# Relevance of Dividend Announcement in Investment Decision of an Individual Investor 

Subhendu Kumar Pradhan and R. Kasllingam


#### Abstract

The investment decision is influenced by many factors. One such factor is return. The shareholders may get return in the form dividend and capital appreciation. The purpose of this study is to find out the effect of dividend announcement on share price. The study is carried out for three years from 2009 to 2011. The Independent sample $T$-test is employed to compare price before and after dividend announcement. The correlation between share price and sensex is also analysed to find out whether change price is due to change in index. The change in price is also compared with amount of dividend. The study result show's that there is a rise price after result but that rise in price is mainly due to market conditions rather than dividend. The increase or decrease in share price is not reflecting the amount of dividend. The CAR is positive in the long run after dividend announcement


KEY WORDS: Impact of Dividend announcement, Shareholders wealth, relevance of dividend, Event study

## INTRODUCTION

The shareholder is the real owner of the business. He is interested to know the financial position of the business to decide whether to hold the shares of the company or sell the shares. The timeliness of the decision depends on corporate action. Corporate action is a decision taken by company to give dividend or to issue right share or bonus share. The corporate action may result in some benefit to the shareholders. If one can know the relation that exists between corporate actions and its impact on share price, he can earn good amount of profit. The dividend is one important event of the corporate action which may have direct impact on the share holder's wealth. Many studies have been made in the developed market to test their efficiency. Those studies have mostly used the event study methodology. But very few studies have been made in India to test the information content of dividend announcement and the efficiency of the market. The present study makes an attempt to find out the impact of dividend announcement on share prices.

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## REVIEW OF LITERATURE

Agarwal, R N. (1991), "Dividend and Stock Price a case study of Commercial Vehicles Sector in India", this study dealt with market efficiency to analyse the behaviour of dividends and share price of companies issued dividend in the period. In this study, it is observed that the current dividend behaviour is explained by the current level of net profits.

Baber, William R. and Kang, Sok-Hyon, (2001), stock Price Reactions to On-Target Earnings Announcements, investigates the consequences of earnings management by analysing stock price reactions to on-target quarterly earnings announcements during 1993-1999. We find that mean security returns during the earnings announcement period are $0.18 \%$ to $0.91 \%$ less for observations where firms apparently increase earnings than for those where firms apparently decrease earnings to meet expectations. These differences are statistically significant at conventional levels. Finally, we point out that the issue of stock splits should be investigated with care when using published consensus analyst forecasts.

Das, S., Pattanayak, J.K. and Pathak, P. (2008), effect of Quarterly Earnings Announcement on Sensex, his event study examines the return behaviour of a sample of firms experiencing common type of event, for e.g., earning announcement, stock split, issue of new debt or equity, merger and acquisition and so on. The objective is to assess the significance of the economic event on the market value of the firm. This paper investigates the impact of quarterly earnings announcements on the stock price movement of the firms constituting the BSE-Sensex. The study also examines the drifting up of share prices with reference to 'good announcement' and 'bad announcement'.

Vieru, Markku J., (2000), the impact of interim earnings announcements on the permanent price effects of trades on the Helsinki stock exchange, this study examines whether the permanent price effects of individual trades are greater before or after an interim earnings announcement on the Helsinki Stock Exchange. The results suggest that large trades do indeed produce greater permanent price effects before an announcement than after it. This suggests that large trades associated with price changes before an announcement send a stronger signal to other investors than similar trades after the announcement. For small trades the results were insignificant.

Wael, Louhichi, (2004), market Reactions to Annual Earnings Announcements this paper is to examine market behaviour around the times of annual earnings announcements made in the Paris Bourse. Accordingly, we propose to study both the informational role of accounting numbers and the intraday speed of adjustment of stock prices to new information. For every date, the event is classified into one of three categories: good news, bad news or no news. This split was made by comparing the actual number
to financial analysts' expectations. Our intraday analysis reveals several results. First, according to the thesis of Kim and Verrecchia R.E., (1994), the spread remains large short time after the release of unanticipated earnings announcements. During this period, spread widening is accompanied by an abnormal market activity. Second, abnormal returns earned by sophisticated investors dissipate within fifteen minutes. Next, Prices converge to equilibrium more quickly for good news than for bad news. Finally, we present evidence of price reversal thirty minutes following bad news announcements, as predicted by Ziebart, D. and Chao-Shin, L., (1998).

