## DIVIDEND ANNOUNCEMENT IMPACT ON INDIAN BOURSES

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### **ABSRACT**

Investors have experienced superior gains from stock markets all around the world during the past one decade. Investors have two ways to make profits with stocks: capital appreciation and annual income in the form of dividend. Capital appreciation is possible in bullish trend. But in bearish market, the capital appreciation is not possible; the other way to gain profit is dividend. Investors assumed to consider dividend is more important source when there is no capital appreciation in stocks. Using an event study methodology we find that despite of investors do not gain significant value in the period preceding as well as on the dividend announcement day, yet they can gain value in the post announcement period. Investors do shift their security positions at the time of dividend announcement, which indicate that in post announcement period there is a possibility of information content in dividend announcement in NSE. The dividend announcement conveys information to market traders; one would expect the impact of event on the market's valuation of the company's share. It depends on the magnitude of the unexpected component of the dividends. The present study attempts to contribute positively to the understanding of the behavior of Indian stock prices in relations to dividend announcement

Keywords: Dividend, Investors, Market, NSE

#### 1. INTRODUCTION

Investors have experienced superior gains from stock markets all around the world during the past one decade. Investors have two ways to make profits with stocks: capital appreciation and annual income in the form of dividend. Capital appreciation is possible in bullish trend. But in bearish market, the capital appreciation is not possible; the other way to gain profit is dividend. Investors assumed to consider dividend is more important source when there is no capital appreciation in stocks. The present study attempts to contribute positively to the understanding of the behavior of Indian share prices in relation to the dividend announcements. This study analyzes the impact of dividend announcement in the Indian stock market. The dividend is the cost of equity capital to equity shareholders/investors in the market place. The announcement has an impact on the market price of the shares; the market will react positively, if the dividend is upto the expectation level of the equity investors. At the same time if the dividend announcement is not the expectation level of the shareholders, the market reaction will in bear trend for that particular scrip.

### 2. STATEMENT OF THE PROBLEM

This study investigates the stock market reaction to cash dividend announcements for the period from January-2009 to December-2009. In particular, this paper examines the stock price response to company announcements about dividend to shareholders. As a matter of fact dividend announcements usually are considered as the positive signal to the shareholders and its positive impact on the share prices is also expected. Using an event study methodology we find that despite of investors do not gain significant value in the period preceding as well as on the dividend announcement day, yet they can gain value in the post announcement period. Investors do shift their security positions at the time of dividend announcement, which indicate that in post announcement period there is a possibility of information content in dividend announcement in NSE. In a country like India where the economy is emerging, the issue is still unresolved and there is a diverse substantiation over the matter which has encouraged us to examine the impact of dividend announcement over share price, which may carry valuable information to the investors, researchers and policy makers.

### 3. NEED FOR THE STUDY

Perhaps no other area of finance has been subject to so much empirical investigation during the last four decades as the behavior of stock prices. Interestingly enough, the early empirical work was used to develop a theory, to be specific, the Efficient Market Hypothesis – rather than the normal procedure of first developing a theory and then its empirical testing. The empirical work on market efficiency is dividend into three categories: (1) Weak-form tests – test for predictability of future returns on the basis of past returns, (2) Semi-strong form tests – test for stock price adjustment

to publicly available information, and (3) Strong form tests – test for the extent to which stock prices reflect unpublished information. Though a large part of the international finance journals during the past several years has been devoted to examining the behavior of stock prices in relation to all the conceivable publicly available price-sensitive information, no noteworthy research has been undertaken for the Indian Capital Market.

The price of a share may be said to depend upon the future earnings and dividend stream of a company. The information concerning a specific company may affect only that particular company's share. The dividend announcement conveys information to market traders; one would expect the impact of event on the market's valuation of the company's share. It depends on the magnitude of the unexpected component of the dividends. The present study attempts to contribute positively to the understanding of the behavior of Indian stock prices in relations to dividend announcement and market movement.

#### 4. OBJECTIVES OF THE STUDY

The main purpose of the study is

- To examine the behavior of stock prices around and on the date of dividend announcement.
- ♦ To investigate if any strategies found in dividend announcement could be used to outperform the market.
- ♦ To find the correct path of future trends based on the announcement effect.

