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# The Impact of Announcement of Increasing Trend of Cash Dividend on Market Price of Shares: Study on Dhaka Stock Exchange (DSE)

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***Abstract:*** *The dividend policy is one of the most debated topics in the finance literature. According to the dividend signaling hypothesis, dividend change announcements trigger share returns because they convey information about firm's future prospect. This paper focuses on the empirical analysis of the dividend signaling hypothesis and investigates the announcement effect of dividend changes. The study aims to examine the stock return behavior around the dividend announcement in Dhaka stock exchange. The event study methodology is used for this study. The abnormal return and cumulative abnormal return are calculated with market adjusted model. The event window is 30 days. The abnormal return and cumulative abnormal return are evaluated for significance using t-test. The findings of the study reveal that the reaction of stock prices to increasing cash dividend announcement is statistically significant. The evidence tends to support the dividend signaling hypothesis.*
***Keywords:*** *event study, announcement date, dividend, market adjusted model.*

## I. Introduction

Dividend policy may be defined as the trade-off between the magnitude of retained earnings and distributed cash or securities. Retained earnings are one of the most significant sources of funds for financing corporate growth, but dividends constitute cash flows that accrue to shareholders. So, determination of a suitable dividend policy for a company is an important distribution function of a finance manager. Appropriate dividend distribution policy can not only set a good corporate image, but also to build the confidence of investors in the company's future prospects, thus creating a good corporate financing environment, the company's long-term stable development. Dividend policy mainly includes three aspects: (1) dividend payout ratio policy, that is to determine the actual distribution of earnings per share and the ratio of earnings available for distribution of high and low; (2) the dividend distribution policy is to refer to steady growth in dividend policy, or residual dividend policy, or is it a fixed dividend policy; (3) the form of dividend payout policy, the common dividend in the form of cash dividends, stock dividends, and share repurchase.

For a company it is pivotal policy around which other financial policies rotate. The Value of the corporate securities depends to a great extent on dividend and therefore, in deciding upon the financial structure of a company. The corporate management is an elective management and the power of recommending dividend is vested with the board of directors. The board of directors therefore, decides the amount of dividend to be distributed by a company, and shareholders don't have any direct say in such a decision.

The board of directors must make inter-alia the three decisions pertaining to investment, financing and dividends simultaneously as these three decisions are interrelated. Dividend policy decision influences the financing decision of the firm through retained earnings.

The dividend policy of the firms has to be evolved within the legal frameworks and restrictions. Statutory restrictions have been imposed by the company act, 1994. The company act governs the declaration and payment of dividends. Dividend policy decision is affected by legal, tax and accounting factors of a country. These factors of legal, tax and accounting may substantially vary from country to country.

This thesis paper examines the stock market reactions to announcements of dividend increases in Dhaka Stock Exchange. Prior researches in the developed market find that dividend changes and stock market reaction have a positive correlation. Dividend increase is considered as good news. Two of the most discussed theories of dividend behavior are information signaling hypothesis and agency theory.

## II. Review Of Literature

### 2.1 Bangladesh's context

**Ahsan Habib (2004)** has conducted a study on "Do Dividend Signal the Future? Empirical Evidence from Bangladesh" with the objective of the dividend change announcements should be positively related to stock returns because a higher dividend signals higher current and future earnings. The empirical evidence supports this conjecture.

**Uddin and Chowdhury (2005)** have conducted a study on "Effect of Dividend Announcement on shareholder's value: Evidence from Dhaka Stock Exchange" with the objective of the investigation of the dividend announcements on the Dhaka Stock Exchange. The basic findings were no statistically significant abnormal returns and that dividend had no information content for stock returns and prices in the Dhaka Stock Exchange.

**Sabur Mollah(2009)** has conducted a study on "Earnings and equity valuation in emerging markets: Evidence from Bangladesh stock Market". This study investigates the behaviour of pay-out policy of Dhaka Stock Exchange (DSE) listed firms preceding and following financial crisis to see whether dividend policy appears as significant measure to protect the general shareholders' interest after the crisis in 1998. OLS models are tested on DSE data preceding (1988-1997) and following financial crisis (1999-2003), on which no other study has been conducted yet. The empirical results fail to trace noticeable improvements in pay-out policy after the market crisis and dividend policy does not appear as a significant measure to protect the shareholders' interest in the emerging market of Bangladesh.

