

THE EFFECTS OF DIVIDENDS ON STOCK PRICES IN PAKISTAN

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Abstract:

This paper tests the effect of the change in the dividends on stock price behavior. The sample population for this study comprises of four companies from different industries. These companies are Hub co, Lucky Cement, Honda Atlas and Nishat Mills. The research is conducted by gathering five year data (2004 to 2009) of related firms regarding their dividend payments and stock prices. The Time series graph and pivot graphs are plotted on data. The time series graph of stock prices of lucky Cement, Atlas Honda and Nishat Mills show variability of stock prices. Time series graph of dividend per share goes against the stock prices trend. Pivot Chart shows the comparison of stock prices and dividend per share of individual company. The findings indicate that the stock prices of all sample companies change with the change in dividends per share. The correlation results show that there is strong positive or negative relationship has been found between stock prices and dividends per share. It is evident that most of the stock prices have negative correlation with the dividend per share.

Key Words: *Dividend, stock prices, Pakistan*

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Introduction:

The significant purpose of financial management is to create value for stockholders. Stability or fluctuations in stock prices is a component that has acquired great importance of stockholders all over the world. There are number of factors that influence stock prices including macroeconomic indicators (the interest rate and the industrial production), stock splits, stock dividends, capital gains and cash dividend. There are statistically considerable associations among the domestic production sector, money markets, and stock prices in Viet Nam. Another new finding is that the US macroeconomic fundamentals significantly affect Vietnamese stock prices (Hussainey & Ngoc, 2009). Various studies have analyzed how stock prices react to changes in macroeconomic variables. Some studies, for example, examined the impact of individual factors such as inflation, real activity and interest rates and other macroeconomic variables on stock prices in China. Chinese stock market does react to changes in the macro-economic variables in the long run, regardless of its high degree of speculation, immaturity and short-term volatility. (Liu & Shrestha, 2008)

The dividend announcement has an impact on the market price of the shares. Researchers around the world have studied some of these impacts and it is considered as an event study. Event studies focus on the impact of various announcements like bonus issue, issue right, stock splits, earnings, dividends, mergers and acquisitions, buyback of stocks, etc. Dividend announcements are one of the most important events and the studies on stock market reaction to earnings information (Mehndiratta Gupta, 2010). The findings from non-taxable stocks show that their price, on the ex dividend day falls by an amount that equals the dividend. For the taxable sample, stock prices of small dividend yield stocks drop proportionally to the dividend paid. One of the unsettled debates in finance, going on for the last 40 years, is the ex dividend day behavior of stock prices. Theory predicts that in perfect capital markets, stock prices were the ex-dividend day, adjusted for any market-related influence should drop by an amount that equals the dividend paid. Yet, several studies show that ex dividend day stock prices drop by an amount that is smaller than the amount of dividend (eliminating, Travlos, Xiao and Tan, 2002). Cairo and Alexandria Stock Exchange (CASE) is an attractive evolving financial market. First, Egyptian equities are emerging as promising investment securities for global investors seeking high

returns and value investing. It is essential to understand the effects of a changing trading system on stock price (Girard & Omran, 2009).

Stock markets in Pakistan have also faced the changes in stock prices and stock returns during the period when Pakistan liberalizes its capital market (Upal, 2006). It's easier to pinpoint how dividends affect early exercise. Cash dividend affects stock prices. The stock price is expected to drop by the amount of the dividend is the ex-dividend date. High cash dividend imply lower call premium and higher put premium (Graham, 2005).

Review of Literature:

Many researches have been conducted to find out the factors that affect stock prices. Exchange rate affects stock prices by changing the firm's operating profit and cash flows. If the company is holding bonds and equity denominated in foreign currency then exchange rate risk is involved. Exchange rate can also affects the value of firm's real assets. Foreign exchange rate can affect the firm's assets value. Devaluation of domestic currency with respect to foreign currency accelerates inflow and outflow of cash flows by increasing the exports. Firms relying on exports have negative relation to the domestic currency. (Liu & Shrestha, 2008)

On the day a stock has first been quoted ex-dividend, its price has tended to fall by less than the amount of the dividend. The anomalous share price behavior extends before and after the ex-dividend day, and has implications for time-related anomalies observed for the market as a whole (Brown and Walter, 1986).

Change in interest rate also affects the stock prices by amending the investors required rate of return, i.e. the discount rate. Because of this relationship, it is anticipated that interest rate and stock prices should have a negative relationship. Furthermore, changes in both short-term and long-term rates are expected to affect the discount rate in the same way. (Liu & Shrestha, 2008)

In previous researches stock prices have been investigated for their relation to domestic macroeconomic indicators that are represented by interest rates, industrial production index and inflation. With higher interest rates, investors prefer bonds due to that stock price decreases. On the contrary, a decrease in interest rates leads to an increase in stock prices. (Hussainey & Ngoc, 2009)

Some researches explained that dividends payment also affects stock prices by creating value for stockholders. Much debate exists on the role that a firm's distribution policy should play in achieving this goal. Two distinctly different branches of thought originate from the early literature on corporate distribution policy, especially relating to cash dividends. One stream of thought has represented that dividends are an important determinant of firm value. The second perspective suggests dividends are irrelevant for firm value and possibly value-destroying. Dividend payouts in the nineteenth and early twentieth centuries were larger and comprised a much higher percentage of investor's total returns than those offered by corporations today. US stocks averaged 6.4 per cent from 1802-1870. Dividends accounted for 90 per cent of the total returns earned by investors during this period. From 1871-1925, the average dividend yield of 5.2 per cent represented slightly more than 70 per cent of investors' total returns, and from 1926-2001 the average yield of 4.1 per cent made up almost 40 per cent of total returns. During the period from 1982-2001, the average dividend yield fell to 2.9 per cent and constituted only 20 per cent of total returns. (Weigand & Baker, 2009)