In this context, the behavior of stock prices has been examined in the prior and post announcement periods in relations to the unexpected dividend announcement.

#### 5. RESEARCHMETHODOLOGY

#### **5.1. SAMPLE AND DATA**

The present study covers a period of one calendar year from January 2009 to December 2009 and the results are based on a sample of Nifty stocks, listed in the National Stock Exchange. The data set contains daily data from the different sectors of 10 dividend paying stocks over the 10 window period i.e. -4 day to +4 day relative to the dividend announcement, which is listed on the National Stock Exchange for the period of January 2009 to December 2009. Three basic time series data have been employed in this study. These are, dividend announcement dates for the whole sample period, daily closing stock prices for the period [-4, to +4] around each dividend announcement day of every stock, prices of the NSE Nifty Index in the [-4, to +4] time window for each dividend announcement day of every stock and number of shares traded each day for each company in the sample period.

## 5.2. SELECTION OF SAMPLE

The selection of sample has primarily been guided by two factors, availability of dividend announcement for the sample period, and the time to time revision and replacement of stock in the NSE Nifty. Often some existing stocks were replaced by new stocks in the Nifty index. This is also considered in the present study.

#### 5.3. TOOLS AND TESTING PROCEDURE

The most widely event study methodology is used in order to determine the stock price behavior of the company as a result of announcement of dividend. The event study methodology has been adopted to analyze the mass data. The supporting statistical tools can be used for simplification and application of the data analysis. Event study is followed for testing the market efficiency. At the outset it is useful to discuss the structure of an event study. The initial task of conducting an event study is to define the event of interest and identify the period over which the security prices of the firms involved in this event will be examined – the event window. For example, if one is looking at the information content of dividend with daily data, the event will be the dividend announcement and the event window will include one day of the announcement. It is customary to define the event window to be larger than the specific period of interest. This permits examination of periods surrounding the event. Hence for this study, return on four days prior to the event day and four days return after the event day are considered for analysis. Here, the abnormal returns can be used to draw conclusion during the study period. Abnormal return means the excess of security return over the index return on a particular date. The abnormal returns will be calculated for the entire period. In addition to that to test the market efficiency the time series analysis and necessary statistical tools applied.

Event studies examine the behavior of firm's stock price around corporate or economic events such as dividend announcements. The event study has many applications. In accounting and finance research, event studies have been

applied to a variety of firm specific and economy wide events. Some examples include mergers and acquisitions, earnings announcements, issues of new debt, or equity and announcements of dividends which is the case in this paper.

#### 5.4. METHODOLOGY OF EVENT STUDIES

The methodology of event studies is fairly standard and proceeds as follows:

# 1. Collect a sample of firms that had a surprise announcement (the event)

What causes prices to change in an announcement that is a surprise to investors? For many studies, such as an announcement of a merger, announcement of bonus shares or dividends, any announcement can be treated as a surprise. For other studies, such as the impact of dividend announcements, it is more complicated. For those studies, it is necessary to define a surprise. This is normally done by comparing announcements to what was expected as reflected in the average estimate of professional analysts. A number of services provide these data. To form a sample or surprises one first separates out a group of firms where the announcement is significantly different from what is being forecast. Since positive and negative surprises would affect price differently, this group is further separated into two groups, one for positive and one for negative earnings surprises.

## 2. Determine the precise day of the announcement and designate this day as zero

Most current studies use daily day, but in early days monthly data adopted. The use of monthly data made measurement much more difficult because there are many surprises in a month besides the announcement effect being studied. Thus, for measuring market efficiency, it is important to measure the impact of the announcement using the smallest feasible intervals. A number of recent studies have used intraday data.

### 3. Define the period to be studied

The present study, we studied 9 days around the event, the we would designate -4, -3,..., -1 as the 4 days prior to the event, 0 as the event day, and +1, +2,..., +4 as the 4 days after the event.

### 4. Computation of the return on each of the days being studied for all stock

In this study 9 days (4 days before the event plus the event day, plus 4 days after the event) returns are calculated from 10 days prices along with the benchmark index values are also collected.

