A Research Paper on Impact of Dividend Payout on Shareholders Wealth in Indian Industries

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Abstract

This research paper analysed the impact of dividend payout on shareholders wealth for five important industries in India viz, Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industry as well the effect of dividend announcement on share price using 15 years data from 2001 to 2015. Panel data regression and Paired t test was used. It was found that dividend payout had significant negative impact on shareholders wealth for majority of the industries. There was significant difference in share price between pre and post dividend announcement.

Key Words: Dividend, shareholders wealth, dividend announcement, Panel regression, TOBINSQ.
1. Introduction

Dividend is derived from the Latin word “Dividendum”. This means “that which is to be distributed”. Earnings distribution to the shareholders according to their ownership proportion is called as Dividend. All the shareholders of the company have share in dividend based on their ownership proportion in the company.

Dividend decision or dividend policy is defined as the ratio of retained earnings to the distributed earnings. Dividend decision is interrelated with other three decision viz investment decisions, financing decisions and liquidity decisions. Companies decide the proportion of earning to be distributed as dividend and proportion of earnings to be retained with the objective of wealth maximization of shareholders. The companies should find out the optimum dividend payout with risk return trade off leading to the objective of shareholders wealth maximization. The firms have to decide the form and timing of dividend payment.

According to Allen et al (2000), “Although a number of theories have been put forward in the literature to explain their pervasive presence, dividends remain one of the horniest puzzles in corporate finance”. Even Frankfurter et al (2002) concluded that “The dividend puzzle both as a share value enhancing and as a matter of policy is one of the most challenging topics of modern finance/financial economics. Forty years of research... has not been able to resolve it”.

The scope of financial management and the functions of finance manager have undergone changes in the last few decades but the goal or objective of the company remains unchanged. The main objective of the firm is shareholders wealth maximization. It is represented by the positive net present value of the financial decisions. According to Azhagaiah & Sabaripriya (2008) Shareholders think the wealth is created by increase in the firm’s market price of the share. Even many researchers have proved the same. All the four financial decisions viz, Investment decisions, financing decisions, Dividend decisions and Liquidity decisions decide the value of the firm. All the four decisions together contribute in the wealth creation for shareholders. Dividend decision is one of the important financial decisions that contribute in shareholders wealth creation. There are some dividend theories which prove that dividend decision affects the market value of the firm while others disprove it. Those who proved the relationship between dividend decision and value of the firm often link dividend decision with the investment opportunities of the firm.

If there are good and profitable investment opportunities, retention of earnings would be a better option than dividend distribution. This would increase the value of the firm. If there are no better investment opportunities, dividend distribution would be a better choice for the management. Shareholder wealth is
created if there is increase in the market value of the firm. It is the function of all
the four decisions of the firm. Finance manager should identify optimum
dividend policy that maximizes shareholders wealth by increase in the market
value of the firm. This study would analyse the impact of dividend determinants
on the shareholders wealth.

According to Pettit (1972), market price of shares changes to the change in
dividend announcements. Gordon (1959, 1962) and Vickery (1978) found that
there were positive abnormal returns after dividend payment announcements.
Easton and Sinclair (1989) found that there was negative reaction of stock prices
on dividend announcements. Uddin and Chowdhury (2005) analysed and found
that there was no information content of dividend announcement. It was found
that based on the previous literature dividend announcement’s impact on market
price of share had shown a mixed reaction. In this study, the impact of dividend
announcement on the market price of share was analysed through year wise and
market capitalization wise. The main objective of this research is to examine the
impact of dividend payout and its determinants on the Shareholders wealth and
to analyze the effect of dividend announcement on the market price of share.

2. Literature Review

TOBINSQ is a measure of shareholders wealth and firm performance. Pruitt and
Chung (1994) explained the simple approximation of Tobin’s q. It was suggested
that there was similarities between approximate q, MVA and EVA. Approximate was identified as standardized performance measure. Kakani et al
(2001) studied the determinants of financial performance of Indian corporate
sector in the post liberalization era for 566 companies during 1992 to 2000. The
researchers used and suggested TOBINS’ Q as measure of shareholders wealth
which is a more appealing measure than accounting returns (Wernerfelt &
analysed the relationship between director remuneration and performance of
firms listed in the Nairobi Securities Exchange. TOBINS’Q was used one of the
firm performance measure. Odongo et al (2014) examined the impact of capital
structure and profitability on Kenyan listed firm performance which was
measured as TOBINS’Q. Sweety and Kaur (2014) examined the impact of firm
specific attributes on shareholders wealth creation of 100 Indian companies
during 1997 to 2009. The researchers used EVA (Economic Value Added), an
accounting based measure, MVA (Market Value Added) and TOBINS’Q, a
market based measure as proxy for shareholder wealth creation. It was found
that the selected attributes explained 34% variation in EVA and 55% variation
on MVA and TOBINS’Q. Mitharshana (2015) analysed the impact of firm
characteristics on firm performance. He used Tobin’s q as a measure of firm
performance and found that leverage was positively significant at 1% whereas
Asset tangibility was negatively significant at 10% level with Tobins’q. Liquidity and Firm size were insignificant. Kirubalini (2015) examined the impact of corporate governance variables and firm size on Tobins’q, a measure of firm performance. Firm size was insignificant with firm performance. Robert and Mukras (2015) analysed the financial leverage and performance of listed firms in a frontier market from Kenya during 2007 to 2011. TOBINS’Q was used as measure of financial performance and it was found that financial leverage and ownership concentration were negatively significant and tangibility was positively significant with TOBINS’Q.

