached shares and this phenomenon causes the share price to rise. This period is supposed to depict the true picture of the share price of the post announcement stock.
  - v. Six months after announcement:- After the actual issue of the rights shares, the post issue share price dilutes simply because the number of outstanding shares increases and the new shares are sold at a price below the current market price. When the digestion process is complete after a reasonable period of time, say six months, the original share price will be restored and again the market show a normal price behavior.
- b) Price quotations for each share were collected for all the five periods of time or reasonably close to them. These price quotations were then converted into price relative with point (i) as the base date. This all price changes have been expressed relative to the base date price, i.e. the price three months before the announcement date.
- c) The equity price index was noted against each price relative. The price index was also converted to a new set of index numbers again with point (i) as the base.
- d) Finally, the price relative against each of the five points of time, as obtained in step (b) above, was expressed as a percentage of the corresponding index numbers as adjusted in the step (c) above.

In general terms, our procedure for eliminating the effect of the general market movement boils down to adjust the actual share price on any date downwards in proportion to a downward general movement.

Thus, we get a series of five percentages for each of the shares in our sample representing of time, after the effect of general market movement have been eliminated.

### **3.7.3 Data Analysis Tools**

Data analysis tools used in this study are as follows:-

#### **a) Co-efficient of Correlation (r)**

The Co-efficient of Correlation measures the direction of relationship between two sets of figures. It is the square root of coefficient of determination. Correlation can either be positive or it can be negative. If both variables are changing in the same direction, then correlation is said to be positive but when the variations in the both variables result opposite direction the correlation is termed as negative. In the study coefficient of correlation is calculated between rights shares and equity shares, rights shares and NEPSE Index.

#### **b) Co-efficient of Determination ( $r^2$ )**

The coefficient of determination is a measure of the degree (extent or strength) of linear association or correlation between two variables one independent and other being dependent variable(s). In other words,  $r^2$  measures the percentage of total variation in dependent variable explained by independent variables. The coefficient of determination has value range from 0 to 1. For example, if  $r^2$  is equal to 0.85 that indicates the independent variables used in regression model explain 85% of the total variation in the dependent variable. A value of one occur only if the un explained variation is zero which simply means that all the points in the scatter diagram fall exactly on the regression line.

#### **c) Probable Error**

Probable Error (P.E.) is used to measure the reliability and test of significance of correlation coefficient. It is calculated by following formula:

$$P.E = 0.6745 \sqrt{\frac{1 - r^2}{n}}$$

Where,

$r$  = the value of correlation coefficient.

$n$  = No. of pairs of observation.

P.E. is used in interpretation whether the calculated value of 'r' is significant or not.

If  $r < P.E.$ , it is significant, i.e. there is no evidence of correlation.

If  $r > 6 P.E.$ , it is significant.

#### d) Use of T-test

T-test is also used to test significance of the difference between the share prices before and after the announcement of the rights offering by the companies. Since the share prices of few transacted (i.e. less than 30 transactions) are taken. In this study, T-test is a suitable tool for analyzing the significance of differences between the share price before and after the announcement of the rights offering. The researcher has used paired t-test.

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}}$$

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

Here,

$X$  = price index of total equity capital before announcement.

$Y$  = price index of total equity capital after announcement and other symbols have their usual meaning, i.e.

$N$  = number of observation

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

#### e) Valuation of Rights

Rights must have a certain value because the rights shares are generally offered at lower than market price. After rights offering existing shareholders want to exercise

that right to purchase, and some want to sell rights. After the closing date of rights share offering, the share price will drop to the extent of value of right.

$$\text{Valuation of one right} = \frac{P_o ZS}{N \Gamma 1}$$

Where,

$P_o$  = current market price of share, rights-on.

S = subscription price.

N = number of rights required to purchase one new share.

#### **f) Others**

Other tools such as statistical diagram, statistical tables, percentage and average have been used as per requirement of the study which are very useful in this study to analyze, and present the data in appropriate form.

## **CHAPTER- IV**

### **DATA PRESENTATION AND ANALYSIS**

This Chapter deals with the presentation, analysis and interpretation of data collected through primary and secondary sources, in order to fulfill the objective of the study. Now the most important part of this study that consist of analysis and presentation of empirical data focus on how far the Nepalese companies are practicing the rights share and how it affects the share price movement of these companies

The researchers have already mentioned that this study is heavily based on secondary data. Secondary source include official quotation of share prices, publication of SEBO/N and NEPSE issue prospectus and annual reports of respective companies. Primary source include the response of questionnaires and personal discussion. To obtain the best result, the data have been analyzed according to the research methodology as mentioned in the third chapter.

#### **4.1 Rights Share Practice in Nepal**

##### **4.1.1 Characteristics of Rights offering in Nepal**

By analyzing the various annex I, researcher finds that among total listed companies, 260 public issues have been approved from SEBO/N till FY 2064/65. Nepal Finance and Saving Co. Ltd. is the first company to issue the rights share in Nepal. In FY 2052/53 it issued rights share amounting to Rs.2.09 million. Most of the company had issued their right share at par value i.e. Rs.100 per share. No company has issued their right share at discount because company ordinance does not allow them to sell the rights share at discount. The premium can be added but the fear of under subscription, forced company, not to add any premium on issue. As a result there is wide different between subscription price and market price per share.

The range amount of rights share issued is Rs.2 million to 806.40 million. Development Credit Bank ltd. had issued highest amount of right share which is Rs. 806.40 million. Generally commercial bank had issued large amount of right share. For example, Development Credit Bank Ltd., Nepal Investment Bank Ltd., Nepal

Bangladesh Bank Ltd. , Nepal SBI Bank Ltd. , Bank of Kathmandu Ltd. and Nepal Bank Ltd. had issued Rs.806.40, Rs.295.29 million, Rs.359.92 million , Rs.287.87 million, Rs.119.21 million, Rs.234 million and 241.95 million right share respectively. Similarly, Nepal Merchant Banking & Finance Ltd. ,Kist Merchant Banking & Finance Ltd., International Leasing & Finance Ltd., NIDC Capital Markets Ltd., Alpic Everest Finance Ltd., National Finance Co. Ltd., Peoples Finance Ltd. And Kist Merchant Banking & Finance Ltd. Have also issued the right share amounting to Rs.800 million, Rs.600 million, Rs.504 million, Rs.40 million, Rs.20 million, Rs.43.20 million, Rs.20 million and Rs.50 million. Again Bottlers Nepal Ltd. , Necon Air Ltd. And Development Credit Bank Ltd. , Nepal Share Markets have also issued the large amount of rights Share amounting to Rs.225.20 million, Rs.89.60 million, Rs.80 million and Rs.40 million respectively. In this way, researcher concluded that the practice of rights share through various corporate firms is not similar in Nepal. Most of the company had issued right share at par value and 1:1 ratio. Size of the amount raised by rights share and different between the issued and closed date of various corporate firm is different.

All the companies had issued their rights share at par value i.e. Rs. 100 per share. Because according to company act 2053, company cannot issue their rights share on discount. The premium can be added but due to fear of under subscription no company had added any premium on issue. As a result, there is wide difference between subscription price and market price per share.

#### **4.1.2 Contribution of Rights Share Issues in the Total Public Flotation in Nepal**

There are many other alternatives of the public issue. One of the important alternatives of total public issue in Nepal is Rights share.

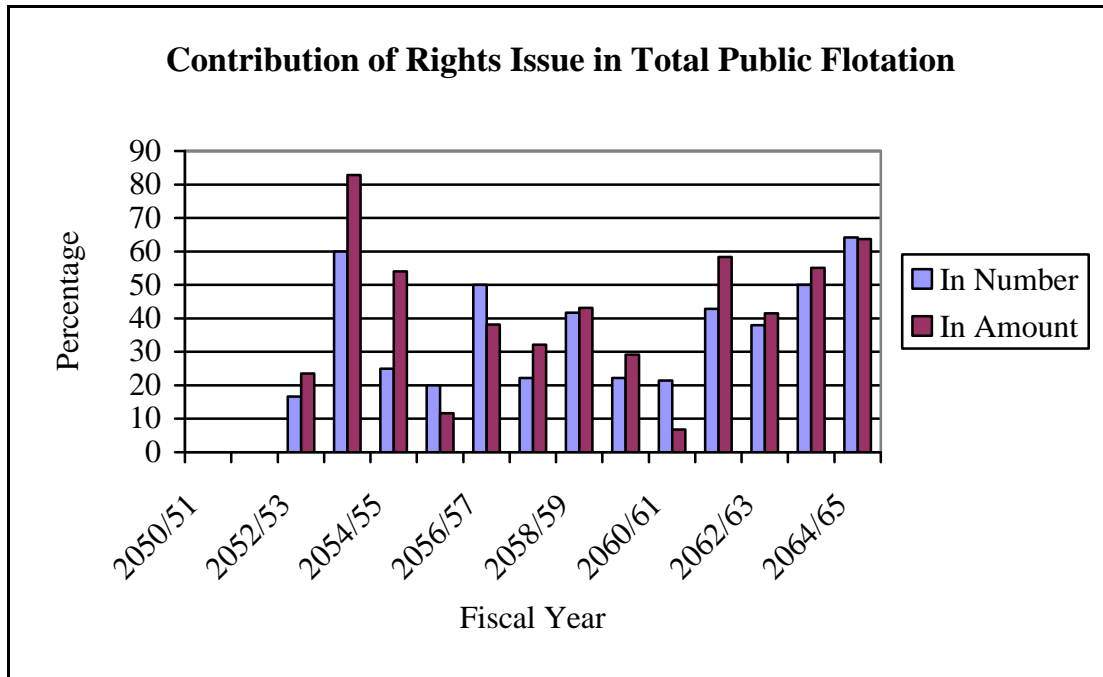
Following table 4.1 and figure 4.1 show the contribution of rights issue in the total public flotation in each of the fiscal years in which the rights offering has been taken place.

**Table 4.1****Contribution of Rights Issues in the Total Public Flotation****(Rs. In million)**

<b>Fiscal Year</b>	<b>Total Issue Approved</b>		<b>Rights Issue Approved</b>		<b>Percentage</b>	
	<b>No. of Company</b>	<b>Amount Rs.</b>	<b>No. of Company</b>	<b>Amount Rs.</b>	<b>No. of Company</b>	<b>Amount Rs.</b>
2050/51	16	244.40	0	0	0	0
2051/52	10	173.96	0	0	0	0
2052/53	12	293.74	2	69.00	16.67	23.49
2053/54	5	332.20	3	275.20	60.00	82.84
2054/55	12	462.36	3	249.96	25.00	54.06
2055/56	5	258.00	1	30.00	20.00	11.63
2056/57	6	326.86	3	124.60	50.00	38.12
2057/58	9	410.49	2	131.79	22.22	32.11
2058/59	12	1441.33	5	621.87	41.67	43.15
2059/60	18	556.54	4	162.24	22.22	29.15
2060/61	14	1027.50	3	70.00	21.43	6.81
2061/62	14	1626.82	6	949.34	42.86	58.36
2062/63	29	2443.28	11	1013.45	37.93	41.48
2063/64	34	2295.5	17	1265.30	50.00	55.12
2064/65	64	10668.2	43	6793	64.19	63.68
<b>Total</b>	<b>260</b>	<b>22561.40</b>	<b>103</b>	<b>11755.75</b>	<b>30.61</b>	<b>41.31</b>

Source: Annual Report of SEBO/N, FY 2007/08

**Figure 4.1**



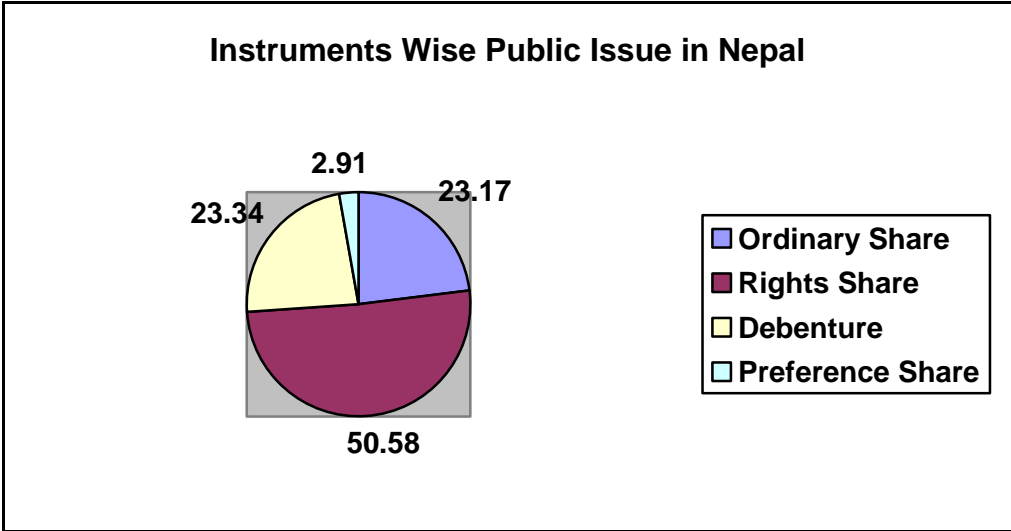
Analyzing the Table 4.1 and Figure 4.1, there are no any right issue had been made in starting two years. In the FY 2052/53, two cases of rights issued had been made of twelve issues, which occupied 23.49% of total public flotation. The highest cases of rights offering i.e. forty three cases were made in FY 2064/65, whereas the lowest no. of rights offering i.e. one case was made in FY 2055/56. In the FY 2053/54, contribution on rights share on total public issue through there companies out of five total issue approved companies is 82.84%. It is highest contribution till the FY 2064/65; because only five issues approved companies issued the small volume of total public issue amounting Rs. 332.20 million. Out of them Bottlers Nepal Ltd. issued the large volume of rights share amounting Rs. 225.20 million. In the FY 2054/55 and 2055/56, the contribution of rights share on total public issue through three and one company out of twelve and five total issue approved companies was 54.06% and 11.63% respectively. The contribution of rights share in the FY 2055/56 is the lowest one during 13 years period. At that fiscal year only Nepal Share Markets Co. Ltd. had issued the rights share amounting to Rs. 30 million. Similarly in FY 2056/57, FY 2057/58, and FY 2058/59, contribution of rights share on total public

issue was 38.12%, 32.11% and 43.15% respectively through 3, 2 and 5 rights issuing companies out of 6, 9 and 12 total issue approved respectively.

Also, contribution of rights share on total Public issue in FY 2059/60, FY 2060/61, FY 2061/62, FY 2062/63, FY 2063/64, and FY 2064/65 is 29.15%,6.81%,58.36%, 41.48%, 55.52 and 63.68 respectively through 4, 3, 6, 11, 17, and 43 rights issuing companies out of 18, 14, 14, 29, 34, and 64 total issue approved companies.

Rights Share is the largest instrument on total Public issue in Nepal. It covers 50.58% in total issue. Following figure shows the Instruments Wise Public issue in Nepal.

**Figure 4.2**



Fiscal Year 1993/94-2007/08

Source: Annual Report of SEBO/N, FY 2007/08

Contribution of rights share on total Public issue is 50.58% which is large & leading instrument. So, it can be concluded that, contribution of rights share on total public issue is significantly increasing in Nepal.

**4.1.3 Issue Manager Wise Rights Issue in Nepal**

There are Eleven issue managers operating in Security Market in Nepal. All of them except United Finance Ltd. have issued different kinds of instrument including rights

share. Table 4.2 clearly shows the contribution of issue manager in rights offering in Nepal.