One of the most controversial issues in corporate finance theory studied in literature is the behavior of stock prices around ex-dividend days, a subject that has for 50 years fueled a considerable number of theoretical and empirical studies. Majority of studies conducted in the United States, the United Kingdom, Canada, and other developing markets report a considerable deviation from this prediction that stock prices decrease on ex-dividend days by an amount that is less than the dividend. The ex-dividend day abnormal return and the ex-dividend day abnormal trading volume according to dividend yield and transaction costs, we find a positive relationship between the ex-dividend day return and transaction costs and a positive relationship between the ex-dividend day return and dividend yield. On the other hand, the relationship between the ex-dividend day abnormal trading volume and dividend yield is positive, whereas the relationship between the ex-dividend day abnormal trading volume and transaction costs is negative. (Dasilas, 2009)

A number of empirical studies have investigated whether dividends contain information. For instance it has been found that dividend announcements do convey valuable information. However some researchers came to the conclusion claiming that unexpected dividend changes communicate no information beyond the one reflected of that period's announcements. Since

then, numerous studies have examined the stock price reaction on and around dividend announcement days leading to mixed results. A dividend initiation is defined as a dividend payment by a firm for the first time in its entire corporate history or after a pause of more than three years. The price response to dividend initiations has been examined using daily stock price data of US companies to control for other contemporaneous information announcements and found significant abnormal returns (ARs) at dividend initiation announcements. Dividend initiations are associated with rises in shareholders' wealth through stock price increase. (Dasilas, Lyroudi & Ginoglou, 2009)

Numerous studies have sought to determine the capacity of accounting information to predict changes in share prices and, in particular, to investigate the extent to which positive generate expectations for an increase in the share price. Some studies seek to explain the evolution of share prices using financial measures like net value added, which they consider a better approximation than profits to establish a company's capacity to generate funds, showing that many companies set earnings levels in response to the wealth created in a given period. The stage of growth reached by a firm is reflected in the differing values taken by measures of financial performance, while the market's reactions to these measures vary depending on these values. (Gallizo & Salvador, 2006)

Disclosure of intellectual capital elements through "price sensitive" disclosures to the Australian Stock Exchange (ASX) has an effect on the short-term share price of a firm instantly.

The market does not respond immediately to these announcements because it needs time to absorb the impact of the announcements or because the market had expected the announcements or because the content of the announcements had been devolved through other mechanisms. It does however set a firm base for further examination of intellectual capital-based announcements. (Dumay & Tull, 2007)

US studies show significant price effects when shares enter or leave an index during index revisions. Inactive funds that track an equity index must purchase shares when they are added to the index, and sell shares that are deleted from the index. In order to minimize the tracking error, which is the difference between the return on the fund and the return on the index, the funds must buy and sell on the day that the change in the index becomes effective. As accomplishment of a change occurs some time after the announcement of the change, it is possible to buy shares

to be added to the index in advance of the change and sell them to the index funds on the day of the index change, thereby, hopefully, making a profit. (Qiu & Pinfeld, 2008)

Mutual funds or unit trust funds in Malaysia have experienced significant growth over the last decade in terms of the number of funds offered and the volume of capital managed by the unit trust management companies. A unit trust fund is an indirect investment product created to serve as an alternative to direct stock market investment for investors. In a more recent study, researchers have used co integration analysis to investigate the relationship between mutual funds and the Spanish stock market portfolio, Ibex 35. Their findings indicate that only 11 out of 63 funds analyzed are co integrated with the market index or have a long run equilibrium relationship with Ibex 35. According to the authors, the findings of a small number of mutual funds, which are co integrated with the market index, could be due to the fact that these funds are actively managed funds. This is because active management of mutual funds through market timing and or security selection activities could cause the mutual funds to deviate from the evolution of the market index in the long run. (Low & Ghazali, 2007)

Objectives of the Research:

This research aims to achieve following objectives:

- I. To find out how dividends affect stock prices of different firms
- II. To get the results in meaningful way that can help the stock investors

Problem Identification:

Equity financing is very important for every firm that needs significant amount of financial resources to run their business. Attracting and then retaining investors are the goals of financial managers that can be achieved by providing them best returns on their investment. The competition is becoming intense as more companies are entering in the equity market. So it has become difficult to attract and retain potential investors. Instability in stock prices makes the investor curious and dissatisfied with the investment decision. Dividends are considered to be one of the most valuable incentives to invest in the shares of any firm and then reinvest in that firm's

shares. When companies declare cash dividends, change in the stock price is observed. This change can imply a positive impact on the stock price during the time period from declaring cash dividend to the ex dividend phenomena. Sometimes cash dividend payment influences the stock prices in the long run also. Thus understanding components that affect the stock prices are paramount for the investors and financial managers of all firms. It is also very necessary to understand the affect of cash dividends on the share prices.

The Problem Statement:

This study investigates the factors that affect the stock prices of different firms. It also aims to find out the affect of cash dividends on stock prices of different companies, the research question is how cash dividends influence stock prices of different firms?

Significance of the Study:

Stock prices play a significant role for the organization and investors. A stock price of any firm never remains constant. Fluctuations in stock prices are caused due to number of factors and it is very necessary to know the reason of these fluctuations. There are number of factors that can influence the stock prices including macroeconomic indicators (the interest rate and the industrial production), stock splits, stock dividends, capital gains and cash dividends.

Stock options became a gradually more admired form of compensation in US companies in the 1990s. Since they become more valuable with higher share prices, they are supposed to encourage management to take actions that boost share price, thus making shareholders better off. So in this way stock options as compensation to managers also influence stock prices. (Meek, Rao & Skousen, 2007)

Stock prices of firms operating in Pakistan are also influenced by above mentioned factors but these factors are not analyzed properly. There is a need to understand that stock prices are affected by many components in Pakistan. To assist financial managers, operating the firms in Pakistan and potential investors it is important to develop understanding about the change in

stock prices. The research therefore attempts to find out the factors that are causing change in stock prices, specifically the affect of cash dividends on stock prices in Pakistan.

