# Capturing impact of dividend announcement on stock returns: an event analysis study of KSE

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#### **Abstract**

This study examines the impact of dividend announcement on stock returns of 30 non-financial sector companies listed on Karachi Stock Exchange. Daily stock returns have been used, covering period from 2007 to 2008. The study has used event analysis study methodology; a fifteen days event window has been created to examine the effects of dividend announcement on KSE stock returns. The study finds that dividend announcement has no significant impact on sample companies' abnormal stock returns.

JEL Classification: G12, G13, G15, G17

Keywords: Dividend announcement effect, CAR, mean Re-

turns, event analysis study, KSE

## I. INTRODUCTION

It is generally accepted that value maximization of shareholders' investment is the main focus of any corporate entity. Investors choose competent managers with a hope that they would ensure a better utilization of the invested assets. On the other hand, managers entrust themselves to achieve this goal through different profitable investment and financing decisions. Apart from these decisions, managers always need to make an assessment on how to pay back the investor's share of the earnings from company's earnings without damaging company's smooth profit. Cash dividend is a way to pay investors from external sources. However, it decreases company's ability to invest in new projects. For that reason, the dilemma remains whether dividend payment actually increase the shareholders' value or not. Ever since the work of Miller and Modigliani (1961), the effect of dividend announcement on stock price or shareholders' value has become a strong area of study in finance. In later periods, many theories from wellknown researchers have come forward to describe a clear picture of the relationship between dividend announcement and share price. Many studies have found that a change in the dividend payment have a direct effect on the share price of the company. On the other hand, many researchers have put forward the idea that dividend change does not really affect the company's share price. Dividend decision by any company is an important issue to be determined by the financial management. The important point is to determine how much earnings are to be distributed to shareholders and how much amount is to be retained in the firm. What is the dividend payout ratio and what should be the retention ratio are important questions to be considered. Dividend payout ratio is the percentage of earnings paid by way of dividend, while retention ratio is the percentage of earnings retained by the firm, not distributed as dividend. Many researchers have carried out studies on dividend announcement and come up with different findings. Some researchers conclude that dividend announcement has significant impact on stock returns and some express that the dividend announcement has no impact on stock returns.

The main objective of this study is to check the effect of dividend announcements on stock returns of non-financial sector of Pakistan. To measure this impact, the samples have been taken from one of the biggest security markets of the Pakistan Karachi Stock Exchange (KSE). Previous studies have mostly covered the effects of dividend announcement on stock returns during normal economic periods. This study intends to cover the effect of dividend announcement during recession period; so prime aim of this study is to figure out whether the effect is same in the recession period. For this reason, a period which has been labeled as an 'economically depressed period' around the world has been selected for this study. Thus data from KSE for the period 2007 - 2008 have been used in this study. It is believed that this study would be able to provide valuable insights to the existing knowledge base regarding the impact of dividend announcement on stock returns during recession period.

# II. LITERATURE REVIEW

Miller and Modigliani (1961) irrelevance theory provides the foundational base to building on the modern corporate finance theory. Miller and Modigliani argued that dividend policy is irrelevant for the cost of capital and the value of the firms in a world without taxes and transaction cost. They showed that when investors created any income pattern by selling and buying shares, the expected return required them to hold firm's shares; hence, the way the firm packages its dividend payments and issues new shares become invariant. Since the firm's assets, investment opportunities, expected future net cash flows and cost of capital are not affected by the choices of dividend policy, its market value is unaffected by any change in the firm's payout pattern. Thus, dividend policy is irrelevant and firm can choose any payout pattern without affecting their value. Miller and Modigliani theory implies that dividend payout will vary as a by-product of the firm's investment and financing decisions. This will not exhibit an organized pattern over time. Miller and Modigliani (1961) argue that the firm's value is determined only by its basic earning power and its business risk.

The event study methodology was first introduced by Fama and Fisher (1969), while Ball and Brown (1968) introduced the event study methodology that is essentially the same as that which is in use today. The study by Fama and Fisher (1969) can be categorized as an efficient market study, while Ball and Brown's (1968) study is an informational usefulness study. Fama and Fisher (1969) examined the impact of stock splits on security prices. They found that abnormal returns dissipated rapidly, following the news of stock splits. Ball and Brown (1968) examined the value of company's earnings announcements.