### 2.2 Literature in foreign context

**Lintner (1956)** has made a pioneering study to see various aspects of distribution of corporate earnings among dividends, retained earnings and taxes. He finds that firms are primarily concerned with the stability of dividends and managers appear to believe strongly that market puts a premium on firms with a stable dividend policy. He has also observed that earnings are the most important determinant of dividend decision. He has pointed out that most companies have a target payout ratio. If sudden surge in earnings occurs, firms adjust their dividends slowly. Moreover, firms have found to be more reluctant to cut dividends. He also argues that even if investment opportunities are abundant for a firm, then also the firm opts to pay dividend at a level which is more or less the same as that of the previous years. After that the firm judges the adequacy or otherwise of internal funds and accordingly it decides on resorting to outside funds to meet that investment requirement.

**Walter (1956**) postulates that current stock price would reflect the present value of all expected dividend payments in future. He also shows that dividend neutrality is not satisfied in any market and thus market imperfections clearly specify that changes in dividend policy usually affect the value of a firm.

**Gordon (1959)** finds that the dividends and earnings of a company explain the variations in the market prices of its stock. He also shows that investors do prefer dividend income to retained earnings, and dividend payment has significant effect on the stock price. Gordon (1962), Van Horne and McDonald (1971), Long (1978), Jose and Steven (1989), Kato and Loewenstein (1995), Ariff and Finn (1986), and Lee (1995) also find a significant positive relationship between the dividend payments and stock prices in different markets, including the U.S., Japan, and Singapore.

**Miller & Modigliani (1961)** with their dividend irrelevance proposition provided a good starting point for the construction of a framework within which the illusive and clandestine dividend policy can be explored. They demonstrate that under the condition of perfect capital market and zero taxes, dividends do not affect the value of the firm and as such the shareholders are indifferent as to the payment of dividend and retention of profits. They argued that the firm's value is determined only by its basic earning power and it business risk. The value of the firm depends only on the income produced by its assets, not on how this income is split between dividends and retained earnings.

**Porterfield, 1959 and 1965: The** cash dividend means giving reward to the shareholders that is something they already own in the company; hence this will be offset by the decline in stock value.

**Fama and Babiak (1968)** studied the determinants of dividend payments by individual firms during 1947-1964. The authors used a regression model analysis, simulations and prediction statistical tests. They found that the net income seems to provide a better measure of dividend policy than either cash flow or net income and depreciation. Fama (1974) examined other models for explaining dividend behavior. Fama and Babiak (1968) and Fama (1974) results support Lintner's view that managers prefer a stable dividend policy, and are reluctant to increase dividends to a level that cannot be sustained. Therefore, these researchers concluded that changes in per share dividends are largely a function of a target dividend payout based on earnings and the last period's dividend payout.

**Stephen Ross (1977),** According to the signaling theory, the investors regard dividend changes as signals of management's earnings forecasts. A firm uses dividend policy as a mechanism to signal outsiders regarding the stability and growth prospect of the firm**.**

**Sharma and Rao (1992)** tried to identify the signaling aspects of firm's dividend payout decision. They concluded that dividends are perceived as signals from performance point of view, market's point of view and management's point of view.

## III. Objectives

**3.1 Main objective: To** analyze and interpret results of the firm's stock price behaviour around corporate dividend relating to dividend increase.

**3.2 Specific Objectives:**

- To test for the abnormal return significance using event study metrics of average and cumulative abnormal returns.
- To recommend future areas of study on this topical issue relating to corporate dividend policy in Bangladesh

## IV. Research Methodology

**4.1 Sample period:** Sample period is 4 years (2003, 2006, 2009, 2012)

**4.2 Sample size:** All companies of manufacturing sectors in DSE are taken as a sample excluding the companies which data are missing. Finally, we have taken the 84 increasing cash announcement events for the study.

**4.3 Data collection**

The data of market price of the sample companies are taken of 15 days before and after the announcement date and the index values (DSE general index) are taken of the respective dates.

## V. Model

**5.1 Event Study Methods:** An event study is adopted to investigate the announcement effect of dividend changes on share prices.

**5.1.1 Selecting the event window**

For the study, the returns on 15 days prior to the announcement day, and returns on 15 days after the announcement have been considered for analyzing the cumulative average abnormal returns.

**5.1.2 Market Adjusted Return Generating Model:**

Basic assumption of this model is that market wide factors impact all stocks being traded in the market. This employ that expected returns security under consideration shall be equal to the market return. Therefore the expected return of stock shall be a constant and equal to market return. In equation (01) the value assumed by α and β for this model extension are set equal to 0 and 1 respectively.