Gitundu et al (2015) examined the influence of change in corporate governance on financial performance of 55 privatized companies in Kenya during 2007 to 2013. Tobins’Q was used as measure of financial performance. Board composition was positively significant and board size was negatively significant with TOBINS’Q. Azhagaiah and Sabari Priya (2008) observed the impact of dividend policy on shareholders wealth for 28 companies listed in NSE during 1997 to 2006. Dividend per share was used as proxy of dividend policy and market price per share was used as proxy for shareholders wealth. Dividend policy was positively significant with shareholders wealth for organic chemical companies whereas insignificant for inorganic chemical companies. Shahid Ali et al (2010) analysed the impact of dividend policy on shareholders wealth of 68 companies listed in Karachi Stock Exchange during 2002 to 2008. Annual stock return was used as measure of shareholders wealth whereas dividend payout ratio, Size of the firm, Price earnings ratio, Growth and Profitability were used as independent variables. Through fixed effect model, for companies with the year ended June, dividend payout ratio was insignificant, profitability and price earnings ratio were positively significant whereas firm size was negatively significant with shareholders wealth. Companies with the year ended December, Growth alone positively significant with shareholders wealth. Sujata Kapoor (2010) investigated the impact of dividend policy on shareholders wealth of Indian firms in IT sector, FMCG sector and Service sector. Event study was used to find out the impact of dividend policy on shareholders wealth. In FMCG sector and Service sector, cash dividend announcement has an impact on market value of shares represented as shareholders wealth.

Shaveta Gupta (2011) analysed the management considerations and factors affecting dividend decisions of Indian Engineering industry, FMCG industry, IT and Textile industry during 2004 to 2008. Market value to Book value of share was used as measure of shareholders wealth. For all the years and for all the industries, dividend pay-out ratio was negatively significant with shareholders wealth except for Textile industry, dividend payout ratio was negatively significant only for the year 2006. Gul et al (2012) examined the relationship between dividend policy and shareholders wealth of 75 companies listed in Karachi stock exchange during 2005 to 2010. Market price of share was the proxy of shareholders wealth and dividend per share, lagged price earnings per
ratio, retained earnings and lagged market price per share was used as independent variables. The average market value to book value of equity for dividend paying companies was very high when compared to non-dividend paying companies. Through multiple regression and Stepwise regression it was found that dividend per share and lagged market price per share were positively significant with shareholders wealth whereas retained earnings and lagged price earnings ratio were negatively insignificant with shareholders wealth. Mistry (2012) analysed the impact of dividend policy on shareholders wealth of selected major pharmaceutical units in India during 2001 to 2009. It was found that five companies have positive significant impact of dividend payout ratio on shareholders wealth which was measured through Net worth. Bawa and Kaur (2013) observed the impact of dividend policy on shareholders wealth of Indian Information Technology sector during 2006 to 2010. Market price per share was used as proxy for shareholders wealth whereas dividend per share, retained earnings per share, lagged price earnings ratio and lagged market price per share was used as independent variables. There was significant difference in the market to book value of dividend paying companies and dividend non-paying companies. Fixed effect panel regression has shown that dividend per share, retained earnings per share and lagged market price per share were positively significant with shareholders wealth.

Chidinma et al (2013) analysed the impact of dividend policy on shareholders wealth from 216 public companies in Nigeria during 2000 to 2011. It was observed that dividend policy impacted the shareholders wealth. Sarwar (2013) examined the effect of dividend policy on shareholders wealth in 33 listed companies of sugar industries of Pakistan during 2006 to 2011. Market price per share was used as measure of shareholders wealth whereas dividend per share, earnings per share, lagged market price per share, price earnings ratio, lagged price earnings ratio and retained earnings was used as independent variables. Through least square regression it was found that dividend per share, earnings per share and lagged market price per share were positively significant while lagged price earnings ratio had negatively significant impact on shareholders wealth. De Wet and Mpinda (2013) found the impact of dividend payments on shareholders wealth using Vector error correction model for 46 companies listed on Johannesburg securities exchange during 1995 to 2010. Dividend yield had significant positive impact on market price of share whereas Earnings per share was insignificant with shareholders wealth. Kai et al (2014) studied the impact of dividend policy on shareholders wealth from 59 Malaysia’s listed food producer sector during 2008 to 2012. Earnings per share was used as proxy for shareholders wealth whereas dividend payout ratio, earnings volatility, long term debt ratio, growth in assets, profitability and liquidity were used as independent variables. Dividend payout ratio and long term debt ratio were negatively significant whereas earnings volatility and profitability were positively significant with shareholders wealth. Growth in assets and liquidity were
insignificant with shareholders wealth.
Iqbal et al (2014) examined the impact of dividend policy on shareholders wealth of 35 selected manufacturing industries of Pakistan during 2006 to 2011. OLS presented that dividend per share, growth and size of the firm were positively significant with shareholders wealth which was measured as market capitalization. Kumaresan (2014) analysed the impact of dividend policy on shareholders wealth of top ten listed companies in Hotels and Travels sector of Sri Lanka during 2008 to 2012. Earnings per share was used as proxy for shareholders wealth. There was positive relationship between Return on equity, Dividend per share and Dividend payout ratio were positively significant while Retention ratio was negatively significant with shareholders wealth. Tahir and Raja (2014) examined the impact of dividend policy on shareholders wealth of gas exploration companies of Pakistan during 1999 to 2006. Holding period yield was used as measure of shareholders wealth whereas dividend payout ratio, price earnings ratio and book value to market value as independent variables. It was found that there was insignificant relationship between dependent and independent variables.

