CHAPTER – 1
INTRODUCTION

The primary objective of companies, under the modern financial management concept, is to focus on wealth maximization for the share holders. For listed companies share holders are the major stakeholders apart from employees, customers, suppliers and creditors. The implication of the focus on stakeholders is that a company should avoid actions detrimental to them.

A characteristic feature of corporate enterprise is the separation between ownership and management, as a corollary of which the latter enjoys substantial autonomy in regard to the affairs of the firm. The management of the companies is aware of the fact that the share holders, though owners of the company do not participate in either the day to day functioning or policy making decisions of the companies. Listed companies who have a stakeholder in the form of shareholders should have a natural inclination to achieve a minimum acceptable level of performance to satisfy the shareholders.

The first of the possible ways in which companies respond to achieve acceptable level of shareholder satisfaction is by way of ensuring growth in the future earning potential of the company, which will result in higher earnings per share. The next indicative step is the dividend policy of the company by which the shareholder gets a portion of the earnings available to him. Shareholders in general want the company to reward them with dividend regularly, but also are firm that the company must enhance the future
earnings available to them. For that to happen, companies must retain a portion of the retained earnings and use it effectively to augment future earnings.

Declaration of dividend is the prerogative of the management. Still the management must take in to account the shareholder (investor) expectation. The direct fallout of dividend decision is the cash out flow from the firm. This brings down the quantum of resources available with the firm, which may have a bearing on the level of future earnings. The retained earnings belong to the shareholders. Companies following pragmatic dividend policies build up sizeable amount as retained earnings. This is reflected under the headings ‘Reserves and Surplus’ in the company balance sheet.

Company management has discretion to reward the shareholders by way of bonus shares. The implication of the decision is that a portion of the accumulated amount under ‘Reserves and Surplus’ is capitalized and it results in the increase of share capital. As a result of the decision, the company will have an enlarged equity capital and a proportional reduction in the ‘Reserves and Surplus’. But it does not change the resources available with the firm as there is neither any inflow nor any outflow of cash. But the company has to service a larger amount of share capital with perhaps the same level of shareholder earnings available.

There is no legal obligation for the company management to declare bonus shares. This is so even when the company has lopsided ‘Paid up Share Capital’ and ‘Reserves and Surplus’ equation. The financial position of listed companies is considered as public
information as the companies have to announce their annual results in the newspaper. Hence existing shareholders as well as prospective investors are aware of the ‘Paid Up Share Capital’, ‘Reserve and Surplus’, earnings available to the share holders, dividend record of the company and a guess about the possible future earnings of the company. That makes the existing and future investors to assess the potential of company to declare a bonus issue. In a way the market which consists of existing and future investors anticipates the bonus announcement on the basis of the financial information available.

**Bonus Issue:** The management of companies, which have achieved excellent performance consistently, may like to reward the shareholders by issue of bonus shares. The shares are issued without receiving any money from the shareholders towards the value of those shares and hence it is welcomed by the shareholder. Companies are free to issue bonus shares in accordance with certain rules contained in the guidelines.

There is no restriction under the Indian Companies Act, 1956 to issue bonus shares. Section 78(2) of the Act allows the amount in securities premium account to be capitalized for issue of fully paid bonus shares to members.

**Financial-cum-legal Requirements:** Bonus share shall be issued only out of free reserves built out of genuine profits or share premium collected in cash only. (It may be stated that the term share premium has been substituted by the term “securities premium” in section 78 of the Indian Companies Act 1956). Reserves created by revaluation of fixed assets can not be capitalized. Bonus shares shall not be issued in lieu of dividend.
All the partly paid shares if any should be first made fully paid up. There should not be any default in: (i) Payment of interest on fixed deposits. (ii) Payment of principal on fixed deposits. (iii) Payment of interest on debentures. (iv) Payment of principal on redemption of debentures. (v) Payment of statutory dues to the employees on contribution of PF, Gratuity, Bonus etc.

As per section 55(2)(iiiia) of the Income Tax Act, 1961, in the case of issue of bonus shares, the cost of acquisition will be taken as nil. In the case of sale of these shares, it will attract capital gains tax.

From an investor’s point of view, dividend and bonus shares form part of his return. Hence dividend and bonus decisions are intertwined and both are decisions taken by the company management and are of concern to the share holders. Hence it is imperative that the implications of the decisions are discussed.