**Table 4.2**  
**Issue Manager Wise Rights Issue in Nepal**

S.N.	Name of Issue Manager	Issued Amount (Rs.)	No.	Amount	No.
1	-	69.00	2	0.59	1.94
2	AFC	655.29	7	5.57	6.79
3	CIT	1329.96	11	11.31	10.68
4	NFCL	33.01	3	0.28	2.91
5	NSML	107.58	5	0.92	4.85
6	NCML	3749.09	33	31.89	32.4
7	NEFINSCO	211	5	1.79	4.84
8	NSMB	389.92	2	3.32	1.94
9	NMB	2511.8	18	21.37	0.17
10.	NFC	898.30	3	7.64	2.9
11.	ACE	1801.2	14	15.32	0.14
<b>Total</b>		<b>11755.75</b>	<b>103</b>	<b>100</b>	<b>100</b>

Source: Annual Report of SEBO/N, FY 2007/08

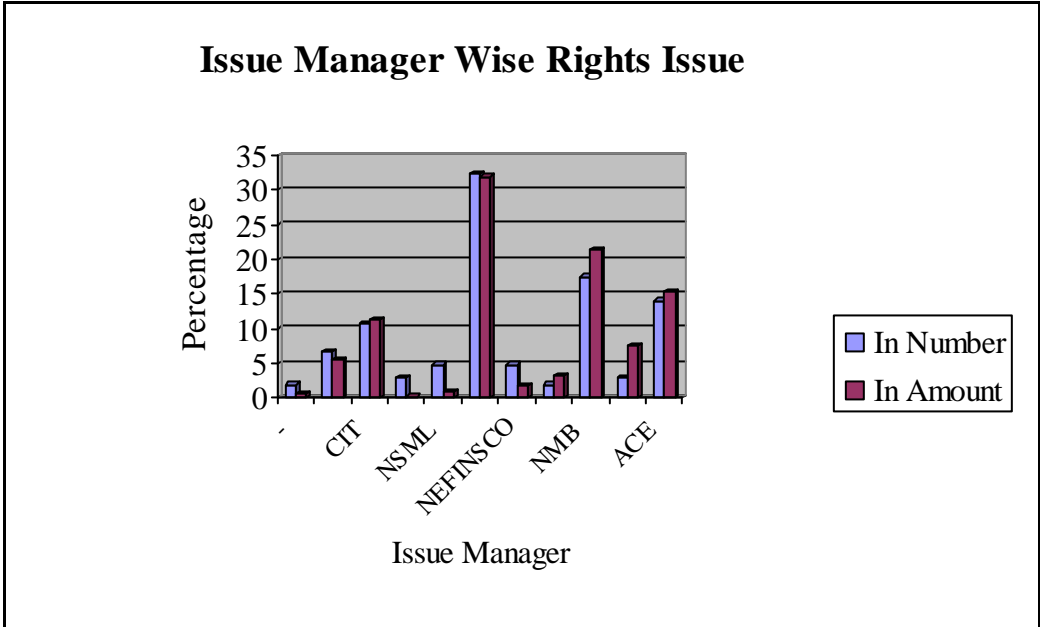
By analyzing Table 4.2 it is noticed that, on the basis of rights share issued amount, Rs.69 million (0.59%) rights share was issued without any issue manager. NIDC Capital Markets Ltd. is the largest issue manager till the FY 2064/65. It has managed Rs. 3749.09 million (31.89%) rights share. Similarly, Nepal Merchant Banking & Finance Ltd., ACE Ltd., Citizen Investment Trust, NFC Ltd. are the second, third, fourth and fifth largest issue manager. They have managed the rights share amounting Rs. 2511.8 million (21.37%), Rs. 1801.2 million (15.32%), Rs. 1329.96 million (11.31%) and Rs.898.3 million (7.64%) respectively. Similarly, Nepal finance Company Ltd. is the smallest issue manager, which had managed only Rs. 33.01 million (0.28%) rights share. NSML and NEFINSCO are the second and third smallest

issue manager. They have managed Rs.107.58 million (0.92%) and Rs. 211 million (1.79%) respectively.

On the basis of number of rights issued cases, two cases i.e. 4.65% of rights issued were managed without any issue manager. NIDC Capital Markets Ltd. is the largest issue manger, has managed 33 cases i.e. 32.4%, out of total 103 rights share cases till the FY 2064/65. Nepal Merchant Banking & finance Ltd., ACE Ltd. Citizen Investment Trust, AFC Ltd. are the second , third, fourth and fifth largest issue manager managing. They have managed 18 cases (17.5%), 14 cases (14%), 11 cases (10.68%) and 7 cases (6.79 %). Also, NSML & NEFINSCO is the sixth largest issue manager. They have managed equally 5 cases i.e. 4.84% both, of right issue. Then NFCL & NFC is seventh largest issue manager. They have managed only 3 cases i.e. 2.91% of rights share. At last NSMB is the smallest issue manager it has managed only (1.04%) Following figure shows the issue manager wise Rights Issue in Nepal.

**Figure 4.3**

**Issue Manager Wise Rights Issue in Nepal**



#### 4.1.4 Classifying the Rights Issue according to Sector in Nepal

Those companies, who are interested for public issue, should have listed their in NEPSE. Companies listed in NEPSE, which are divided into 8 sectors. Following table and figure shows the sector wise rights issue in Nepal.

**Table 4.3**  
**Sector Wise Rights Issue in Nepal**

S.N.	Sector	No. of Listed Company	Rights Issuing Company	Percent	Issued Amount (Rs.)	Percent
1	Commercial Bank	15	8	53.33	4202.70	35.75
2	Development Bank	23	6	26.09	3242.3	27.58
3	Finance Company	58	21	36.21	3003.30	25.54
4	Insurance Company	18	2	11.11	90.00	0.76
5	Hotel	4	1	25.00	446.45	3.79
6	Manufacturing & Processing Company	21	3	14.29	292.20	2.49
7	Trading company	5	1	20.00	10.00	0.08
8	Other Company	6	1	16.67	469.3	4.00
<b>Total</b>		<b>150</b>	<b>43</b>	<b>25.34</b>	<b>11755.75</b>	<b>100</b>

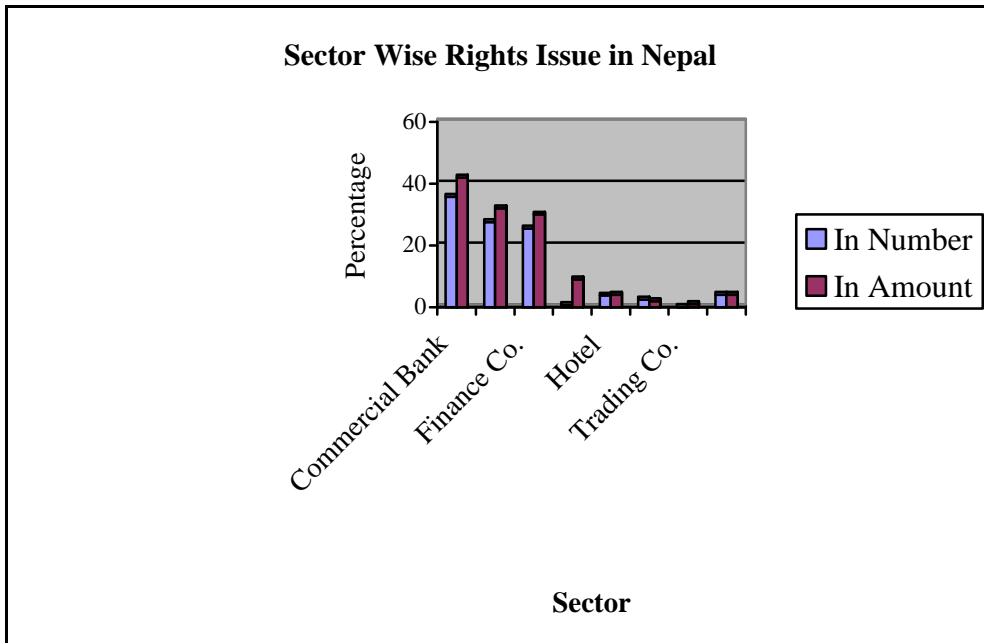
Source: Annual Report of SEBO/N 2007/08

By analyzing the Table 4.3, only 8 Banks had issued the Rights Share to their Shareholders till the study period. Among these Banks, NSBI and NIBLS had issued rights share twice. So, the total case of rights offering made by Commercial Bank is 10. In case of development Bank and finance company, only 6 development banks and

21 finance companies has issued rights share. In case of two insurance companies and one Hotel sector has issued rights share. Similarly in manufacturing and Processing, Three companies has issued the rights share. Trading and Other company has issued Six rights share each till the study period.

On the basis of rights share amount, commercial banks occupied the largest volume of rights share i.e. Rs. 4202.70 million out of total rights share issued i.e. Rs. 11755.75 million, which became 35.75% of total rights issue, the largest one. In case of Development Banks covers the second position, issuing Rs. 3242.30 million i.e. 27.58 % rights share in total. Finance company & Other company are the third and fourth largest sector that they have issued Rs. 3003.30 million i.e. 25.54% and Rs. 469.3million i.e. 4%, rights share respectively. Similarly Hotel & Manufacturing & processing company have issued 446.45 million i.e. 3.79%, Rs. 292.20 million i.e. 2.49%, and lastly insurance company & Trading company have issued Rs. 90 million i.e. 0.76% and Rs. 10 million i.e. 0.08%, rights share respectively. By analyzing given data, researcher concluded that some Commercial Banks, Finance Companies, Hotels and Manufacturing & Processing companies issued the large amount of rights share to their existing shareholders, therefore these sectors occupied large proportion of rights share, which can be depicted by following figure:

**Figure 4.4**



## **4.2 Rights Offering and Its Impact on Share Price**

### **4.2.1 Rights Share and its Impact on Share Price Movement of Companies before and after Rights Offering.**

This study is focus to analyze the price movement of selected sample companies with NEPSE index. To obtain the best outputs, five different points of time were selected for observing the price movement assuming with the announcement date as the reference point. The given point shows the following price quotation.

- I. 90 days before the announcement date.
- II. 10 days before the announcement date.
- III. The day of announcement.
- IV. 7 days after the announcement.
- V. 180 days after the announcement.

The main objective of this method of analysis is to eliminate the effect of the general market movement from our analysis. Otherwise stated, the procedure for eliminating the effect of general market movement boils down to adjust 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 market movement. 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 points of time, after eliminating the effect of the general market movement

There are 103 cases of rights offered by 43 companies, out of total listed companies in Nepal till the FY 2064/65. But here researcher has analyzed only one sector i.e. commercial banks. So, in this study, researcher has analyzed these four commercial banks & four Finance companies, which are as follows:

a.) Commercial Banks:

- i. Nepal Investment Bank Ltd.
- ii. Siddhartha Bank Ltd.
- iii. NIC Bank Ltd.
- iv. Kumari Bank Ltd.

b.) Finance Companies:

- i. Premier Finance Co. Ltd.
- ii. NIDC Capital Market.
- iii. Alpic Everest Finance Co. Ltd
- iv. Standard Finance Ltd.

Above given Sample companies are analyzes of share price movement before and after the rights offering are as follows:

#### 4.2.1 Analysis of Share Price Movement of Nepal Investment Bank Ltd.

**Table 4.4**

**Share Price Movement of Nepal Investment Bank Ltd.**

<b>Selected Points of Time</b>	<b>Share Price (Rs.)</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 Relatives 2 as % of 4</b>	<b>% Change from Base</b>
	1	2	3	4	5	6	7
I	1200	100.00	264.73	100.00	-	100.00	-
II	790	65.83	298.78	112.86	12.86	58.33	(41.67)
III	865	72.08	285.42	107.82	7.82	66.85	(33.15)
IV	813	67.75	279.73	105.67	5.67	64.11	(35.89)
V	825	68.75	306.15	115.65	15.65	59.45	(4.55)

When Nepal Investment Bank Ltd. announced rights Share to existing shareholders, the price on the day of announcement was Rs. 865, which is Rs. 335 less than the price before 90 days of announcement date and Rs. 75 more than the ten days before the announcement date. Share Price of Nepal Investment Bank Ltd. was Rs. 813 on the seven days after the announcement of rights offering. Then, it is found decreased to Rs. 825 after 180 days of announcement date. But such price movement still decreases price index. It remained fluctuating in between Rs.264.73 to Rs.306.15 during the points I and V i.e., there is not any decline in general market movement. Total price index of equity shares was Rs.264.73 in 90 days before the announcement date. It increased to Rs. 298.78 in ten days before the announcement date and it decreased to Rs. 285.42 in the announcement date. The total price index of share went down to Rs.279.73 in seven days after the announcement date and it increased to Rs. 306.15 in 180 days after the announcement date.

In Table 4.4, column 4 shows the price index converted to new base and column 5 shows that percentage change in the adjusted price indices from the base index.

This column 5 shows that price index is increased by 12.86% before ten days of announcement date and by 7.82% in the day of announcement date. It increased by 5.67% in after seven days of announcement date and then increased by 15.65% after 180 days of announcement date. Similarly column 6 and 7 show the adjusted share price and its percentage increases or decreases from the base date respectively. The column 7 shows adjusted share price is decreased by 41.67% before the ten days of the announcement date and then decreased by 33.15% in the day of announcement date. The adjusted share price is significantly decreased by 35.89% and 4.55% during the period IV and V respectively.

According to the theory of rights offering, the price of share will increase after the announcement and decreased after the allotment of share to the extent of value of rights. But the price of Nepal Investment Bank Ltd. is different which is as follows:

Market Price of Stock	= Rs. 865
Value of One Right	= Rs. 382.50
Ex-rights Price of Share	= Rs. 482.50

The Value of the share after the allotment should be around Rs. 482 but the share price of Nepal Investment Bank Ltd. was Rs.825 after six months of rights share announcement. Thus the share price of Nepal Investment Bank Ltd. was overpriced. (Annex-8)

#### 4.2.2 Analysis of Share Price Movement of Siddhartha Bank Ltd.

**Table 4.5**

##### **Share Price Movement of Siddhartha Bank Ltd**

<b>Selected Points of Time</b>	<b>Share Price (Rs.)</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 Relatives 2 as % of 4</b>	<b>% Change from Base</b>
	1	2	3	4	5	6	7
I	348	100.00	333.03	100.00	-	100.00	-
II	360	103.45	388.49	116.65	16.65	88.68	(11.32)
III	328	94.25	368.89	110.77	10.77	85.09	(14.91)
IV	345	99.14	371.97	111.69	11.69	88.76	(11.24)
V	452	129.89	463.74	139.25	39.25	93.28	(6.72)

Table 4.5, it can be analyze that the share price of Siddhartha Bank Ltd. is in increasing trend. Share price of Siddhartha Bank Ltd. before 90 days of announcement date was Rs. 348 and was increased to Rs. 452 after 180 days of announcement date. While observing total price index of equity capital, it also increased from Rs. 333.03 to Rs. 368.89 on the period I to III. An increase of 35.86 was realized between periods I to III. Therefore, the increased on market price of the share of Siddhartha Bank Ltd. from base date to day of announcement is basically attributed to announcement; market price of the share went further up by Rs. 17 during periods III to IV and became Rs. 345. Theoretically market price of the share should have gone up for few days just after the rights announcement, which did happen in case of Siddhartha Bank Ltd. due to holder's record date. It means obviously, that the investors who purchased the share of Siddhartha Bank Ltd. on the day of announcement or on wards were entitled to buy rights share. It is meet to the theory of right issue. Investors after the date of announcement may have thought that, number of share were going to increase, EPS were going to decrease or Ex-right price of share was going to decrease. It is

believed that the original share price will be restored and the market shows normal price behavior after 180 days of announcement date, in case of Siddhartha Bank Ltd., the share price was still in increasing trend and leveled up to at Rs. 452, which seemed moving according to the principle of rights.

Rights offering theory does not match in case of Siddhartha Bank Ltd.

Market Price of Share = Rs. 328

Value of One Right = Rs. 57

Ex-right price of Share = Rs. 271

The value of the share after allotment should be Rs. 271, but the share price of Siddhartha Bank Ltd. was Rs. 452 after 180 days of announcement date.

Thus, the share of Siddhartha Bank Ltd. was overpriced. (Annex-8)

#### 4.2.3 Analysis of Share Price Movement of NIC Bank Ltd.

**Table 4.6**

**Share Price Movement of NIC Bank Ltd.**

<b>Selected Points of Time</b>	<b>Share Price (Rs.)</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 Relatives 2 as % of 4</b>	<b>% Change from Base</b>
	1	2	3	4	5	6	7
I	339	100.00	250.76	100.00	-	100.00	-
II	352	103.83	294.03	117.26	17.26	88.55	(11.45)
III	346	102.06	297.81	118.76	18.76	85.94	(14.06)
IV	375	110.62	288.34	114.99	14.99	96.20	(3.80)
V	375	110.62	307.42	122.60	22.60	90.23	(9.77)

Table 4.6 column 1 shows the share price of NIC Bank Ltd. in different period of time. The share price of NIC Bank Ltd. was Rs. 339 before 90 days of announcement date. It was increased to Rs. 352 before ten days of announcement date, which drastically decreased to Rs. 346 on the day of announcement date. The Market price of the share was increased to Rs. 375 after seven days of announcement date. However market price of the share was slightly increased just after rights share announcement. Similarly still trend of market price of share seemed and it still same Rs. 350 in after 180 days of announcement date.

The share price movement of NIC Bank Ltd. and the trend of general market movement change in the market price from period I to II, is basically due to general market movement, at that time market index had increased to Rs. 294.03 from Rs. 250.76. Column 5 shows that, price index was increased by 17.26% in ten days before the announcement date. Similarly, it increased by 18.76% from point I to III. Change in share price between II and III was not solely due to general market movement. However decrease in share price can be observed in point IV with the comparison to point III. The share price was increased by 22.60% in point V. Column 6 shows the adjusted price relatives. The adjusted price relative was decreased from 11.45% to 14.05% between point II and III. It clearly indicated that decrease in share price was due to rights announcements. It was compatible to point IV at the same period price relative also decreased from 3.80% to 9.77%.

