

## **Impact on Share Price and Volume Before and After Dividend Declaration**

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### **Abstract**

*Every firm operating in a given industry follows some sort of dividend payment pattern or dividend policy and obviously it is a financial indicator of the firm. Managements' primary goal is shareholders' wealth maximization, which translates into maximizing the value of the company as measured by the price of the company's common stock. Dividend policy is challenging for the directors and financial managers of a company, because different investors have different views on present cash dividends and future capital gains and also regarding the extent of effect of these dividends on the share price. This paper intends to study the impact of dividend on the price and volume before and after such dividend is announced and to analyze the dividend payment trend of BSE firms. The objective of this paper to understand the determination of the target payout ratio of each firm on BSE.*

**Keywords:** Dividends, Payout ratio, Share price, Wealth maximization

### **1. Introduction**

Dividend policy is a major financing decision that involves with the payment to shareholders in return of their investments. Every firm operating in a given industry follows some sort of dividend payment pattern or dividend policy and obviously it is a financial indicator of the firm. Thus, demand of the firm's share should to some extent, dependent on the firm's dividend policy. Dividend policy is one of the most widely researched topics in the field of finance but the question is whether dividend policy affects stock prices still remain debatable among managers, policy makers and researchers for many years.

Dividend policy has been an issue of interest in financial literature since Joint Stock Companies came into existence. Dividends are commonly defined as the distribution of earnings (past or present) in real assets among the shareholders of the firm in proportion to their ownership. Dividend policy connotes to the payout policy, which managers pursue in deciding the size and pattern of cash distribution to shareholders over time. Managements' primary goal is shareholders' wealth maximization, which translates into maximizing the value of the company as measured by the price of the company's common stock. This goal can be achieved by giving the shareholders a "fair" payment on their investments. However, the impact of firm's dividend policy on shareholders wealth is still a debatable issue.

Once a company makes a profit, it must decide on what to do with those profits. They could continue to retain the profits within the company, or they could pay out the profits to the owners of the firm in the form of dividends. The dividend policy decision involves two questions:

- 1) What fraction of earnings should be paid out, on average, over time? And,
- 2) What type of dividend policy should the firm follow?

On the other hand Management has to satisfy various stakeholders from the profit. Out of the Stakeholders priority is to be given to equity share - holders as they are being the highest risk. Dividend policy is concerned with financial policies regarding paying cash dividend in the present or paying an increased dividend at a later stage. Whether to issue dividends and what amount, is determined mainly on the basis of the company's inappropriate profit (excess cash) and influenced by the company's long-term earning power. When cash surplus exists and is not needed by the firm, then management is expected to pay out some or all of those surplus earnings in the form of cash dividends or to repurchase the company's stock through a share buyback program.

## **2. Objective of the study**

- ❖ To study the impact of dividend on the price and volume before and after such dividend is announced.
- ❖ To analyze the dividend payment trend of BSE firms.
- ❖ To determine the target payout ratio of each firm on BSE.

### **3. Literature review**

**Ranpreet Kaur, (2014)** Investigated the concept and scope of dividend policy and to study the irrelevance theory (Modigliani-Miller Model) dividend theory and to know the relationship between dividend policy approach and share prices (companies listed in CNX Dividend opportunities Index was chosen as population universe) and for sample 5% companies listed in index was considered. Analysis has been made by using secondary data and simple random sampling is used during period 2013- 2014. The study found that there is neither positive nor negative relationship between the market price of shares and dividend payout. Author said that due to other factors share-prices are affected. It can be concluded that irrelevance theory shows true picture in current scenario in comparison to relevance theory in short time period. **Sobharani, (2013)** the purpose of this research paper was to evaluate the profitability and its growth rate in selected pharmaceuticals companies in India. secondary data used for study purpose during the period 2002-2011. For an analysis purpose annual compound rate, Profit before interest and tax, profit after tax, earnings per share, dividend per share variables were used. The study found that the profitability of pharmaceutical companies are affected by determinants of dividend and it also revealed that annual compound growth rates of dividends determination give the profitability and growth rate. Author also suggested that decisions regarding companies' performance depend not only on highest dividend per share but more on broad decision, dividend payout ratio and several other factors. **Gayathridevi and Mallikarjunappa, (2012)** the aim of this paper was to analyze the trends and determinants of dividend decisions. For survey purpose NSC listed 114 Indian Textiles companies have been taken during the period 1989-2009. The simple Regression model was used to evaluate the study. Study revealed that most of the dividends