Data and Methodology:

One independent variable and one dependent variable are taken. The dependent variable is “stock prices” and independent is “dividends”. This study made use of the descriptive based method for the achievement of the research objectives. Correlation is the statistical technique which is applied on data to find out the relationship between them.

1. Data Collection

This method was based on the previous research papers. Rather than using questionnaire method analysis of data from secondary resources was applied. The sample population for this study was the firms of various industrial sectors of Pakistan. All of these firms have shares outstanding in market. The clusters include power industry, cement industry, Sui gas, telecommunication and banks. The sample size for the study was 5 firms. The five different firms included in the sample were Hub Power, Lucky Cement, Atlas Honda and Nishat Mills. The research is conducted by gathering five year data (2004 to 2009) of related firms regarding their dividend payments and stock prices. This data was analyzed to find the affect of dividends on stock prices. Data on the dates of dividend announcements, stock prices of the companies was taken from Karachi stock exchange.

2. Procedure

Data of five firms was gathered and it was tested by applying different tools of analysis. Stock prices of companies and their dividend per share was compared and trends were calculated. Histogram was formulated to see all sample company data on with comparison to each other. Time series graph is also used to conclude the findings. Correlation was applied for analysis. Stat pro was used for the analysis. The research paper is primarily based on secondary resources including research journals, research articles, business recorders and other internet links or websites.

3. Limitations

Generalization of the results is be limited since the data of only five firms is be analyzed. The research is cover partial components that affect stock prices so the gap does exist because every factor that can influence stock price is not been covered. Accessibility to primary resources is being very difficult. Time and cost are also considerable constraints.

4. Results and Discussion

a) Time Series Plotting of Stock Prices and Dividend Per Share

Figure 1: "Time series plot of Stock Prices over 2004-2009"

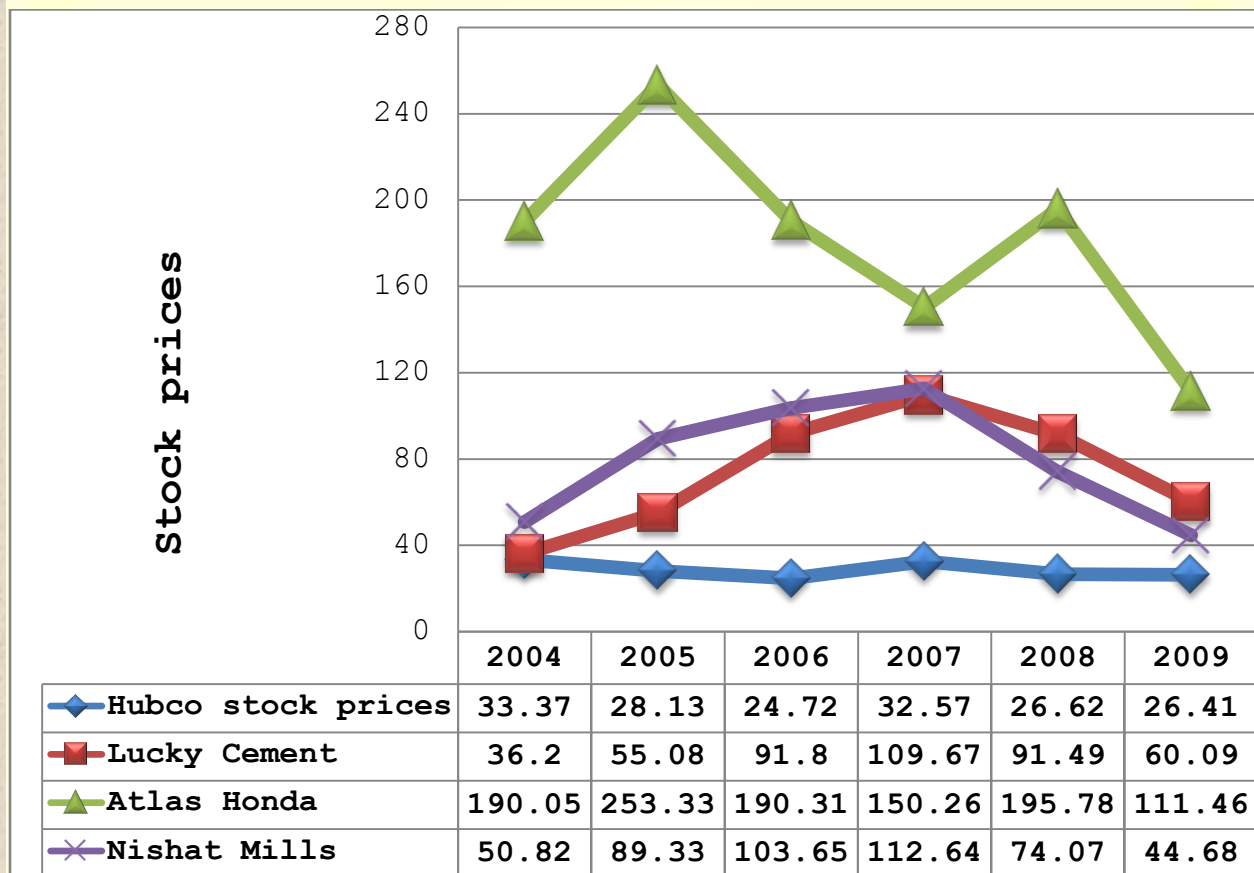
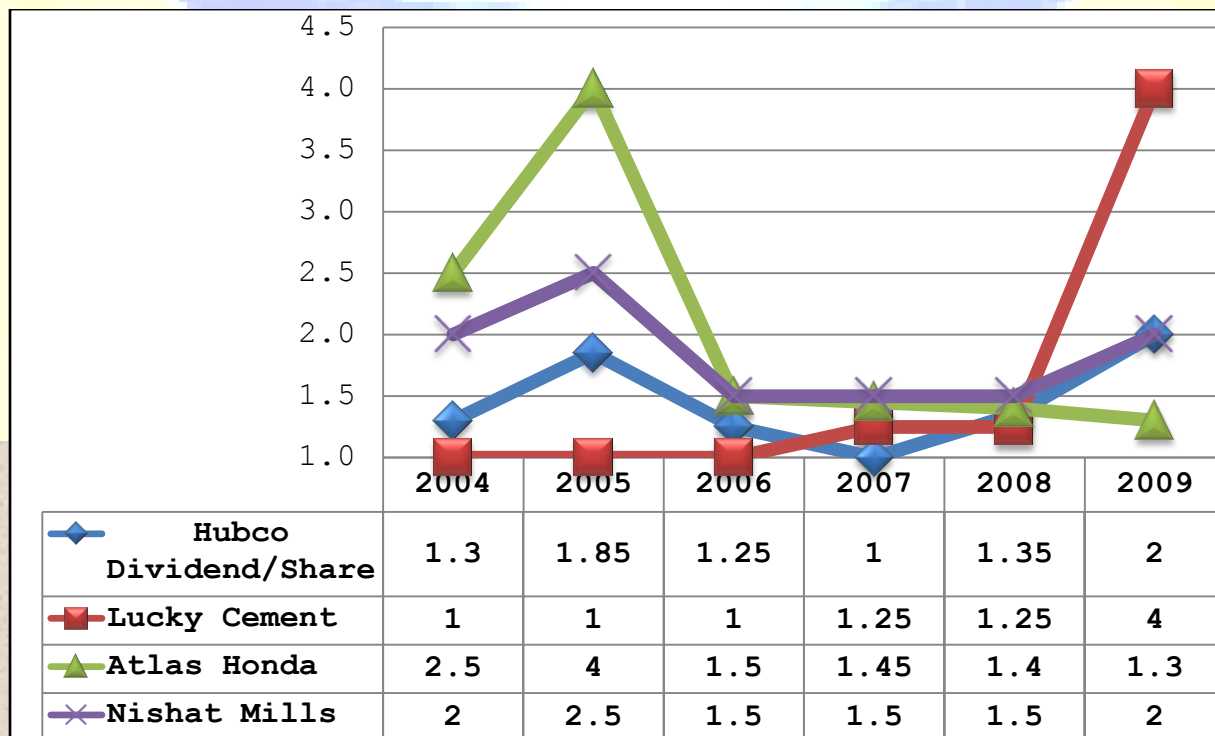