According to theory, the share price decreases after rights offering. But the share price behavior of NIC Bank Ltd. share did not follow the theory.

Market Price of Stock	= Rs. 346
Value of One Right	= Rs. 82
Ex-rights Price of Share	= Rs. 264

The value of the share after the allotment be around Rs. 264 but the share price of NIC Bank Ltd. was Rs. 375 after six months. Thus the share price of NIC Bank Ltd. is slightly overpriced. (Annex-8)

#### 4.2.4 Analysis of Share Price Movement of Kumari Bank Ltd.

**Table 4.7**  
**Share Price Movement of Kumari Bank Ltd.**

<b>Selected Points of Time</b>	<b>Share Price (Rs.)</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 Relatives 2 as % of 4</b>	<b>% Change from Base</b>
	1	2	3	4	5	6	7
I	377	100.00	293.69	100.00	-	100.00	-
II	326	86.47	299.84	102.09	2.09	84.70	(15.30)
III	340	90.19	308.13	104.92	4.92	85.96	(14.04)
IV	330	87.53	301.60	102.69	2.69	85.28	(14.72)
V	439	116.46	378.68	128.94	28.94	90.32	(9.68)

In case of Kumari Bank Ltd., the share price was Rs.377, three months before the announcement date, which drastically decreased to Rs. 326 of ten days before the announcement. Market price of the share was Rs. 340 on the day of announcement. However, market price of the share was slightly increased just after the right share announcement. Market price of the share was Rs. 330, seven days after the rights share announcement. Again increasing trend of market price of share seemed and it was Rs. 439, after six months of rights announcement.

By analyzing the share price movement of Kumari Bank Ltd. and the trend of general market movement, change in the market price from Point I to II is basically due to

general market movement, at that time market index had increased from Rs. 293.69 to 299.84. Market index is increased to Rs.308.13, Rs.301.60 and Rs.378.68 in among III, IV and V Points of time. Column 5 shows the percentage change in the adjusted price indices from the base index. It shows that the price index was increased by 2.09%, ten days before announcement. Similarly, it increased by 4.92% from point II to III. However, 2.69% increase in the share price can be observed in point IV in comparison to point III. It was increased by 28.94% in point V. Column 6 in the Table 4.7 shows adjusted price relatives. The adjusted price relative was decreased from 15.30% to 14.04% between II and III. It was compatible to point IV and V at the same period price relative also decreased from 14.72% to 9.68%. Hence, only in the case of Kumari Bank Ltd. , there was an obvious negative impact of rights offering.

Values of one rights and ex-rights price of Kumari Bank stock are as follows:

Market Price of Stock	= Rs 340
Value of One Right	= Rs. 48
Ex-rights Price of Share	= Rs. 292

The value of the share after the allotment should be around Rs. 257 but the share price of Kumari Bank Ltd. was Rs. 439 after six months of rights share announcement. Thus the share of Kumari Bank Ltd. was overpriced.(Annex-8)

#### 4.2.5 Analysis of Share Price Movement of Premier Finance Co. Ltd.

Table 4.8

##### Share Price Movement of Premier Finance Co. Ltd.

Selected Points of Time	Share Price (Rs.)	Price Relatives	Total Price Index of Equity Capital	Price Index Converted to New Base	% Change from Base	Adjusted Price Relatives 2 as % of 4	% Change from Base
	1	2	3	4	5	6	7
I	421	100.00	278.50	100.00	-	100.00	-
II	336	79.81	281.61	101.12	1.12	78.93	(21.07)
III	330	78.38	277.83	99.76	(0.24)	78.57	(21.43)
IV	345	81.95	281.15	100.95	0.95	81.18	(18.82)
V	365	86.70	303.12	108.84	8.84	79.66	(20.34)

When the Premier Finance Co. Ltd. announced the rights to its existing shareholders, there was still a decreasing trend in general market movement. Price of Premier Finance Co. Ltd. was Rs. 421 three months before the announcement. It was decreased to Rs. 365 after 180 days of announcement date, nearly 13% decline over this period. While observing total price index of equity capital, it was slightly decrease from Rs. 278.50 to Rs. 277.83 on the period I to III. A decline of 0.24% was realized between periods I to III. Therefore the declination on market price of the share of Premier Finance Co. Ltd. from base date to day of announcement is basically attributed to market trend. On the other hand, observing after the day of announcement, market price of the share went further increased by Rs. 15 during period III and IV and became Rs. 345. Theoretically market price of the share should have gone up for few days after the rights announcement, which happened in case of Premier Finance Co. Ltd. due to holder's record date. It means obviously, that the investors who purchased the share of Premier Finance Co. Ltd. on the day of announcement or on wards were not entitled to buy rights share. It is quite contrary to the theory of rights issue. That is

why market price of share went down instead of increasing. Investors after the date of announcement may have thought that, number of share were going to increase, EPS were going to decrease or Ex-right price of share was going to decrease. it is believed that the original share price will be restored and the market shows normal price behavior after six months of announcement date, but in case of Premier Finance Co. Ltd., the share price was still in decreasing trend and leveled up to at Rs. 365, which seemed moving according to the principle of rights.

Rights offering theory does not match in case of Premier Finance Co. Ltd.

Market Price of Stock	= Rs. 330
Value of One Right	= Rs. 115
Ex-rights Price of Share	= Rs. 215

The value of the share after allotment should be around Rs. 215, but the share price of Premier Finance Co. Ltd. was Rs. 365 after six months of announcement date. Thus the share of Premier Finance Co. Ltd. was overpriced. (Annex-8)

#### 4.2.6 Analysis of Share Price Movement of NIDC Capital Markets Ltd.

**Table 4.9**

##### **Share Price Movement of NIDC Capital Markets Ltd.**

<b>Selected Points of Time</b>	<b>Share Price (Rs.)</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 Relatives 2 as % of 4</b>	<b>% Change from Base</b>
	1	2	3	4	5	6	7
I	400	100.00	265.65	100.00	-	100.00	-
II	410	102.50	204.28	76.91	(23.09)	133.27	33.27
III	410	102.50	201.06	75.69	(24.31)	135.42	35.42
IV	220	55.00	216.39	81.47	(18.47)	67.51	(32.49)
V	180	45.00	223.87	84.28	(15.72)	53.39	(46.61)

Table 4.9 shows the share price movement of NIDC Capital Markets Ltd. first, Column 1 shows that three months before the announcement of rights share by NIDC Capital Markets Ltd. Its share price was Rs. 400, it was Rs. 410 before ten days of announcement date and it remains Rs. 410 even in the day of announcement. While looking to general market movement in column 3, price index is 265.62 three months before announcement date, it has come to 204.28 ten days before announcement date and it was Rs. 201.06 in the announcement date. Thus, the share price behavior of NCML has moved quite different to the general market movement, it may be case of signaling effect or may be due to performance of the company. The share price has drastically dropped to Rs. 220 after seven days of announcement. But while we look to the price index it has increased from 201.06 to 216.39 which is not consistent with the theory of rights offering. It came to Rs. 180 after six months of announcement date whereas the general market shows the increasing trend.

By analyzing the share price movement of NCML and general market, we can summarize that the rights issue practice of NCML does not meet the principle of rights offering theory. The decrease in share price after the announcement of rights offering on the record date. Holder's record date of NCML was 2063-12-9 whereas announcement date was 2063-12-19 which is not within the theory of rights offering. Investor's may not rush to the share market to purchase the share of NCML because they can not be able to enjoy the rights offering. On the other hand, investor who want to purchase the NCML may think that number of share were going to increase where as earning per share was going to decrease and ex-rights price of share was going to decrease. Due to these expectations the share price falls down after the rights announcement.

According to the theory the price of share will increase after the announcement and it decreases after the allotment of share to the extent of value of right.

Market Price of Stock	= Rs. 410
Value of One Right	= Rs. 206.67
Ex-rights Price of Share	= Rs. 203.33

Share price should be Rs. 203.33 approximately after the allotment of share but after six months it was only Rs. 180. The share price was below theoretical value. Therefore it can be said that after rights issue, NCML stock was under priced.(Annex-8)

#### 4.2.7 Analysis of Share Price Movement of Alpic Everest Finance Co. Ltd.

**Table 4.10**  
**Share Price Movement of Alpic Everest Finance Co. Ltd.**

<b>Selected Points of Time</b>	<b>Share Price (Rs.)</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 Relatives 2 as % of 4</b>	<b>% Change from Base</b>
	1	2	3	4	5	6	7
I	225	100.00	207.85	100.00	-	100.00	-
II	142	63.11	207.92	100.03	0.03	63.09	(36.91)
III	145	64.44	209.81	100.94	0.94	63.84	(36.61)
IV	155	68.89	202.45	97.40	(2.60)	70.73	(29.27)
V	146	64.89	210.45	101.25	1.25	64.09	(35.91)

Table 4.10 shows the share price movement of Alpic Everest Finance Co. Ltd. first, Column 1 shows that three months before the announcement of rights share by Alpic Everest Finance Co. Ltd. Its share price was Rs. 225 and market index was Rs. 207.85 before three months of announcement date. But its share price dropped to Rs. 142 while price index shows the similar trend i.e. Rs. 207.92 ten days before the announcement date. Column 7 shows that adjusted price relative was decreased by

36.91% from point I to II. This heavy decrease in share price can be because of performance of the company, political crisis and signaling effect.

In the day of announcement share price was slightly increased i.e. Rs. 145 from Rs. 142 this was because of general markets movement which was increased from Rs. 207.92 to Rs. 209.81. After seven days of announcement of rights share price was increased to Rs. 155 from Rs. 145 while general market movement shows the decreasing trend. Now, looking to the adjusted price relatives it has increased from 63.84% to 70.73% where as in column 4, converted price index was decrease from 100.94 to 97.40. Thus, this increase in the share price was because of rights offering but after six months of announcement share price was Rs. 146 while general market shows the increasing trend. Thus rights offering have positive impact on share price of Alpic Everest Finance Co. Ltd.

According to the theory the price of share will increase after the announcement and it decreases after the allotment of share to the extent of value of right.

Market Price of Stock	= Rs. 145
Value of One Right	= Rs. 22.50
Ex-rights Price of Share	= Rs. 122.50

Share price should be Rs. 122.50 after the allotment of share but after six months it was only Rs. 146. The share price was higher than theoretical value. Therefore it can be said that after rights issue, Alpic Everest Finance Co. Ltd. stock was slightly over priced.(Annex-8)

#### 4.2.8 Analysis of Share Price Movement of Standard Finance Co. Ltd.

**Table 4.11**

**Share Price Movement of standard Finance Co. Ltd.**

<b>Selected Points of Time</b>	<b>Share Price (Rs.)</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 Relatives 2 as % of 4</b>	<b>% Change from Base</b>
	1	2	3	4	5	6	7
I	105	100.00	207.15	100.00	-	100.00	-
II	95	90.48	208.48	100.64	0.64	89.90	10.10
III	95	90.48	209.10	100.94	0.94	89.73	10.27
IV	95	90.48	208.99	100.89	0.89	89.63	10.32
V	95	90.48	206.76	99.81	-0.19	90.65	9.35

Table 4.11 shows the share price movements of standard finance company ltd. and general market movements. We can see that before three months of announcement the share price was Rs. 105 and it dropped to Rs. 95 ten days before announcement date. The share price has fallen below par value because of the performance of the company. Then on the day of rights announcement, the share price was constant at Rs. 95, it was Rs. 95 even seven days after the rights share announcement and it was Rs. 95 after six months. While looking to the general market movement it also shows quite similar trend. It was Rs. 207.15 three months before announcement date similar level of increment was seen in the day of announcement in price index but it dropped to Rs. 208.99 seven days after announcement and to Rs. 206.76 six months latter. After six months, our assumption the share price behaviour comes to its original condition.

According to the theory, the price of share will increases after the announcement and it decreases after the allotment of share to the extent of value of right. But in the case of

standard finance company, it does not come true. Before three months share price was Rs. 105 but after six months it was only Rs. 95. This is due to dilution in capital. The company is in loss and holder's record date is also prior to announcement date.

On the day of rights share announcement, share 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 Correlation Coefficient between Share Price Movement and movement in General Market**

Nepal Stock Exchange has just started the practice of calculating and publishing the sector wise indices. For the period under study, sector wise index was not available so that through out the study period the price index of total equity capital is used.

In practice, not only the rights offering but also general market movement largely affects the share price of companies. For this reason correlation between share price movement and general market movement is calculated by considering share price of companies as the dependent variables and the share price fluctuate according to the fluctuation on the index of the total equity capital.

After calculating the correlation between share price movements of sample companies and general market movement (refer to annex-6) following results have been obtained.

**Table 4.12****Correlation Coefficient between Share Price & NEPSE Indices**

<b>Sample Organization</b>	<b>Correlation Coefficient</b>	<b>Coefficient of Determination</b>	<b>Probable Error (P.E.)</b>	<b>6 Probable Error (P.E.)</b>
Nepal Investment Bank Ltd.	-0.79	0.62	0.12	0.72
Siddhartha Bank Ltd.	0.90	0.81	0.06	0.36
NIC Bank Ltd.	0.61	0.37	0.19	1.14
Kumari Bank Ltd.	0.86	0.73	0.08	0.48
Premier Finance Co. Ltd.	0.49	0.24	0.22	1.32
NIDC Capital Markets Ltd.	0.02	0	0.30	1.81
Standard Finance Ltd.	-0.80	0.64	0.11	0.65
Alpic Everest Finance Ltd.	-0.08	0	0.30	1.80

Refer to Annex - 6

Table 4.12 shows that there is no consistent result of all sample organization. In case of Nepal Investment bank Ltd. there is high degree of negative correlation coefficient between its share price and general market movement i.e.  $r = -0.79$ . This relation is further proved by the coefficient of determination which is 0.62 or 62% and the correlation coefficient ( $r$ ) is greater than 6 P.E. (i.e. 6 P.E. = 0.72). Thus the correlation is significant and reliable. In case of Siddhartha bank Ltd., there is high degree of positive correlation (i.e.  $r = 0.90$ ). The coefficient of determination i.e.  $r^2 = 0.81$  means that about 81% of variation in the share price is explained by the general market movement. The coefficient of correlation is greater than 6 P.E. (i.e. 6 P.E. = 0.36) which proves that correlation is significant.

In another case of NIC bank ltd., there is high degree of positive correlation i.e. of 0.61, but it is less than 6 P.E. which is 1.14, that means correlation is not significant. The coefficient of determination i.e.  $r^2 = 0.37$  means that about 37% of variance in share price is explained by general market movement. Thus rights offering have some sort of impact on share price of NIC bank ltd. There is also high degree of positive

correlation i.e.  $r = 0.8565$  between share price movement and general price movement in case of Kumari Bank Ltd. This relation is further proved by the coefficient of determination which is 0.73 or 73% and correlation coefficient ( $r$ ) is greater than 6 P.E. Thus the correlation is significant and reliable. So, we can conclude that share price behavior of Kumari Bank Ltd. is because of general market movement.

In case of Premier Finance Co. Ltd., there is positive relationship between its share price movement and general market movement, but its correlation is not significant because its correlation coefficient (i.e.  $r = 0.49$ ) is less than probable error (i.e.  $6 \text{ P.E.} = 1.32$ ). The coefficient of determination i.e.  $r^2 = 0.24$  means that about 24% of variance in share price is explained by general market movement. NIDC capital markets stock, there is also positive but very low degree of relationship between its share price movement and general market movement but its correlation is not significant because its correlation coefficient (i.e.  $r = 0.032$ ) is less than probable error (i.e.  $\text{P.E.} = 0.3015$ ). Rapid decline in its share price is not because of general market movement because its coefficient of determination ( $r^2$ ) is  $= 0.000484$ .

But in case of Standard Finance Ltd., there is high degree of negative correlation i.e.  $r = -0.80$  which is significant too because  $r > 6 \text{ P.E.}$  (i.e.  $6 \text{ P.E.} = 0.6515$ ). It means that there is negative correlation between share price movement and general market movement. Coefficient of determination is 64% for their relationship. In case of Alpic Everest Finance Co. Ltd., there is also negative but very low degree of relationship between share price movement and general market movement but it is not significant because its coefficient correlation (i.e.  $r = -0.0858$ ) is less than probable error (i.e.  $\text{P.E.} = 0.2994$ ) and coefficient of determination is 0.00736 i.e. 0.736% for their relationship. Thus, the reaction of share price of Alpic Everest is because of rights offering.

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

Theoretically, after the rights issue, generally share price of concern company move upwards till the date of issue closed. To analyze whether there came any significant change in share price, we have used t-statistics. For this we have taken the share price and price index before and after announcement date. Following table shows the calculated and tabulated values of t-statistics of respective companies.