Gejalakshmi and Azhagaiah (2015) examined the impact of dividend policy on shareholders wealth before and after financial meltdown from 13 FMCG sector in India during 2003 to 2013. 2003 to 2007 period was considered as before global financial meltdown and 2009 to 2013 period was considered as after global financial meltdown. Dividend per share was positively significant with EPS, a measure of shareholders wealth both before and after global financial meltdown. Retained earnings per share was positively significant with shareholders wealth before global financial meltdown whereas lagged price earnings ratio and lagged market price per share were positively significant after global financial meltdown. Chow test proved that there was positive significant shift in respect of dividend policy on shareholders wealth. Anushiya & Rubika (2015) found the impact of dividend policy on shareholders wealth from listed banks in Sri Lanka during 2009 to 2013. Market price per share was used as a proxy for shareholders wealth. It was found that divided policy had an impact on shareholders wealth. Joseph and Mensah (2015) investigated the dividend policy and its effect on shareholders wealth from 25 companies of UK retail industries during 2004 to 2008. Market value to book value of stock price was used as measure of shareholders wealth. Dividend payout ratio, Cash flow, investment, profitability, leverage, liquidity and firm size were the independent variables using panel data regression. Firm size, current dividend payout and current investment had no impact on shareholders wealth whereas earnings, past dividend payout, profitability, share price and leverage were positively significant while investment was negatively significant with shareholders wealth.

Gejalakshmi and Azhagaiah (2015) studied the impact of financial meltdown on the relationship between dividend policy and shareholders wealth in basic
material sector in India. Dividend per share, Earnings per share and Owners fund were positively significant whereas Leverage was negatively significant with shareholders wealth. Chow test proved that there was significant difference in dividend payout ratio before and after financial meltdown. Ojeme et al (2015) examined the dividend policy and shareholders wealth in 21 Nigerian quoted banks during 2007 to 2010. Correlation proved that dividend had an impact on market value of share. Ansar et al (2015) studied the impact of dividend policy on shareholders wealth for 30 companies from Karachi stock exchange during 2007 to 2011. Market price per share was used as proxy for shareholders wealth. Dividend per share, Lagged market price per share, Retained earnings per share and Return on equity were positively significant with shareholders wealth. Mbuvi (2015) analysed the effect of dividend policy on value creation for 59 shareholders of companies listed in the Nairobi Securities Exchange. Dividend announcement, dividend payout, tax incentives and cash flows had significant impact on shareholders wealth which was measured through market price per share.

One of the earliest studies in this direction was done by Pettit (1972) who found that the market made use of dividend change announcements in pricing securities. Rozelf and Kinney (1976) explain that, since firms’ release more information to the public in the month of January, above-normal returns in the month of January can be attributed to this increased inflow of information by firms to the market. Ball and Kothari (1991), investigating quarterly earnings announcements and stock prices in the US from 1980 to 1988, find that abnormal returns persisted after earning announcements. Gordon (1959, 1962), Foster and Vickery (1978), and Lee (1995) document evidence that suggests positive abnormal returns to dividend payment announcements. Contrary to the above studies, Easton and Sinclair (1989) find negative abnormal returns, i.e., a negative reaction by stock prices to dividend announcements; this is normally attributed to the tax effect of dividends for shareholders. Lonie, et al (1996) investigates the dividend announcements of 620 UK companies from January to June 1991 using event study and interaction tests. They find that investors responded to the increase or decrease in dividends. However, their findings also reveal that, even for companies with no change in dividends, the average abnormal returns one day prior to the announcements were significantly different from zero as indicated by the t statistic.

Below and Johnson (1996) also fail to support the semi-strong form of market efficiency for the US equity market. Adelegan (2003) conducts a study to analyze the reaction of stock prices to dividend announcements and capital market efficiency in Nigeria. He uses the standard event study methodology to test the semi-strong form of market efficiency and finds that the Nigerian stock market was inefficient in its semi-strong form. Uddin and Chowdhury (2005) investigate dividend announcements on the Dhaka Stock Exchange and find that there were no statistically significant abnormal returns and that dividends had no
information content for stock returns and prices in the Dhaka Stock Exchange. Gunasekarage and Power (2006) also find that dividend announcements influence stock returns at the time of announcements, but that the short-term influence of dividend announcements had no long-term implications. In the long run, firms with current reductions in dividends earned excess returns.

Kong and Taghavi (2006) analyze earning announcements for the Chinese equity markets. They use the M-EGARCH approach to model changes in stock returns with event study methodology and reject the semi strong form of market efficiency on the basis of their findings. Acker (1999) investigates the impact of dividend announcements on stock volatility rather than stock returns and finds that stock volatility increases around dividend announcements, particularly final dividend announcement and interim dividend announcements when there is a dividend cut. Husain (1998, 1999), Chakraborty (2006), and Ali and Akbar (2009) are a few of the studies that investigate the weak form of market efficiency in the Pakistani equity market. Ali and Mustafa (2001) examine the semi strong form of market efficiency in the Karachi Stock Exchange (KSE) by analyzing public news in two daily newspapers and the changes in trade volume and stock returns. They conclude that public information did not play an important role in the determination of stock returns since stock returns appeared more sensitive to private information. Chitra (2013) in the study impact of dividend announcements on share price behaviour of select industries in India found that share price volatility was high during post dividend announcement period in Banking industry, Construction industry, Power industry, Cement industry and Tobacco industry. Share price volatility was high during pre and post dividend announcement period in IT industry. For Steel industry and Textile industry, share price volatility was high during event date of dividend announcement and during pre dividend announcement for Telecom industry and Automobile industry. Paired t test was done for high and low share price during pre event period, event period and post event period and found that for majority of pairs, it was not statistically significant.