## 5. Computation of abnormal return for each of the days being studied

Abnormal return is actual return less the expected return/market return. Different authors use different models for expected return. In this study we used the return on the benchmark index as the expected return.

## 6. Examination and discussion of the results

Having performed the analysis the abnormal returns are examined and conclusions drawn.

### 5.5. EVENT STUDIES IN SEMI-STRONG FORM

According to the semi-strong form of the market, the security prices reflect all publicly available information within the purview of the efficient market hypothesis. In this state, the market reflects even those forms of information which may be concerning with the announcement of a firm's most recent dividend forecast and adjustments which will have taken place in the prices of security. The investors in the semi-strong form of the market will find it to earn return on the portfolios which is based on the publicly available information in excess of the return which may be said to be commensurate with the risk. Many empirical studies have been made to test the semi-strong form of the Efficient Market Hypothesis. In the semi-strong form market, any new announcement would bring reaction immediately to the company. This reaction could be even prior to the announcement in the market. This reaction prior to or immediately after the announcement would be caused by the additional information which is not anticipated by the stock exchange participants. This information also would not be disclosed to the market participants. But the semi-strong form of the efficient market hypothesis would immediately indicate a change in the price of the securities but the price would be adjusted immediately by the market participants and in this way, the participants remove any possibility for abnormal returns in the future.

# 6.LITERATURE REVIEW

Semi-strong form of EMH was empirically tested in 1969, by Fama, Fiscer, Jensen and Roll. "They considered the behavior of abnormal security returns at the announcement of stock split". In a stock market a stock splits generally indicates increased dividends payouts. Stock split announcement contain economic information. The average cumulative abnormal security return for thirty months upto the month of announcement was in excess of 30%. This shown that the

return was far above the normal rate of return which was achieved by the method of buying and holding a portfolio for a long-term investment of similar risky securities. The behavior of the security prices in the market after the split announcement should exactly the predictions of the EMH. After the public announcement the investors could achieve in abnormal returns n the basis of the information of stock split. The average cumulative abnormal return which was going higher and increasing just before the announcement stopped increasing or decreasing in any significant manner in the following period after the split announcement was made.

In 1972, Scholes conducted a study to observe, "The reaction of security prices to the offer of secondary stock issues". The research study showed that the price of security decreases when the issuer belongs to a company which indicated to the market that such an offer contained some bad news. But secondary, offering by investor, banks and insurance companies were not viewed in a negative manner and the security prices did not significantly fall. Price change which was associated with the secondary offering occurred usually within six days of issue and showed that these changes were more or less permanent. The price behavior of secondary issues lent support with the market just to a new price of information in an unbiased manner and almost immediately.

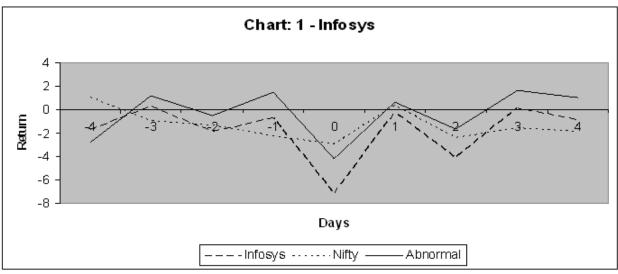
Kraus and Stoll also conducted a research study in the same year as Scholes to examine, "the effect of large block traders on the behavior of security prices". According to them, the study showed that there was a temporary effect, on share prices which were associated with the block trade. The traders which were known to effect large transactions were shown by a decrease in price but the price rose almost immediately and was totally reactionary by the end of the day. But the price did not return to the previous position because the market had received information which was negative to the image of the security. There was also no price behavior which could be predicted after the day on which the block trade occurred. This was constant with the semi-strong form of the EMH. Pettit and Watts examined the market reaction when an announcement was made about changes in dividends. They found that there was no evidence that the firms dividend announcement. Wauds further made an examination relating to the size and the direction of changes in the Federal Reserve discount rate. The price change on the date of announcement was significant and the manner in which it could be predicted. But after the event three days there was no indication of price change.