Figure 1 shows six year stock prices of Hub co, Lucky Cement, Atlas Honda and Nishat Mills. This figure shows variation in stock prices over six years. Stock prices of Hub Co shows stable trend. Hub co stock prices are changing but with less variability compared to other companies. It can be seen that in the Stock prices of Hub co remained between maximum 33.37 to minimum value of 24.72.

Figure 1 show less fluctuation in the time series graph plotted for the yearly stock prices of Hub co. Stock prices of lucky cement shows increasing trend from 2006 to 2008 and decreasing trend from 2008 to 2009. The fluctuations in the stock prices of Lucky cement are greater than Hub co, as the time series graph plotted against last six years stock prices shows more variability. In year 2006 stock price are 36.2, it kept on increasing to 109.67 in 2007 and it suddenly decreased to 60.09 in 2009. Stock prices of Atlas Honda show high variability with respect to time. Time series graph shows high fluctuations in the stock prices over the last six years. From 2004 to 2005 stock prices increase from 190.05 to 253.33, then again it decreases to 190.31 in 2006. From 2007 to 2009 decreasing trend is found and stock prices have decreased to 111.46.

Time series graph shows high fluctuations in the stock prices and these fluctuations are very abrupt. Stock prices of Nishat mills shows volatile trend. Stock prices increases from 2004 to 2007 and then decreases from 2007 to 2009. From 2004 to 2007 stock prices increases from 50.82 to 112.64. From 2007 to 2009 stock prices show decreasing trend from 112.64 to 44.68. This shows dramatic fluctuations especially at decreasing side. The above graph shows dramatic changes in the time series graph plotted against the yearly stock prices of Nishat Mills.

Figure 2: “Time series plot of Dividend per Share over 2004-2009”



The above time series graph shows variations in dividend per share of sample companies. Time series graph shows fluctuations in the dividend per share over the six years (2004-2009) of every company included in the sample.

Above graph 2 shows that Hub Co pays dividends every year. The dividend per share is not constant. It is changing every year. Dividend per share paid in 2004 is 1.3 and it shows increasing trend from 2004 to 2005. As in 2005 dividend per share shows value of 1.85. From 2007 to 2008, company's dividend per share decreases to 1.25. Dividend per share keeps on declining to 1 in 2008 and then increases to 2 per share.

Time series graph 2 shows constant dividend per share of Lucky Cement from 2004 to 2006. Dividend per share for 2004 to 2008 remains constant at 1 per share. In 2007 moderate increase in the dividend per share is observed and its value reaches to 1.25. 2009 dividend per share of Lucky Cement increases dramatically to 4 per share. Atlas Honda pays 2.5 dividends per share in 2004 and then it increases to 4 in 2005. Dividend per share declines in 2006 and 2007 to 1.4 per share. In 2009 it further reduces to 1.3 per share. Changes in the dividend per share show high instability.