**Table 4.13**  
**Calculated Value and Tabulated Value of t-statistics.**

Company	Test for	Significance Level	Degree of Freedom	t-tab	t-cal	Inferences: the difference is
Nepal Investment Bank Ltd.	Share Price	5%	8	2.306	32.73	Significance
	Total Index	5%	8	2.306	20.48	Significance
Siddhartha Bank Ltd.	Share Price	5%	8	2.306	1.99	Insignificance
	Total Index	5%	8	2.306	10.62	Significance
NIC Bank Ltd.	Share Price	5%	8	2.306	3.85	Significance
	Total Index	5%	8	2.306	5.62	Significance
Kumari Bank Ltd.	Share Price	5%	8	2.306	0.97	Insignificance
	Total Index	5%	8	2.306	5.54	Significance
Premier Finance Co. Ltd.	Share Price	5%	8	2.306	4.41	Significance
	Total Index	5%	8	2.306	1.13	Insignificance
NIDC Capital Markets Ltd.	Share Price	5%	8	2.306	17.80	Significance
	Total Index	5%	8	2.306	11.92	Significance
Standard Finance Ltd.	Share Price	5%	6	2.447	3.00	Significance
	Total Index	5%	6	2.447	0	Significance
Alpic Everest Finance Ltd.	Share Price	5%	6	2.447	2.79	Significance
	Total Index	5%	6	2.447	0	Significance

Sources: Annex - 4 and 5

Table 4.13 clearly shows that the calculated value of t in case of Nepal Investment Bank Ltd. is 32.73, whereas the tabulated value at 5% level of significance is 2.306 for 8 degree of freedom. Since t-cal is greater than t-tab, it can be inferred that the differences between the share prices few days before and after the announcement of rights offering is significant. Similarly, the differences in the price indices of total equity capital are also significant. Thus it can be calculated that increase in share price

can be attributed to rights offering. In this case alternative hypothesis that the share price changes significantly after the rights issue announcement can be accepted.

In case of calculated value of  $t$  for Siddhartha Bank Ltd. is 1.99, where as the tabulated value at 5% level of significance is 2.306 for 8 degree of freedom. Since  $t$ -cal is lower than  $t$ -tab, it can be informed that the difference between the share prices few days before and after the announcement of rights offering is insignificant. Thus, it can be inferred that the heavy decrease in share price of its stock can be attributed to rights offering. In this case, alternative hypothesis that the share price changes significantly after the announcement of the rights share is accepted and the null hypothesis that the share price does not changes significantly after the announcement of the rights offering is rejected. But the difference in the share price indices of total equity capital is significant. Thus it can be accepted.

The calculated value of  $t$  in case of NIC Bank Ltd. is 3.85, whereas the tabulated value at 5% level of significance is 2.306 for 8 degree of freedom. Since  $t$ -cal is greater than  $t$ -tab, it can be inferred that the differences between the share prices few days before and after the announcement of rights offering is significant. Similarly, the differences in the price indices of total equity capital are also significant. Thus it can be calculated that increase in share price can be attributed to rights offering. In this case alternative hypothesis that the share price changes significantly after the rights issue announcement can be accepted.

In case of calculated value of  $t$  for Kumari Bank Ltd. is 0.97, where as the tabulated value at 5% level of significance is 2.306 for 8 degree of freedom. Since  $t$ -cal is lower than  $t$ -tab, it can be informed that the difference between the share prices few days before and after the announcement of rights offering is insignificant. Thus, it can be inferred that the heavy decrease in share price of its stock can be attributed to rights offering. In this case, alternative hypothesis that the share price changes significantly after the announcement of the rights share is accepted and the null hypothesis that the

share price does not change significantly after the announcement of the rights offering is rejected. But the differences in the share price indices of total equity capital are significant. Thus it can be accepted.

In case of calculated value of  $t$  for Premier Finance Co. Ltd. is 4.41, whereas the tabulated value at 5% level of significance is 2.306 for 8 degree of freedom. Since  $t_{cal}$  is higher than  $t_{tab}$ , it can be informed that the difference between the share prices few days before and after the announcement of rights offering is significant. But the differences in the share price indices of total equity capital are insignificant. Thus, it can be inferred that the heavy decrease in share price of its stock can be attributed to rights offering. In this case, alternative hypothesis that the share price changes significantly after the announcement of the rights share is accepted and the null hypothesis that the share price does not change significantly after the announcement of the rights offering is rejected.

In another case, the calculated value of  $t$  for NIDC Capital Markets Ltd. is 17.80, whereas the tabulated value at 5% level of significance is 2.306 for 8 degree of freedom. Since  $t_{cal}$  is greater than  $t_{tab}$ , it can be inferred that the differences between the share prices few days before and after the announcement of rights offering is significant. Same conclusion may derive for the total index because  $t_{cal}$  is greater than  $t_{tab}$  during the same period i.e.  $t_{cal} > t_{tab}$ . Thus, the alternative hypothesis that the share price changes significantly due to rights offering is accepted.

Finally, in case of Standard Finance Ltd., calculated value of  $t$  for the share price is 3.00, whereas the tabulated value at 5% level of significance with 6 degree of freedom is 2.447. Since  $t_{cal}$  is greater than  $t_{tab}$ , it can be inferred that the differences between the share prices few days before and after the announcement of rights offering is significant. This change is occurred due to rights offering is accepted.

#### **4.5 Subscription of Rights Share in Nepal**

Subscription is the major part of the public issue. There is a lot of case of under subscription in Nepalese Financial Company. Due to various cases like lack of instrument of right transfer, lack of investor's awareness, financial problem of investors, there arise problem of under subscription of share and finally this absence deprives the existing shareholders from enjoying the choice of selling the rights.

#### **4.6 Analysis of Data Obtained from Questionnaires and Personal Interview.**

This study is based on secondary data some information were collected through distribution of questionnaire to the share holders issuing company and issue managers as well.

Our capital market is in the process of modernization. If we compare the development stage of our capital market with that of highly developed or developed countries, undeniably, it is under-developed one. Even in the comparison of cross boarder country like India, our capital market is incomparably small and under-developed.

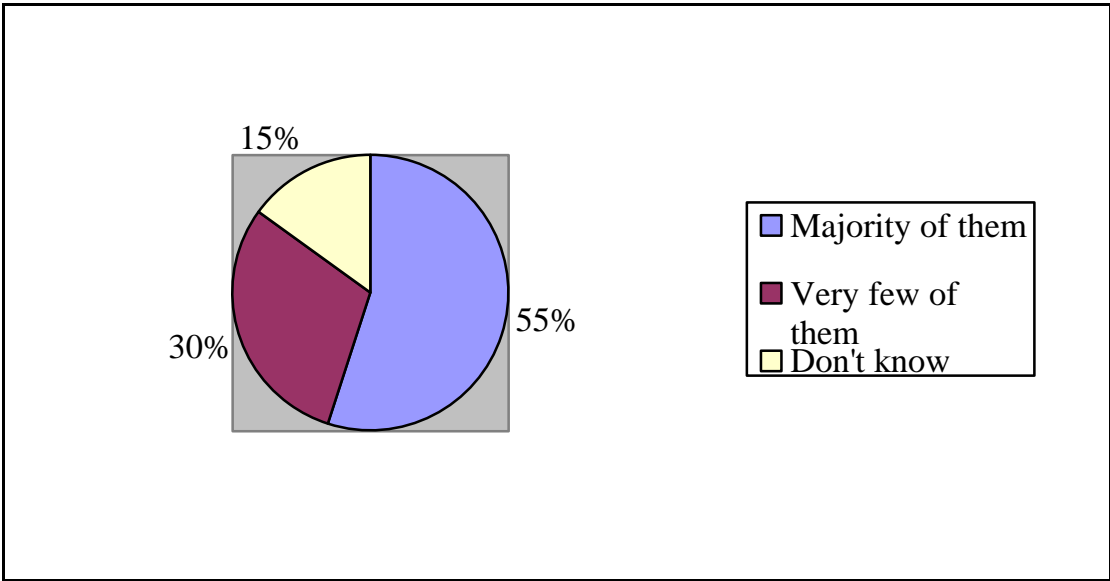
During the period of study, regarding the questionnaire and personal interviews, various information was obtained. In response to the questionnaire, most of the respondent said that they know about the rights issue practice. Almost all the issuing company and issue manager knows about the rights issue practice very clearly but majority of the shareholders knows about the rights issue practice to some extent and rest of shareholders do not knows about the rights offering.

Total number of respondent available from this study was 20. This respondent was taken from corporate executive, Share broker & financial analysts. Similarly, ten of the respondent said that they are very clear with rights offering. This represent, 50% of total respondent, six of the respondents said that they are clear about rights issue which is 30% of the total respondent, while three of them said that they know about the rights share to some extent which is 15% of the total respondent and one of them said that he doesn't know about rights issue practice which represents 5% of the total respondent.

In another question raise about the share holding, 70% of the respondents are holding the share of banking sector while 20% are holding the share of finance company, 10% insurance company and rest are others company. All most all the respondent shareholders wants to buy rights share if their company offers but some of them said that to buy or do not to buy rights depends upon the company's performance.

In another question about the awareness about the rights issue, most respondent have said that majority of them are aware about rights issue. This represents the 55% of total respondents, 30% has said that very few of shareholders know about rights issue and 15% said that they don't know about it.

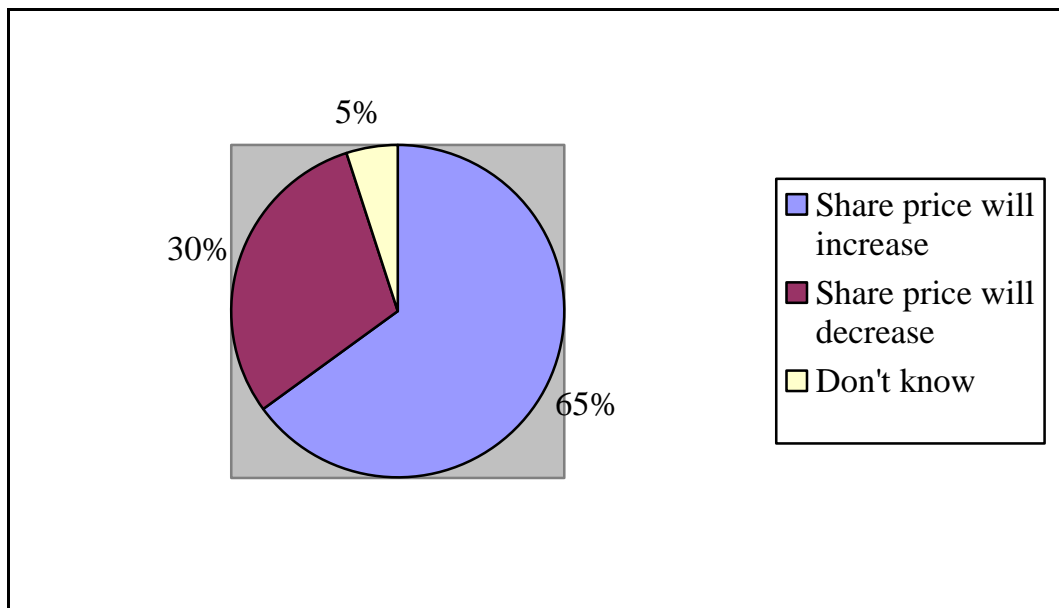
**Figure 4.5**  
**Awareness of Rights Issue**



Rights are not transferable in Nepal. Due to this shareholders have to face difficulties. In another question about the impact of rights issue on market price of share, a mix result has been obtained, 65% of the respondents said that share price will increase after the announcement of rights share while 30% said that share price will decrease after rights share announcement. 5% respondent told that they have no idea about the impact of rights share announcement on market price of share.

**Figure 4.6**

**Impact of Rights Issue on Market Price of Share**



The researcher's next question was regarding the beneficiaries of the rights offering. About 40% of the respondent ticked in the all of them option (i.e. issuing company, shareholder with rights and security broker), 35% of the respondent said that both issuing company and shareholders with rights will be beneficial and only 25% of the respondent said that shareholder with rights will be benefited.

As far as regarding the current legal provision and especially about rights offering, 90% of the respondent said that, it is inadequate and about 10% think that it is adequate. Among the respondent, who said that, current legal provision regarding rights offering is inadequate cent percent are agreed on the clause that rights share should be transferable but in addition to this 80% said that there should be the provision of premium issue of rights share and remaining 20% feels that there should be the clear procedure of rights transfer.

In the Nepalese financial market we can see there is wide differences between market price of share and subscription price which makes the value of right very high,

regarding this researchers next question was cause behind this. The 10% of respondent said that they have no idea about this while 70% of the respondent feels that it is because of lack of provision of premium in the guideline issued by security board and the unclear regulation regarding the calculation of the premium and 20% of the respondents feels that wide differences between market price of share and subscription price is because of fear of under subscription and due to lack of such a practice.

Our next question and objective is regarding the under subscription of the rights share issue. Almost all the respondents in one voice said that it is because of lack of information and awareness among the shareholders. In addition to this about 30% said that it may be because of loss of the company (i.e. poor performance), 60% said that it was because of untraceable shareholders and 10% said that it may be because of financial problems.

Our final question was regarding the allotment of unsubscribed rights share to the employees of respective companies. About 50% of the respondent said that unsubscribed rights share can be distributed to their employees because there is no clear and easy provision regarding sales of unsubscribed rights share and 50% respondent said that only the little portion of unsubscribed rights share can be distributed to the employees of the company. If major portion of the unsubscribed rights share will be distributed to the employees, it will effect in directors election.

#### **4.7 Major Finding of the Study**

Here, the effort has been made in present major findings of the study in rights share practice in Nepal and its impact on share price movement of some Commercial Banks and Finance Groups. The major findings of the study are presented in following headings; correspondence to the study objectives.

#### **4.7.1 Analyze the impact of right share issue on share price**

- There is significant difference between the share prices of Nepal Investment Bank Ltd., before and after the rights issue. The Investment Bank's stock had followed the theory of rights offering i.e. after rights issue its share price increased significantly and after the allotment of the rights share and its share was traded in ex-right price.
- Similar trend was observed in case of Siddhartha Bank Ltd. and NIC Bank Ltd.'s stock price. There were significant differences between the share prices of both banks before and after the rights issue.
- In case of Kumari Bank Ltd., its share price increased significantly. There was significant difference between the share price of Kumari Bank Ltd., before and after the rights share issue.
- There was significant difference between the share price of Premier Finance Ltd., before and after the rights issue. Its stock price followed the theory of rights offering.
- In case of NIDC Capital Markets and Standard Finance Ltd stock price move down ward immediately after the rights issue. Stock price of Standard Finance Ltd. does not differ significantly and there was no value of rights because its market price below the subscription price. While the stock price of NIDC Capital Markets Ltd. was dropped significantly after the rights announcement.
- Finally, in case of Alpice Everest Finance Ltd., share prices have been increased significantly after the announcement of rights share.

#### **4.7.2 Subscription of the Rights Share Issued**

- Under Subscription of rights share is common phenomena in Nepal.
- The major cause behind the under subscription of rights share is the lack of awareness among the investors, untraceable shareholders, poor financial performance of the issuing company, financial problem of shareholders and lack of the provision for rights transfer.
- There is no easy and clear provision regarding the sales of under subscribed rights share in Nepal

- Recent year's subscription of rights share is in increasing trend.

#### **4.7.3 Rights Share Practice in Nepal**

- Rights offering are comparatively new practice in Nepal. Therefore, some sample companies are able to raise the desired capital thought it and the practice does follow the theory.
- Another major cause is dilution in shareholders wealth position is the holder's record date. In some sample companies, offering rights holder's record date is prior to the announcement date.
- Market is going to mature and company with track record is low.
- There are 103 cases of rights offering till the date 2007/08. Most Companies are issuing rights share in order to fulfill the capital requirements as per the NRB directives.
- There is not like uniformity in the impact of rights offering of share price.
- Shareholder of Nepalese Financial Companies, there is lacks the proper knowledge about the rights share and its impact of in their wealth position. Due to this, free movement of share price during rights on and ex-rights are not confirmed

#### **4.7.4 Regarding the Impact of Rights offering in Earning per Share**

Theoretically, after the issue of rights share the earning per share of companies decreases. But if the company utilize the rights offering, so it raised fund in effective way the earning per share can be increased. Similar result has obtained in case of sample companies.

## **CHAPTER - V**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary**

Nepalese Security market is in developing stage in comparison to other countries such as China, India, United States and United Kingdom. Nepalese security markets has practiced limited investment instrument such as equity share, debenture, preference, mutual fund, rights share and initial public offering. Thus such limited number of investment instrument cannot attract the saving held by the potential investors. This is one of the causes for low market capitalization in stock market of Nepal.

This study is concentrated on the various aspects of rights offering with special references to the selected listed companies of Nepal. Although, since 15 years, Nepalese security markets is practicing the rights offering but its every essences is not seemed to be practiced here. Out of 162 listed companies in Nepal, there are only 43 cases of rights offering till the FY 2064/65 but some cases of rights offering in Nepal meets the theory.