Another study conducted by Beaver which looked into the information with the announcements of annual earnings and the speed of changes in security prices. He examined the levels of the trading volume and the size of price changes. According to him, the absolute values of price changes and levels of trading were significantly higher during the announcement week. In the week of following the announcement week, it returned to pre-announcement levels. The market announcement effect was also studied by Patz and Boatsman. Both of them examined the reaction of market counting principles and they boldly release of a memorandum which was concerned with the cost centre used by some oil companies for accumulating certain material cost. They found that there was no significant reaction in the market to announcement and it was consistent with the efficient market hypothesis that the market saw the changes in keeping with temporary announcement leaving no great economic impact. This was further tested by Foster. He tested the preliminary estimates made by company officials and the market's reaction to it. He also found that the volume of trading increased in the week of announcement but went back to the pre-announcement level in the next week. All the above results indicate that price changes accompany with the announcement but abnormal returns cannot be made after following the announcement.

# 7. CALCULATING AND ANALYSING OF ABNORMAL RETURNS

Using capital market data, an event study measures the impact of a specific event on the market. The usefulness of such a study comes from the fact that given rationality in the market place, the effect of an event will be reflected immediately in security prices. Thus a measure of the event's impact can constructed using security prices observed over a relatively short period. In this study, the problem of calculating and analyzing abnormal return is considered. The abnormal return is calculated using actual return of a stock less the market return on the same day. This facilitates the use of abnormal returns around the event day in the analysis. The fashion of abnormal return for both positive growth and negative growth firms are similar trend. The abnormal return occurs in the pre as well as in post-announcement period. That is, stock price reaction to the firm's dividend is not instantaneous, which contradicts the efficient market hypothesis.

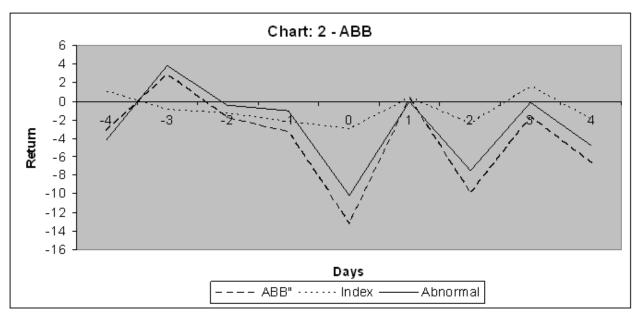
For analysis purpose, the companies are categorized into two type's i.e. positive growth and negative growth companies. This can be concluded with previous year dividend or current year interim dividend. If the current year dividend is higher than the previous dividend announcement is designated as positive growth and if lower than the previous announcement is called as negative growth.



Source: www.nse-india.com

Almost Infosys return does not differ from the market return. The return behavior of this company prior to the event day and after the event day is consistent with the market index. The price path on the event day also followed with the market movement. The dividend announcement of the company doesn't seem to have any influence in the price. By this news, one can earn little amount of return but it doesn't fulfill the transaction cost.

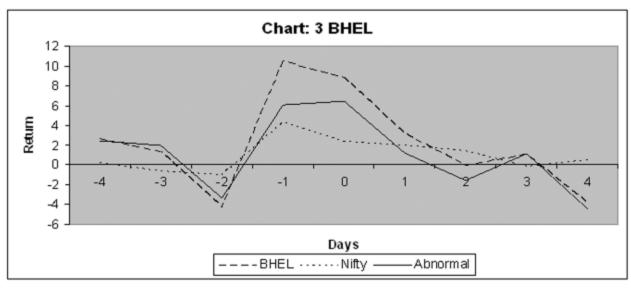
ABB



Source: www.nse-india.com

ABB return curve movement is almost same with the market movement, but at the same time it involved with heavy loss than that of the market index. There is no positive abnormal return found pre as well as post announcement period. The above chart proves the scrip movement is parallel with the market movement.