The theoretical principles underlying the dividend policy and its impact on firms can be described either in terms of dividend irrelevance or dividend relevance theory. Black and Scholes (1974) conclude that corporations that increase its dividend can expect that their dividend policy would have no definite effect on its stock price. The price may change momentarily in response to a change in the dividend, because the market may believe that the change indicates something about the probable future course of earnings. If it becomes clear that the change was not made because of any change in estimated future earnings; this temporary effects will disappear. Thus a corporation may want to choose its dividend policies under the assumption that changes in dividend policy will have no permanent effect on its stock price.

Asquith and Mullins (1983) found that dividends increased shareholders' wealth. They selected a sample of 168 NYSE and ASE listed firms which initiated dividend to common shareholders from 1963 to 1980. Of the 168 initial firms, 114 increased their dividend within 3 years, 7 decreased their dividend and the remaining 47 kept their dividend at the initial level.

Hamid and Chowdhury (2005) used a sample of 137 DSE listed companies, which declared dividends during October 2001 and September 2002, and employed analytic measures, namely daily market-adjusted abnormal return (MAAR) and daily cumulative abnormal return (CAR). Researchers concluded that investors were not benefited from dividend announcement.

Thirumalvala and Sunitha (2006) concluded that dividend announcements showed positive and statistically significant results for abnormal returns around the announcement date. For dividend announcements the markets immediately signaled an upward swing in the share price movement. But this positive signaling existed only for a day after the announcements, after which the extent of positivity of shares started

decreasing. They selected stock repurchase and dividend announcement as independent variables while stock return as dependent variables. The sample consisted of stock repurchase announcements obtained from the online database of Bombay Stock Exchange between January 2002 and December 2004. There were 55 dividend announcements reported, of which 21 were taken in the final sample. They used CAR for the market adjusted cumulative abnormal return, 5-day pre-CAR, 5 day post-CAR and t-statistics for the data analyzing by using 11 days window.

Azhagaiah and Priya (2008) concluded that higher dividend increased the market value of the share and vice versa. As far as the dividend paying companies were concerned, there was a significant impact of dividend policy on shareholders' wealth in organic chemical companies, compared to the inorganic chemical companies, wherein shareholders' wealth was not influenced by the dividend payouts. The sample of 28 companies in Chemical Industry (organic-19 and inorganic-9) had been chosen from 114 listed companies in BSE (Bombay Stock Exchange) using Multi-Stage Random Sampling Technique.

Chen et al. (2009) concluded that the share prices react significantly and positively to both cash dividend increases and cash dividend decreases. The announcement effect of cash dividend changes and investors' feelings toward cash dividend changes may shift with time. They selected all the listed firms having cash dividend announcement, on the Shanghai Stock Exchange and the Shenzhen Stock Exchange that had cash dividend announcement over the period 2000 to 2004. The market model was applied to estimate the abnormal returns of sample firm for different windows. They used CAR, cross-sectional method which was introduced by Boehmer, Musumeci and Poulsen (1991), and t-value for testing the data. For each security, a maximum of 141 daily return observations for the period around its respective event was used, starting at day-120 and ending at day +20 relative to the event. The first 100 days in this period (-120 through -21) were designated as the "estimation window", and the following 41 day (-20 through +20) were designated as the "event window".

Different researchers have found different findings regarding effects of dividend announcement on stock returns taken as a whole stock exchange index returns or as an individual company' stock return. Bathia (2010) conclude that dividend per share has a positive significant impact on the determinants of share prices. It might be interpreted from the results that there was impact of dividend announcements on the stock returns on the sector of companies as a whole as few of the sample companies of a sector which got changes in stock returns during dividend announcement phase might be out of chance factor. The core reason for the same could be that

the companies announced a constant dividend every year on the face value of the share. So, the dividend values were in general already known to the shareholders. Thus, stock returns because of this did not get a radical changeover at the stock exchanges. He selected 28 companies randomly from the NSE India on the basis of their order of trading volumes. He used CAR, constant mean return model, t-test, and Z-test for hypothesis testing. The dividends declared by the sample companies in the financial year 2008-09 were taken as the main event to the study. He used 61 days window including the event date.