3. Research Methodology

In this research five industries viz Automobile, Infrastructure & Construction, Energy, Information technology and Pharmaceutical industry were used. Fifteen companies have been segregated as five large capitalization, five mid capitalization and five small capitalization from each industry. Companies with market capitalization of more than Rs. 20,000 Crores was considered as large capitalization companies, Rs. 5,000 to Rs. 20,000 Crores was considered as mid-capitalization companies and less than Rs. 5,000 Crores was considered as small capitalization companies (Source: www.equitymaster.com).

Fifteen years data (2001 to 2015) were used to examine the impact of dividend payout on shareholders wealth. Panel regression was to identify the impact of
dividend payout on shareholders wealth and Paired t test was used to find the effect of dividend announcement on market price of share during before and after financial meltdown. Secondary data were collected from Prowess database of Centre for Monitoring Indian Economy (CMIE), www.bseindia.com and www.nseindia.com were the source of data for the research. Based on the requirement, the Secondary data was compiled from the database. To examine the impact of dividend payout and its determinants on Shareholders wealth

- To examine the impact of dividend payout and its determinants based on all selected industries together during 2001 to 2015.
- To analyse the impact of dividend payout and its determinants based on all selected industries together before financial meltdown (2001 to 2007) and after financial meltdown (2009 to 2015).
- To analyse the impact of dividend payout and its determinants based on market capitalization during 2001 to 2015.
- To find out the impact of dividend payout and its determinants for all selected industries separately during 2001 to 2015.

To analyze the effect of dividend announcement on the market price of share.

- Monthly market price of the share of all the companies for fifteen year from 2001 to 2015 have been selected on the pre dividend announcement month, dividend announcement month and post dividend announcement month.
- Market price of the share on pre – event, event – post and pre – post dividend announcement has been compared to analyse the effect of dividend announcement on the share price for all selected industries and market capitalization separately.

### 4. Results and Discussions

#### Impact of Dividend Payout on Shareholders Wealth

Based on the literature review it was found that ASG, AT, DER, ID, ISH, LAGDPR, LNTA, OD, PER and RONW were the major dividend determinants. The following common model has been selected to analyse the impact of dividend payout and its determinants on shareholders wealth.

$$\text{TOBINS'Q} = \beta1 (\text{DPR}) + \beta2 (\text{ASG}) + \beta3 (\text{DER}) + \beta4 (\text{ID}) + \beta5 (\text{LAGDPR}) + \beta6 (\text{LNTA}) + \beta7 (\text{OD}) + \beta8 (\text{PER}) + \beta9 (\text{RONW}) + \epsilon$$

Where, TOBINS’Q = Measure of Shareholders wealth  
DPR = Dividend Pay out Ratio  
ASG = Annual Sales growth measures the Growth opportunities of the company  
DER = Debt Equity Ratio measures the financial leverage of the company  
ID = Investment Demand measures the Investment level of the company  
LAGDPR = Lagged Dividend pay out ratio measures the past dividend  
LNTA = Natural log of Total assets measures the size of the firm  
OD = Ownership Dispersion measures the agency cost
PER = Price Earnings Ratio measures the risk level of the firm
RONW = Return on Net worth measures the Profitability of the company

Table 1: Panel data Regression – Impact of Dividend on Shareholders Wealth - All Industries & Market Capitalization

<table>
<thead>
<tr>
<th>Dependent Variable = TOBINS’Q</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>F statistic (0.000*** )</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
</tr>
<tr>
<td>Chi Sq (0.122)</td>
<td>14.0</td>
<td>14.581(0.103)</td>
<td>15(0.122)</td>
<td>14.581</td>
<td>15(0.122)</td>
<td>14.581</td>
<td>15(0.122)</td>
<td>14.581</td>
</tr>
<tr>
<td>F (0.000*** )</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
</tr>
</tbody>
</table>
| 1. All the selected industries: 2001 – 2015, 2. All the selected industries during pre-financial meltdown (2001 to 2007), 3. All the selected industries during post-financial meltdown (2009 to 2015), 4. All the selected industries Large Capitalization companies during 2001 to 2015, 5. All the selected industries Mid-Capitalization companies during 2001 to 2015, 6. All the selected industries Small Capitalization companies during 2001 to 2015, 7. All the selected companies of Automobile industry during 2001 to 2015, 8. All the selected companies of Infrastructure & Construction industry during 2001 to 2015, 9. All the selected companies of Energy industry during 2001 to 2015, 10. All the selected companies of Information Technology industry during 2001 to 2015, 11. All the selected companies of Pharmaceutical industry during 2001 to 2015, ****** Poolability Hypothesis test – F statistic, ******* Hausman Test – Chi – Sq. Statistic, *** Significant at 1% level ** Significant at 5% level * Significant at 10% , REM = Random Effect Model, FEM = Fixed Effect Model, DPR = Dividend payout ratio , ASG = Annual sales growth measuring growth opportunities, DER = Debt Equity ratio measuring leverage , ID = Investment demand, LAGDPR = Lagged dividend payout ratio measuring past dividend, LNTA = Natural log total assets measuring size of the company, OD = Ownership dispersion measuring agency cost, PER = Price earnings ratio measuring firm risk, RONW = Return on Networth measuring profitability

Table no. 1 analysed the impact of dividend payout and its determinants on shareholders wealth. Panel data regression was used for the study with TOBINS’Q as the measure of shareholders wealth.

Poolability hypothesis test probability was less than 1% significance level which proved that Hausman test could be done to identify the best model between Fixed Effect Model (FEM) and Random Effect Model (REM). If the probability
of Hausman test was less than 1% level of significance (0.000) Fixed Effect Model (FEM) was used otherwise Random Effect Model (REM).