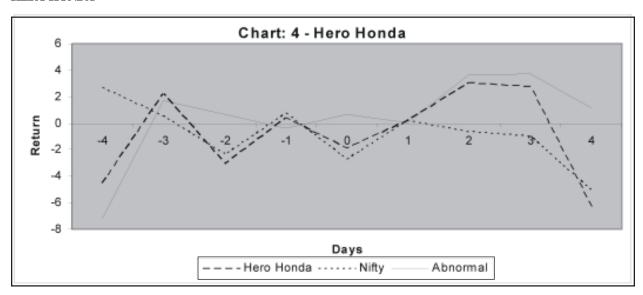
## BHEL



Source: www.nse-india.com

A little abnormal return is found in pre-announcement period but from the event day onwards scrip movement correlated with the market. There is no opportunity exists to earn superior return from the market. This announcement cannot yield handsome returns to the market participants.

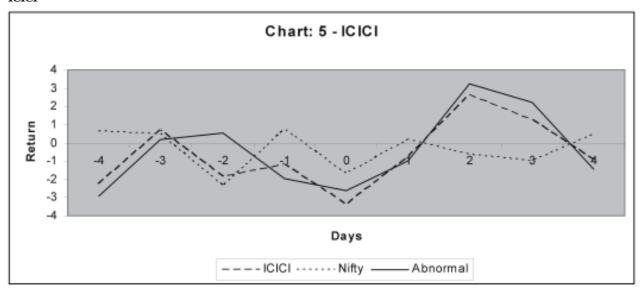
## **HERO HONDA**



Source: www.nse-india.com

Almost the scrip movement is correlated with the market performance. A little abnormal return is found during the first four days after the announcement of dividend results. Thereafter market return is decreased considerably along with scrip return. On the event day, market and the company share price is also ended with red.

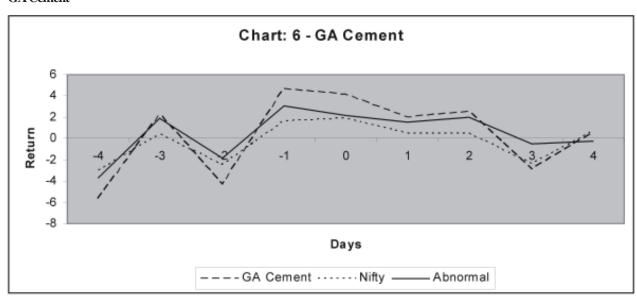
### **ICICI**



Source: www.nse-india.com

It is clear from the above chart, scrip and market movement were almost same prior to the announcement of dividends. After the result announcement, scrip generated a little return to the market traders. But at the same time there was no return found during the day of dividend announcement. It is hard to believe that abnormal return found because of announcement or any other surprise news of the company.

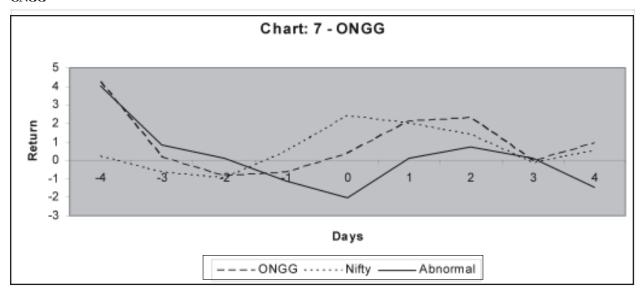
### **GA Cement**



Source: www.nse-india.com

It is evident from the above chart; the scrip started giving abnormal return prior one day to the dividend announcement to two days after the announcement. Based on this dividend announcement, one could not earn superior returns from the market. Almost all the curve movements are same pattern.

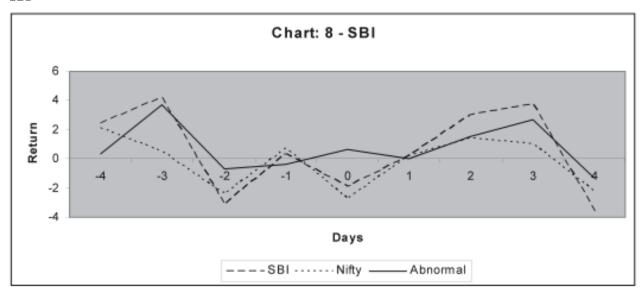
## **ONGG**



Source: www.nse-india.com

The return behavior of this company is correlated with the index return in pre-event period and also in the post event period. There is no chance to earn abnormal return, by taking this announcement. Hence the announcement of dividends doesn't have any impact on the price of the script.