Time series graph shows stability in the dividend per share of Nishat Mills as compared to other companies in the sample. Dividend per share of Nishat Mills shows increases trend from 2004 to 2005, as it increases from 2 per share to 2.5 per share. It decreases in 2006, 2007 and 2008 to 1.5 and in 2009 it again increases to 2. So the fluctuations remain within the bracket of 1.5 to 2 per share.

b) Pivot charts of Stock Prices and Dividend Per Share

Table 1

Pivot chart: "Fluctuations in Stock prices and dividend per share of Hubco"

Years	Sum of Closing Price (X)	Sum of Dividend/Share (Y)
2004	33.37	1.3
2005	28.13	1.85

2006	24.72	1.25
2007	32.57	1
2008	26.62	1.35
2009	26.41	2

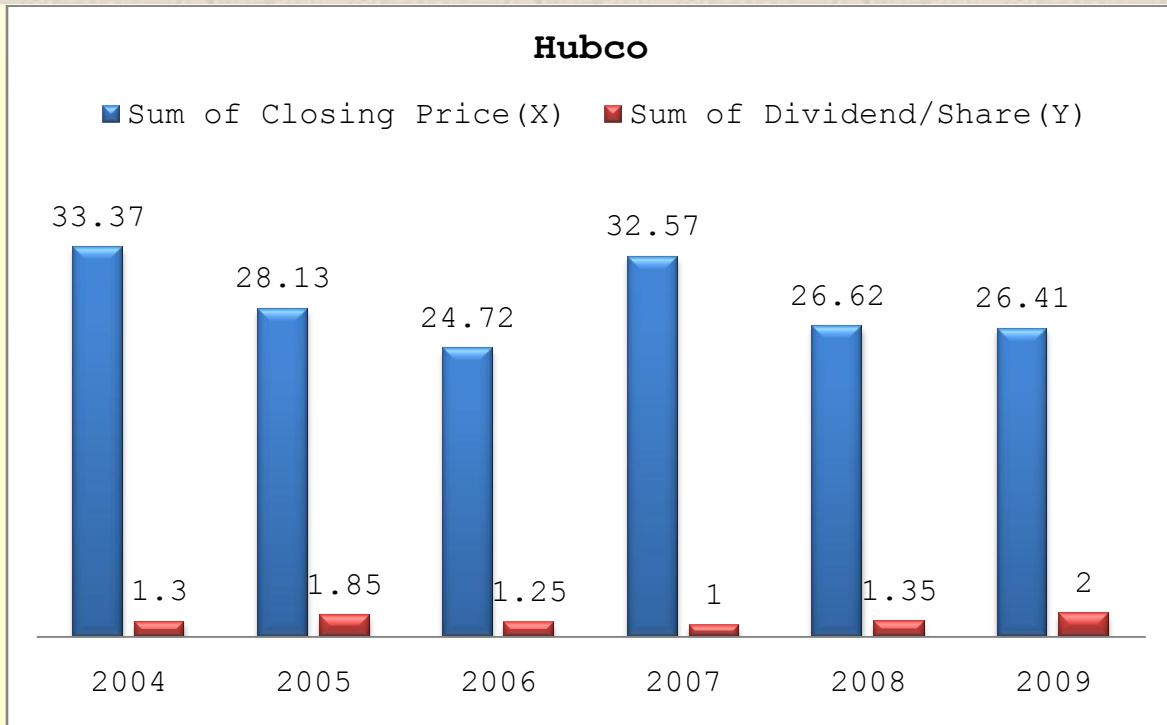


Figure 3

The above chart shows relation between stock prices and dividend per share of Hubco on yearly basis. It can be observed that in year 2004, 2006 and 2007 the dividend per share is minimum with the stock prices at peak. Whereas in years 2005, 2008 and 2009 stock prices have declined with increased dividend per share. So the negative relation between stock prices and dividend per share has found.

Table 2

Pivot chart: "Fluctuations in Stock prices and dividend per share of Lucky Cement"

Years	Sum of Closing Price (X)	Sum of Dividend/Share (Y)
2004	36.2	1
2005	55.08	1
2006	91.8	1
2007	109.67	1.25
2008	91.49	1.25
2009	60.09	4