paying companies are profit making companies. The study also showed that absolute value of dividends and dividend paid-up capital shows the significant and positive relationship between dividend policy and lagged earnings belonging to common shareholders, profit after tax, earnings belonging to shareholders cash flows, size, cash dividends and lagged dividends. It also showed that current Ratio and capital structure have insignificant influence on dividend policy. **Parasuraman, (2012)** the aim of this research paper was to study the effectiveness of Linters' model for dividend payout. Analysis made on BSE Sensex firms during the period 2002-2011. For study purpose Linter model and another three basic models were used. Multiple regression were used to test the variables namely, cash earnings, basic earnings, lagged dividends and capital expenditure. By using Linter model as a base, it is found that the payout decision of Sensex firms depends on the factors like earnings, cash earnings, lagged dividends and capital expenditure. It can also be found that Linter Model holds good to a large extent in case of Sensex firms. In short the study supports prevalence and relevance of Linter model of dividend policy. This simply suggested that managers can't ignore the variables like earnings capacity and lagged dividends while designing dividend policy. **Pasricha, (2012)** Investigated links between the dividend policy and value of firms. For survey purpose 20 sample companies of information technology and pharmaceuticals industries of India have been taken during the period 2001 to 2010. The sample has been chosen from S& P CNX Index on the basis of their Net Worth. The data mainly used for study purpose has been obtained from Prowess database of the Centre for monitoring Indian Economy (CMIE) India. Multiple Regression model used for study purpose and graphical pictorial previews were used for presenting data. The study concluded that the dividend payouts having considerable bearing and positive and significant relationship with the value of firms. **Pasricha (2011)** the objective of this study was to test the applicability of dividend models in Indian context with special reference to engineering Industry. **Amitabh Gupta, (2010)** Re-examined the various factors that influenced the dividend decision of firms. The study has been conducted on BSE listed Indian companies for the period 2001-2007. Depending on the literature review author has found fifteen variables for framing

dividend policy. Author used factor analysis for extracting prominent factors from various variables. And then multiple regression analysis has been conducted. The result of the factor analysis showed that leverage, liquidity, ownership structure and growth are major factors. The study revealed that after applying regression leverage and liquidity are the major determinants of dividend policy for Indian companies. The study also found that non-financial factors such as foreign collaborators' shareholding, attitude and behavior of management, company policy etc. may also influence the dividend decision of firm. **Packkirisamy, (2010)** the object of this paper was to evaluate the link between corporate leverage and the dividend policy of firms across industries in India in respect of size of corporate firms. Survey has been conducted from 73 different companies of different industries namely cement, chemical and fertilizers, IT, oil and Gas, Pharmaceutical, Shipping and Textiles, Which was listed on NSC in India during the period 1996-2007. Multiple Regression technique (OLS Method) is used for survey purpose. The study revealed that dividend pay-out of small size, large size and overall corporate firms across industries in India is dependent on the level of debt in capital structure.

**Parua (2009)** the main aim of this study was to find out the trends in dividend payment and determinants of dividend decision. 607 listed Indian companies have been considered for the study purpose during the period from 1993-94 to 2004-05. The study found that while setting dividend policy current-profit, past-profit and expected future profit have play significant positive role and cash position and cash flow has significant negative relationship with only dividend rate. Whereas interest expenses, capital expenditure, tax ratio and share price behaviors were not related to matter of dividend payment. The author also said that for any managers stability of dividends is the primary concern. **Pani, (2008)** the object of this paper was to analyze the possible links between dividend policy and stock-price behavior in Indian corporate sector. For study purpose 500 listed companies on BSE had been taken during the period 1996- 2006. The survey made on six different industries namely electricity, food and beverage, mining, Non-metallic, Textile and service-sector. Fixed effect model had been used

for study purpose. The variables like size and long term debt-equity ratio has been taken for analyzing the relationship between dividend retention ratio and stock-price behavior of the firm by using panel data approach. The study result based on fixed effect model. The result of this model indicated that there is possible links between dividend policy and stock price behavior. The author said that in some industries it shows the possibility of “clientele effect.