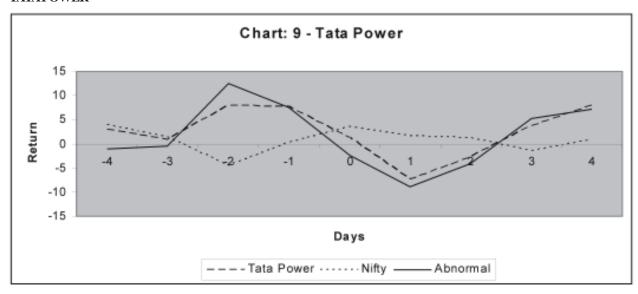
**SBI** 



Source: www.nse-india.com

This company's return does not differ from that of the market return. The return behavior of the company, prior to the event day and after the event day is consistent with the market return. The big dividend announcement of the company does not have any influence on the price of the share.

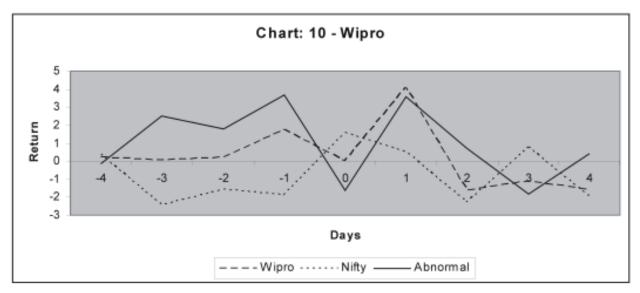
### **TATAPOWER**



Source: www.nse-india.com

The above chart reveals, there is no correlation between the scrip movement and index movement. But during the event day market and scrip movement coincides diminutive. Based on this news drift, it is difficult to earn abnormal return, which is also clear from the above chart.

#### **WIPRO**



Source: www.nse-india.com

From the above chart, prior to the event day company return is correlated with the market return. The same trend continued even after the event day. Opportunity exists in both the periods to earn abnormal return. Hence the announcement of result does not have any impact in the market.

## 8. SUMMARYAND CONCLUSION

The findings of the present study basically highlight as to how the market evaluates equity returns. It is simply not true, that dividend announcement data can provide a profitable guide to investment timing or improve a portfolio's rate of return. Information is reflected in stock prices so rapidly that published data tells the investor virtually nothing about the future change in stock prices. Not only do stock returns reflect the firm's dividend data when published but they also

anticipate future dividend growth to some extent. The growth factor is taken in terms of percentage which increase profit over the previous year performance, was supposed to be an important performance indicator that is likely to affect the stock returns.

The study was undertaken to find out whether the announcement of dividend result is having any influence on the stock return. There are variety of factors that influence the movement of share price and hence the return. The performance of the company as disclosed by the dividend result is one among them. In this study it was tested whether the announcement of result is having any influence in the company return. Normally a higher dividend than the previous year dividend should be welcomed by the market. This should be associated with greater return after the result is announced. All higher return after the announcement cannot say to be due to the dividend results. To find out the impact of results on returns, the impact of other factors in returns is to be segregated. The impact of other factors in return is taken from the index which is nothing but the market return. The announcement of dividend is unique and specific to a company. To study its impact on the market place, the impact of other factors is removed, that is why the period is limited to 10 days and the return is calculated for 9 days.

From the stock return behavior of 10 companies studied, the return behavior of only one company does not move with the market return. At the same time, the chance to earn abnormal return is found only in 3 companies. The announcement of results is said to have an impact only when there is an abnormal return after the announcement of dividend results. Then only an investor can formulate a trading strategy to outperform the market. In the absence of abnormal return caused by the dividend announcement, no trading strategy will help an investor to outperform the market.

Hence it can be concluded that the announcement of corporate dividend result does not have any impact on the stock return behavior of companies. By taking this announcement of dividend results, no one can outperform and there is no strategy exists in the market. Also it is clear from the above analysis; it seems very difficult to find future path based on the announcement effects.

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