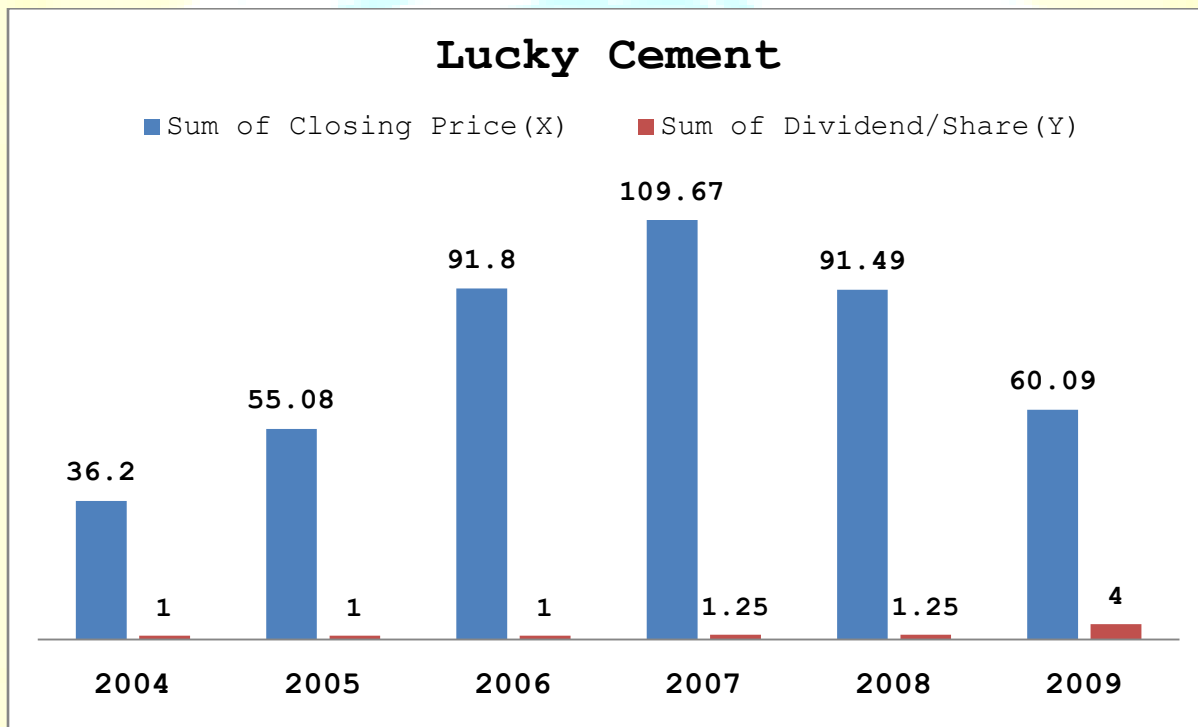


Figure 4

In the above chart yearly stock prices of lucky cement are compared with its dividend per share. Negative relation is found between these two variables. From 2004 to 2007 stock prices have increased with the constant dividend per share but after 2007 prices have declined with the increase in dividends. In 2009 significant increase in dividend per share has made the stock price decline with a great percentage.

Table 3

Pivot chart: "Fluctuations in Stock prices and dividend per share of Atlas Honda"

years	Sum of Closing Price (X)	Sum of Dividend/Share (Y)
2004	190.05	2.5
2005	253.33	4
2006	190.31	1.5
2007	150.26	1.45
2008	195.78	1.4
2009	111.46	1.3

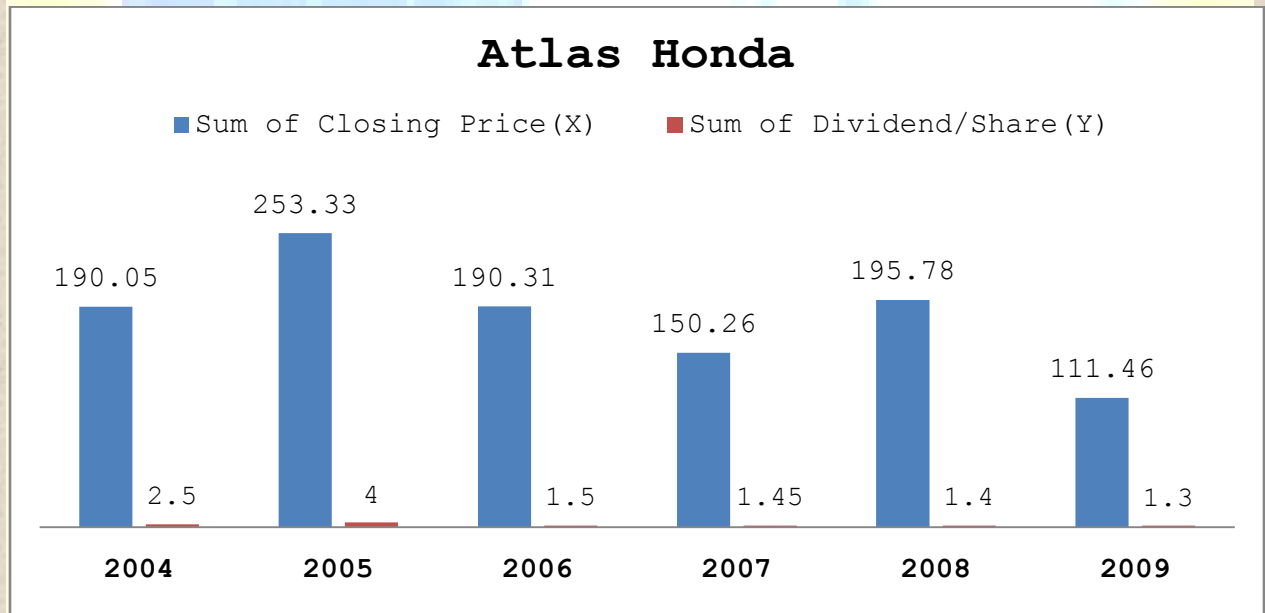


Figure 5

In the above chart stock prices of Atlas Honda have been compared with its dividend per share. The stock prices have shown direct relation to the dividends per share. As an increase in the dividend per share, stock prices have also increased. In 2005 company declared highest dividend per share over the six years and the stock price of 2005 has also increased significantly.

Table 4

Pivot chart: "Fluctuations in Stock prices and dividend per share of Nishat Mills"

years	Sum of Closing Price(X)	Sum of Dividend/Share(Y)
2004	50.82	2
2005	89.33	2.5
2006	103.65	1.5
2007	112.64	1.5
2008	74.07	1.5
2009	44.68	2