Mehndiratta and Gupta (2010) reported that investors did not gain significant value in the period preceding as well as on the dividend announcement day, yet they could gain value in the post announcement period. For the purpose of research, 15 most actively traded companies during the year 2009 from National stock exchange were selected on random basis. They used two stage approaches to test the stock price responses to dividend announcement. The first stage consists of estimation of parameter like beta based on the ex-post returns on stocks and market index, and expected returns on each of the stocks based on the market model. In the second stage these estimated parameters were used to calculate abnormal returns around the event day. They used market model, AAR, CAAR and t-statistics by using 61 days event window.

Ali and Chowdhury (2010) examined that there was no strong facts that stock price reacts significantly on the announcement of dividend. They explained that this might be due to insider trading. So the information used to be adjusted with the stock prices before announcement and as a result the announcement of dividends didn't carry any new information to the market. They selected 25 local commercial banks which had announced dividend between January 2008 and September 2008. They selected event window of 44 days starting from 30 days before the dividend announcement date and ending 14 days after the announcement and used CARR model for data analyzed.

Akbar and Baig (2010) concluded that the reaction of stock prices to cash dividend announcements was statistically insignificant. But the average abnormal and cumulative abnormal returns for stock dividend announcement are statistically significant which suggest a positive reaction. Stock dividends were not taxed and were resorted to by firms when cash needs were high and future operations require expanded equity capital base. Further capital gains in the equity market were not taxed in Pakistan. Hence stock dividends were alleged favorably by investors in KSE. This finding suggested that KSE was not strong form efficient. The results for the simultaneous cash and stock dividend announcements were alike those for the stock dividend announcements and re-

jects the semi-strong form of market efficiency for KSE. They used sample companies from the KSE-100 index and had paid-out cash dividend or bonus stock or both at least once in the period from July 1, 2004 to June 29, 2007. A total of 79 companies out of KSE 100 index is selected on the having 193 dividend announcements during the sample period. The dividend announcements included 129 cash, 24 stock and 40 simultaneous cash and stock dividend announcements using 41 days event window and AR, AABR, and CAABR model were used for data analysis. Dividend policy has got the significant impact on share price or stock returns. As dividend increased share price increased and vice versa.

Nazir et al. (2010) concluded that dividend policy measures (dividend yield and payout ratio) had a significant impact on the share price volatility. The effect of the dividend yield to stock price volatility increased during the whole period (2003-2008) whereas payout ratio had only a significant impact at lower level of significance. In overall period, the size and leverage had negative and non-significant impact on stock price volatility. They selected sample of 73 firms from KSE and evaluated for the period of six years from 2003 to 2008. Their investigation was based upon a fix effect and random effect regression analysis between the dividend policy and stock price volatility along with control variables of size, leverage, growth and earning.

## III. METHODOLOGY

This study uses daily stock return data to compute excess stock returns and to examine dividend announcements for each firm. The daily excess return and average excess returns had found by using Cumulative Excess Returns (CER) model.

Given the depth of information available about the stock prices from Karachi Stock Exchange (KSE), the null hypothesis was set for testing that dividend announcement had no significant impact on the stock price movement of the non-financial sector companies listed in KSE. During the study period, 436 companies were listed on KSE. Out of 436, there were 60 companies that paid dividend regularly over the period 2007 to 2008. A sample of 30 companies from the non financial sector had been selected on the basis of following criteria:

- a) All companies that had paid dividend regularly for the period 2007-2008.
- b) All companies that had paid up capital more than 200 million.

The dividend announcement date and daily closing prices were used for the study. Daily closing prices were collected over the period July 2007 to June 2008. The dividend announcement dates were collected from balance sheets of the joint stock companies, issued by the State Bank of Pakistan.

An event study approach was used to examine the impact of dividend announcement on stock returns. Event window referred to the total time period revolving around the event which was taken as the main time frame to study the impact of the respective event. The present study had taken an event window of 15 days in total including the event date, i.e., the date on which dividends were announced for the respective sample stocks of the companies. So, the total event window was broken into two parts. First part composed of stock prices before the dividend was announced and the second part composed of stock prices after the dividend was announced. The event date, i.e., the date when dividend was announced was termed as t=0, middle of the event window. First part of the event window was composed of 7 days stock prices (-7) and the second part of the event window was composed of 7 days stock prices (+7). Thus, the total event window was (-7) -t-(+7) where -7 represented pre announcement phase, t represented the event date and +7 represented the post announcement phase.