Theoretically, after the rights share announcement, the share price move upward till the closing date. After the closing date it will be traded at ex-right price. It means the share price move downward to extent of value of rights. But while observing the share price behavior of sample companies mixed results have been obtained. Share price of Nepal Investment Bank Ltd., before rights share announcement was Rs. 790 but it increased to Rs. 813 after rights share announcement. In case of Siddhartha Bank Ltd., share price before announcement date was Rs. 360 but after rights share announcement it went down to Rs. 345. In case of NIC Bank Ltd., share price before announcement date was Rs. 352 but it increased to Rs. 375 after rights share announcement. Similar trend was observed in case of Kumari Bank Ltd., whose share price before announcement date was Rs. 326 but after rights share announcement it increased to Rs. 330.

Similarly, in case of National Finance Co. Ltd., share price before announcement was Rs. 336 but it increased to Rs. 345 after rights share announcement. In case of NIDC Capital Markets Ltd., share price before announcement date was Rs. 410 but after rights share announcement it went down to Rs. 220, while in case of Alpico Everest Finance Ltd., share price was Rs. 142 before announcement date and it increased to Rs. 155 after the rights share announcement. At last, share price of Peoples Finance Ltd., was Rs. 95 but it was not changed after the rights share announcement.

The major objective of this study were to analyze the impact of right share issue on share price and to identify the problem regarding under subscription, to examine rights issue practice in Nepalese financial market and to examine the impact of rights offering in earning per share.

Rights issue is comparatively new practice in Nepalese financial markets. Therefore, researcher not found more studies have been undertaken in Nepal but there are several cases of studies taken outside the country. But researcher has made full effort to collect the related studies for review in second chapter. This study is basically based in secondary data but some primary data has been used as well. Secondary data was taken from SEBO/N, Newspaper and Annual Report of respective companies and primary data are collected through the personal interview and distribution of questionnaire to the concerned personal. To conduct this study, statistical tools as well as financial tools have been used.

Now, the effort has been made in this chapter to present

## **5.2 Conclusion**

Conclusively, rights share practice is comparatively new phenomena in Nepalese Financial Market. There are no easy things to work out to make the rights offering as effective instruments of raising capital.

Here, researcher has founded from the sample companies there are more cases of rights offering which has met theory i.e. the share price has increased significantly after the announcement of right share and then traded on ex-right price after the allotment of rights shares otherwise in few cases share price has decreased significantly after the rights share announcement and it was traded even below subscription price after the announcement date in case of Peoples Finance Ltd.. This all may be because of poor performance of the issuing company, keeping the holders record date prior to the announcement date by the company etc. Theoretically, the share price has been changed significantly after the rights offering but it was increased in more companies and decreased in others.

In most cases of rights offering there exists some sort of under subscription of rights share. It may be lack of information to the shareholders even cannot get about the rights share announcement made by their companies others who are informed are not all aware of what the rights share means and what can be impact on their wealth position. There is no easy and clear provisions to sales of under subscribed rights share. In practice many companies are distributing the right to their employees because of large number of shareholders are holding the few share and they ignore about the rights share and the cost of existing shareholders are getting by the company's employees. So, under subscription of rights is also case of no provision of transferable. Testing the hypothesis, researcher has obtained mixed result .Some companies rights share affects the share price movement and general market movement in more case positively correlated and some cases negatively correlated. Different result has obtained for share price movement during five periods. There is take long formalities by issue manager. The regulation regarding the calculation of premium is not clear and certain regulation require company to issue rights share in par value that result in wide difference between market price per share and subscription price.

Finally, rights offering are increasing trend in Nepalese Security Market. Basically, Banking and Finance Sector's are more practicing. Rights offering have both positive and negative impact to change on share price. The market price of share is also influenced by general market movement to greater extent in Nepal.

### **5.3 Recommendations**

The Financial Markets has come a long way it is still in primary stage and is not without flaws. The fallacies are founded on the part of regulating bodies, legal framework, investors and the associated companies. On the basis of findings for the analysis and the issues and gaps mentioned above, the researcher has provided some practicable recommendations in the following points:

- Shareholders are not clear about the rights offering its benefit and impact on their wealth position. So, government should inspire them by good governance and provisions regarding rights share.
- To attract the investments, the issue prospectus should provide a clear picture of both the systematic and unsystematic risk of the business that will be made fear trade between risk and return.
- The critical factor affects the share price and Subscription on the holder's record date. The investors who purchase the share after that day are unable to get share. This can be better to set the proper holder record date by issuing companies.
- Nepalese investors are not all aware about rights offering. Therefore, to increase awareness for investors some technique like interaction, use of information technology through media etc should be managed by related companies and government.
- There should be need of Investment protection Act that helps to investors confidence and secured.
- Company Act 2053 is silent about the procedure and mechanism of rights issue. So, it should make rights share transferable that helps to solve the problem of under subscription.

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**ANNEX-1**  
**QUESTIONNAIRE**

I am M.B.S. Degree student. As a partial fulfillment of M.B.S. Degree, I need to write a thesis. The research topic is related Rights Share Practice in Nepal and its Impact on share price. I humbly request you to fill it up of the best of your knowledge.

Your kind cooperation in this regard will be of more value for me.

I shall be highly obliged for prompt responses as far as possible.

Thanking you,

**Narendra Prasad Chaudhary**

Nepal Commerce Campus

Please answer the following question with tick mark in appropriate space and as required by the questions.

Questions:

37 Sir, are you familiar with rights issue practice?

Yes  No

2. If Yes, to what Extent?

Very Clear  Clear  To some extent

3. Have you hold share of any listed companies?

If yes, write name of the Company

.....  
.....4. Will

you be interested to buy rights share if your company offer?

Yes  No

5. Rights are not transferable in Nepalese Financial Markets; in your opinion do investors have to face any difficulties because of this?

Yes  No  don't know

6. Do you think that investors of your organization are all aware of the phenomenon of rights offering?

All of them  None of them  Don't Know

Majority of them  Very few of them

7. In your opinion, who are the beneficiaries of the rights offering?

- Shareholders with rights
- Issuing Company
- Security Brokers
- All of them
- Don't Know

8. In your opinion, what do you think about the current legal provision regarding the rights offering to the existing shareholders?

- Adequate
- Inadequate
- Don't Know

9. If inadequate, what amendments in the company act and in others are needed?

.....

.....

.....

.....

10. What kinds of problems do the issue managers and the issuing company face in the process of rights offering?

.....

.....

.....

.....

**ANNEX-2**

**Right Share Issue in Nepal**

SN.	Name of Issuing Companies	Fiscal Year	Issued Date	Amount raised through rights offering (Rs. In million)	Subscription price (Rs.)	Issue Manager	Subscription Ratio
1.	Nepal Finance & Saving Co. Ltd.	1995/96	01/12/1995	2.00	0	0	4:1
2.	Seti Cigarette Factory Ltd.	1995/96	11/07/1996	67.00	77.90	0	N/A
3.	Himalayan General Insurance Co. Ltd.	1996/97	0	30.00	0	AFC	N/A
4.	Bottlers Nepal Ltd.	1996/97	14/04/1997	225.20	0	CIT	4:5
5.	Nepal Share Market & Finance Ltd.	1996/97	06/07/1997	20.00	100.00	AFC	1:2
6.	Nepal United Co. Ltd.	1997/98	18/02/1998	3.01	44.41	NFCL	1:1
7.	Nepal Bank Ltd.	"	25/12/1997	241.95	0	CIT	1:1.5
8.	Annapurna Finance Co. Ltd.	"	03/03/1998	5.00	81.72	NFCL	N/A
9.	Nepal Share Market Ltd.	1998/99	09/06/1999	30.00	0	AFC	1:1
10.	Necon Air Ltd.	1999/2000	03/03/2000	89.60	95.31	CIT	1:1
11.	Paschimanchal Fin. Co. Ltd.	"	14/03/2000	20.00	129.65	NSML	1:1
12.	Ace Finance Co. Ltd.	"	11/04/2000	15.00	100.00	NSML	2:1
13.	Narayani Finance Ltd.	2000/2001	28/03/2001	12.58	122.02	CIT	1:1
14.	Everest Bank Ltd.	"	11/07/2001	119.21	27.17	NSML	1:1
15.	Bank of Kathmandu Ltd.	2001/2002	31/08/2001	234.00	98.30	NSML	
16.	Nepal Housing & Merchant Finance Ltd.	"	07/01/2002	15.00	100.00	NSML	
17.	Ace Finance Ltd.	"	25/02/2002	45.00	100.00	NSML	
18.	Nepal SBI Bank Ltd.	"	25/03/2002	287.87	97.26	NMB	
19.	NIDC Capital Markets Ltd.	"	08/04/2002	40.00	95.00	CIT	
20.	Nepal Investment Bank Ltd.	2002/2003	27/09/2002	57.24	97.42	NCML	
21.	Nepal Share Markets & Finance Ltd.	"	29/01/2003	60.00	85.37	CIT	
22.	Mahalaxmi finance Ltd.	"	28/02/2003	25.00	0	NFCL	
23.	Peoples finance Ltd.	"	03/06/2003	20.00	56.69	NCML	
24.	Alpic Everest Finance Ltd.	2003/2004	04/09/2003	20.00	100.51	NEFINSCO	
25.	Siddhartha Finance Ltd.	"	09/12/2003	20.00	88.84	NEFINSCO	
26..	NB Finance & Leasing Co. Ltd.	"	15/06/2004	30.00	66.84	NSMB	
27.	Nepal Bangladesh Bank Ltd.	2004/2005	16/07/2004	359.92	95.26	NSMB	
28.	Annapurna Finance Co. Ltd.	"	05/11/2004	20.00	97.33	NCML	
29.	Nirdhan Utthan Bank Ltd.	"	25/04/2005	15.00	65.92	NMB	
30.	Nepal SBI Bank Ltd.	"	03/05/2005	215.93	96.50	NMB	
31.	Nepal Investment Bank Ltd.	"	13/05/2005	295.29	99.04	AFC	
32.	National Finance Co. Ltd.	"	15/06/2005	43.20	97.06	NCML	
33.	Development Credit Bank Ltd.	2005/2006	24/08/2005	80.00	95.87	NMB	2:1
34.	Kumari Bank Ltd.	"	21/12/2005	125.00	153.46	NCML	4:1
35.	Fewa Finance Co. Ltd.	"	18/01/2006	30.00	97.40	NMB	1:1.5
36.	Om Finance Co. Ltd.	"	18/01/2006	30.00	99.66	NMB	1:1.5
37.	Goodwill Finance Ltd.	"	03/03/2006	25.00	94.96	NCML	1:1
38.	Janaki Finance Co.Ltd.	"	15/03/2006	10.00	98.33	NEFINSCO	2:1
39.	Central Finance Ltd.	"	26/03/2006	12.00	98.32	NCML	2:1
40.	Taragaun Regency Hotels Ltd.	"	26/03/2006	446.45	57.45	NCML	5:3
41.	Machhapuchere Bank Ltd.	"	25/05/2006	165.00	87.13	NMB	10:3
42.	Kist Merchant Banking & Finance	"	30/05/2006	50.00	78.01	NMB	1:1

	Ltd.						
43.	Nepal Share Markets & Finance Ltd.	“	04/06/2006	40.00	90.94	CIT	3:1
44.	Pokhara Finance Ltd,	2006/2007	20/07/2006	20.00	99	NMB	
45.	Lumbini Bank Ltd.	“	13/08/2006	100.00	100	NCML	
46.	Paschimanchal Bikash Bank Ltd.	“	20/08/2006	28.00	76	NCML	
47.	Alpic Everest Finance Ltd.	“	07/09/2006	20.00	96	NMB	
48.	Peoples Finance Ltd.	“	28/09/2006	40.00	56	NCML	
49.	Chhimek Bikash Bank	“	27/10/2006	20.00	81	NMB	
50.	Nepal Development Bank Ltd.	“	25/12/2006	160.00	54	NCML	
51.	Ace Finance Company Ltd.	“	31/01/2006	194.00	99	NCML	
52.	Navadurga Finsnce Co. Ltd.	“	02/02/2007	11.00	99	NEFINCO	
53.	Annapurna Finance Co. Ltd.	“	09/02/2007	80.00	99	NCML	
54.	Laxmi Bank Ltd.	“	25/04/2007	122.00	98	NMB	
55.	Capital Merchant Banking & Finance Ltd.	“	27/04/2007	84.00	80	CIT	
56.	Yeti Finance Ltd.	“	29/04/2007	6.30	83	NCML	
57.	Business Development Bank Ltd.	“	11/05/2007	30.00	100	AFC	
58.	Kist Merchant Banking & finance Ltd.	“	23/05/2007	100.00	100	NCML	
59.	Siddhartha Bank Ltd.	“	04/06/2007	100.00	99	AFC	
60.	Lumbini Bank Ltd.	“	19/06/2007	150.00		AFC	
61.	Nepal Investment Bank Ltd	2007\2008	29\01\2008	201.30	99	ACE	
62.	Siddhartha Bank Ltd.	“	25\02\2008	138.00	99	NMB	
63.	NIC Bank Ltd.	“	14\03\2008	158.40	96	NCML	
64.	Lumbini Bank Ltd.	“	31\03\2008	250	85	ACE	
65.	Kumari Bank Ltd.	“	24\04\2008	180	99	NCML	
66.	Laxmi Bank Ltd.	“	02\05\2008	183	99	NMB	
67.	Nepal Credit & Commerce Bank Ltd	“	07\08\2007			NCML	
68.	Pachimanchal Bikas Bank Ltd	“	02\12\2007	700	89	ACE	
69.	Bhrikuti Bikash Bank Ltd.	“	10\12\2007	30	97	NCML	
70.	Development Credit Bank Ltd.	“	03\01\2008	807.40	99	NMB	
71.	Siddhrtha Bikash Bank Ltd.	“	10\02\2008	50		ACE	
72.	Sanima Bikash Bank Ltd.	“	07\05\2008	64	99	NCML	
73.	ACE Development Bank Ltd.	“	25\05\2008	96		NCML	
74.	Gorkha Bikash Bank Ltd.	“	26\5\2008	160	1.30	CIT	
75.	Business Development Bank Ltd.	“	29\05\2008	150	67	ACE	
76.	Himchuli Bikash Bank Ltd.	“	30\05\2008	60	99	NCML	
77.	Annapurna Bikas Bank Ltd.	“	10\06\2008	150		NEFINCO	
78.	Sahayogi Bikas Bank Ltd.	“	17\06\2008	10.00	99	NCML	
79.	Capital Merchant Banking & Fin.Ltd.	“	09\12\2007	161.00	77	ACE	
80.	Premier Finance CO.Ltd.	“	27\01\2008	14.40	98	NCML	
81.	Nirdhan Uthan Bank Ltd.	“	16\11\2007	39.5		NCML	
82.	Central Finance Ltd.	“	11\09\2007	24.00		NCML	
83.	Nepal Merchant Banking & Finance Ltd.	“	08\01\2008	800	95	NFC	
84.	Nepal Share Market & Finance Ltd	“	19\11\2007	240	99	CIT	
85.	IME Financial Institutions Ltd.	“	26\11\2007	50	99	NMB	
86.	Prudential Bittiya Sanstha Ltd.	“	14\03\2008	50	86	ACE	
87.	Paschimanchal Finance Co. Ltd.	“	19\05\2008	27.8	97	NFC	
88.	Kist Bank Ltd.	“	16\05\2008	600	85	ACE	
89.	Goodwill Finance Ltd.	“	25\05\2008	50	99	ACE	
90.	United Finance Ltd.	“	30\05\2008	75	98	NCML	

91	Nepal Express Finance Ltd.	“	02\06\2008	30	99	NCML	
92	Royal Merchant Banking & Finance Ltd.	“	01\06\2008	60.6	99	ACE	
93	ICFC Bittiya Sanstha Ltd.	“	10\06\2008	224.8	85	NMB	
94	International Leasing & Finance Ltd.	“	09\06\2008	504	92	NCML	
95	Nepal Housing & Merchant Finance Ltd.	“	25\06\2008	40.8	83	ACE	
96	Shree Investment Finance Ltd.	“	23\06\2008	16.8	99	NMB	
97	Standard Finance Ltd.	“	23\06\2008	72.6	101	NCML	
98	Gorkha Finance Ltd.	“	13\07\2008	30	106	CIT	
99	Guheshwori Merchant Banking Finance Ltd.	“	15\07\2008	37	-	NCML	
100	Nepal Awas Bikas Bitta Co. Ltd.	“	15\07\2008	70.5	96	NFC	
101	Sagarmatha Insurance Co. Ltd.	“	20\02\2008	23.6	96	ACE	
102	Premiere Insurance Co. Ltd.	“	26\06\2008	39	86	ACE	
103	Himalayan General Insurance Ltd.	“	07\07\2008	37.8	-	ACE	

Source: Annual Report of SEBO/N, FY 2007/08

### ANNEX-3

Information of Rights Offering of the Respective Companies.