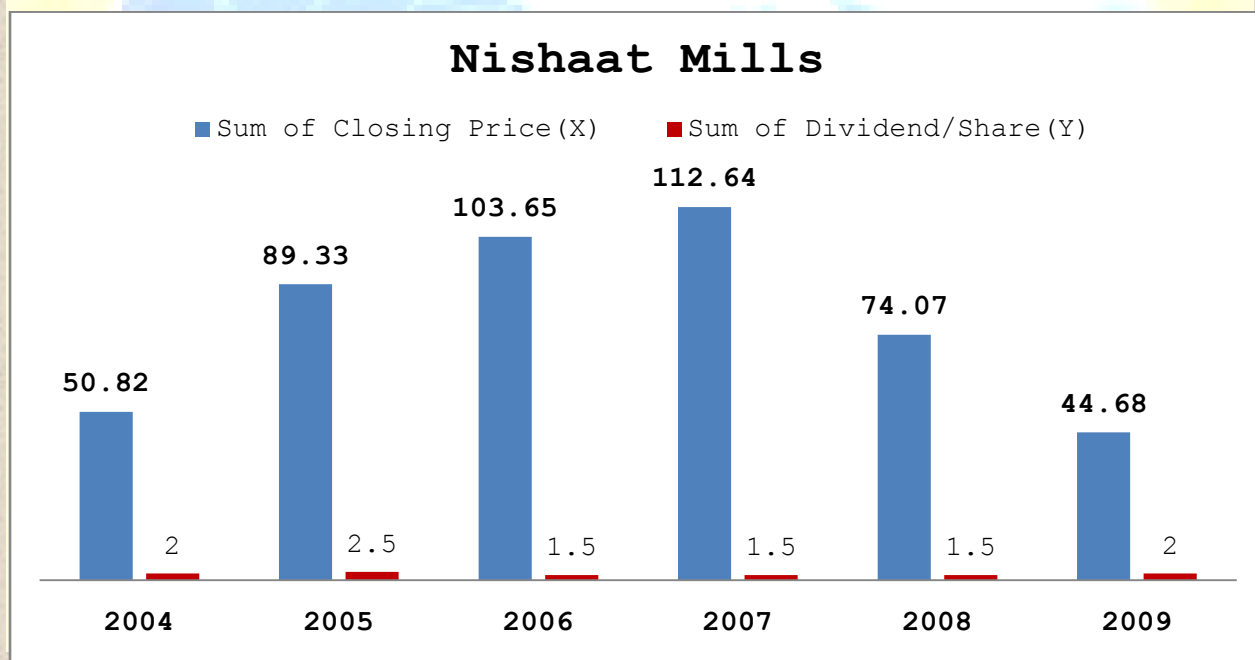


Figure 6

Figure 6 shows variations in the stock prices and dividend per share. It is observed that when the dividend per share increased in year 2004, 2005 and 2009, stock prices decreased. Whereas in years 2006, 2007 and 2008, stock prices increased with low dividend per share.

c) Correlation of stock prices and dividend per share of Sample Companies

“Correlation of stock prices and dividend per share of Hub co”



Figure 7

The above figure 7 shows correlation between the stock prices and dividends per share for of hubco. This relation is found by plottig the six year stock prices and dividends per share data. Negative corelation exists between the stock prices and dividends per share. When there is increase in the dividend per share, stock prices have gone down.

“Corelation of stock prices and dividend per share of Lucky Cement”



Figure 8

The figure 8 shows correlation between stock prices and dividends of Lucky Cement over the six years (2004-2009). The value shows that stock prices and dividends are negatively correlated to each other. This means that with the increase in dividends stock prices of the company will go down. The plotted values demonstrate that when the dividend per share has increased, it has negatively affected the stock prices.

“Corelation of stock prices and dividend per share of Atlas Honda”

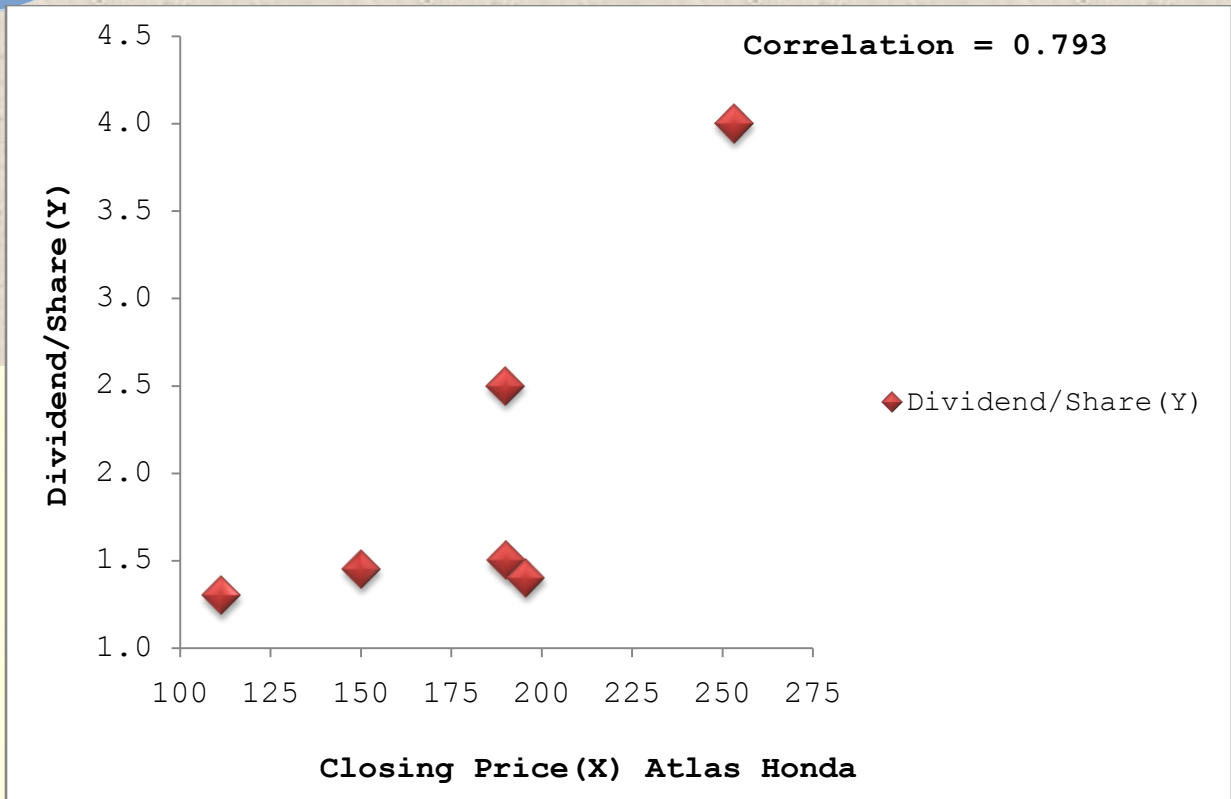


Figure 9

In the above table correlation between the average stock prices and dividend per share of Atlas Honda for six years has been conducted. This graph represents strong positive correlation between the stock prices and dividends that means if the company pays more dividends, its stock prices will be increased. Hence the stock prices and dividend per share of Atlas Honda are strongly positively related to each other.