**Jasvir S. Sura, (2006)** the object of this paper was to evaluate the factors influencing dividend policy decisions in banking sector. This study examined the re- applicability of Linter’s (1956) and Britain (1966) path breaking analyses of dividend policy. For, study purpose banks listed on National stock exchange have been taken. Survey has been made by using cross sectional analysis during the period 1996- 2006. The study found that commercial banks in India generally followed stable dividend policy. The study also found that lagged dividends and current earnings are major determinants of dividends. The study also supported the argument of ‘information content of dividends’ with reference to dividend proceeds. Hence, author suggested that the management of the bank can use dividend policy as signaling device. **Sanjeev Mittal, (2006)** Investigated the dividend behavior of NSC and BSC firms. The article studied the dividend behavior of selected firms during the period 2001-2005 and divides them into payers and non-payers groups. To know the relationship of dividend paid with investment opportunities, Growth cost of equity and ownership structure regression analysis was used. The study found that payer firms to have large size, less investment opportunities and high cost of retained earnings and the opposite in case of non-payers. Author also found that by reducing agency costs promoters can increase in dividend with increase in equity ownership. **Fama and French, (2001)** analyzed the issue of lower dividends paid by corporate firms over the period 1973-1999 and the factors responsible for the decline. In particular, they analyzed whether the lower dividends were the effect of changing firm characteristics or lower propensity to pay on the parts of the firms. They observed that proportion of companies paying dividend has dropped from a peak of 66.5% in 1978 to 20.8% in 1999. They attributed this decline to the changing characteristics of firms:

“the decline in the incidence of dividend payers is in part due to an increasing tilt of publicly traded firms toward the characteristics- small size, low earnings, and high growth- of firms that typically have never paid dividends.”

#### **4. Sources of data**

The data collected for the purpose of the study was secondary data. The data of dividend rate and annual stock price of BSE-500 companies for 10years, i.e., from April-2008 to March-2018 were taken for the purpose of the study. The data was collected from the ‘Prowess database’.

#### **5. Sample of the study**

- The study consists of a sample size of 452 companies (BSE-500 out of this only 452 companies declare dividend rates which have been taken for sample study)
- The sample comprises of companies which are listed in BSE and whose data for the last 10 years was available.
- Time period of study is 10 years i.e. 1<sup>st</sup> April 2008 to 31<sup>st</sup> March 2018 has been analyzed for the purpose of study.
- The data collected from prowess database, which included dividend per share, earning per share and annual stock price of BSE-500 companies.

#### **6. Methodology**

**Step 1- Extraction of data:** Data is collected related to dividend policy from prowess database. In this, I have downloaded the data like Dividend rate, Dividend per Share, Earning per Share and Closing Price of the BSE-500 companies.

**Step 2- Segregation of the data:** After extracting the data from prowess database system, I segregate the data on the basis of year.

**Step 3- Calculation of ratio and correlation:** Ratios are calculated using dividend per share and EPS. Correlations are calculated using DPS, closing price and ratios.

**Payout ratio:** Payout ratio is calculated dividing the Dividend per Share by Earning per Share.

**Correlation:** Compare the dividend per share and closing price, while calculate the correlation between DPS and closing price. Compare the payout ratio and closing price, while calculate the correlation between payout and closing price.

**Step 4- Matching of data:** Downloaded the dividend policy data, i.e., Dividend per Share, Closing Price and calculating the payout ratios are matched by using VLOOKUPFormula.

VLOOKUP Formula

{=VLOOKUP(lookup\_value,table\_array,col\_index\_num,[range\_lookup])}.

**Step 5- Summary measure:** After matching of data, same has been moved on to master table of summary measure tool and summarized the payout ratio and correlation.

This study is aims to know how the companies paid dividends. The information relating to dividend policy was collected form PROWESS thee corporate data base. Dividend payout ratio and correlation were used for the analysis of the study.