**Ho1:** There is no significant impact of dividend payout on shareholders wealth among the selected companies of Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries together during 2001 to 2015.

DPR has probability of less than 5% significance level, hence null hypothesis was rejected. So, there was significant impact of dividend payout on shareholders wealth among the selected companies of Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries together during 2001 to 2015. F statistics was significant at 1% level of significance indicated that the model could be generalized for all the companies of all selected industries during 2001 to 2015 and it can be concluded that at least one of the independent variable was significant in explaining dividend payout ratio.

**Ho2:** There is no significant impact of dividend payout on shareholders wealth among the selected companies of Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries together during Pre financial meltdown (2001 to 2007)

DPR has probability of more than 5% significance level, hence null hypothesis was accepted. So, there was no significant impact of dividend payout on shareholders wealth among the selected companies of Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries together during Pre financial meltdown (2001 to 2007). F statistics was significant at 1% level of significance indicated that the model could be generalized for all the companies of all selected industries during pre-financial meltdown (2001 to 2007) and it can be concluded that at least one of the independent variable was significant in explaining dividend payout ratio.

**Ho3:** There is no significant impact of dividend payout on shareholders wealth among the selected companies of Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries together during Post financial meltdown (2009 to 2015).

DPR has probability of less than 5% significance level, hence null hypothesis was rejected. So, there was significant impact of dividend payout on shareholders wealth among the selected companies of Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries together during Post financial meltdown (2009 to 2015). F statistics was significant at 1% significance level of significance.
indicated that the model could be generalized for all the companies of all selected industries during post financial meltdown (2001 to 2007) and it can be concluded that at least one of the independent variable was significant in explaining dividend payout ratio.

**H04:** There is no significant impact of dividend payout on shareholders wealth in Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries selected large capitalization companies together during 2001 to 2015.

DPR has probability of more than 5%, hence null hypothesis $H_0$ was accepted. So, there was no significant impact of dividend payout on shareholders wealth in Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries selected large capitalization companies together during 2001 to 2015. F statistics was significant at 1% level of significance indicated that the model could be generalized for all the large capitalization companies of all selected industries during 2001 to 2015 and it can be concluded that at least one of the independent variable was significant in explaining dividend payout ratio.

**H05:** There is no significant impact of dividend payout on shareholders wealth in Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries selected mid-capitalization companies together during 2001 to 2015.

DPR has probability of less than 5% significance level, hence null hypothesis was rejected. So, there was significant impact of dividend payout on shareholders wealth in Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries selected mid-capitalization companies together during 2001 to 2015. F statistics was significant at 1% level of significance indicated that the model could be generalized for all the mid-capitalization companies of all selected industries during 2001 to 2015 and it can be concluded that at least one of the independent variable was significant in explaining dividend payout ratio.

**H06:** There is no significant impact of dividend payout on shareholders wealth in Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries selected Small capitalization companies together during 2001 to 2015.

DPR has probability of less than 5% significance level, hence null hypothesis was rejected. So, there was significant impact of dividend payout on shareholders wealth in Automobile, Infrastructure & Construction, Energy, Information Technology and Pharmaceutical industries selected Small capitalization companies together during 2001 to 2015. F statistics was
significant at 1% level of significance indicated that the model could be
generalized for all the small capitalization companies of all selected industries
during 2001 to 2015 and it can be concluded that at least one of the independent
variable was significant in explaining dividend payout ratio.

**H07:** There is no significant impact of dividend payout on shareholders wealth
among all selected companies of Automobile industry during 2001 to 2015.

DPR has probability of less than 10% significance level, hence null hypothesis
was rejected. So, there was significant impact of dividend pay significance level
out on shareholders wealth among all selected companies of Automobile
industry during 2001 to 2015. F statistics was significant at 1% level of
significance indicated that the model could be generalized for all the automobile
industry companies during 2001 to 2015 and it can be concluded that at least one
of the independent variable was significant in explaining dividend payout ratio.

**H08:** There is no significant impact of dividend payout on shareholders wealth
among all selected companies of Infrastructure & Construction industry during
2001 to 2015.

DPR has probability of more than 5% significance level, hence null hypothesis
was accepted. So, there was no significant impact of dividend payout on
shareholders wealth among all selected companies of Infrastructure &
Construction industry during 2001 to 2015.

F statistics was significant at 1% level of significance indicated that the model
could be generalized for all the Infrastructure & Construction industry
companies during 2001 to 2015 and it can be concluded that at least one of the
independent variable was significant in explaining dividend payout ratio.

**H09:** There is no significant impact of dividend payout on shareholders wealth
among all selected companies of Energy industry during 2001 to 2015.

DPR has probability of less than 5% significance level, hence null hypothesis
was rejected. So, there was significant impact of dividend payout on
shareholders wealth among all selected companies of Energy industry during
2001 to 2015. F statistics was significant at 1% level of significance indicated
that the model could be generalized for all the Energy industry companies during
2001 to 2015 and it can be concluded that at least one of the independent
variable was significant in explaining dividend payout ratio.

**H010:** There is no significant impact of dividend payout on shareholders wealth
among all selected companies of Information Technology industry during 2001
to 2015.

DPR has the probability of less than 5% significance level, hence null
hypothesis was rejected. So, there was significant impact of dividend payout on shareholders wealth among all selected companies of Information Technology industry during 2001 to 2015. F statistics was significant at 1% level of significance indicated that the model could be generalized for all the Information technology industry companies during 2001 to 2015 and it can be concluded that at least one of the independent variable was significant in explaining dividend payout ratio.