“Corelation of stock prices and dividend per share of Nishat Mills”

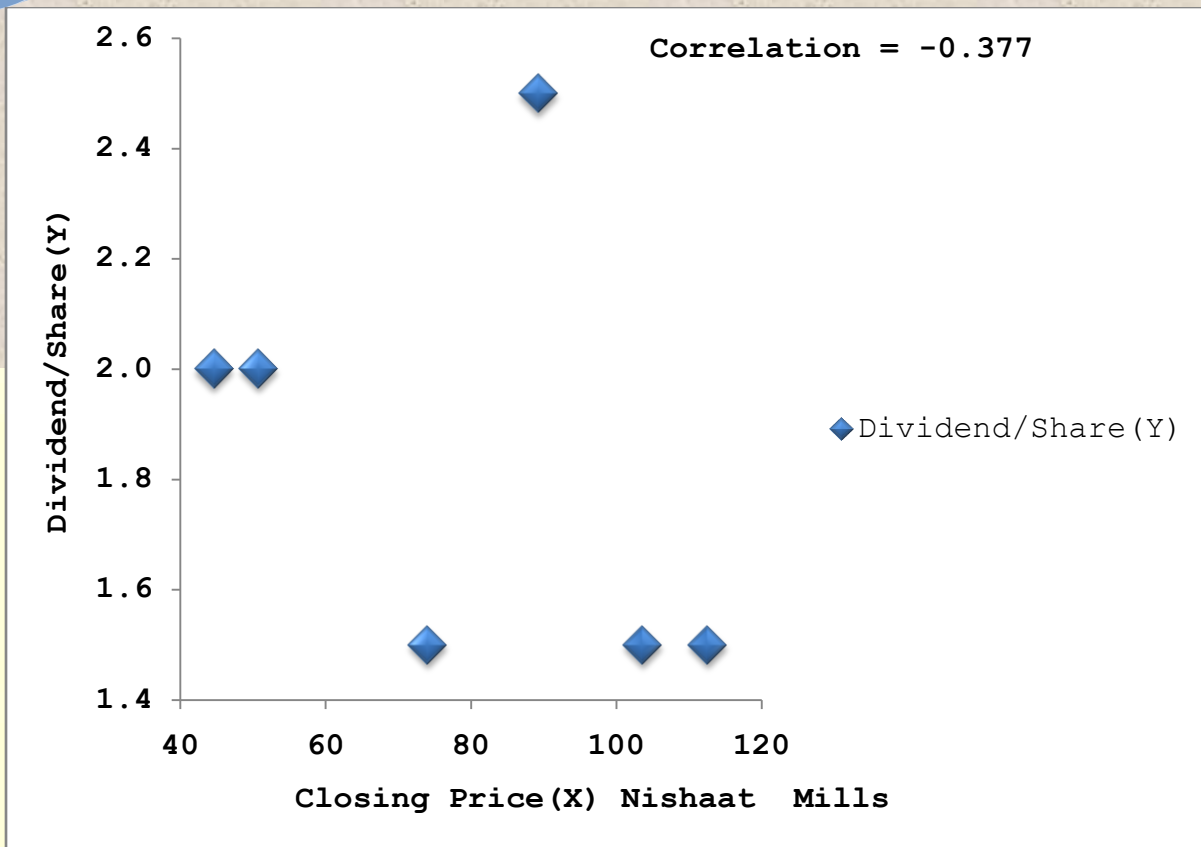


Figure 10

In the above figure 10 correlation of stock prices and dividend per share of Nishat Mills is calculated. The value shows that negative correlation exist between stock prices and dividend per share. Analysis of six year data shows that dividend per share has negative affected the stock prices.

Conclusions and Recommendations:

This paper tests the effect of the change in the dividends on stock price behavior. The findings indicate that the stock prices of all sample companies change with the change in dividends per share. When dividend per share is changed, it affects stock prices negatively or positively. As by calculating correlation between stock prices and dividends per share strong positive or negative relation has been found. The sample population for this study comprises of four companies from different industries. These companies have shares outstanding in the market and are operating in stock exchange. These companies are Hub co, Lucky Cement, Honda Atlas and Nishat Mills. It

is evident that most of the stock prices have negative correlation with the dividend per share. As the dividend per share increases stock prices go down. Time series graph shows last six year stock prices of Hub co, Lucky Cement, Atlas Honda and Nishat Mills. It shows variation in stock prices over six years. Stock prices of Hub Co shows stable trend. Hub co stock prices are changing but with less variability compared to other companies. It can be seen that in the Stock prices of Hub co remained between maximum 33.37 to minimum value of 24.72. Figure 1 shows less fluctuation in the time series graph plotted for the yearly stock prices of Hub co. Similarly, time series graph of stock prices of lucky Cement, Atlas Honda and Nishat Mills show variability of stock prices. Time series graph of dividend per share goes against the stock prices trend. If the stock prices show increasing trend, dividend per share decreases. Whereas when stock prices go down, increase in dividend per share increases. Pivot Chart shows the comparison of stock prices and dividend per share of individual company. Six year stock prices plotted with the six year dividend per share shows that, year with high dividend per share shows low stock prices. Whereas this evidence suggests that the change in the relative dividend and stock prices for long-term individual investors had no effect on the ex-dividend stock price behavior (Michealy, 1991). So ex dividend price has significance for short term purposes.

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