## RESEARCH METHODOLOGY

The research design applied for this study is descriptive in nature. The research is based on secondary data only. The entire data of dividend announcements have been drawn the prowess data base provided by the CMIE (Control for Monitoring Indian Economy), Money control and BSE Official website. The companies are selected based on the convenient sampling.

## I. IMPACT OF DIVIDEND ON SHARE PRICE IN 2011

The purpose of this study is to find out the effect of dividend announcement on share price. To find out the impact dividend on share price 10 days price before announcement and 10 days price after announcement is taken for analysis. For the year 2011 fifteen companies are considered for analysis. The Independent sample T-test is employed to compare share price before and after dividend announcement. The independent sample $t$-test uses mean price before and after to make comparison.

|  | Table 1. Share price before and after dividend |  |  |
| :--- | :---: | :---: | :---: |
| Company name | Share price <br> Before dividend | Share price <br> After dividend | Significance |
| Hindalco | 191.02 | 189.68 | 0.549 |
| Titan Industries | 4012.6 | 3913.7 | 0.020 |
| NALCO | 380.50 | 392.52 | 0.024 |
| MRF | 5922.2 | 6134.3 | 0.66 |
| CMC | 2117.0 | 2034.7 | 0.000 |
| SREI INFRA | 41.3400 | 38.78 | 0.000 |
| Hexaware Tech | 68.4800 | 65.43 | 0.000 |
| Ador Fon tech | 104.06 | 109.05 | 0.333 |
| Aurobindo Pharm | 190.14 | 191.59 | 0.551 |
| TVS | 309.66 | 283.94 | 0.000 |
| Power Finance | 101.23 | 96.195 | 0.000 |
| NTPC | 46.1800 | 47.096 | 0.000 |
| Aarti drugs | 114.10 | 112.12 | 0.101 |
| Prism Info | 371.64 | 332.2 | 0.000 |
| Syndicate Bank | 409.80 | 403.48 | 0.216 |

Table-1 shows that the significant value is less than 0.05 for Titan Industries, NALCO, CMC, Hexaware Tech, SREI Infra, TVS, Power finance, NTPC and Prism Info. This means that there is a significant change in price in the above said companies between before and after dividend announcement. The significant values are more than 0.05 for Hindalco, MRF, Ador Fon tech, Aurobindo Pharm, Aarti Drugs and Syndicate Bank. This means that there is no significant change in after announcement of dividend. This means that dividend announcement having impact for nine companies and it is not having impact for other companies. Among the nine companies where there is significant change in price, there is a fall in price for seven companies and rise in price only in two companies. On an overall basis it can be concluded that dividend has resulted in fall in share price in the year 2011.

Figure 1. Share Price Movement for Hindalco


Fig. 1 shows price of Hindalco during the study period. The arrow indicates date announcement of dividend. There is no clear trend after the dividend announcement. There is a wide fluctuation in price especially after the dividend announcement. The average share price before the dividend announcement is Rs.191.10 and after the announcement Rs.189.68. The mean value indicates that there is negative difference between the before and after dividend announcement. Thus the dividend has no impact on share price of Hindalco.

### 1.1 RELATIONSHIP BETWEEN SHARE PRICE AND SENSEX

The rise or fall in price of particular share might be due to rise and fall of market. The market movement is indicated by sensex movement. The correlation analysis is used to find out the relationship between share price and sensex movement.

Table 2: Relationship between share price and Sensex

| Company name | R value | Significance |
| :--- | :---: | :---: |
| Hindalco | -0.18 | 0.938 |
| Titan Industries | -0.372 | 0.106 |
| NALCO | -0.120 | 0.614 |
| MRF | .110 | 0.643 |
| CMC | .203 | 0.380 |
| SREI INFRA | .769 | 0.000 |
| Hexaware Tech | .909 | 0.000 |
| AdorFontech | -0.70 | 0.768 |
| Aurobindo Pharm | .470 | 0.037 |
| TVS | .878 | 0.000 |
| Power Finance | .815 | 0.000 |
| NTPC | -0.03 | 0.990 |
| Aarti drugs | .855 | 0.000 |
| Prism Info | -0.876 | 0.000 |
| Syndicate Bank | .704 | 0.001 |