The daily stock prices of all the 30 sample companies were taken from the KSE website (www.brecorder.com) for further processing. The returns were further calculated in detail with normal, average, abnormal and cumulative abnormal returns. Event study methodology was used to find the impact of dividend announcement on companies' stock return. AR, CAR and constant mean CAR approaches were used. Companies' share price was used as a proxy for return. Return for the company was calculated by using the formula, given as follows.

$$R_{it} = (P_t - P_{t-1})/P_{t-1}$$

Where  $R_{it}$  = Current Day Normal Return,  $P_{t}$  = Current Day Stock Price,  $P_{t-1}$  = Previous Day Stock Price. The abnormal returns for all the stocks have been calculated using the constant mean return model. After obtaining the mean returns for all the sample stocks, the abnormal returns had been calculated, using the following formula:

$$AR_{it} = R_{it} - E(R_{it-1})$$

Where  $AR_{it}$  = Current Day Abnormal Return,  $R_{it}$  = Current Day Normal Return,  $E(R_{it})$  = Expected Return (mean return). The abnormal returns calculated were further converted into cumulative abnormal returns for application of statistical techniques with the help of constant mean return model. The cumulative abnormal returns were calculated for both before and after the event date.

The mean CAR is calculated as:

$$MeanCAR = \frac{\sum_{i}^{n} CAR_{i}}{n}$$

Where, mean CAR = Mean of Cumulative Abnormal Returns,

 ${\sf CAR}_i$  = Cumulative Abnormal Returns, and n = number of days. The standard deviations for all the stocks were calculated for pre and post announcement events to find out the magnitudinal change in the stock returns. It was calculated, as follows:

#### √CAR/n

Where CAR = Cumulative Abnormal Returns, n = number of days.

#### A. Statistical techniques used

In consonance to the objectives of the study, and for testing the hypothesis, t-test was used. T-test was applied to test the impact of dividend announcement on abnormal stock returns of the sample companies for both in pre announcement and post announcement of dividend. The total event window of 15 days consisted 7 days prior to the announcement and 7 days after the announcement of dividends, excluding the event date. The t-values were calculated with the formula given below:

$$t = \frac{\overline{CAR}}{\left(\frac{\acute{o}_{\overline{CAR}}}{\sqrt{N}}\right)}$$

The t-values were further compared with the table values at 1%, 2% and 5% level of significance to test the significance of the results.

#### **IV. EMPIRICAL RESULTS**

The results of the study were arrived at using mainly three major tools, namely Mean CAR, Standard Deviation, and t-values. Mean CAR for the two periods (before and after dividend announcement) were compared with the other sample companies to find out that which of the companies had maximum mean abnormal returns. Standard Deviations were similarly compared to place the company with maximum variation in abnormal stock returns. The significance of the stocks of the different sample companies was further tested with the help of t-values.

Appendix table I shows the sector-wise Mean CAR values and standard deviation values for the sample companies before and after declaration of dividends. The results can be interpreted by dividing the 30 companies in textile sector, oil & gas sector companies, chemical sector, engineering sector, automobile, food, sugar, power, refinery and mscellaneous sector.