#### 1. Nepal Investment Bank Ltd.

Announcement date of rights offering	2064-01-23
Issued date	2064-01-30
Closed date	2064-03-02
Subscription Price	Rs. 100 per share
Subscription Ratio	1:1

Number of Share issued

2952900

Issue Manager

Ace Finance Co. Ltd.

Table no. A3.1

Information about share price and Index

share price before announcement date		share price after announcement date		share price after 6 months of announcement date	
Date	Share Price (Index)	Date	Share Price (Index)	Date	Share Price (Index)
2064-01-11	1332(294.03)	2064-02-08	813(279.73)	2064-07-28	829(305.01)
2064-01-12	1350(294.98)	2064-02-10	800(276.85)	2064-08-01	828(300.58)
2064-01-13	1390(294.44)	2064-02-11	791(275.46)	2064-08-02	828(300.64)
2064-01-14	1370(294.29)	2064-02-12	785(276.35)	2064-08-05	800(300.57)
2064-01-19	1430(296.11)	2064-02-15	801(278.43)	2064-08-06	801(302.02)

Sources: Official quotation of share prices published in the National Daily Newspaper.

(Note: Figures under parentheses represent total price index of equity shares)

2. Siddhartha Bank Ltd.

Announcement date of rights offering

2064-02-03

Issued date

2064-02-11

Closed date

2064-03-14

Subscription Price

Rs. 100 per share

Subscription Ratio

10:3

Number of Share issued

1650000

Issue Manager

Nepal Merchant Banking & Finance Ltd.

Table no. A3.2

Information about share price and Index

share price before announcement date		share price after announcement date		share price after 6 months of announcement date	
Date	Share Price (Index)	Date	Share Price (Index)	Date	Share Price (Index)
2064-01-27	415(381.70)	2064-02-18	345 (371.97)	2064-08-07	436 (453.03)
2064-02-01	360(388.49)	2064-02-21	345 (372.06)	2064-08-10	452 (463.74)
2064-02-02	365(387.86)	2064-02-22	340 (371.47)	2064-08-11	475 (469.51)
2064-02-03	345(384.58)	2064-02-23	341 (370.47)	2064-08-12	485 (478.01)
2064-02-04	348(384.11)	2064-02-24	335 (369.62)	2064-08-13	533 (492.46)

Sources: Official quotation of share prices published in the National Daily Newspaper.

(Note: Figures under parentheses represent total price index of equity shares)

### 3. NIC Bank Ltd.

Announcement date of rights offering	2064-01-09
Issued date	2064-01-20
Closed date	2064-03-17
Subscription Price	Rs. 100 per share
Subscription Ratio	1:1
Number of Share issued	2159300
Issue Manager	Nepal Merchant Banking & Finance Ltd.

Table no. 3.3

Information about share price and Index

share price before announcement date	share price after announcement date	share price after 6 months of announcement date
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Date	Share Price (Index)	Date	Share Price (Index)	Date	Share Price (Index)
2064-12-25	459 (289.56)	2064-01-27	375 (288.34)	2064-07-20	375 (307.42)
2064-12-29	464 (290.65)	2064-01-29	373 (285.42)	2064-07-21	385 (303.94)
2064-12-31	475 (293.26)	2064-02-01	371 (285.52)	2064-07-22	385 (306.15)
2064-01-05	470 (293.71)	2064-02-02	372 (284.52)	2064-07-24	390 (307.98)
2064-01-07	370 (292.59)	2064-02-03	370 (283.12)	2064-07-27	380 (306.15)

Sources: Official quotation of share prices published in the National Daily Newspaper.  
(Note: Figures under parentheses represent total price index of equity shares)

#### 4. Kumari Bank Ltd.

Announcement date of rights offering	2064-09-16
Issued date	2064-09-26
Closed date	2064-11-01
Subscription Price	Rs. 100 per share
Subscription Ratio	4:1
Number of Share issued	1250000
Issue Manager	NIDC Capital Markets Ltd.

Table no. A3.4  
Information about share price and Index

share price before announcement date		share price after announcement date		share price after 6 months of announcement date	
Date	Share Price (Index)	Date	Share Price (Index)	Date	Share Price (Index)
2064-08-16	378 (301.76)	2064-09-18	330 (304.16)	2064-03-08	439 (378.87)

2064-08-19	380 (301.65)	2064-09-19	330 (305.42)	2064-03-12	435 (377.55)
2064-08-20	378 (301.97)	2064-09-20	333 (305.85)	2064-03-13	435 (375.47)
2064-08-21	300 (298.00)	2064-09-21	335 (305.62)	2064-03-14	429 (374.74)
2064-08-23	315 (299.10)	2064-09-26	337 (305.55)	2064-03-15	424 (375.14)

Sources: Official quotation of share prices published in the National Daily Newspaper.

(Note: Figures under parentheses represent total price index of equity shares)

#### 5. Premier Finance Co. Ltd.

Announcement date of rights offering	2064-01-02
Issued date	2064-03-01
Closed date	2064-05-03
Subscription Price	Rs. 100 per share
Subscription Ratio	1:1
Number of Share issued	432000
Issue Manager	NIDC Capital Markets Ltd.

Table no. A3.5

#### Information about share price and Index

share price before announcement date		share price after announcement date		share price after 6 months of announcement date	
Date	Share Price (Index)	Date	Share Price (Index)	Date	Share Price (Index)
2064-02-23	342 (281.40)	2064-03-01	330 (277.83)	2064-08-30	365 (303.12)
2064-02-26	342 (280.08)	2064-03-08	316 (281.15)	2064-09-03	265 (304.97)

2064-02-29	325 (277.79)	2064-03-13	312 (280.39)	2064-09-11	260 (299.93)
2064-02-30	338 (278.75)	2064-03-15	309 (281.54)	2064-09-12	260 (301.09)
2064-02-31	341 (279.72)	2064-03-21	309 (282.51)	2064-09-13	260 (301.60)

Sources: Official quotation of share prices published in the National Daily Newspaper.

(Note: Figures under parentheses represent total price index of equity shares)

#### 6. NIDC Capital Markets Ltd.

Announcement date of rights offering	2063-12-19
Issued date	2063-12-26
Closed date	2063-01-30
Subscription Price	Rs. 100 per share
Subscription Ratio	1:2
Number of Share issued	400000
Issue Manager	Citizen Investment Trust

Table no. A3.6  
Information about share price and Index

share price before announcement date		share price after announcement date		share price after 6 months of announcement date	
Date	Share Price (Index)	Date	Share Price (Index)	Date	Share Price (Index)
2063-12-02	380 (187.88)	2064-01-05	220 (216.39)	2064-05-27	180 (223.87)
2063-12-03	380 (186.22)	2064-01-06	220 (216.94)	2064-05-28	180 (223.79)
2063-12-06	370 (180.34)	2064-01-07	205 (217.14)	2064-06-16	175 (217.13)
2063-12-07	370 (192.71)	2064-01-08	190 (215.10)		

2063-12-09	410 (204.28)				
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Sources: Official quotation of share prices published in the National Daily Newspaper.

(Note: Figures under parentheses represent total price index of equity shares)

#### 7. Standard Finance Ltd.

Announcement date of rights offering	2064-02-13
Issued date	2064-02-20
Closed date	2064-04-16
Subscription Price	Rs. 100 per share
Subscription Ratio	1:1
Number of Share issued	200000
Issue Manager	NIDC Capital Markets Ltd.

Table no. A3.7

#### Information about share price and Index

share price before announcement date		share price after announcement date		share price after 6 months of announcement date	
Date	Share Price (Index)	Date	Share Price (Index)	Date	Share Price (Index)
2064-01-05	100 (211.37)	2064-02-24	95 (208.95)	2064-08-03	90 (206.33)
2064-01-10	100 (209.43)	2064-02-27	95 (208.99)	2064-08-09	90 (205.83)
2064-01-13	100 (209.69)			2064-08-12	95 (206.76)
2064-01-20	95 (208.48)				
2064-02-06	95 (208.31)				

Sources: Official quotation of share prices published in the National Daily Newspaper.

(Note: Figures under parentheses represent total price index of equity shares)

8. Alpic Everest Finance Ltd.

Announcement date of rights offering	2063-05-11
Issued date	2063-05-18
Closed date	2063-06-21
Subscription Price	Rs. 100 per share
Subscriptions Ratio	1:1
Number of Share issued	200000
Issue Manager	National Finance and Saving Co. Ltd

Table no. A1.8

Information about share price and Index

share price before announcement date		share price after announcement date		share price after 6 months of announcement date	
Date	Share Price (Index)	Date	Share Price (Index)	Date	Share Price (Index)
2063-05-05	145 (210.420)	2063-05-16	150 (202.41)	2063-11-11	146 (210.45)
		2063-05-17	150 (202.41)	2063-11-15	146 (208.87)
		2063-05-18	155 (202.45)	2063-11-18	153 (208.68)
				2063-11-19	152 (208.75)

Sources: Official quotation of share prices published in the National Daily Newspaper.

(Note: Figures under parentheses represent total price index of equity shares)

**ANNEX-4**

Test of Hypothesis by using t-statistic for the Test of Significance of the difference between Share Prices before and after the Announcement of Rights Offering.

Variables defined:

$H_0$ : Null Hypothesis that there is a not significant difference between the share price before and after the announcement of rights offering.

$H_1$ : Alternative Hypothesis that there is a significant difference between the share price before and after the announcement of rights offering.

X: Share price before announcement date.

$\bar{X}$ : Mean of share price after announcement date.

Y: Share price after announcement date.

$\bar{Y}$ : Mean of share price after announcement date.

t-cal: Calculated value of t.

t-tab: Tabulated value of t at a given significant level for a certain degree of freedom.

D.F.: Degree of freedom.

$s^2$ : An unbiased estimate of population variance.

$s$ : S.D. of Share price before and after announcement date.

Table no. A4.1

Nepal Investment Bank Ltd.

X	(X- $\bar{X}$ )	(X- $\bar{X}$ ) <sup>2</sup>	Y	(Y- $\bar{Y}$ )	(Y- $\bar{Y}$ ) <sup>2</sup>
1332	-42.40	197.76	813	15	225
1350	-24.40	595.36	800	2	4
1390	15.60	243.36	791	-7	49
1370	-4.40	19.36	785	-13	169
1430	55.60	3,091.36	801	3	9
X = 6872 $\bar{X}$ = 1374.40 $s_x$ = 33.90		(X- $\bar{X}$ ) <sup>2</sup> = 5747.20	Y = 3990 $\bar{Y}$ = 798 $s_y$ = 9.55		(Y- $\bar{Y}$ ) <sup>2</sup> = 456

$$s_x = \sqrt{\frac{(X - \bar{X})^2}{N}} = \sqrt{\frac{5,747.20}{5}} = 33.90$$

$$s_y = \sqrt{\frac{(Y - \bar{Y})^2}{N}} = \sqrt{\frac{456}{5}} = 9.55$$

$$S^2 = \frac{1}{n_1 + n_2 - 2} [(X - \bar{X})^2 + (Y - \bar{Y})^2] = \frac{1}{5 + 5 - 2} [5747.20 + 456] = 775.40$$

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}} = \frac{1374.40 - 798}{\sqrt{775.40 \left( \frac{1}{5} + \frac{1}{5} \right)}} = 32.73$$

$$t_{cal} = 32.73$$

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

Decision:

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

Table no. A4.2

Siddhartha Bank Ltd.

X	(X- $\bar{X}$ )	(X- $\bar{X}$ ) <sup>2</sup>	Y	(Y- $\bar{Y}$ )	(Y- $\bar{Y}$ ) <sup>2</sup>
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415	48.40	2,342.56	345	3.80	14.44
360	-6.60	43.56	345	3.80	14.44
365	-1.60	2.56	340	-1.20	1.44
345	-21.60	466.56	341	-0.20	0.04
348	-18.60	345.96	335	-6.20	38.44
X = 1833 $\bar{X} = 366.60$ $s_x = 25.30$		$(X - \bar{X})^2$ = 3201.20	Y = 1706 $\bar{Y} = 341.20$ $s_y = 3.71$		$(Y - \bar{Y})^2$ = 68.80

$$s_x = \sqrt{\frac{(X - \bar{X})^2}{N}} = \sqrt{\frac{3,201.20}{5}} = 25.30$$

$$s_y = \sqrt{\frac{(Y - \bar{Y})^2}{N}} = \sqrt{\frac{68.80}{5}} = 3.71$$

$$S^2 = \frac{1}{n_1 + n_2 - 2} [(X - \bar{X})^2 + (Y - \bar{Y})^2] = \frac{1}{5 + 5 - 2} [3,201.20 + 68.80] = 408.75$$

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left[ \frac{1}{N_1} + \frac{1}{N_2} \right]}} = \frac{366.60 - 341.20}{\sqrt{408.75 \left[ \frac{1}{5} + \frac{1}{5} \right]}} = 1.99$$

$$t_{cal} = 1.99$$

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

Decision:

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

Table no. A4.3

NIC Bank Ltd.

X	$(X - \bar{X})$	$(X - \bar{X})^2$	Y	$(Y - \bar{Y})$	$(Y - \bar{Y})^2$
459	11.40	129.96	375	2.80	7.84
464	16.40	268.96	373	0.80	0.64

475	27.40	750.76	371	-1.20	1.44
470	22.40	501.76	372	-0.20	0.04
370	-77.50	6,006.25	370	-2.20	4.84
X = 2,238 $\bar{X} = 447.60$ $s_x = 39.13$		$(X - \bar{X})^2$ =7,657.69	Y = 1,861 $\bar{Y} = 372.20$ $s_y = 1.72$		$(Y - \bar{Y})^2$ = 14.80

$$s_x = \sqrt{\frac{(X - \bar{X})^2}{N}} = \sqrt{\frac{7,657.69}{5}} = 39.13$$

$$s_y = \sqrt{\frac{(Y - \bar{Y})^2}{N}} = \sqrt{\frac{14.80}{5}} = 1.72$$

$$S^2 = \frac{1}{n_1 + n_2 - 2} [(X - \bar{X})^2 + (Y - \bar{Y})^2] = \frac{1}{5 + 5 - 2} [7,657.69 + 14.80] = 959.06$$

$$t_{cal} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}} = \frac{447.60 - 372.20}{\sqrt{959.06 \left( \frac{1}{5} + \frac{1}{5} \right)}} = 3.85$$

$$t_{cal} = 3.85$$

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

Decision:

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

Table no. A4.4

Kumari Bank Ltd.

X	$(X - \bar{X})$	$(X - \bar{X})^2$	Y	$(Y - \bar{Y})$	$(Y - \bar{Y})^2$
378	27.80	772.84	330	-3	9
380	29.80	888.04	330	-3	9
378	27.80	772.84	333	0	0

300	-50.20	2,520.04	335	2	4
315	-35.20	1,239.04	337	4	16
X = 1,751 $\bar{X} = 350.20$ $s_x = 35.19$		$(X - \bar{X})^2$ = 6,192.80	Y = 1,665 $\bar{Y} = 333$ $s_y = 2.76$		$(Y - \bar{Y})^2$ = 38

$$s_x = \sqrt{\frac{(X - \bar{X})^2}{N}} = \sqrt{\frac{6,192.80}{5}} = 35.19$$

$$s_y = \sqrt{\frac{(Y - \bar{Y})^2}{N}} = \sqrt{\frac{38}{5}} = 2.76$$

$$S^2 = \frac{1}{n_1 + n_2 - 2} [(X - \bar{X})^2 + (Y - \bar{Y})^2] = \frac{1}{5 + 5 - 2} [6,192.80 + 38] = 778.85$$

$$t_{\text{cal}} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}} = \frac{350.20 - 333}{\sqrt{778.85 \left( \frac{1}{5} + \frac{1}{5} \right)}} = 0.97$$

$$t_{\text{cal}} = 0.97$$

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

Decision:

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

Table no. A4.5

Premier Finance Co. Ltd.