**H011:** There is no significant impact of dividend payout on shareholders wealth among all selected companies of Pharmaceutical industry during 2001 to 2015.

DPR has the probability of less than 5% significance level, hence null hypothesis was rejected. So, there was significant impact of dividend payout on shareholders wealth among all selected companies of Pharmaceutical industry during 2001 to 2015. F statistics was significant at 1% level of significance indicated that the model could be generalized for all the Pharmaceutical industry companies during 2001 to 2015 and it can be concluded that at least one of the independent variable was significant in explaining dividend payout ratio.

Dividend payout had a negative impact on shareholders wealth for all selected industries together from 2001 to 2015, all selected industries together from 2009 to 2015 (Post financial meltdown), all selected industries mid-capitalization companies from 2001 to 2015, all selected companies of energy industry, all selected companies of information technology industry and for all selected companies of pharmaceutical industry. Dividend payout ratio was negatively impacting shareholders wealth which is in consistent with (Shaveta Gupta (2011), Kai et al (2014), Anushiya & Rubika (2015), Ojeme et al (2015) and Mbuvi (2015)). Dividend payout ratio had significant negative impact on majority of selected industries and market capitalizations. Payment of more dividend would reduce the shareholders wealth. According to Hull, 2012, payment of dividend would reduce the share price on ex-dividend date. Investors, managers and promoters would also want more investment than dividend payout. Policy makers should design the optimum payout policy that should increase the shareholders wealth.

capitalization companies from 2001 to 2015 and for all selected companies of infrastructure & construction industry which is in lieu with (Shahid Ali et al (2010), Tahir & Raja (2014) and Joseph & Mensah (2015)).
### Effect of Dividend Announcement on the Market Price of Share

**Analysis of mean share price behaviour during pre, event and post announcement of dividend for all selected industries and market capitalization during 2001 to 2015:**

#### Table 2: Mean of Share Prices of All Selected Industries and Market Capitalization during Pre Event Period, Event Period and Post Event Period for the Year 2001 to 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Type</th>
<th>Pre-Event</th>
<th>Event</th>
<th>Post-Event</th>
</tr>
</thead>
<tbody>
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It was found from Table 2 that the years 2002, 2003, 2004, 2005, 2006, 2009, 2011, 2012, 2013 and 2014, the share price had shown an increase in the post event period. This implied that during the post event period the share price has shown a positive impact towards dividend announcement in the above mentioned years. On the other hand, during the years 2001, 2008 and 2010, the share price of Automobile industry had shown an increase in the pre event period. This implied that the share price reacted positively during the pre event period towards dividend announcement.

Further, during the years 2007 and 2015, the share price had shown an increase in the event period. Overall, the effect of dividend announcement on share price of Automobile industry was 67% favourable to post event period, 20% favourable to pre event period and 13% favourable to event period. It was concluded that the share price volatility was high during post dividend announcement period for majority of the selected automobile industry companies.

The results have shown that during the years 2003, 2005, 2009, 2010, 2011, 2012 and 2014, the share price had shown an increase in the post event period. This implied that during the post event period the share price has shown a positive effect towards dividend announcement in the above mentioned years. On the other hand, during the years 2001, 2008, 2013 and 2015, the share price of Infrastructure & Construction industry had shown an increase in the pre event period. This implied that the share price reacted positively during the pre event period towards dividend announcement. Further, during the years 2002, 2004, 2006 and 2007, the share price had shown an increase in the event period. Overall, the effect of dividend announcement on share price of Infrastructure & Construction industry was 46% favourable to post event period, 27% favourable to pre event period and 27% favourable to event period. It was concluded that the share price volatility was high during post dividend announcement period for majority of the selected Infrastructure & Construction industry companies.

The results have shown that during the years 2003, 2004, 2005, 2007, 2009, 2010, 2014 and 2015, the share price had shown an increase in the post event period. This implied that during the post event period the share price has shown a positive effect towards dividend announcement in the above mentioned years. On the other hand, during the years 2001, 2002, 2006, 2008, 2011 and 2012, the share price of Energy industry had shown an increase in the pre event period. This implied that the share price reacted positively during the pre event period towards dividend announcement. Further, during the year 2013, the share price
had shown an increase in the event period. Overall, the effect of dividend announcement on share price of Energy industry was 53% favourable to post event period, 40% favourable to pre event period and 7% favourable to event period. It was concluded that the share price volatility was high during post dividend announcement period for majority of the selected energy industry companies.

The results have shown that during the years 2001, 2004, 2005, 2009, 2013, 2014 and 2015, the share price had shown an increase in the post event period. This implied that during the post event period the share price has shown a positive impact towards dividend announcement in the above mentioned years. On the other hand, during the years 2002, 2003, 2006, 2008, 2011 and 2012, the share price of Information Technology industry had shown an increase in the pre event period. This implied that the share price reacted positively during the pre event period towards dividend announcement. Further, during the years 2007 and 2010, the share price had shown an increase in the event period. Overall, the effect of dividend announcement on share price of Information Technology industry was 47% favourable to post event period, 40% favourable to pre event period and 13% favourable to event period. It was concluded that the share price volatility was high during post dividend announcement period for majority of the selected information technology companies. The results have shown that during the years 2003, 2004, 2005, 2006, 2009, 2010, 2011 and 2014, the share price had shown an increase in the post event period. This implied that during the post event period the share price has shown a positive impact towards dividend announcement in the above mentioned years. On the other hand, during the years 2001, 2002, 2007 and 2012, the share price of Pharmaceutical industry had shown an increase in the pre event period. This implied that the share price reacted positively during the pre event period towards dividend announcement. Further, during the years 2008, 2013 and 2015, the share price had shown an increase in the event period. Overall, the effect of dividend announcement on share price of Pharmaceutical industry was 53% favourable to post event period, 27% favourable to pre event period and 20% favourable to event period. It was concluded that the share price volatility was high during post dividend announcement period for majority of the selected pharmaceutical companies.