The table 2 indicates that the significant value for the correlation coefficient is less than 0.05 for few securities like SREI Infra, Hexaware Tech, Aurobindo Pharm. TVS, Power Finance, Arati Drugs, Prism Info, Syndicate Bank. This means that share price movement is having close relationship with sensex movement. Therefore it can be stated that rise or fall in share price of securities is due to rise or fall in sensex. For Prism info the $r$ value is negative which means the share price move against market movement. In the earlier analysis it was stated that there is a change in price for nine companies after dividend announcement. The correlation analysis shows that out of those nine companies for six companies share price movement is closely related to sensex movement. Hence it can be concluded that change in price is not due to dividend announcement but due to market.

Table 3. Overall impact of dividend on share holder's wealth (2011)

| Day | Average <br> share price | Average <br> Sensex |  | Abnormal <br> Return | Cumulative <br> Abnormal Return |
| :--- | :---: | :---: | :---: | :---: | :---: |
| -9 | 967 | 19079.85 | -0.02008 | -0.02008 |  |
| -8 | 962.5767 | 18968.44 |  | 0.126486 | 0.106409 |
| -7 | 960.6233 | 18854.05 |  | 0.400127 | 0.506536 |
| -6 | 959.04 | 18849.25 |  | -0.13937 | 0.367168 |
| -5 | 956.2833 | 18842.39 | -0.25101 | 0.116153 |  |
| -4 | 964.07 | 18821.21 |  | 0.926631 | 1.042784 |
| -3 | 958.9567 | 18831.02 | -0.58251 | 0.460272 |  |
| -2 | 946.2333 | 18813.52 |  | -1.23382 | -0.77355 |
| -1 | 944.2 | 18739.98 | 0.175988 | -0.59756 |  |
| +1 | 960.58 | 18819.58 | 1.310049 | 0.71249 |  |
| +2 | 948.9213 | 18876.38 | -1.51556 | -0.80307 |  |
| +3 | 935.936 | 18867.45 | -1.32109 | -2.12417 |  |
| +4 | 927.61 | 18775.88 | -0.40424 | -2.52841 |  |
| +5 | 945.6533 | 18752 | 2.072295 | -0.45611 |  |
| +6 | 956.7733 | 18721.81 | 1.336885 | 0.880771 |  |
| +7 | 959.8833 | 18735.26 | 0.253245 | 1.134017 |  |
| +8 | 953.4133 | 18719.91 | -0.59211 | 0.541907 |  |
| +9 | 983.17 | 18653.55 | 3.475556 | 4.017463 |  |

So far the analysis is done on an individual share basis. To find out overall impact of dividend share price of all companies should be combined. Therefore average share of all companies is taken. Abnormal return means return over and above sensex return. Return means percentage from previous day price. Table 3 shows that the overall impact of dividend on share holder's wealth. Before the announcement of dividend CAR was -0.59756 percentage and after the announcement CAR increased to 0.71249 percentage. CAR was highest i.e. 4.017463 percentage at end of $9^{\text {th }}$ day after the announcement. The average share price of all companies was Rs 967 before announcement of the dividend and it increased to Rs. 983.17 after announcement of dividend. It means that there is an impact of dividend on the share holder's wealth after the announcement of the dividend. The abnormal return is mainly influenced by heavy price stocks.

Table 4. Sector wise analysis

| Sector | Mean | Significance |
| :--- | :---: | :---: |
| Private | -2.5327 | 0.580 |
| Public | -9.297 | 0.555 |

Sector wise is also important because dividend announcement may have impact in a particular sector. Table 4 shows that the significant value is more than 0.05 for both sectors. This means that there is no significant change in price in any particular sector after dividend announcement. The dividend announcement is having similar effect in both public sector and private sector. This means that impact of dividend is not different between public sector and private sector companies.

### 1.2 INDUSTRY WISE ANALYSIS

To make industry wise analysis the companies are divided into Steel, Aluminium, Oil, Automobiles, Pharma and IT. The analysis of variance is used to find out the significant difference in share price among different industries.