X	$(X - \bar{X})$	$(X - \bar{X})^2$	Y	$(Y - \bar{Y})$	$(Y - \bar{Y})^2$
342	4.40	19.36	330	14.80	219.04
342	4.40	19.36	316	0.80	0.64
341	3.40	11.56	312	-3.20	10.24
338	0.40	0.16	309	-6.20	38.44
325	-12.60	158.76	309	-6.20	38.44

$X = 1,688$		$(X - \bar{X})^2$	$Y = 1,576$		$(Y - \bar{Y})^2$
$\bar{X} = 337.60$		$= 209.20$	$\bar{Y} = 315.20$		$= 306.80$
$x = 6.47$			$y = 7.83$		

$$x = \sqrt{\frac{(X - \bar{X})^2}{N}} = \sqrt{\frac{209.20}{5}} = 6.47$$

$$y = \sqrt{\frac{(Y - \bar{Y})^2}{N}} = \sqrt{\frac{306.80}{5}} = 7.83$$

$$S^2 = \frac{1}{n_1 + n_2} [(X - \bar{X})^2 + (Y - \bar{Y})^2] = \frac{1}{5 + 5} [209.20 + 306.80] = 64.50$$

$$t_{\text{cal}} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}} = \frac{337.60 - 315.20}{\sqrt{64.50 \left( \frac{1}{5} + \frac{1}{5} \right)}} = 4.41$$

$$t_{\text{cal}} = 4.41$$

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

Decision:

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

Table no. A4.6

NIDC Capital Markets Ltd.

X	$(X - \bar{X})$	$(X - \bar{X})^2$	Y	$(Y - \bar{Y})$	$(Y - \bar{Y})^2$
380	-2	4	220	15	225
380	-2	4	220	15	225
370	-12	144	205	0	0
370	-12	144	190	-15	225
410	28	784	190	-15	225
$X =$		$(X - \bar{X})^2$	$Y = 1,025$		$(Y - \bar{Y})^2$

1,910		=1,080	$\bar{Y} = 205$		= 900
$\bar{X} = 382$			$y = 13.42$		
$x = 14.47$					

$$x = \sqrt{\frac{(X \sum \bar{X})^2}{N}} = \sqrt{\frac{1,910}{5}} = 382$$

$$y = \sqrt{\frac{(Y \sum \bar{Y})^2}{N}} = \sqrt{\frac{1,025}{5}} = 205$$

$$S^2 = \frac{1}{n_1 \Gamma n_2 \sum Z^2} [(X \sum \bar{X})^2 \Gamma (Y \sum \bar{Y})^2] = \frac{1}{5 \Gamma 5 \sum Z^2} [1,080 \Gamma 900] = 247.50$$

$$t_{\text{cal}} = \frac{\bar{X} \sum \bar{Y}}{\sqrt{S^2 \frac{1}{N_1} \Gamma \frac{1}{N_2}}} = \frac{382 \sum 205}{\sqrt{247.50 \frac{1}{5} \Gamma \frac{1}{5}}} = 17.80$$

$$t_{\text{cal}} = 17.80$$

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

Decision:

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

Table no. A4.7

Standard Finance Co. Ltd.

X	(X- $\bar{X}$ )	(X- $\bar{X}$ ) <sup>2</sup>	Y	(Y- $\bar{Y}$ )	(Y- $\bar{Y}$ ) <sup>2</sup>
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
X = 395		(X- $\bar{X}$ ) <sup>2</sup>	Y = 380		(Y- $\bar{Y}$ ) <sup>2</sup>
$\bar{X} = 98.75$		= 18.74	$\bar{Y} = 95$		= 0
$x = 2.17$			$y = 0$		

$$x = \sqrt{\frac{(X Z \bar{X})^2}{N}} = \sqrt{\frac{395}{4}} = 98.75$$

$$y = \sqrt{\frac{(Y Z \bar{Y})^2}{N}} = \sqrt{\frac{0}{4}} = 0$$

$$S^2 = \frac{1}{n_1 \Gamma n_2 Z^2} (X Z \bar{X})^2 \Gamma (Y Z \bar{Y})^2 = \frac{1}{4 \Gamma 4 Z^2} (98.75 \Gamma 0)^2 = 3.12$$

$$t_{\text{cal}} = \frac{\bar{X} Z \bar{Y}}{\sqrt{S^2 \frac{1}{N_1} \Gamma \frac{1}{N_2}}} = \frac{98.75 Z 0}{\sqrt{3.12 \frac{1}{4} \Gamma \frac{1}{4}}} = 3.00$$

$$t_{\text{cal}} = 3.00$$

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

Decision:

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

## ANNEX-5

Table no. A5.1

Nepal Investment Bank Ltd.

X	(X - $\bar{X}$ )	(X - $\bar{X}$ ) <sup>2</sup>	Y	(Y - $\bar{Y}$ )	(Y - $\bar{Y}$ ) <sup>2</sup>
294.03	-0.74	0.55	279.73	2.37	5.62
294.98	0.21	0.04	276.85	-0.51	0.26
294.44	-0.33	0.11	275.46	-1.90	3.61
294.29	-0.48	0.23	276.35	-1.01	1.02
296.11	1.34	1.80	278.43	1.07	1.14
X = 1473.85 $\bar{X}$ = 294.77 $s_x$ = 0.74		(X - $\bar{X}$ ) <sup>2</sup> = 2.73	Y = 1386.82 $\bar{Y}$ = 277.36		(Y - $\bar{Y}$ ) <sup>2</sup> = 11.65

			$y = 1.53$		
--	--	--	------------	--	--

$$x = \sqrt{\frac{(X Z \bar{X})^2}{N}} = \sqrt{\frac{2.73}{5}} = 0.74$$

$$y = \sqrt{\frac{(Y Z \bar{Y})^2}{N}} = \sqrt{\frac{11.65}{5}} = 1.53$$

$$S^2 = \frac{1}{n_1 \Gamma n_2 Z_2} (X Z \bar{X})^2 \Gamma (Y Z \bar{Y})^2 = \frac{1}{5 \Gamma 5 Z_2} f_{2.73 \Gamma 11.65}^A = 1.80$$

$$t_{\text{cal}} = \frac{\bar{X} Z \bar{Y}}{\sqrt{S^2 \frac{1}{N_1} \Gamma \frac{1}{N_2}}} = \frac{294.77 Z 277.36}{\sqrt{1.80 \frac{1}{5} \Gamma \frac{1}{5}}} = 20.48$$

$$t_{\text{cal}} = 20.48$$

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

Decision:

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

Table no. A5.2

Siddhartha Bank Ltd.

X	(X - $\bar{X}$ )	(X - $\bar{X}$ ) <sup>2</sup>	Y	(Y - $\bar{Y}$ )	(Y - $\bar{Y}$ ) <sup>2</sup>
381.70	-3.65	13.32	371.97	0.85	0.72
388.49	3.14	9.86	372.06	0.94	0.88
387.86	2.51	6.30	371.47	0.35	0.12
384.58	-0.77	0.59	370.47	-0.65	0.42
384.11	-1.24	1.54	369.62	-1.50	2.25
X = 1,926.74 $\bar{X} = 385.35$ $x = 2.51$		(X - $\bar{X}$ ) <sup>2</sup> = 31.61	Y = 1,855.59 $\bar{Y} = 371.12$ $y = 0.94$		(Y - $\bar{Y}$ ) <sup>2</sup> = 4.39

$$x = \sqrt{\frac{(X Z \bar{X})^2}{N}} = \sqrt{\frac{31.61}{5}} = 2.51$$

$$y = \sqrt{\frac{(Y Z \bar{Y})^2}{N}} = \sqrt{\frac{4.39}{5}} = 0.94$$

$$S^2 = \frac{1}{n_1 \Gamma n_2 Z 2} (X Z \bar{X})^2 \Gamma (Y Z \bar{Y})^2 = \frac{1}{5 \Gamma 5 Z 2} \beta 31.61 \Gamma 4.39 \Lambda = 4.50$$

$$t_{\text{cal}} = \frac{\bar{X} Z \bar{Y}}{\sqrt{S^2 \frac{1}{N_1} \Gamma \frac{1}{N_2}}} = \frac{385.35 Z 371.12}{\sqrt{4.50 \frac{1}{5} \Gamma \frac{1}{5}}} = 10.62$$

$$t_{\text{cal}} = 10.62$$

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

Decision:

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

Table no. A5.3

NIC Bank Ltd.

X	(X - $\bar{X}$ )	(X - $\bar{X}$ ) <sup>2</sup>	Y	(Y - $\bar{Y}$ )	(Y - $\bar{Y}$ ) <sup>2</sup>
289.56	-2.39	5.71	288.34	2.96	8.76
290.65	-1.30	1.69	285.42	0.04	0
293.26	1.31	1.72	285.52	0.14	0.02
293.71	1.76	3.10	284.52	-0.86	0.74
292.59	0.64	0.41	283.12	-2.26	5.11
X = 1,459.77 $\bar{X} = 291.95$ $x = 1.59$		(X - $\bar{X}$ ) <sup>2</sup> = 12.63	Y = 1,426.92 $\bar{Y} = 285.38$ $y = 1.71$		(Y - $\bar{Y}$ ) <sup>2</sup> = 14.63

$$x = \sqrt{\frac{(X Z \bar{X})^2}{N}} = \sqrt{\frac{12.63}{5}} = 1.59$$

$$y = \sqrt{\frac{(Y Z \bar{Y})^2}{N}} = \sqrt{\frac{14.63}{5}} = 1.71$$

$$S^2 = \frac{1}{n_1 \Gamma n_2 Z 2} (X Z \bar{X})^2 \Gamma (Y Z \bar{Y})^2 = \frac{1}{5 \Gamma 5 Z 2} \{ 2.63 \Gamma 14.63 \} = 3.41$$

$$t_{\text{cal}} = \frac{\bar{X} Z \bar{Y}}{\sqrt{S^2 \frac{1}{N_1} \Gamma \frac{1}{N_2}}} = \frac{291.95 Z 285.38}{\sqrt{3.41 \frac{1}{5} \Gamma \frac{1}{5}}} = 5.62$$

$$t_{\text{cal}} = 5.62$$

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

Decision:

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

Table no. A5.4

Kumari Bank Ltd.

X	(X - $\bar{X}$ )	(X - $\bar{X}$ ) <sup>2</sup>	Y	(Y - $\bar{Y}$ )	(Y - $\bar{Y}$ ) <sup>2</sup>
301.76	1.26	1.59	304.16	-1.16	1.35
301.65	1.15	1.32	305.42	0.10	0.01
301.97	1.47	2.16	305.85	0.53	0.28
298.00	-2.50	6.25	305.62	0.30	0.09
299.10	-1.40	1.96	305.55	0.23	0.05
X = 1,502.48 $\bar{X} = 300.50$ $x = 1.63$		(X - $\bar{X}$ ) <sup>2</sup> = 13.28	Y = 1,526.60 $\bar{Y} = 305.32$ $y = 0.60$		(Y - $\bar{Y}$ ) <sup>2</sup> = 1.78

$$x = \sqrt{\frac{(X Z \bar{X})^2}{N}} = \sqrt{\frac{13.28}{5}} = 1.63$$

$$y = \sqrt{\frac{(Y Z \bar{Y})^2}{N}} = \sqrt{\frac{1.78}{5}} = 0.60$$

$$S^2 = \frac{1}{n_1 + n_2 - 2} \left[ \sum (X - \bar{X})^2 + \sum (Y - \bar{Y})^2 \right] = \frac{1}{5 + 5 - 2} [3.28 + 1.78] = 1.88$$

$$t_{\text{cal}} = \frac{\bar{X} - \bar{Y}}{\sqrt{S^2 \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}} = \frac{300.50 - 305.32}{\sqrt{1.88 \left( \frac{1}{5} + \frac{1}{5} \right)}} = -5.54 = 5.54$$

$$t_{\text{cal}} = 5.54$$

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

Decision:

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

Table no. A5.5

Premier Finance Co. Ltd.

X	(X - $\bar{X}$ )	(X - $\bar{X}$ ) <sup>2</sup>	Y	(Y - $\bar{Y}$ )	(Y - $\bar{Y}$ ) <sup>2</sup>
281.40	1.85	3.42	277.83	-2.85	8.12
280.08	0.53	0.28	281.15	0.47	0.22
279.72	0.17	0.03	280.39	-0.29	0.08
278.75	-0.80	0.64	281.54	0.86	0.74
277.79	-1.76	3.10	282.51	1.83	3.35
X = 1,397.74 $\bar{X} = 279.55$ $s_x = 1.22$		(X - $\bar{X}$ ) <sup>2</sup> = 7.47	Y = 1,403.42 $\bar{Y} = 280.68$ $s_y = 1.58$		(Y - $\bar{Y}$ ) <sup>2</sup> = 12.51

$$s_x = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} = \sqrt{\frac{7.47}{5}} = 1.22$$

$$s_y = \sqrt{\frac{\sum (Y - \bar{Y})^2}{N}} = \sqrt{\frac{12.51}{5}} = 1.58$$

$$S^2 = \frac{1}{n_1 + n_2 - 2} \left[ \sum (X - \bar{X})^2 + \sum (Y - \bar{Y})^2 \right] = \frac{1}{5 + 5 - 2} [7.47 + 12.51] = 2.50$$

$$t_{\text{cal}} = \frac{\bar{X} Z \bar{Y}}{\sqrt{S^2 \frac{1}{N_1} \Gamma \frac{1}{N_2}}} = \frac{279.55 Z 280.68}{\sqrt{2.50 \frac{1}{5} \Gamma \frac{1}{5}}} = -1.13 = 1.13$$

$$t_{\text{cal}} = 1.13$$

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

Decision:

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

Table no. A5.6

NIDC Capital Markets Ltd.

X	(X- $\bar{X}$ )	(X- $\bar{X}$ ) <sup>2</sup>	Y	(Y- $\bar{Y}$ )	(Y- $\bar{Y}$ ) <sup>2</sup>
187.88	0.09	0.88	216.39	0	0
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	33.30	215.10	1.29	1.66
X = 747.75 $\bar{X}$ = 186.94 $x = 4.20$		(X- $\bar{X}$ ) <sup>2</sup> = 70.70	Y = 865.57 $\bar{Y}$ = 216.39 $y = 0.79$		(Y- $\bar{Y}$ ) <sup>2</sup> = 2.52

$$x = \sqrt{\frac{(X Z \bar{X})^2}{N}} = \sqrt{\frac{70.70}{4}} = 4.20$$

$$y = \sqrt{\frac{(Y Z \bar{Y})^2}{N}} = \sqrt{\frac{2.52}{4}} = 0.79$$

$$S^2 = \frac{1}{n_1 \Gamma n_2 Z 2} (X Z \bar{X})^2 \Gamma (Y Z \bar{Y})^2 = \frac{1}{4 \Gamma 4 Z 2} f 70.70 \Gamma 2.52^A = 12.20$$

$$t_{\text{cal}} = \frac{\bar{X} Z \bar{Y}}{\sqrt{S^2 \frac{1}{N_1} \Gamma \frac{1}{N_2}}} = \frac{186.94 Z 216.39}{\sqrt{12.20 \frac{1}{4} \Gamma \frac{1}{4}}} = -11.92 = 11.92$$

$$t_{\text{cal}} = 11.92$$

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

Decision:

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

### ANNEX - 6

Table no. A6.1

Nepal Investment Bank Ltd.

Five Points of Time	X	(x) (X - $\bar{X}$ )	(x) <sup>2</sup> (X - $\bar{X}$ ) <sup>2</sup>	Y	(y) (Y - $\bar{Y}$ )	(y) <sup>2</sup> (Y - $\bar{Y}$ ) <sup>2</sup>	xy
I	1200	301.40	90,841.96	264.73	-22.23	494.17	- 6,700.12
II	790	- 108.60	11,793.96	298.78	11.82	139.71	- 1,283.65
III	865	-33.60	1,128.96	285.42	-1.54	2.37	51.74
IV	813	-85.60	7,327.36	279.73	-7.23	52.27	618.89
V	825	-73.60	5,416.96	306.15	19.19	368.26	- 1,412.38
	X = 4493 $\bar{X}$ = 898.60		x <sup>2</sup> = 116,509.20	Y = 1,434.81 $\bar{Y}$ = 286.96		y <sup>2</sup> =1,056.78	xy = - 8,725.52

Karl Pearson's coefficient of correlation

$$r = \frac{xy}{\sqrt{x^2 y^2}} = \frac{Z8,725.52}{\sqrt{116,509.20 \mid 1,056.78}} = -0.79 = 79\%$$

$$\text{Coefficient of determination } (r)^2 = (0.79)^2 = 0.62$$

$$\text{P.E.} = 0.6745 \frac{1 Z r^2}{\sqrt{n}} = 0.6745 \frac{1 Z 0.62}{\sqrt{5}} = 0.12$$

$$6 \times \text{P.E} = 6 \times 0.12 = 0.72$$

Table no. A6.2  
Siddhartha Bank Ltd.