**Implications of Dividend Decision:**

**Companies’ Point of View:** Generally the company management is under no obligation to declare dividend. A major decision of financial management is the dividend decision, in the sense that the company has to choose between distributing the profits as dividend to the share holders and ploughing them back into the business. Dividend results in cash outflow and hence the resource base of the company will be reduced to that extent. Before taking the dividend decision the company takes into account the funds requirement for immediate future and also the market expectation regarding dividend.
Whatever decisions the company is taking there is need for proper communication between the company and the share holders explaining the rationale of the dividend decision.

**Investors' and Share Holders' Point of View:** Investors are possible future share holders of the company and share holders are the present stake holders of the company. Share holders fall under various classifications which include small and retail investors, high net worth individuals, institutional investors (like mutual fund) and foreign institutional investors. The dividend expectation of each of the category of share holders may be different depending upon their present income and tax levels. The general expectation is that the share holder is happy to have the dividend in his bank account than seeing it increasing the retained earnings of the company. Even so, no category of share holder wants the company to follow a 100% dividend payout because he is a concerned about the growth in the future earnings of the company and future dividends.

Every investor has an objective of getting a return from his investment. Before investing in a company he examines the dividend record of the company and comes to a conclusion regarding the consistency of dividend payouts, dividend policy, if any, of the company, in years of normal profits and in years of super profits. Neither the company nor the investors prefer dip in the dividend payout rate. Hence most companies need to follow a consistent and conservative dividend policy. Dividend policy provides a signalling mechanism of the future prospects of the company and thus affects the market price of the share.
Hence most companies generally follow a pragmatic dividend decision satisfying the investors and at the same time retaining the residual amounts.

**Implications of Bonus Decision:**

*Companies' Point of View:* Accumulated retained earnings are a very good form of cost effective resource base for the company. It results in increased profitability of the company, increases the net worth of the company and the book value of the company. All these factors may have a positive impact on the share price of the company and the market price may show an increasing trend. Higher share prices possibly result in the share being not accessible to the large number of small and retail investors, as they feel that the price is beyond their reach. The number of transactions in stock exchanges may also come down. This is not a welcome sign. This can be set right by two measures - one is to go for a share split and other one is to go for a bonus issue or both. The share split results in increase in the number of shares, but the paid up share capital remains the same. This results in the division of the market price.

A bonus decision results in reorganization of the paid up share capital and free reserves of the company. The paid up share capital of the company is increased by the extent of bonus shares announced. Unlike in the case of share split, in the case of a bonus, the paid up share capital of the company increases. Bonus decision does not result in any cash inflow or cash outflow for the company. The resource base of the company remains the same and hence the future earnings are also likely to remain the same. But the company has to service a larger number of equity shares in the post bonus scenario. This will
result in the reduction in the earnings per share, which will in turn have an impact on the
share price of the company. The floating stock of the company shares will also increase
as a result of the bonus decision. With reduction in prices, this may result in increase in
the trading volumes of the share in the stock exchange. Hence companies may generally
consider bonus announcements only when they are confident of maintaining the dividend
payout ratio on the enlarged capital.

**Investors’ and Share Holders’ Point of View:** Returns from share holders point of view
includes dividend, bonus share and the difference between the market price of the share
and his cost price. Dividend is taxable in his hands. He prefers to stay invested in the
company if he is satisfied with the company performance and the efficiency of the
management. Hence he prefers to augment his income from the investment by bonus
shares. From a share holders perception, the retained earnings of the company represents
what he had to forego as dividend income and literally it belongs to him. Bonus shares
when received by the investor he gets it free of cost. If the bonus shares are retained for
twelve months and above, the gains arising out of the sale of bonus shares will be treated
as long term capital gains and is subject to tax on concessional terms.

Hence existing share holders as well as prospective investors expect bonus
announcements and also work out what may be a pragmatic bonus ratio considering the
company financials. This perception drives the investor behaviour regarding the share
and impacts the trading volumes and the share price even before the announcement of
bonus by the company. Declaration of bonus also indicates the confidence of the
management in maintaining the future profitability and dividend payout and this factor also is reflected in the market price.