Table 5. Industry Analysis

|  | Sum of Squares | Dof | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between Groups | 83.842 | 5 | 16.768 | 0.771 | 0.594 |
| Within Groups | 195.705 | 9 | 21.745 |  |  |
| Total | 279.547 | 14 |  |  |  |

Table 5 shows that the significance value is 0.594 which is greater than 0.05 which means there is no significant change in share price in particular industry after dividend announcement. This means that the impact of dividend is not different from industry to industry. The change in price due to dividend announcement is similar across industries.

### 1.3 RELATIONSHIP BETWEEN CHANGE IN PRICE AND AMOUNT OF DIVIDEND

In the earlier analysis it is stated that there is a rise in price of many securities after the announcement of dividend. Now it is necessary to analyze whether there is any relationship between change in price and dividend amount.

Table 6. Relationship between change in price and amount of Dividend

|  |  | Change in price | Dividend Amount |
| :--- | :---: | :---: | :---: |
| Change in price | Pearson Correlation | 1 | -0.096 |
|  | Sig. (2-tailed) |  | .733 |
|  | N | 15 | 15 |
| Dividend Amount | Pearson Correlation | -0.096 | 1 |
|  | Sig. (2-tailed) | .733 |  |
|  | N | 15 | 15 |

Table 6 shows that the correlation co-efficient for the relationship between change in share price and the amount of dividend is -0.096 . The significance value for the correlation co-efficient is 0.733 which is greater than 0.05 . This indicates that there is no relationship between rise in share price and the dividend amount. This shows that the change in price is not commensurate with amount of dividend given.

## II. IMPACT OF DIVIDEND ANNOUNCEMENT IN 2010

For the year 2010 fourteen companies are considered to find out the impact of dividend on share price. The share price for 10 days before announcement and 10 days price after announcement is taken for the analysis. The paired T-test is employed to compare share price before and after dividend announcement.

Table 7. Share price before and after dividend announcement

| Company name | Average <br> Share price <br> Before | Average <br> Share price <br> After | T value | Sig. |
| :--- | :---: | :---: | :---: | :---: |
| Aividend | Dividend |  |  |  |
| Amtek auto | 1.4882 E 2 | 1.2652 E 2 | 9.019 | 0.000 |
| Amtek India | 62.6600 | 60.9700 | 2.700 | 0.024 |
| Bartronics | 91.7300 | 77.3850 | 10.347 | 0.000 |
| Centrum | 1.5369 E 3 | 1.5488 E 3 | -.617 | 0.552 |
| Colgate | 8.8885 E 2 | 8.7095 E 2 | 1.887 | 0.092 |
| Falcon tyres | 1.4919 E 2 | 1.4772 E 2 | 2.417 | 0.039 |
| Feddres Lloyd | 90.6000 | 86.0750 | 4.067 | 0.003 |
| GAIL | 4.9217 E 2 | 4.9077 E 2 | .549 | 0.597 |
| Mediaone entertainment | 92.0100 | 92.1800 | -.143 | 0.890 |
| Minal industries | 78.6000 | 66.4000 | 3.299 | 0.009 |
| Neo Corp | 54.8300 | 55.7700 | -2.799 | 0.021 |
| ONGC | 1.2607 E 3 | 1.3262 E 3 | -7.869 | 0.000 |
| Sukhjit starch | 2.6414 E 2 | 2.8156 E 2 | -3.507 | 0.007 |
| Vaishnavi gold | 43.6000 | 22.8100 | 5.129 | 0.001 |

Table 7 shows that the significance values are less than 0.05 for Amtek auto, Amtek India, Bartronics, Falcon tyres, Feddres Lloyd, Minal industries, Neo Corp, ONGC, Sukhjit starch and Vaishnavi gold. This means that there is a significant difference in share prices before and after the dividend announcement. Therefore the dividend announcement has an impact on share price. The significant value is greater than 0.05 for Centrum, Colgate, GAIL and Mediaone entertainment. This means that there is no significant change in after announcement of dividend. Therefore dividend announcement is having impact for ten companies and it is not having impact for other companies.

Among the ten companies where there is significant change in price, there is a fall in price for eight companies and rise in price only for two companies. On an overall basis it can be concluded that dividend has resulted in fall in share price in the year 2010.