The model is useful as it takes into account all the market factor and events impacting the market as a whole and do not investigate the stock in isolation. Studies conducted by DeBont in(1985) as well as Salon(1987) and Barnas and Ma(200) has narrated concrete evidences of utility of this model in the studies carried out via event study. This method do not take into account the past trends of market and stock and simply infer the result on the basis of data available in investigation window. It is also observed that this method is useful in the situation were data is restricted for estimation. The equation 01 is as follows:

$ARit = Rit - (\alpha + \beta iRmt)$

To adjust for Market adjusted model the basic equation is bound to assume the following values of parameters;

$ARit = Rit - (0x\,\alpha + 1xRmt)$ (02)

$CAR_{i,t} = \sum_{t=-1}^{t=1}(AR\ i, t)$

**5.2 Parametric Test:**

**i. t-test:** The t-test is used for testing the statistical significance of results arrived at by analyzing the data related to dividend announcement. The t-statistics for Average Market Adjusted Abnormal Returns for each day during the event window is calculated as:

t=Average MAARs/ δ (Average MAAR)

δ=Standard error

The statistic for CARs for each day during the event window is calculated as follows:

t= CARs/ δ(CARs)

## VI. Analysis And Result

### 6.1. Announcement Effect: Abnormal Return around the Announcement Date

From the table-1, it is seen that the average return is -.1122 percent at the announcement date. But after announcement date, first and second date's returns are -1.4743 and-1.5417 percent respectively. If we consider the 1 percent significant level, day1, day 2 is significant. After announcement first day's t value and second day's t values are -2.97 and -4.13 respectively. But before announcement, no date is significant. But is observed that the return is negative which indicate the decline the market price of shares. . So, we can conclude that the announcement has immediate impact on the market price of share but negatively. It is also seen in figure -1(drawn from table-1).

**Table-1: Average Abnormal Return Analysis**

| day | AAR | std | std.err | t |
|---|---|---|---|---|
| -10 | -0.34499 | 3.343422 | 0.366242 | **-0.94197** |
| -9 | 0.398815 | 3.209784 | 0.351603 | **1.134276** |
| -8 | -0.18499 | 3.047326 | 0.333807 | **-0.55418** |
| -7 | -1.01714 | 4.12126 | 0.451447 | **-2.25307** |
| -6 | -0.04939 | 4.11327 | 0.450572 | **-0.10961** |
| -5 | -0.12627 | 2.903677 | 0.318072 | **-0.39698** |
| -4 | 0.105774 | 3.313988 | 0.363018 | **0.291373** |
| -3 | -0.20888 | 3.076096 | 0.336959 | **-0.61991** |
| -2 | -0.80578 | 3.868658 | 0.423777 | **-1.90142** |
| -1 | -0.0986 | 2.715481 | 0.297457 | **-0.33149** |
| 0 | -0.11224 | 8.275247 | 0.906479 | **-0.12382** |
| 1 | -1.47437 | 4.529583 | 0.496175 | **-2.97148*** |
| 2 | -1.54177 | 3.402279 | 0.372689 | **-4.13689*** |
| 3 | 0.552178 | 4.018315 | 0.44017 | **1.254464** |
| 4 | -0.45741 | 2.550346 | 0.279368 | **-1.6373** |
| 5 | -0.21237 | 2.583816 | 0.283034 | **-0.75032** |
| 6 | 0.32365 | 3.665675 | 0.401542 | **0.806018** |
| 7 | -0.32884 | 3.863726 | 0.423237 | **-0.77695** |
| 8 | -0.36322 | 3.442798 | 0.377128 | **-0.96312** |
| 9 | -0.12764 | 3.415174 | 0.374102 | **-0.34119** |
| 10 | 0.281932 | 2.17045 | 0.237753 | **1.185817** |

*significant at 1% level of significance

**From the table -1, the figure -1 is drawn.**

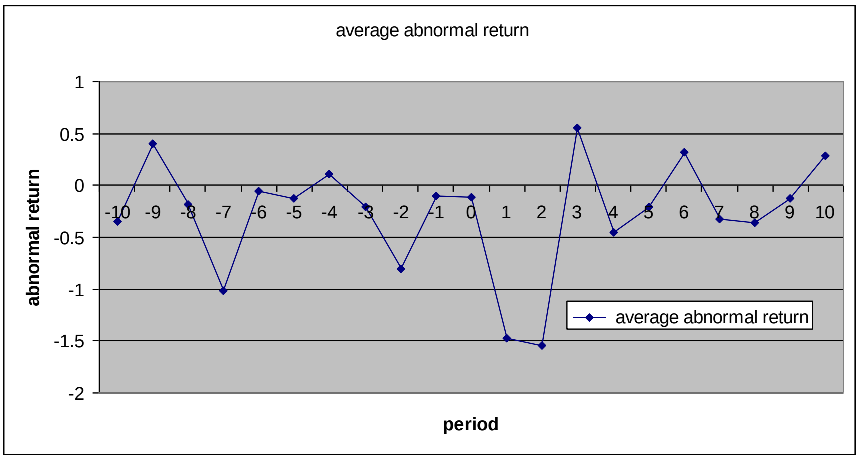


**Figure-1:** Average Abnormal Return

Now it is seen from the cumulative return from table-2.