**Objectives of the Study:**

The present study had been taken up with the objectives of

1. to study the impact on the share prices on account of bonus announcements
2. to study the price behaviour with reference to the bonus ratios announced
3. to examine the price behaviour in respect of the size of the paid up capital and
4. to analyse the price behaviour in terms of market capitalization

**Methodology**

The impact of an event on stock price is assessed through a number of firms which are affected by the event of interest. The event date is supposed to be the date when the event occurs. Authors Fama, Eugene, Lawrence Fisher, Michael Jensen and Richard Roll\(^1\) in their historic and path breaking research on, ‘The Adjustment of Stock Prices to New Information’ (1969) evolved the event study methodology for testing the market efficiency. Tests of semi strong form of efficient markets hypothesis can be categorized as test of speed of adjustment of prices to new information. The principal research tool for this is the event study. It averages cumulative performance of stocks over time from a specified number of time periods before an event to a specified number of periods after. The authors used the market model as the benchmark. Event study conducted by them provided evidence on the reaction of share prices to stock splits and earnings announcements respectively.
The market appears to anticipate the information and most of the price adjustment is complete before the event is revealed to the market. When news is released, the remaining price adjustment takes place rapidly and accurately. The Fama Eugene, Fisher, Jensen and Roll study, in particular, demonstrates that prices reflect not only direct estimates of prospective performance by the sample companies, but also information that requires more subtle interpretation.

The implication of an event is what the investigators would like to study, the event defined for this study is the bonus announcements by Board of Directors of a Company. The Board meeting day is taken as the Event Date. As the market normally anticipates a bonus issue well before the actual announcement by the company, it is partly reflected in the market price of the share even before the announcement.

On the day of the announcement, further adjustment in price takes place. Depending upon the bonus ratio being adverse or favourable compared to the market expectation, adjustment in price takes place by way of normal reaction, over reaction or under reaction. At this stage psychological factors may have more impact on the event day closing price than economic factors. The market may realize the over reaction or under reaction later and price reversals/ changes can take place after the Event Date. Hence the study of event day price behaviour on account of Bonus announcement is supplemented by the study of the price behaviour of the particular share 3 months before the Event Date, 1 month before the Event Date and 1 month after the Event Date and 3 months after Event Date.
Data regarding bonus issues announced by various companies during the period Jan-2001 to August-2005 had been taken from Prowess database maintained by Centre for Monitoring Indian Economy (CMIE). Data regarding bonus announcements by companies listed in Bombay Stock Exchange (BSE) were only considered because the number of companies listed in Bombay Stock Exchange is much more than the number of companies listed in National Stock Exchange (NSE). Computing the closing market price for Event Date (ED CP), one month before (1MB CP), three months before closing price (3MB CP), one month after closing price (1MA CP) and three months after closing price (3MA CP), the respective day's closing price was taken. In case that day was a non-trading day the closing price of the previous trading day was taken into account. Closing price represents the average of the last 30 minutes of trading in the stock exchange and hence the closing price is only taken into account for all research purposes. On the same lines closing Sensex figure is considered for our study.

Companies where complete data was available were only considered. The effectiveness of the study depends on the accuracy of the data. The entire data regarding Board meeting date, closing market price of the company declaring the bonus, corresponding Sensex details have all been extracted from the CMIE data base. Data in respect of period prior to the year 2001 was not available in CMIE as well as with Bombay Stock Exchange. Hence the study period is from the year 2001 only.

Mathematical Model
Data collected as above was to be used for analysis and there was a need for use of appropriate tools. A mathematical model has been evolved for this purpose to study the relationship between Event Day Closing Price (ED CP) with 1 Month After Closing Price (IMA CP) and 3 Months After Closing Price (3MA CP) and also the relationship between 1 Month Before Closing Price (1MB CP) and 3 Months Before Closing Price (3MB CP).

Comparing Event Day closing price (ED CP) and One Month After closing price (IMA CP): The closing prices of Event Day represent the impact of the price sensitive information in the form of bonus decision announcement by the company. Depending on the level of efficiency of the market to fully absorb this information, price adjustment take place. The price change may an under reaction or over reaction as per the perception of the market players. There is chance that psychological factor may have a larger say then economic factors on the event day closing price.

By comparing the event day closing price with the closing price after one month from the Event Day, the reversal/ recovery of the over reaction or under reaction to the bonus issue announcement can be studied. The following equation is arrived at

\[ IMA CP = a + b1 \times ED CP \]  

\textit{Equation 1}

The financial position of companies including the paid up share capital and free reserves of listed companies is deemed as public information. Hence the market not only
anticipates the bonus candidates and also has an expectation about the possible bonus ratio. It is the prerogative of the company to declare or not declare bonus shares despite of very comfortable Reserves position. The bonus ratio when announced on the Event Day, the market evaluates the actual bonus ratio and the expected bonus ratio and price adjustment takes place.