Figure 2. Share price Movement for Amtek Auto
Fig. 2 shows price of Amtek Auto during the study period. The arrow indicates date announcement of dividend. There is a clear trend after the dividend announcement. There is an increase in price especially after the announcement of dividend. The average share price before the dividend announcement is Rs.148.82 and after the announcement Rs.156.52. The mean value indicates that there is positive difference between the before and after dividend announcement. Thus the dividend announcement has an impact on share price of Amtek Auto.

### 2.1 RELATIONSHIP BETWEEN SHARE PRICE AND SENSEX

The rise or fall in share price of particular share might be due to rise and fall of market. The market movement is indicated by sensex movement. The correlation analysis is used to find out the relationship between share price and sensex movement.

Table 8. Relationship between share price and Sensex

| Company name | R value | Significance |
| :--- | :---: | :---: |
| Amtek auto | .406 | 0.076 |
| Amtek India | .051 | 0.832 |
| Bartronics | -0.093 | 0.696 |
| Centrum | .615 | 0.004 |
| Colgate | .647 | 0.002 |
| Falcon tyres | .385 | 0.093 |
| Feddres Lloyd | .047 | 0.845 |
| GAIL | .528 | 0.017 |
| Mediaone enterrainment | -0.063 | 0.792 |
| Minal industries | -0.013 | 0.955 |
| Neo Corp | .557 | 0.011 |
| ONGC | .853 | 0.000 |
| Sukhjit starch | -0.526 | 0.017 |
| Vaishnavi gold | .521 | 0.000 |

The table 8 shows that the significant value for the correlation coefficient is less than 0.05 for few securities like Centrum, Colgate, GAIL, Neo Corp, ONGC, Sukhjit starch and Vaishnavi gold. This means that share price movement is having close relationship with sensex movement. Therefore it can be stated that rise or fall in share price of securities is due to rise or fall in sensex. For Sukhjit starch the r value is negative which means the share price move against market movement. In the earlier analysis it was stated that there is a change in price for ten companies after dividend announcement. The correlation analysis shows that out of those ten companies for three companies, share price movement is closely related to sensex movement. Hence it can be concluded that change in price is not due market but due to dividend announcement.

Table 9. Overall impact of dividend on share holder's wealth

| Day | Average <br> share price | Average <br> Sensex | Abnormal <br> Return | Cumulative <br> Abnormal <br> Return |
| :--- | :---: | :---: | :---: | :---: |
| -9 | 357.14 | 18680.29 | -0.26695 | -0.26695 |
| -8 | 354.9367 | 18702.92 | -0.73809 | -1.00504 |
| -7 | 346.25 | 18646.48 | -2.14558 | -3.15061 |
| -6 | 341.44 | 18583.08 | -1.04917 | -4.19979 |
| -5 | 350.6367 | 18621.12 | 2.488821 | -1.71097 |
| -4 | 342.8333 | 18632.85 | -2.2885 | -3.99947 |
| -3 | 346.64 | 18515.57 | 1.739813 | -2.25966 |
| -2 | 348.7333 | 18492.12 | 0.730514 | -1.52914 |
| -1 | 356.1333 | 18536.6 | 1.88143 | 0.352286 |
| +1 | 356.7233 | 18465.49 | 0.549313 | 0.901599 |
| +2 | 351.6333 | 18486.92 | -1.54295 | -0.64135 |
| +3 | 351.8633 | 18423.7 | 0.40737 | -0.23398 |
| +4 | 352.26 | 18552.32 | -0.58536 | -0.81934 |
| +5 | 347.4767 | 18525.23 | -1.21191 | -2.03126 |
| +6 | 350.6333 | 18481.99 | 1.141866 | -0.88939 |
| +7 | 344.9233 | 18527.42 | -1.87426 | -2.76365 |
| +8 | 348.2767 | 18530.57 | 0.955198 | -1.80845 |
| +9 | 347.1633 | 18539.92 | -0.37016 | -2.17861 |

So far the analysis is done on an individual share basis. To find out the overall impact of dividend share price of all companies should be combined. Therefore average share of all companies is taken. Abnormal return means return over and above sensex return. Return means percentage from previous day price. Table 9 shows that the overall impact of dividend on share holder's wealth. Before the announcement, of dividend CAR was 0.352286 percentage and after the announcement CAR increased to 0.901599 percentage. The average share price of all companies was Rs. 357.14 at $9^{\text {h }}$ days of before announcement of dividend, and it was Rs.347.1633 at $9^{\text {th }}$ days of after announcement of dividend. It means that there is an impact of dividend on the share holder's wealth after the announcement of the dividend.