The Maximum CAR was observed for Gatron Industries into the both pre announcement and post announcement event window. This might be the fact that the Gatron Industry offered better returns as compare to the other sector sample companies. The Mean CAR value of all three Textile sector companies were also observed positive values for before the announcement of dividends. The Mean CAR values of all other textile companies except Shappire Textile were found negative for after the dividend announcement. This indicates that the shareholders of these companies were not satisfied with the abnormal returns after the declaration of dividends. The maximum standard deviation was observed in case of Gatron industry for the pre announcement period. For the post announcement period, the maximum standard deviation value was observed in case of Shappire textile mills. The high value of standard deviation in case of Shappire textile might be due to its not having good reputation into the market during the period 2007-2008. This might also be happened due to the world recession in 2007. The maximum mean CAR was observed for Mari Gas Company for both pre and post announcement periods. It might be due to announcement of net profit of Rs 683.885 million for the year ending December 2007, an increase of 1.13% compared with the year ending December 2006. The Mean CAR value of all other sector companies were observed negative values for before the announcement of dividends. The Mean CAR of all other Oil & Gas companies except Shell Pakistan, Sui Northern gas, & Sui Southern gas after the dividend announcement were observed negative. This indicates that the shareholders of these companies were not satisfied with the abnormal returns after the declaration of dividends. The maximum standard deviation was observed in case of Pakistan State Oil for the pre announcement period. For the post announcement period, the maximum standard deviation value was observed in case of Mari Gas. The high value of standard deviation in case of Mari Gas might be due to its not having good reputation into the market during the period 2006-2007. This might also be happened due to the world recession in 2007. The Maximum CAR was observed for Dawood Hercules in the both pre and post announcement event window. This might be the fact that the Dawood Hercules offered better returns as compared to the other sector sample companies. The Mean CAR values of five out of eight companies were also observed positive values for before the announcement of dividends. The Mean CAR of most of the other chemical sector companies except Otsuka Pakistan after the dividend announcement was observed negative but Otsuka Pakistan got the highest value of 0.123 as compared to all other sector companies. This indicates that the shareholders of these companies were not satisfied with the abnormal returns after the declaration of dividends. The maximum standard deviation was observed in case of Dawood Hercules for the pre announcement period. For the post announcement period the maximum standard deviation value was observed in case of Sitera Chemicals. The high value of standard deviation in case of Sitara Chemical and Dawood Hercules may be due to its

not having good reputation into the market. The maximum mean CAR was observed for International Industries for both pre announcement and post announcement period. It might be due to announcement of net profit of Rs 612.98 million for the semi year ending June 2007, an increase of 1.15% compared with the year ending December 2006. The maximum standard deviation was observed in case of KSB pumps for the pre & post announcement period. The high value of standard deviation in case of KSB pumps is due to not having a good reputation into the market during the period 2006-2007. The Maximum CAR was observed for Indus Motors in the both pre and post announcement event window. This might be the fact that the Indus motors limited offered better returns as compare to the other sector sample companies. The Mean CAR of all other automobile companies before the dividend announcement was observed negative. The Mean CAR of most of the other automobile companies was observed positive after the dividend announcement. The maximum mean CAR was observed for National Refinery for both pre and post announcement period. It might be due to announcement of net profit of Rs 4202.654 million for June 2007, an increase of 1.23% compared with the year ending December 2006. The Mean CAR value of Nestle Pakistan, Shahtaj Sugar Mills and Hub Power were also observed positive values for after the announcement of dividends. The maximum standard deviation was observed in case of Shahtaj Sugar Mills for both pre and post announcement period. The high value of standard deviation in case of Shahtaj Sugar Mills might be due to its not having good reputation in the market during the sample period 2006-2008.

After analyzing all 30 sample companies on sectoral basis, it was found that Gatron Industries had got the highest value for both before and after the dividend announcement date. This showed that Gatron Industries offered better returns than that of all other companies relating to different sectors. The maximum standard deviation was observed in case of Gatron Industries for pre announcement period while for the post announcement period maximum standard deviation was observed in case of Shappire textile. This showed that the shareholders of Shappire textile were less satisfied as compared to all other companies of different sectors.

Appendix table II shows the sector-wise t-statistic values calculated for the sample companies before and after declaration of dividends. The results can be interpreted by dividing the 30 companies in textile sector, oil & gas sector companies, chemical sector, engineering sector, automobile, food, sugar, power, refinery and miscellaneous sector.

The t-values in case of Gatron industries & Shappire textile were observed significant for the both pre and post announcement periods of dividend. It was because of the CAR value of Gatron Industries and Shappire Textile were the high-

est in the pre and post announcement periods as compared to other companies. The t-values in case of Rupali Polyester were found significant only for pre announcement period. Other than that, all other companies of the sector showed insignificant t-values. The t-values in case of Mari Gas were found significant in pre announcement period. For post announcement period, Mari Gas, Shell Pakistan and Sui Southern Gas were found significant. The t-values in case of Abbot Laboratories, Dawood Hercules, Engro chemical and ICI Pakistan were found significant in pre announcement period. For post announcement period, the Abbot Laborities, Otsuka Pakistan and Sitara Chemicals were found significant. Results indicate that 3 out of 8 companies observed significant t-values. The t-values in case of International Industries were observed significant for pre and post announcement. Other than that, no significant t-values were observed for rest of the companies. No company of automobile sector showed the significant t-values in pre announcement period. And for post announcement period, Agriautos, Baluschistan Wheels and Indus Motors showed significant t-values in post announcement period. This showed that dividend had got significant impact in post announcement because 3 out of 4 companies showed significant values.