**TABLE NO. 4.1**  
**ANALYSIS OF DIVIDEND PAYOUT RATIO**

| NO. OF COMPANIES  |      |      |      |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|
| PAYOUT RATIO/YEAR | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| <20               | 135  | 153  | 172  | 167  | 171  | 168  | 171  | 159  | 116  | 96   | 50   |

|               |    |    |    |    |    |     |    |    |     |    |    |
|---------------|----|----|----|----|----|-----|----|----|-----|----|----|
| <b>20-30</b>  | 77 | 74 | 84 | 87 | 88 | 100 | 90 | 90 | 77  | 57 | 31 |
| <b>30-40</b>  | 51 | 55 | 50 | 48 | 58 | 54  | 57 | 59 | 43  | 39 | 08 |
| <b>&gt;40</b> | 66 | 83 | 68 | 77 | 73 | 82  | 87 | 95 | 101 | 58 | 16 |

| <b>Summary</b> | <b>Count</b> | <b>Sum</b> | <b>Average</b> | <b>Variance</b> |
|----------------|--------------|------------|----------------|-----------------|
| Row 1          | 11           | 1558       | 141.6364       | 1559.655        |
| Row 2          | 11           | 855        | 77.7273        | 365.6182        |
| Row 3          | 11           | 522        | 47.4546        | 210.2727        |
| Row 4          | 11           | 806        | 73.2727        | 520.8182        |
| <b>Summary</b> | <b>Count</b> | <b>Sum</b> | <b>Average</b> | <b>Variance</b> |
| Column 1       | 4            | 329        | 82.25          | 1350.250        |
| Column 2       | 4            | 365        | 91.25          | 1830.917        |
| Column 3       | 4            | 374        | 93.50          | 2931.667        |
| Column 4       | 4            | 379        | 94.75          | 2593.583        |
| Column 5       | 4            | 390        | 97.50          | 2551.000        |
| Column 6       | 4            | 404        | 101.00         | 2353.333        |
| Column 7       | 4            | 405        | 101.25         | 2384.250        |
| Column 8       | 4            | 403        | 100.75         | 1761.583        |
| Column 9       | 4            | 337        | 84.25          | 1014.250        |
| Column 10      | 4            | 250        | 62.50          | 575.000         |
| Column 11      | 4            | 105        | 26.25          | 341.583         |

| <b>ANOVA</b>               |                  |           |           |          |                |               |
|----------------------------|------------------|-----------|-----------|----------|----------------|---------------|
| <b>Source of Variation</b> | <b>SS</b>        | <b>Df</b> | <b>MS</b> | <b>F</b> | <b>P-value</b> | <b>F crit</b> |
| Rows                       | 52885.341        | 03        | 17628.45  | 85.61781 | 8.33E-15       | 2.92228       |
| Columns                    | 20386.730        | 10        | 2038.67   | 9.901422 | 4.56E-07       | 2.16458       |
| Error                      | 6176.909         | 30        | 205.897   | --       | --             | --            |
| <b>Total</b>               | <b>79448.980</b> | <b>43</b> | --        | --       | --             | --            |

Dividend payout ratio means the percentage of earnings paid to shareholders in dividends. It provides an indication of how much money a company is returning to shareholders, versus

how much money it is keeping on hand to reinvest in growth, pay off debt or add to cash reserves.

In statistics, the two-way analysis of variance is an extension of the one-way ANOVA that examines the influence of two different categorical independent variables on the continuous dependent variable. The two-way ANOVA not only aims at assessing the main effect of each independent variable but also if there is any interaction between them.

The interaction term in a two-way ANOVA informs, whether the effect of one of independent variables on the dependent variable is the same for all values of other independent variable and vice versa.

#### **6.1. Hypothesis for rows:**

*H<sub>0</sub>: There is no significance difference between payout ratios for different period of years.*

*H<sub>1</sub>: There is significance difference between payout ratios for different period of years.*

From the above ANOVA table, we can say that calculated F value (85.61781) is greater than critical F (2.92227) value. So, it lies on rejection area, which means we accept alternative hypothesis. Thus, we can say that there is significance difference between payout ratios for different period of years.

#### **6.2. Hypothesis for columns:**

*H<sub>0</sub>: There is no significance difference in payout ratios within the same period of years.*

*H<sub>1</sub>: There is significance difference between payout ratios within the same period of years.*

**Decision:** From the above ANOVA table, we can say that calculated F (9.901422) value is greater than critical F (2.16458) value. So, it lies on rejection area, which means we accept alternative hypothesis. Thus, we can say that there is significance difference between payout ratios within the same period of years.