Table 10. Sector wise analysis

| Sector | Mean | Significance |
| :--- | :---: | :---: |
| Private | -7.3267 | 0.542 |
| Public | -1.8742 | 0.452 |

Sector wise is also important because dividend announcement may have impact in a particular sector. Table 10 shows that the significant value is
more than 0.05 for both sectors. This means that there is no significant change in price in any particular sector after dividend announcement. The dividend announcement is having similar effect in both public sector and private sector.

### 2.2 INDUSTRY WISE ANALYSIS

To make industry wise analysis the companies are divided into Steel, Aluminium, Oil, Automobiles, Pharma and IT. The analysis of variance is used to find out the significant difference in share price among different industries.

Table 11. Industry analysis

|  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between Groups | 857.860 | 5 | 171.572 | 0.758 | 0.604 |
| Within Groups | 1811.380 | 8 | 226.423 |  |  |
| Total | 2669.240 | 13 |  |  |  |

Table 5 shows that the significance value is 0.604 which is greater than 0.05 which means there is no significant change in share price in particular industry after dividend announcement. This further means that the change is similar among all industries.

### 2.3 RELATIONSHIP BETWEEN CHANGE IN PRICE AND DIVIDEND amount

In the earlier analysis it is stated that there is a change in price of many securities after the announcement of dividend. Now it is necessary to analyze whether there is any relationship between change in price and dividend amount.

Table 12. Relationship between change in share price and dividend amount

|  |  | Change in price | Dividend Amount |
| :--- | :---: | :---: | :---: |
| Change in price | Pearson Correlation | 1 | -0.072 |
|  | Sig. (2-tailed) |  | 0.843 |
|  | N | 12 | 10 |
| Dividend Amount | Pearson Correlation | -0.072 | 1 |
|  | Sig. (2-tailed) | 0.843 | 10 |

Table 12 shows that the correlation co-efficient for the relationship between change in share price and the amount of dividend is -0.072 . The significance value for the correlation co-efficient is 0.843 which is greater than 0.05 . This indicates that there is no relationship between rise in share price and the dividend amount.

## III IMPACT OF DIVIDEND ANNOUNCEMENT IN 2009

For the year 2009 twelve companies are considered to find out the impact of dividend on share price. The share price for 10 days before announcement and 10 days price after announcement is taken for the analysis. The paired T-test is employed to compare share price before and after dividend announcement.

Table 13. Share price before and after dividend announcement
$\left.\begin{array}{lcccc}\hline \text { Company name } & \begin{array}{c}\text { Average } \\ \text { Share price } \\ \text { Before } \\ \text { Dividend }\end{array} & \begin{array}{c}\text { Average } \\ \text { Share price } \\ \text { After }\end{array} & \text { T value } & \text { Sig. } \\ \text { Dividend }\end{array}\right]$

Table 13 shows that the significant values are less than 0.05 for Amtekauro, Emami Ltd, Falcon tyres, India Nippon, NELCO, ONGC, Salzer electronics and AccentiaTech. This means that there is a significance difference in share prices before and after the dividend announcement. Therefore the dividend announcement has an impact on share price. The significant value is greater than 0.05 for Amar remedies, Amtek India, GAIL and Mediaone entertainment. This means that there is no significant change in after announcement of dividend. Therefore dividend announcement is having impact for eight companies and it is not having impact for other companies. Among the eight companies where there is significant change in price, there is a fall in price for three companies and rise in price only for five companies. On an overall basis it can be concluded that dividend has resulted in rise in share price in the year 2009.

### 3.1 RELATIONSHIP BETWEEN SHARE PRICE AND SENSEX

The rise or fall in share price of particular share might be due to rise and fall of market. The market movement is indicated by sensex movement. The correlation analysis is used to find out the relationship between share price and sensex movement.