Five Points of Time	X	(x) (X- $\bar{X}$ )	(x) <sup>2</sup> (X- $\bar{X}$ ) <sup>2</sup>	Y	(y) (Y- $\bar{Y}$ )	(y) <sup>2</sup> (Y- $\bar{Y}$ ) <sup>2</sup>	xy
I	348	-18.60	345.96	333.03	-52.19	2,723.80	970.73
II	360	-6.60	43.56	388.49	3.27	10.69	-70.55
III	328	-38.60	1,489.96	368.89	-16.33	266.67	630.34
IV	345	-21.60	466.56	371.97	-13.25	175.56	286.20
V	452	85.40	7,293.16	463.74	78.52	6,165.39	6,705.61
	X=1,833 $\bar{X}$ = 366.60		x <sup>2</sup> = 9,639.20	Y = 1,926.12 $\bar{Y}$ = 385.22		y <sup>2</sup> = 9,342.11	xy = 8,522.33

Karl Pearson's coefficient of correlation

$$r = \frac{xy}{\sqrt{x^2 y^2}} = \frac{8,522.33}{\sqrt{9,639.20 \times 9,342.11}} = 0.90 = 90\%$$

$$\text{Coefficient of determination } (r)^2 = (0.90)^2 = 0.81 = 81\%$$

$$\text{P.E.} = 0.6745 \frac{1Zr^2}{\sqrt{n}} = 0.6745 \frac{1Z0.81}{\sqrt{5}} = 0.06$$

$$6 \times \text{P.E} = 6 \times 0.06 = 0.36$$

Table no. A6.3

NIC Bank Ltd.

Five Points of Time	X	(x) (X - $\bar{X}$ )	(x) <sup>2</sup> (X - $\bar{X}$ ) <sup>2</sup>	Y	(y) (Y - $\bar{Y}$ )	(y) <sup>2</sup> (Y - $\bar{Y}$ ) <sup>2</sup>	xy
I	339	-18.40	338.56	250.76	-36.91	1,362.35	679.14
II	352	-5.40	29.16	294.03	6.36	40.45	-34.34
III	346	-11.40	129.96	297.81	10.14	102.82	-115.60
IV	375	17.60	309.76	288.34	0.67	0.45	11.79
V	375	17.60	309.76	307.42	19.75	390.06	347.60
	X = 1,787 $\bar{X}$ = 357.40		x <sup>2</sup> = 1,117.20	Y = 1,438.36 $\bar{Y}$ = 287.67		y <sup>2</sup> =1,896.13	xy = 888.59

Karl Pearson's coefficient of correlation

$$r = \frac{xy}{\sqrt{x^2 y^2}} = \frac{888.59}{\sqrt{1,117.20 \mid 1,896.13}} = 0.61 = 61\%$$

$$\text{Coefficient of determination } (r)^2 = (0.61)^2 = 0.37 = 37\%$$

$$\text{P.E.} = 0.6745 \frac{1Zr^2}{\sqrt{n}} = 0.6745 \frac{1Z0.37}{\sqrt{5}} = 0.19$$

$$6 \times \text{P.E.} = 6 \times 0.19 = 1.14$$

Table no. A6.4

Kumari Bank Ltd.

Five	X	(x)	(x) <sup>2</sup>	Y	(y)	(y) <sup>2</sup>	xy
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Points of Time		$(X - \bar{X})$	$(X - \bar{X})^2$		$(Y - \bar{Y})$	$(Y - \bar{Y})^2$	
I	377	14.60	213.16	293.69	-22.70	515.29	-331.42
II	326	-36.40	1,324.96	299.84	-16.55	273.90	602.42
III	340	-22.40	501.76	308.13	-8.26	68.23	185.02
IV	330	-32.40	1,049.76	301.60	-14.79	218.74	479.20
V	439	76.60	5,867.56	378.68	62.29	3,880.04	4,771.41
	X = 1,812 $\bar{X} =$ 362.40		$x^2 =$ 8,957.20	Y = 1,581.94 $\bar{Y} =$ 316.39		$y^2 =$ 4,956.20	xy = 5,706.63

Karl Pearson's coefficient of correlation

$$r = \frac{xy}{\sqrt{x^2 y^2}} = \frac{5,706.63}{\sqrt{8,957.20 \times 4,956.20}} = 0.86 = 86\%$$

Coefficient of determination  $(r)^2 = (0.86)^2 = 0.74$

$$P.E. = 0.6745 \frac{1Zr^2}{\sqrt{n}} = 0.6745 \frac{1Z0.74}{\sqrt{5}} = 0.08$$

$$6 \times P.E = 6 \times 0.08 = 0.48$$

Table no. A6.5

Premier Finance Co. Ltd.

Five Points of	X	(x) $(X - \bar{X})$	$(x)^2$ $(X - \bar{X})^2$	Y	(y) $(Y - \bar{Y})$	$(y)^2$ $(Y - \bar{Y})^2$	xy

Time							
I	421	61.60	3,794.56	278.50	-5.94	35.28	365.90
II	336	-23.40	547.56	281.61	-2.83	8.00	66.22
III	330	-29.40	864.36	277.83	-6.61	43.69	194.33
IV	345	-14.40	207.36	281.15	-3.29	10.82	47.37
V	365	5.60	31.36	303.12	18.68	348.94	104.60
	X= 1,797 $\bar{X}$ = 359.40		$x^2$ = 5,445.20	Y = 1,422.21 $\bar{Y}$ = 284.44		$y^2$ = 446.73	xy = 778.42

Karl Pearson's coefficient of correlation

$$r = \frac{xy}{\sqrt{x^2 y^2}} = \frac{778.42}{\sqrt{5,445.20 \times 446.72}} = 0.49 = 49\%$$

$$\text{Coefficient of determination } (r)^2 = (0.49)^2 = 0.24$$

$$\text{P.E.} = 0.6745 \frac{1Zr^2}{\sqrt{n}} = 0.6745 \frac{1Z0.24}{\sqrt{5}} = 0.22$$

$$6 \times \text{P.E} = 6 \times 0.22 = 1.32$$

Table no. A6.6

NIDC Capital Markets Ltd.

Five Points of Time	X	(x) (X - $\bar{X}$ )	(x) <sup>2</sup> (X - $\bar{X}$ ) <sup>2</sup>	Y	(y) (Y - $\bar{Y}$ )	(y) <sup>2</sup> (Y - $\bar{Y}$ ) <sup>2</sup>	xy
I	400	76	5,776	265.62	43.38	1,881.82	3,296.88

II	410	86	7,396	204.28	-17.96	322.56	1,544.56
III	410	86	7,396	201.06	21.18	448.59	-1,821.48
IV	220	-104	10,816	216.39	-5.85	34.22	608.40
V	180	-144	20,736	223.87	1.63	2.66	-234.72
	X= 1,620 $\bar{X}$ = 324		x <sup>2</sup> = 52,120	Y = 1,111.22 $\bar{Y}$ = 222.24		y <sup>2</sup> = 3,689.85	xy = 304.55

Karl Pearson's coefficient of correlation

$$r = \frac{xy}{\sqrt{x^2 y^2}} = \frac{304.55}{\sqrt{52,120 \times 3,689.85}} = 0.022 = 2.20\%$$

$$\text{Coefficient of determination } (r)^2 = (0.022)^2 = 0.00048 = 0.048\%$$

$$\text{P.E.} = 0.6745 \frac{1Zr^2}{\sqrt{n}} = 0.6745 \frac{1Z0.00048}{\sqrt{5}} = 0.30$$

$$6 \times \text{P.E.} = 6 \times 0.30 = 1.81$$

Table no. A6.7

Standard Finance Co. Ltd.

Five Points of Time	X	(x) (X- $\bar{X}$ )	(x) <sup>2</sup> (X- $\bar{X}$ ) <sup>2</sup>	Y	(y) (Y- $\bar{Y}$ )	(y) <sup>2</sup> (Y- $\bar{Y}$ ) <sup>2</sup>	xy
I	105	8	64	207.15	-0.94	0.88	-7.52
II	95	-2	4	208.48	0.39	0.15	-0.78
III	95	-2	4	209.10	1.01	1.02	-2.02

IV	95	-2	4	208.99	0.90	0.81	-1.62
V	95	-2	4	206.76	-1.33	1.77	-3.54
	X= 485 $\bar{X} = 97$		$x^2 = 80$	Y = 1,040.48 $\bar{Y} =$ 208.09		$y^2 =$ 4.63	$xy =$ -15.48

Karl Pearson's coefficient of correlation

$$r = \frac{xy}{\sqrt{x^2 y^2}} = \frac{Z15.48}{\sqrt{80 \mid 4.63}} = -0.80 = 80\%$$

Coefficient of determination  $(r)^2 = (0.80)^2 = 0.64 = 64\%$

$$P.E. = 0.6745 \frac{1 Z r^2}{\sqrt{n}} = 0.6745 \frac{1 Z 0.64}{\sqrt{5}} = 0.1086$$

$$6 \times P.E = 6 \times 0.1086 = 0.6515$$

Table no. A6.8

Alpic Everest Finance Ltd.

Five Points of Time	X	(x) (X - $\bar{X}$ )	(x) <sup>2</sup> (X - $\bar{X}$ ) <sup>2</sup>	Y	(y) (Y - $\bar{Y}$ )	(y) <sup>2</sup> (Y - $\bar{Y}$ ) <sup>2</sup>	xy
I	225	62.40	3,893.76	207.85	0.15	0.02	9.36
II	142	-20.60	424.36	207.92	0.22	0.05	-4.53
III	145	-17.60	309.76	209.81	2.11	4.45	-37.14
IV	155	-7.60	57.76	202.45	-5.25	27.56	39.90
V	146	-16.60	275.56	210.45	2.75	7.56	-45.65

	X =		x <sup>2</sup> =	Y =		y <sup>2</sup>	xy =
	4493		4,961.20	1,038.48		=	-38.06
	$\bar{X}$ =			$\bar{Y}$ =		39.64	
	898.60			207.70			

Karl Pearson's coefficient of correlation

$$r = \frac{xy}{\sqrt{x^2 y^2}} = \frac{Z38.06}{\sqrt{4,961.20 | 39.64}} = -0.0858 = 8.58\%$$

$$\text{Coefficient of determination } (r)^2 = (-0.0858)^2 = 0.00736 = 0.736\%$$

$$\text{P.E.} = 0.6745 \frac{1Zr^2}{\sqrt{n}} = 0.6745 \frac{1Z0.00736}{\sqrt{5}} = 0.2994$$

$$6 \times \text{P.E.} = 6 \times 0.2994 = 1.797$$

## ANNEX- 7

Impact of Rights Offering Announcement of Share Price Movement.

Variable Defined:

X = Weeks before and after announcement of rights share.

Y<sub>1</sub> = Share Price

Y<sub>2</sub> = Price Index

1. Nepal Investment Bank Ltd.

X	-12	-1	0	1	24
Y <sub>1</sub>	1200	790	865	813	825
Y <sub>2</sub>	264.73	298.78	285.42	279.73	306.15

## 2. Siddhartha Bank Ltd.

X	-12	-1	0	1	24
Y <sub>1</sub>	348	360	328	345	452
Y <sub>2</sub>	333.03	388.49	368.89	371.97	463.74

## 3. NIC Bank Ltd.

X	-12	-1	0	1	24
Y <sub>1</sub>	339	352	346	375	375
Y <sub>2</sub>	250.76	294.03	297.81	288.34	307.42

#### 4. Kumari Bank Ltd.

X	-12	-1	0	1	24
Y <sub>1</sub>	377	326	340	330	439
Y <sub>2</sub>	293.69	299.84	308.13	301.60	378.68

#### 5. Premier Finance Co. Ltd.

X	-12	-1	0	1	24
Y <sub>1</sub>	421	336	330	345	365
Y <sub>2</sub>	278.50	281.61	277.83	281.15	303.12

#### 6. NIDC Capital Markets Ltd.

X	-12	-1	0	1	24
Y <sub>1</sub>	400	410	410	220	180
Y <sub>2</sub>	265.62	204.28	201.06	216.39	223.87

#### 7. Standard Finance Ltd.

X	-12	-1	0	1	24
Y <sub>1</sub>	105	95	95	95	95
Y <sub>2</sub>	207.15	208.48	209.10	208.99	206.76

#### 8. Alpic Everest Finance Ltd.

X	-12	-1	0	1	24
Y <sub>1</sub>	225	142	145	155	146
Y <sub>2</sub>	207.85	207.92	209.81	202.45	210.45

### ANNEX - 8

Value of Rights and the Theoretical ex-rights price.

Variables Defined:

$P_0$  = Current Market Price

$P_s$  = Subscription Price

$N$  = Number of rights required for an additional share

$P_x$  = Ex-rights Price

$V_r$  = Value of Rights

$$V_r = \frac{P_0 Z P_s}{N \Gamma 1}$$

$$P_x = \frac{N | P_0 \Gamma P_s}{N \Gamma 1} \text{ or } P_0 - V_r$$

1. Nepal Investment Bank Ltd.

$P_0$  = Rs. 865    $P_s$  = Rs. 100    $N$  = 1 Share

Now,

$$V_r = \frac{P_0 Z P_s}{N \Gamma 1} = \frac{865 Z 100}{1 \Gamma 1} = \text{Rs. } 382.50$$

$$P_x = \frac{N | P_0 \Gamma P_s}{N \Gamma 1} = \frac{1 | 865 \Gamma 100}{1 \Gamma 1} = \text{Rs. } 482.50$$

2. Siddhartha Bank Ltd.

$P_0$  = Rs. 328    $P_s$  = Rs. 100    $N$  = 3.33 Share

Now,

$$V_r = \frac{P_0 Z P_s}{N \Gamma 1} = \frac{328 Z 100}{3.33 \Gamma 1} = \text{Rs. } 52.66$$

$$P_x = \frac{N | P_0 \Gamma P_s}{N \Gamma 1} = \frac{1 | 865 \Gamma 100}{1 \Gamma 1} = \text{Rs. } 275.34$$

### 3. NIC Bank Ltd.

$$P_0 = \text{Rs. } 346 \quad P_s = \text{Rs. } 100 \quad N = 2 \text{ Shares}$$

Now,

$$V_r = \frac{P_0 Z P_s}{N \Gamma 1} = \frac{346 Z 100}{2 \Gamma 1} = \text{Rs. } 82$$

$$P_x = \frac{N | P_0 \Gamma P_s}{N \Gamma 1} = \frac{2 | 346 \Gamma 100}{2 \Gamma 1} = \text{Rs. } 264$$

### 4. Kumari Bank Ltd.

$$P_0 = \text{Rs. } 340 \quad P_s = \text{Rs. } 100 \quad N = 4 \text{ Shares}$$

Now,

$$V_r = \frac{P_0 Z P_s}{N \Gamma 1} = \frac{340 Z 100}{4 \Gamma 1} = \text{Rs. } 48$$

$$P_x = \frac{N | P_0 \Gamma P_s}{N \Gamma 1} = \frac{4 | 340 \Gamma 100}{4 \Gamma 1} = \text{Rs. } 292$$

### 5. Premier Finance Co. Ltd.

$$P_0 = \text{Rs. } 330 \quad P_s = \text{Rs. } 100 \quad N = 1 \text{ Shares}$$

Now,

$$V_r = \frac{P_0 Z P_s}{N \Gamma 1} = \frac{330 Z 100}{1 \Gamma 1} = \text{Rs. } 115$$

$$P_x = \frac{N | P_0 \Gamma P_s}{N \Gamma 1} = \frac{1 | 340 \Gamma 100}{1 \Gamma 1} = \text{Rs.}215$$

6. NIDC Capital Markets Ltd.

$$P_0 = \text{Rs.} 410 \quad P_s = \text{Rs.} 100 \quad N = 0.50 \text{ Shares}$$

Now,

$$V_r = \frac{P_0 Z P_s}{N \Gamma 1} = \frac{410 Z 100}{0.50 \Gamma 1} = \text{Rs.} 206.67$$

$$P_x = \frac{N | P_0 \Gamma P_s}{N \Gamma 1} = \frac{0.50 | 410 \Gamma 100}{0.50 \Gamma 1} = \text{Rs.}203.33$$

7. standard Finance Ltd.

$$P_0 = \text{Rs.} 95 \quad P_s = \text{Rs.} 100 \quad N = 1 \text{ Shares}$$

Now,

$$V_r = \frac{P_0 Z P_s}{N \Gamma 1} = \frac{95 Z 100}{1 \Gamma 1} = \text{Rs.} -2.50 = 0$$

$$P_x = \frac{N | P_0 \Gamma P_s}{N \Gamma 1} = \frac{1 | 95 \Gamma 100}{1 \Gamma 1} = \text{Rs.}97.50$$

8. Alpic Everest Finance Ltd.

$$P_0 = \text{Rs.} 150 \quad P_s = \text{Rs.} 100 \quad N = 1 \text{ Shares}$$

Now,

$$V_r = \frac{P_0 Z P_s}{N \Gamma 1} = \frac{150 Z 100}{1 \Gamma 1} = \text{Rs.} 25$$

$$P_x = \frac{N | P_0 \Gamma P_s}{N \Gamma 1} = \frac{1 | 150 \Gamma 100}{1 \Gamma 1} = \text{Rs.}125$$