**CORRELATIONS BETWEEN DIVIDEND PER SHARE AND CLOSING PRICE**

| <b>Correlation</b> | <b>No. of companies</b> |
|--------------------|-------------------------|
| -1 - -0.5          | 13                      |
| -0.5 - 0           | 46                      |
| 0 - 0.5            | 111                     |
| 0.5 - 1            | 259                     |

Correlation means a degree and type of relationship between any two or more quantity (variables) in which they vary together over a period. A positive correlation exists where the high values of one variable are associated with the high values of the variables. A negative correlation means association of high values of one with the low values of the others. Correlation can vary from +1 to -1. Values close to +1 indicate a high degree of positive correlation, and values close to -1 indicate a high degree of negative correlation.

Based on the results depicted in table 4.2 we find that majority of companies (i.e.259) exhibit high positive correlation between DPS and closing price. Likewise 111 companies have strong positive correlation within the range of 0 to 0.5. On the other hand, the correlations between DPS and closing price for 46 companies are negatively correlated. It means that the companies are paying more dividends have lower closing price. Similarly, the results of 13 companies show highly negative correlation between these two variables. Hence, we can infer that if company pays more dividend the ultimately end up will be higher share price. Thus, approximately 82% (370/452) of the companies DPS have positive correlation with the closing price.

**TABLE NO: 4.3**  
**CORRELATIONS BETWEEN PAYOUT RATIO AND CLOSING PRICE**

| <b>Correlation</b> | <b>No. of companies</b> |
|--------------------|-------------------------|
|--------------------|-------------------------|

|           |     |
|-----------|-----|
| -1 - -0.5 | 83  |
| -0.5 - 0  | 184 |
| 0 - 0.5   | 125 |
| 0.5 - 1   | 47  |

Based on the results of depicted in table 4.3, we find that majority of companies (i.e. 184) exhibit negative correlation between payout and closing price. Likewise, 83 companies have high negative correlation within the range of -1 to -0.5. On the other hand the correlation between payout and closing price for 125 companies indicates positive correlation. It suggest that the companies paying less dividend have more closing price. Similarly, the results of 47 companies show high positive correlation between these two variables. Hence, we can infer that, if the company pays more dividend the ultimately end up is higher share price. Thus, approximately, 62% (280/452) of the company's payout ratio have negative correlation with the closing price.

## 7. Findings

An analysis have been done pertaining to dividend per share, earnings per share and closing price performance of BSE-500 companies using master table of summary measure tools. In this this study it is found that many of the companies are performing better over a period of time.

The ANOVA analysis reveals that there is significance difference between payout ratio for different period of years and within the same period of years.

Under correlation calculation between DPS and closing, majority of the companies have positive correlation

Under correlation calculation between payout ratio and closing price, majority of theCompanies have inverse relationship i.e. negative correlation.

The correlation between payout ratio and closing price of GMR Infrastructure Ltd, Gulf Oil Lubricants India Ltd, Housing Development & Infrastructure Ltd, Just Dial Ltd, Religare Enterprises Ltd, RepcoHome Finance Ltd, ShardaCropchem Ltd, are perfectly correlated (i.e. values are close to 1).

The correlation between DPS and closing price of Gulf Oil Lubricants India Ltd, Housing Development & Infrastructure Ltd, MarksansPharma Ltd, Orient Cement Ltd, Religare Enterprises Ltd, RepcoHome Finance Ltd, Star Ferro & Cement Ltd, Westlife Development Ltd, are perfectly correlated (i.e. values are close to 1).

## **8. Conclusion**

A company's dividend policy is important in understanding how well management allocates capital and reports to its shareholders. Dividend policy refers to the set of rules or norms that a company follows to decide how much of its profit it will pay out to shareholders. However, the choice of paying dividends is ultimately decided by the board of directors of the company, and once dividends have been declared, it becomes a debt to the firm and cannot be overturned easily. Management is primarily focused on the objective growth of the organization while the shareholders are focused on the shareholders wealth in terms of share price that determine their return on investment.

For shareholders: From the shareholders point of view the company which is giving more dividend is good for the shareholders. So, the companies should try to increase their DPS (dividend per share) to the shareholders to invest more and more in them.

For organization: The companies which have higher EPS (earning per share) is good because higher the EPS higher is the PAT (Profit after Tax). So, companies should try to increase their PAT so that their EPS will increase.

Thus, dividend policy is challenging for the directors and financial managers of a company, because different investors have different views on present cash dividends and future capital

gains and also regarding the extent of effect of these dividends on the share price. Due to this controversial nature of a dividend policy it is often called the dividend puzzle.

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