The t-values in case of National Refinery were observed significant in pre and post announcement period. For post announcement period, Shahtaj Sugar Mills showed significant t-values. This showed that dividend did not get the significant impact on these companies' abnormal returns.

Finally for all 30 sample companies, it was found that only 11 companies out of 30 had got the significant impact on abnormal returns in pre announcement periods and 15 companies out of 30 had got the significant impact on abnormal returns in post announcement period. So from the above results, it was found that the dividend announcement did not get any significant impact on nonfinancial sector companies' stock returns.

## V. CONCLUSION

This study used a sample of 30 non-financial sector companies listed at Karachi Stock Exchange, and tried to evaluate the effect of dividend announcement on stock returns, using the event study methodology. The results showed that some companies had significant impact of dividend announcement while majority did not. So from the given results, null hypothesis had been accepted, meaning that there had been no strong indication found that the stock prices reacted significantly to the companies' dividend announcement.

This might be due to the insider trading in the market because the information used to be adjusted with the stock prices before announcement and therefore the announcement of dividends did not bring any new information into the market. Another factor for the insignificance might be the concept of speculation because in Pakistan majority of the investors preferred to invest their money for short term due to which they got short-term gain by buying and selling shares that caused dividend information useless.

APPENDIX I
Mean CAR and standard deviation (SD) values
(before and after declaration of dividends)

	Mean	Mean		
Sample Companies	CAR (Before)	CAR (After)	S.D. (Before)	S.D. (After)
Gatron Indus- tries	0.196	0.368	0.098	0.067
Masood Textiles	0.012	-0.001	0.019	0.021
Rupali polyesters	0.063	-0.014	0.026	0.003
Shappire Textiles	0.016	0.184	0.019	0.088^
Mari Gas	0.043	0.100	0.015	0.066
Pakistan Oilfield	-0.010	-0.040	0.011	0.013
Pakistan State Oil	-0.047	-0.067	0.024	0.006
Shell Pakistan	-0.003	0.133	0.006	0.053
Sui Northern Gas	-0.015	0.064	0.007	0.028
Sui Southern Gas	-0.016	0.054	0.006	0.034
Abbott Labora- tories	0.023	0.018	0.030	0.015
BOC Pakistan	-0.012	-0.100	0.015	0.019
Dawood Her- cules	0.034	0.074	0.045	0.019
Engro Chemical	0.006	-0.073	0.006	0.037
Fauji Fertilizer	-0.058	-0.090	0.021	0.013
ICI Pakistan	0.025	-0.061	0.011	0.030
Otsuka Pakistan	-0.005	0.123	0.011	0.031
Sitera Chemical	0.012	0.046	0.016	0.055
International Industries	0.016	0.083	0.010	0.040
KSB Pumps	-0.055	-0.187	0.033	0.033
Agritous	-0.001	0.070	0.012	0.012
Al -Ghazi Trac- tors	-0.008	-0.027	0.011	0.027
Baluchistan Wheels	-0.048	0.046	0.016	0.032
Indus Motors	0.001	0.044	0.003	0.009
Lever Brothers	-0.001	-0.029	0.009	0.019

Nestle Pakistan	0.000	0.001	0.003	0.008
Shahtaj Sugar Mills	-0.051	0.020	0.043	0.027
The Hub Power	-0.017	0.001	0.013	0.009
Tri- Pack	-0.009	-0.118	0.019	0.039
National Refinery	0.019	0.109	0.014	0.022