The results have shown that during the years 2001, 2002, 2003, 2004, 2005, 2006, 2009, 2010, 2012, 2013 and 2014, the share price had shown an increase in the post event period. This implied that during the post event period the share price has shown a positive impact towards dividend announcement in the above mentioned years. On the other hand, during the years 2008 and 2011, the share price of large capitalization companies had shown an increase in the pre event period. This implied that the share price reacted positively during the pre event period towards dividend announcement.
Further, during the years 2007 and 2015, the share price had shown an increase in the event period. Overall, the effect of dividend announcement on share price of large capitalization companies was 74% favourable to post event period, 13% favourable to pre event period and 13% favourable to event period. It was concluded that the share price volatility was high during post dividend announcement period for majority of the selected large capitalization companies.

The results have shown that during the years 2003, 2004, 2005, 2006, 2009, 2011, 2012, 2013 and 2014, the share price had shown an increase in the post event period. This implied that during the post event period the share price has shown a positive impact towards dividend announcement in the above mentioned years. On the other hand, during the years 2001, 2008 and 2010, the share price of mid capitalization companies had shown an increase in the pre event period. This implied that the share price reacted positively during the pre event period towards dividend announcement. Further, during the years 2002, 2007 and 2015, the share price had shown an increase in the event period. Overall, the effect of dividend announcement on share price of mid capitalization companies was 60% favourable to post event period, 20% favourable to pre event period and 20% favourable to event period. It was concluded that the share price volatility was high during post dividend announcement period for majority of the selected mid capitalization companies.

The results have shown that during the years 2002, 2003, 2004, 2005, 2007, 2009, 2010, 2012, 2014 and 2015, the share price had shown an increase in the post event period. This implied that during the post event period the share price has shown a positive impact towards dividend announcement in the above mentioned years. On the other hand, during the years 2006, 2008 and 2011, the share price of small capitalization companies had shown an increase in the pre event period.

This implied that the share price reacted positively during the pre event period towards dividend announcement. Further, during the years 2001 and 2013, the share price had shown an increase in the event period. Overall, the effect of dividend announcement on share price of small capitalization companies was 67% favourable to post event period, 20% favourable to pre event period and 13% favourable to event period. It was concluded that the share price volatility was high during post dividend announcement period for majority of the selected small capitalization companies.

It was found that dividend announcement impact on the closing share price of the companies was more favourable during post event for all selected industries and market capitalization than the pre event and event.
**Paired t – test for closing share price all selected industries and market capitalization for dividend announcement during pre event, event and post event period**

Table 3: Paired t – test for Closing Share Price of All Selected Industries and Market Capitalization for Dividend Announcement during Pre Event, Event and Post Event Period

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<td><strong>Small Capitalization</strong></td>
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<td>Pair 1</td>
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S = Significant NS = Not Significant *** Significant at 1% level
** Significant at 5% level  * Significant at 10%,

The following results were found from table no. 3.

**Automobile Industry**

Pair 1: Null hypothesis: There is no significant difference in the closing share prices during pre-event period and event period in Automobile industry. **Pair 2:** Null hypothesis: There is no significant difference in the closing share prices during event period and post-event period in Automobile industry. **Pair 3:** Null hypothesis: There is no significant difference in the closing share prices during pre-event period and post-event period in Automobile industry.

It was observed that the p value for pair 1 was more than 5% significance level but less than 10%; hence null hypothesis was rejected. So, there was significant difference in the closing share prices during pre-event period and event period in Automobile industry at 10% level of significance. Since p value was more than 5% significance level, null hypothesis pair 2 was accepted. So, there was no significant difference in the closing share prices during event period and post-event period in Automobile industry and null hypothesis for pair 3 was rejected since p value was less than 5% significance level. So, there was significant difference in the closing share prices during pre-event period and post-event period in Automobile industry.

**Infrastructure & Construction Industry**

Pair 1: Null hypothesis: There is no significant difference in the closing share prices during pre-event period and event period in Infrastructure & Construction industry. **Pair 2:** Null hypothesis: There is no significant difference in the closing share prices during event period and post-event period in Infrastructure & Construction industry. **Pair 3:** Null hypothesis: There is no significant difference in the closing share prices during pre-event period and post-event period in Infrastructure & Construction industry.

It was observed that the p value for pair 1, pair 2 and pair 3 were more than 5% significance level, hence all three null hypotheses were accepted. So, there was no significant difference in the closing share prices during pre-event period and event period in Infrastructure & Construction industry, there was no significant difference in the closing share prices during event period and post-event period in Infrastructure & Construction industry and no significant difference in the closing share prices during pre-event period and post-event period in Infrastructure & Construction industry.

**Energy Industry**

Pair 1: Null hypothesis: There is no significant difference in the closing share prices during pre-event period and event period in Energy industry. **Pair 2:** Null hypothesis: There is no significant difference in the closing share prices during
null hypothesis: There is no significant difference in the closing share prices during pre-event period and post-event period in Energy industry.

It was observed that the p value for pair 1, pair 2 and pair 3 were more than 5% significance level, hence all three null hypotheses were accepted. So, there was no significant difference in the closing share prices during pre-event period and event period in Energy industry, there was no significant difference in the closing share prices during event period and post event period in Energy industry and there was no significant difference in the closing share prices during pre-event period and post-event period in Energy industry.