Table 14. Relationship between share price and sensex

| Company name | $\mathbf{R}$ value | Significance |
| :--- | :---: | :---: |
| Amar Remedies | 0.452 | 0.045 |
| AmtekAuro | 0.398 | 0.082 |
| Amtek India | 0.634 | 0.003 |
| Emami Ltd | 0.000 | 0.999 |
| Falcon tyres | -0.503 | 0.024 |
| GAIL | 0.699 | 0.001 |
| India Nippon | -0.158 | 0.506 |
| MediaOne entertainment | -0.139 | 0.558 |
| NELCO | 0.435 | 0.055 |
| ONGC | 0.521 | 0.019 |
| Salzer electronics | 0.483 | 0.031 |
| Accentia Tech | -0.401 | 0.080 |

Table 14 indicates that the significant value for the correlation co-efficient is less than 0.05 for Amar Remedies, Amtek India, Falcon tyres, GAIL, ONGC and Salzer electronics. This means that share price movement is having close relationship with sensex movement. Therefore it can be stated that rise or fall in share price of securities is due to rise or fall in sensex. For Falcon tyres the $r$ value is negative which means the share price move against market movement. In the earlier analysis it was stated that there is a change in price for eight companies after dividend announcement. The correlation analysis shows that out of those eight companies for three companies share price movement is closely related to sensex movement. Hence it can be concluded that change in price is not due to market but due to dividend announcement.

Table 15. Overall impact of dividend on share holder's wealth

| Day | Average <br> share price | Average <br> Sensex | Abnormal <br> Return | Cumulative <br> Abnormal <br> Return |
| :--- | :---: | :---: | :---: | :---: |
| -9 | 240.8923 | 15396.52 | 0.557375 | 0.557375 |
| -8 | 238.8231 | 15300.62 | -0.2361 | 0.321277 |
| -7 | 240.3885 | 15376.1 | 0.162139 | 0.483417 |
| -6 | 242.9885 | 15369.54 | 1.124211 | 1.607628 |
| -5 | 239.2808 | 15383.28 | -1.61524 | -0.00762 |
| -4 | 242.8115 | 15530.21 | 0.520483 | 0.512867 |
| -3 | 242.1577 | 15533.9 | -0.29306 | 0.21981 |
| -2 | 244.0231 | 15551.19 | 0.659003 | 0.878813 |
| -1 | 244.6077 | 15510.79 | 0.499361 | 1.378174 |
| +1 | 243.3885 | 15524.43 | -0.58641 | 0.791763 |
| +2 | 244.0692 | 15516.32 | 0.331985 | 1.123747 |
| +3 | 243.55 | 15570.59 | -0.56254 | 0.561208 |
| +4 | 243.6462 | 15535.92 | 0.262183 | 0.823391 |
| +5 | 244.6808 | 15530.77 | 0.457748 | 1.281138 |
| +6 | 246.0577 | 15682.48 | -0.4141 | 0.867041 |
| +7 | 244.3269 | 15654.54 | -0.52523 | 0.341807 |
| +8 | 246.8385 | 15667.96 | 0.942221 | 1.284028 |
| +9 | 245.6885 | 15626.26 | -0.1997 | 1.084329 |

So far the analysis is done on an individual share basis. To find out overall impact of dividend share price of all companies should be combined. Therefore average share of all companies is taken. Abnormal return means return over and above sensex return. Return means percentage from previous day price. Table-15 shows that overall impact of dividend on share holder's wealth. Before announcement of the dividend CAR was 1.378174 percentage and after announcement CAR increased to 1.084329 percentage at the end period of $9^{\text {th }}$ day. CAR is highest i.e. 1.284028 percentage at end of $8^{\text {th }}$ day. The average share price of all companies was Rs 240.8923 at $9^{\text {th }}$ day of before announcement of dividend and it was Rs. 245.6885 at $9^{\text {th }}$ day of after announcement of dividend. It means that there is an impact of dividend on share holder's wealth after announcement of dividend.