The bonus ratio factor plays a major role in the price adjustment, over reaction / under reaction of the share price. On the basis of the bonus ratio, readjustment takes place in the capital and reserves position of the company. Bonus issue does not result in increase in the resource available with the company and the future profitability of the company is likely to remain same. This results in a larger equity to be serviced by the company after the bonus. There is likely to be a fall in the share price on account of the bonus issue, once the shares are traded on ex-bonus basis. The change in the LMA CP need not be exactly on the basis of bonus ratio arithmetic. For example if the bonus ratio is 1:1, the paid up shares capital is doubled post bonus. As the result the ex-bonus share price should be half of the cum-bonus share price. But in reality market behaviour is not exactly on arithmetic basis. The price does change but the change in price may be more or less than arithmetically expected price.

Hence to capture the impact of the bonus ratio while studying the LMA CP, a dummy component is introduced in the equation. The bonus ratio announced by companies for each year is studied and the ratio adopted by majority of the companies for that year is ascertained. For example for the year 2001, most companies have announced a bonus
ratio of 1:1, all such companies are assigned dummy variable as 1 and all other companies for that year are assigned dummy variable as 0. Accordingly the following equation is arrived at:

\[ 1 \text{MA CP} = a + b_1 \times \text{ED CP} + b_2 \times \text{BR} \]  
\[ \text{Equation 2} \]

Various factors affect the market price of the share. Macro factors constituting systematic factors all so impact the price change. The share price of the companies which have declared bonus, form part of the market and hence macro factors also have an impact on their share price. To study the relationship between 1 month after closing price (1MA CP) and Event Day Closing Price (ED CP), market factor in the form of Sensex on the IMA date is also to be considered along with the Sensex on the Event Day. On the basis of the above, the following equation can be arrived at:

\[ 1 \text{MA CP} = a + b_1 \times \text{ED CP} + b_2 \times \text{BR} + b_3 \times 1 \text{MA SX} + b_4 \times \text{ED SX} \]  
\[ \text{Equation 3} \]

On similar lines we can arrive at 3 equations for studying the 3 months after closing price (3MA CP) and ED CP.

Various factors affect the market price of a share. While studying the post bonus behaviour of a share price, bonus ratio does have a bearing on the price change.

\[ 3 \text{MA CP} = a + b_1 \times \text{ED CP} \]  
\[ \text{Equation 4} \]
3MA CP = a + b1 x ED CP + b2 x BR .......................................................... Equation 5

3MA CP = a + b1 x ED CP + b2 x BR + b3 x 3 MA SX + b4 x ED SX ...... Equation 6

**Study of relationship between 3 Months Before Closing Price (3MB CP) & 1 Month Before Closing Price (1MB CP) and Event Day Closing Price (ED CP):** As per earlier studies done Elroy Dimson and Massand Mussavian\(^2\) (1998), market appears to anticipate information in respect of earnings announcement including bonus announcement. Most of price adjustment is complete before the event is revealed to the market. When the news is revealed, remaining price adjustment takes place. The Fama, Fischer, Jensen and Roll study (1970) in particular demonstrates that prices reflect not only direct estimates of prospective performance by the sample companies, but also information that require more subtle interpretation.

In the Indian scenario the financial position of the companies is public information. Many financial magazines and websites discuss the prospective bonus candidates on the basis of their paid up equity share capital and free reserves. Hence the market anticipates a bonus ratio on the basis of their expectation and future earning potential of the company.

When the information of bonus ratio is revealed to the market, there is a price adjustment taking place to the earlier prevailing prices. If the bonus ratio is superior or inferior to the market expected bonus ratio that is reflected in the Event Day Closing Price. Psychological factors may have an upper hand than economic factors and there may be an over reaction or under reaction. On the lines of the above arguments the following
equations are arrived at to study the relationship between 3 Months Before Closing Price (3MB CP) & 1 Month Before Closing Price (1MB CP) and Event Day Closing Price (ED CP).

\[
ED \text{ CP} = a + b_1 \times 3\text{MB CP} \hspace{1cm} \text{Equation 7}
\]

\[
ED \text{ CP} = a + b_1 \times 3\text{MB CP} + b_2 \times \text{BR} \hspace{1cm} \text{Equation 8}
\]

\[
ED \text{ CP} = a + b_1 \times 3\text{MB CP} + b_2 \times \text{BR} + b_3 \times 3\text{MB SX} + b_4 \times \text{ED SX} \hspace{1cm} \text{Equation 9}
\]

\[
ED \text{ CP} = a + b_1 \times 1\text{MB CP} \hspace{1cm} \text{Equation 10}
\]

\[
ED \text{ CP} = a + b_1 \times 1\text{MB CP} + b_2 \times \text{BR} \hspace{1cm} \text{Equation 11}
\]

\[
ED \text{ CP} = a + b_1 \times 1\text{MB CP} + b_2 \times \text{BR} + b_3 \times 1\text{MB SX} + b_4 \times \text{ED SX} \hspace{1cm} \text{Equation 12}
\]

This Model will be referred to as KTR MODEL.