Pair 1: Null hypothesis: There is no significant difference in the closing share prices during pre-event period and event period in Information Technology industry. Pair 2: Null hypothesis: There is no significant difference in the closing share prices during event period and post-event period in Information Technology industry. Pair 3: Null hypothesis: There is no significant difference in the closing share prices during pre-event period and post-event period in Information Technology industry.

It was observed that the p value for pair 1 and pair 3 were more than 5% significance level, hence null hypotheses were accepted. There was no significant difference in the closing share prices during pre-event period and event period as well as pre event and post event period in Information Technology industry whereas null hypothesis for pair 2 was rejected at 10% level of significance since p value was more than 5% significance level but less than 10%. So there was significant difference in the closing share prices during event period and post-event period in Information Technology industry.

Pair 1: Null hypothesis: There is no significant difference in the closing share prices during pre-event period and event period in Pharmaceutical industry.

Pair 2: Null hypothesis: There is no significant difference in the closing share prices during event period and post-event period in Pharmaceutical industry. Pair 3: Null hypothesis: There is no significant difference in the closing share prices during pre-event period and post-event period in Pharmaceutical industry.

It was observed that the p value for pair 1 was more than 5%, hence null hypothesis was accepted. So, there was no significant difference in the closing share prices during pre-event period and event period in Pharmaceutical industry. For pair 2 and pair 3, p value was less than 5% significance level, hence null hypothesis for pair 2 and pair 3 were rejected. So, there was significant difference in the closing share prices during event period and post-
event period and there was no significant difference in the closing share prices during pre-event period and post-event period in Pharmaceutical industry.
**Large Capitalization Companies**

**Pair 1:** Null hypothesis: There is no significant difference in the closing share prices during pre-event period and event period for large capitalization companies. **Pair 2:** Null hypothesis: There is no significant difference in the closing share prices during event period and post-event period for large capitalization companies. **Pair 3:** Null hypothesis: There is no significant difference in the closing share prices during pre-event period and post-event period for large capitalization companies.

It was observed that the p value for pair 1 and pair 2 were more than 5% significance level, hence null hypotheses for pair 1 and pair 2 were accepted. So, there was no significant difference in the closing share prices during pre-event period and event period for large capitalization companies and there was no significant difference in the closing share prices during event period and post-event period for large capitalization companies. Since p value was less than 5% significance level, null hypothesis for pair 3 was rejected. So, there was significant difference in the closing share prices during pre-event period and post-event period for large capitalization companies.

**Mid Capitalization Companies**

**Pair 1:** Null hypothesis: There is no significant difference in the closing share prices during pre-event period and event period for mid capitalization companies. **Pair 2:** Null hypothesis: There is no significant difference in the closing share prices during event period and post-event period for mid capitalization companies. **Pair 3:** Null hypothesis: There is no significant difference in the closing share prices during pre-event period and post-event period for mid capitalization companies.

It was observed that the p value for pair 1 and pair 3 were less than 5% significance level, hence null hypotheses were rejected. So, there was significant difference in the closing share prices during pre-event period and event period for mid capitalization companies as well as there was significant difference in the closing share prices during pre-event period and post-event period for mid capitalization companies. Null hypothesis for pair 2 was accepted since p value was more than 5% significance level. Hence there was no significant difference in the closing share prices during event period and post-event period for mid capitalization companies.

**Small Capitalization Companies**

**Pair 1:** Null hypothesis: There is no significant difference in the closing share prices during pre-event period and event period for small capitalization companies. **Pair 2:** Null hypothesis: There is no significant difference in the closing share prices during event period and post-event period for small capitalization companies. **Pair 3:** Null hypothesis: There is no significant
difference in the closing share prices during pre-event period and post-event period for small capitalization companies.

It was observed that the p value for pair 1, pair 2 and pair 3 were more than 5% significance level, hence all three null hypothesis were accepted. So, there was no significant difference in the closing share prices during pre-event period and event period, there was no significant difference in the closing share prices during event period and post-event period and no significant difference in the closing share prices during pre-event period and post-event period for small capitalization companies. It was found that there was significant difference in closing share between pre and post event for all selected industries large capitalization companies from 2001 to 2015, all selected companies of automobile industry from 2001 to 2015 and for all selected companies of information technology industry.

5. Conclusion

Dividend payout had a negative impact on shareholders wealth for all selected industries together from 2001 to 2015, all selected industries together from 2009 to 2015 (Post financial meltdown), all selected industries mid-capitalization companies from 2001 to 2015, all selected companies of energy industry, all selected companies of information technology industry and for all selected companies of pharmaceutical industry. Dividend payout ratio had significant negative impact on majority of selected industries and market capitalizations. Payment of more dividend would reduce the shareholders wealth. According to Hull, 2012, payment of dividend would reduce the share price on ex-dividend date. Investors, managers and promoters would also want more investment than dividend payout. Policy makers should design the optimum payout policy that should increase the shareholders wealth. Dividend payout had positive impact on shareholders wealth for all selected industries small capitalization companies from 2001 to 2015 and all selected companies of automobile industry from 2001 to 2015 and it had no impact on shareholders wealth for all selected industries together from 2001 to 2007 (Pre financial meltdown), all selected industries large capitalization companies from 2001 to 2015 and for all selected companies of infrastructure & construction industry. It was found that dividend announcement impact on the closing share price of the companies was more favourable during post event for all selected industries and market capitalization than the pre event and event. It was found that there was significant difference in closing share between pre and post event for all selected industries large capitalization companies from 2001 to 2015, all selected companies of automobile industry from 2001 to 2015 and for all selected companies of information technology industry.
Acknowledgment

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