Table 16. Sector wise analysis

| Sector | Mean | Significance |
| :--- | :---: | :---: |
| Private | -2.2241 | 0.945 |
| Public | -1.7552 | 0.914 |

Sector wise is also important because dividend announcement may have impact in particular sector. Table 16 shows that the significant value is more than 0.05 for both sectors. This means that there is no significant change in price in any particular sector after dividend announcement. The dividend announcement is having similar effect in both public sector and private sector.

### 3.2 Industry wise analysis

To make industry wise analysis the companies are divided into Steel, Aluminium, Oil, Automobiles, Pharma and IT. The analysis of variance is used to find out the significant difference in share price among different industries.

Table 17. Industry analysis

|  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between Groups | 976.420 | 7 | 139.489 | 25.730 | 0.004 |
| Within Groups | 21.685 | 4 | 5.421 |  |  |
| Total | $\mathbf{9 9 8 . 1 0 5}$ | $\mathbf{1 1}$ |  |  |  |

Table 17 shows that the significance value as 0.004 which is less than 0.05 which means there is a significant change in share price in particular industry after dividend announcement.

### 3.3 RELATIONSHIP BETWEEN CHANGE IN PRICE AND DIVIDEND AMOUNT

In the earlier analysis it is stated that there is a rise in price of many securities after the announcement of dividend. Now it is necessary to analyze whether there is any relationship between change in price and dividend amount.

Table 18. Relationship between change in price and dividend amount

|  |  | Change in price | Dividend amount |
| :--- | :---: | :---: | :---: |
| Change in price | Pearson Correlation | 1 | 0.179 |
|  | Sig. (2-tailed) |  | 0.620 |
|  | N | 10 | 10 |
| Dividend amount | Pearson Correlation | 0.179 | 1 |
|  | Sig. (2-tailed) | 0.620 | 10 |
|  | N | 10 |  |

Table 18 shows that the correlation co-efficient for the relationship between change in share price and the amount of dividend is 0.179 . The significance value for the correlation co-efficient is 0.620 which is greater than 0.05 . This indicates that there is no relationship between rise in share price and the dividend amount.

## Conclusion

The share price analysis shows that there is a significant change in price after announcement of dividend in nine out of fifteen companies in the year 2011. But the change is negative in many companies. Apart from that correlation analysis shows that sensex movement is significantly influencing the share price of eight companies. This means that the change in share price is not due to dividend announcement. The abnormal return analysis indicates that the shareholders are getting abnormal return in the long run. But the abnormal return is influenced by heavy price stocks. Therefore it can be stated that the dividend announcement does not have impact on share price Sector wise analysis reveals that there is not much difference in impact of dividend between private sector and public sector. The industry wise analysis also shows that the impact of dividend is not different from industry to industry. The analysis also shows that there is no relationship between change in price and amount of dividend announced for all the three years. This means that the change in price is not commensurate with amount of dividend announced. Hence the dividend is not having any impact on share price. The individual investors are not using dividend to make investment decision. Therefore it can be concluded that dividend announcement is irrelevant to investment decision. The Indian market is efficient and it is not influenced by dividend announcement and it does not produce any immediate return.

## REFERENCES

4 Kim, and Verrecchia R.E., (1994), Market Liquidity and Volume around Earnings Announcements, Joumal of Accounting and Economics 17, pp.41-67.

5 Vieru, Markku J.,(2000)"The Impact of Interim Earnings Announcements on the Permanent Price Effects of Trades on the Helsinki Stock Exchange", Journal of Multinational Financial Management, [http://ssrn.com/abstract=239470](http://ssrn.com/abstract=239470)
6 Wael, Louhichi, (2004) "Market Reaction to Annual Earnings Announcements: The Case of Euronext Paris", EFMA 2004 Basel Meetings Paper, <http://ssrn.com/ abstract=498502>

7 Ziebart, D. and Chao-Shin L (1998), "Evidence Regarding Price Reversal and Drift After Earnings Announcements", Financial Review, vol. 33, issue 2, pages 145-60.


[^0]:    Subhendu Kumar Pradhan is Research Scholar, Department of Management Studies, Pondicherry University Kalapet. Puducherry-605 014, subhenduaum@gmail.com. 07200526848

    Dr. R. Kasilingam is Reader, Department of Management Studies, Pondicherry University, Kalapet, Puducherry-605 014, kasimeena@gmail.com, 0413-2654793, 098401 79939