# APPENDIX II t-statistic values (before and after declaration of dividends)

Gatron Industries  Masood Textiles	(Before) 5.287* 1.695	(After) 14.569*
	1 1 1 1 1 1	-0.158
Rupali polyesters	6.440*	-11.073
Shappire Textiles	2.338*	5.561*
Mari Gas	7.549*	4.010*
Pakistan Oilfield	-2.423	-7.839
Pakistan State Oil	-5.185	-27.282
Shell Pakistan	-1.279	6.701*
Sui Northern Gas	-5.516	5.953*
Sui Southern Gas	-7.116	4.188*
Abbott Laboratories	1.996*	3.161*
BOC Pakistan	-2.116	-14.115
Dawood Hercules	5.292*	-5.066
Engro Chemical	2.716*	-5.283
Fauji Fertilizer	-7.415	-17.948
ICI Pakistan	5.940*	-5.305
Otsuka Pakistan	-1.113	10.428*
Sitera Chemical	2.069*	2.220*
International Industries	4.375*	5.479*
KSB Pumps	-4.393	-15.204
Agritous	-0.288	15.760*
Al -Ghazi Tractors	-2.066	-2.722
Baluchistan Wheels	-8.122	3.746*
Indus Motors	1.352	12.740*
Lever Brothers	-0.420	-3.920
Nestle Pakistan	0.233	0.496
Shahtaj Sugar Mills	-3.134	2.010*
The Hub Power	-3.452	0.377
Tri- Pack	-1.252	-8.121
National Refinery	3.672*	13.015*

#### **REFERENCES**

- [1] Bayezid, A. M. and Ahmed C. T. (2010). Effect of Dividend on Stock Price in Emerging Stock Market: A Study on the Listed Private Commercial Banks in DSE. *International Journal of Economics and Finance*, 2, 52-64
- [2] Dar, H. C., Hsiang, H. L. et al. (2009). The Announcement Effect of Cash Dividend Changes on Share Prices: An Empirical Analysis of China. *Chinese Economy*, 42, 62-85.
- [3] Dave, E. A. and Veronica, S. R. (2010). Dividend policy and stock price volatility: Australian evidence. *Applied Financial Economics*, 6, 175-188.
- [4] Eugene, F. F., Lawrence, F. et al. (1969). The Adjustment of Stock Prices to New Information. *International Economic Review*, 10, 1-21.
- [5] Fischer, B. and Myron, S. (1974). The effects of dividend yield and dividend policy on common stock prices and returns. *Journal of Financial Economics*, 1, 1-22.
- [6] Md., H. U. and Golam, M. C. (2005). Effect of dividend announcement on shareholders' value: Evidence from Dhaka stock exchange. *Journal of Business Research*, 7, 1-11.
- [7] Neetu, M. and Shuchi, G. (2010). Impact of dividend announcement on stock prices. *International Journal of Information Technology and Knowledge Management*, 2, 405-410.
- [8] Mian, S. N., Muhammad, M. N. et al. (2010). Determinants of Stock Price Volatility in Karachi Stock Exchange: The Mediating Role of Corporate Dividend Policy. International Research Journal of Finance and Economics, 55, 1-8.
- [9] Miller, Merton and Franco Modihlini. (1961). Dividend Policy, Growth and the valuation of shares. *Journal of Business*, 34, 411-433.
- [10] Mohammed, A. (2007). How does dividend policy affect performance of the firm on Ghana stock exchange? *Investment Management and Financial Innovations*, 4, 103-112.
- [11] Muhammad, A. and Humayun, H. B. (2010). Reaction of Stock Prices to Dividend Announcements and Market Efficiency in Pakistan. *The Lahore Journal of Economics*, 15, 103-125.
- [12] Murhadi and Werner-Ria (2008). Study On Dividend Policy: Antecedent and Its Impact On Share Price. Munich Personal RePEc Archive 25596: 1-29.
- [13] Neetu, M. and Shuchi, G. (2010). Impact of dividend announcement on stock prices. *International Journal of Information Technology and Knowledge Management*, 2, 5-10.
- [14] Parul, B. (2010). A study of dividend announcement on stock returns of popularly traded companies in India. *Applied journal of Research and business management*, 3, 178-189.

- [15] Paul, A. and Mullins, J. D. W. (1983). The Impact of Initiating Dividend Payments on Shareholders' Wealth. *The Journal of Business*, 56, 77-96.
- [16] R, A. and S. P. N (2008). The Impact of Dividend Policy on Shareholders' Wealth. *International Research Journal of Finance and Economics*, 20, 180-187.

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