**Model Justification:** The companies when they intend to raise resources from the market need to go for initial listing of their shares. This signifies the concurrence given by the stock exchanges that once the initial public offer is launched, those shares will be allowed to be traded in the stock exchange. Subsequently the company has to execute a listing agreement with the stock exchange. This establishes a legal relationship between the company and stock exchange. All listed companies have to comply with the listing agreement norms compulsorily. One such norm is that the companies should report about all materials happenings / events to the stock exchanges where they are listed, immediately. Most of such material information is price sensitive information. Examples of price sensitive information are signing of a wage agreement with the majority trade union, not signing of the wage agreement, fire accident, adoption of new technology etc.
Similarly a stock split, quarterly earnings announcement, rights issue and bonus issue are also part of price sensitive information. The market appears to anticipate the information of bonus shares and most of the price adjustments are complete before the event is revealed to the market. When news is released the remaining price adjustment takes place. (Elroy Dimson and Massoud Mussavion\textsuperscript{3} 1998). Several empirical studies have documented that bonus issues are associated with significant price reactions on announcement many competing hypothesis have been proposed in the literature to explain this market behaviour. As per the signalling hypothesis, the declaration of bonus issues conveys favourable private information about the future earning to the investors. In general, companies increase the number of shares outstanding only when they are confident that future operating performance will be good enough to move the share prices upward or at least to cope with market expectations. (Jijo Lukose P.J and S Narayan Rao\textsuperscript{4}). Another variation of this argument attaches more importance to the implied promise of higher dividends as managers are reluctant to cut dividend per share (Nayak and Prabha\textsuperscript{5} 2001).

A bonus issue is a free issue of shares, without a subscription price, made to existing share holder in proportion to the current holdings. It results in readjustment of the company’s reserves and capital position. The company does not receive any cash and its financial position remains the same. The number of shares outstanding increases on account of the bonus issue and therefore the price of the shares declines according to the bonus issue ratio. However in practice there may be increase in share price following the announcement of a bonus issue. Such an increase can occur because the announcement of
a bonus issue may have beneficial content. Share holders are aware that after the bonus issue, companies usually raise dividend per share as may be necessary. This in turn indicates the confidence of the management in the company’s future. Consequently the share price may increase in response to the information.

Over the years the relationship between the bonus issues and stock prices has been subject of much empirical discussion within the finance literature. According to theory bonus issue increases the number of equity share outstanding. The bonus issue date is well known in advance and therefore should contain no new information. Contrary to this theoretical prediction however empirical studies of bonus issue and stock dividends have documented a statistically significant market price reaction.

On the basis of the above explanations, the expected result from the study is that bonus decision should result in extra normal return for the investor.

**Limitations of the Study**

Details of Board meeting days when companies announced bonus issues (Event Day) were not available with CMIE as well as BSE for period before the calendar year 2001. Hence the period of study is limited to from the year 2001 onwards.

Bonus issues announced by unlisted companies are outside the scope of the study.
Report Structure

The report of the research study is presented in seven chapters.

The First chapter explains the significance of the study. In this chapter conceptual definition, objectives of the study, methodology adopted for the study and the mathematical models used for data analysis and limitations of the study are explained.

The Second chapter reviews literature on the behaviour of share prices on account of announcement of price sensitive information in various stock markets in India and abroad. It also contains literature on event study conducted in respect of price sensitive information and the efficiency of the market in absorbing such information fully and immediately.

The Third chapter contains the impact on share prices on account of bonus announcements made by sample companies listed in Bombay Stock Exchange over the period Jan-2001 to October-2005. It analyses the relationship between 3 MB CP & 1 MB CP with ED CP. It also analyses the relationship between ED CP and 1 MA CP and 3 MA CP.

The Fourth chapter contains details regarding study of the price behaviour with reference to bonus ratios. It examines the market reaction to the actual bonus ratio being favourable or adverse compared to the market anticipated ratio.
The Fifth chapter contains the study of price behaviour with reference to the size of paid up capital. It analyses whether the price behaviour is impacted by the size of paid up share capital of the sample companies.

The Sixth chapter indicates the study of the price behaviour in respect of the market capitalization. This analysis examines the impact of market capitalization on the price behaviour.

The Seventh chapter consists of conclusions of the study.

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