### 6.2. Announcement Effect: Cumulative Abnormal Return around the Announcement Date

From the abnormal return, we have calculated the cumulative abnormal return form analyze the cumulative impact of return. It is seen from the table -2 and figures -2 that after announcement of dividend, the return cumulatively decreasing over the period and it is statistically significant through t test**.**

**Table-2: Average Cumulative Abnormal Return (CANR) Analysis**

| day | Average CANR | std | std.err. | t |
|---|---|---|---|---|
| -10 | -0.34656 | 3.363471 | 0.366991 | -0.94433 |
| -9 | -0.00171 | 4.35917 | 0.475632 | -0.00359 |
| -8 | -0.17399 | 5.736062 | 0.625866 | -0.27801 |
| -7 | -1.16077 | 7.494071 | 0.817684 | -1.41958 |
| -6 | -1.10477 | 7.042458 | 0.768408 | -1.43774 |
| -5 | -1.14067 | 7.879197 | 0.859705 | -1.32681 |
| -4 | -1.13344 | 9.125018 | 0.995637 | -1.13841 |
| -3 | -1.44334 | 9.992824 | 1.090324 | -1.32377 |
| -2 | -2.2048 | 10.69757 | 1.16722 | -1.88893 |
| -1 | -2.29236 | 10.67238 | 1.164472 | -1.96859 |
| 0 | -2.53716 | 13.47371 | 1.470127 | -1.72581 |
| 1 | -4.10917 | 14.54272 | 1.586767 | -2.58965 |
| 2 | -5.67094 | 14.92572 | 1.628557 | **-3.48219*** |
| 3 | -5.0731 | 14.36152 | 1.566996 | **-3.23747*** |
| 4 | -5.51216 | 15.20471 | 1.658998 | **-3.32259*** |
| 5 | -5.78516 | 15.8601 | 1.730508 | **-3.34304*** |
| 6 | -5.36943 | 16.29043 | 1.777461 | **-3.02084*** |
| 7 | -5.60588 | 16.75035 | 1.827644 | **-3.06727*** |
| 8 | -5.97342 | 17.08245 | 1.863879 | **-3.20484*** |
| 9 | -6.10259 | 17.70082 | 1.93135 | **-3.15975*** |
| 10 | -5.8173 | 17.52247 | 1.911889 | **-3.0427*** |

*significant at 1% level of significance

**From the table-2, the figure-2 is drawn.**

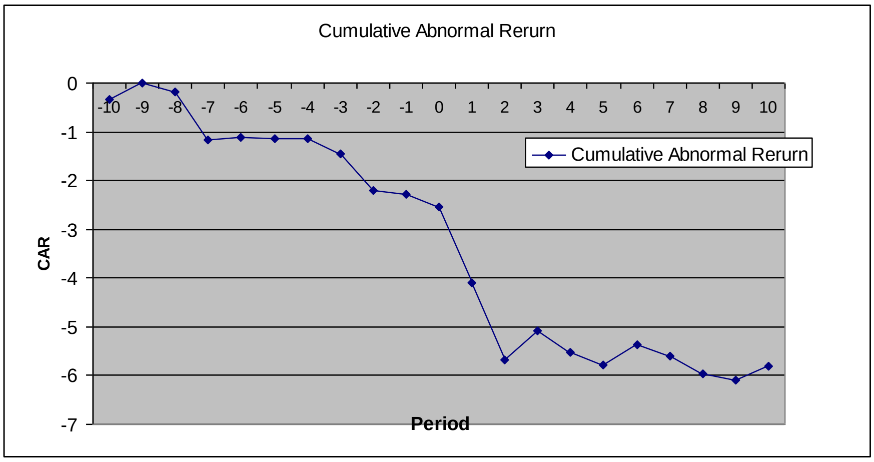


**Figure-2:** Average Cumulative Abnormal Return

So, finally we can say that increasing cash announcement has the impact of the market price which is negatively reacted.

## VII. Recommendations And Conclusion

In conclusion, the research indicates that there is statistically significant Market reaction of the dividend announcement. The market reaction observed after the announcement date implies that dividend increased affect firm stock prices, consequently shareholder value. It can therefore be concluded that the findings of this research do not seem to support the signaling Theory. So, market participant in DSE should aware about the impact of announcement of increasing trend of cash dividend.

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