

Better Dividend Policy Effects Share Price Volatility: An Empirical Study on Automobile Sector of Pakistan

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ABSTRACT

This study aims to find out the impact of dividend policy on stock price volatility in the automobile sector of Pakistan. Dividend policy is a deliberate managerial action to share the portion of earnings to shareholders in the form of cash dividend, bonus or script dividend, and repurchased stock. Paying dividends is extremely important for a company's valuation which practically translates to capital gain in share prices, and wealth maximization of shareholders. This study used the data of seventeen Pakistan Stock Exchange (PSX) listed companies of automobile sector for the period of 12 (twelve) years ranging from 2005 to 2016. The empirical results show that Earning per Share (EPS) and Dividend per Share (DPS) have significant positive impact, but Dividend Yield (DY) and Dividend Payout Ratio (DPR) have negative insignificant impact on Share prices. The study recommends a consistent policy of dividend payment to increase the level of gain on share prices keeping in view the nature of local investors.

Keywords: Dividend Policy, Stock Price, Model, Automobile Sector, Pakistan StockExchange.

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1. INTRODUCTION

Dividend policy is very vast and most argumentative topic for writers, researchers, policy makers, stockholders, and financial experts. Managers or Board of Directors have authority to decide about how much dividend is paid to their shareholders and when? Dividend is also considered as a source of income for shareholders as it indicates the performance of the firm. Usually, the dividend policy decides what portion of net profits firm will keep in retained earnings and what portion will be distributed to the shareholders in the form of dividend (Dergisi, 2015). Selection of accurate policy is important because it reflects companies' condition which is ultimately a signal for the potential investors. Most of the time, investors prefer firms which have low risk and high returns (Nishat, 1999). Risk taking investors usually invest in highly risky firms to get high returns with risk premium. In Pakistan, a few studies had conducted to ascertain the relationship between dividend policy and share price volatility. Nishat (1991; 1992; 1995; 1999; 2001) and Bilgrami (1994) state that as per the factors of dividend policy, dividend yield and dividend payout ratio are significant and least discovered in the context of various Pakistani industries. As the impact of dividend policy on stock price is a major concern for the investors and corporation, this study will provide a benchmark analysis on the subject in hand. Keeping a balance between the retention and payout ratio is a cumbersome task for the firm (Khan et al., 2011). Holding of the company's share is most popular investment action (Gitman, 2006). Every investor either huge or small, checks the volatility in prices of stock because stock prices are most significant indicator which helps in investment decision making. Earning profit is a prime motive of every investor, that is why, he wants to minimize the risks associated with his investment. It is not an easy task to predict or forecast the future returns based on systematic influence of economic factors because other factors may also influence the stock prices (RFrench, 1988; Shiller, 1987). The dividend payment must be a part of Return-on-share as the investors judge that either company is following a good practice of corporate governance or not through dividend payments (Ye-CaiHoje-Jo, 2009). Good corporate governance practices indicate that a company may have capabilities of raising funds from capital markets. An increase in share prices due to the policy of dividend payment entice other investors to jump-in and invest where they see an opportunity of potential profit. Increasing in share prices can easily borrow

new funds from the market in the form of new shares issuance that can enhance business with more profit opportunities. Most renowned research on dividend was done by Modigliani (1961) which became a standard in this area of research. It also provides a framework for establishing efficient models related to norms and policies that guide the managers in setting-up payout policies. Modigliani and Miller(1962) documented that firm value does not depend on dividend policy. For them, if someone wants to drive the value so it could only be done by investment risk and future earnings. Certainly, investors are facing high tax burden on dividends, instead of gain in capital, as the share of company are sold, investor will mark as taxable. Companies paying no dividends are more worthy as compare to the one who are distributing large dividends (Black, 1976). For this reason, share prices of those shoot up who are not paying dividend to shareholders, the other companies follow their path and decide against paying the dividend as well. Conflicting interest related to dividend policy for the shareholder of the firm is not overemphasized, each shareholder wants high dividend for his shares regardless of the investment choices of company. Top management of company is facing huge problem in harmonizing both i.e. investment decision and dividend. Several researchers have done studies on impact of dividend policy on shareholder's wealth and firm performance for Pakistan and recommended to expand other sectors as well (Shah, 2016; Farrukh, 2017). To fill this gap, this study has established to determine the impact of dividend policy on share price volatility on the automobile sector of Pakistan.

2. LITERATURE REVIEW

Waheed (2017) explores the impact of dividend policy on stock price volatility and for that he took the data of 55 companies for 10 years (2001-2010) from PSX. By applying different tests, he came up with the results that earning per share and dividend yield have positive relationships with stock prices. Khan et al. (2016) checked the impact of dividend policy on stock price volatility by using the data of 55 non-financial firms of PSX. He concluded that dividend yield has a positive relationship with stock prices and negative relationship with share prices. Pradhan (2009) investigated the impact of income on stock prices of Nepali companies and came-up to the conclusion that retention ratio and the payout ratio of dividend

have a negative and positive relationship respectively with share prices. Irfan (2015) covers the impact of dividend policy on share price volatility by using 20 years' data of 160 companies ranging from 1981 to 2000, collected from PSX. Their results show that payout ratio of dividend and dividend yield are positively related with the stock prices. Rashid and Rahman (2008) investigated the relationship in Bangladesh stock exchange. They used the data of 104 firms of non-financial sector for the period (1999 - 2000) and found that dividend yield and stock prices have positive relationship but that is insignificant in the capital market of the stock exchange of Dhaka. Also, the earning and stock prices have not considerable relationship because Dhaka has no efficient capital market. Nazir (2010) while studying on Pakistani capital market of non-financial firms took the data of 73 companies for six years (2003-2008). He found that both dividend yield and dividend payout ratio are negatively related with the stock prices of firms. Ali et al. (2015) investigated the relationship of dividend policy and share price volatility in textile companies of Pakistan by using the data for the period 2001-2014. The result concluded that dividend policy is negatively impacted on the share price volatility in Pakistan. Meckling (1976) proposed that dividend payments reduce costs and increase cash flows, that is, payment of dividends motivates managers to discharge cash rather than investing at below the cost of capital or wasting it on organizational inefficiencies. Miller (1985) suggested that dividend announcements provide the missing piece of information about the firms and allow the market to estimate the firm's current earnings. Gordon (1963) found that a firm with low payout and low dividend yield may tend to be valued more in terms of future investment opportunities. Lintner (1956) states on the model of "sticky of dividend" in his research and came-up with the conclusion that firms are not easily decrease their dividends because investors think poor performance led to a reduction in the prices of stocks. Guo (2002) states that there are two types of risks such as systematic and non-systematic, but the type of investors who invest in the stock markets usually face systematic risk. Volatility in the prices of stocks in terms of money, the financial knowledge of the investor plays important role related to the risk of stock market (Kinder, 2002). A rise in central bank rates will trigger an increase in firms' retained earnings ratios as reinvesting corporate profits are more favorable, compared to the pay-out of earnings (Polleit, 2006). Rachim (1996) conducted a study in Australia and found a positive correlation

between stock price volatility, earning volatility, and leverage. Also, a significantly negative correlation with payout ratio. Firms' past dividends history, earnings stability, consideration of impact on stock prices, forecasted current and future earnings, and cash flows are among the important factors in formulating the firms' dividend policies (Chawla, 2008). Research by El-Sady (2012) suggested that the most influencing factor of dividend policies of Kuwaiti listed companies is the management perception of the level of current and future earnings as well as liquidity constraints. Khalid (2007) stated that firm usually offer dividend when reaches to a maturity in terms of a capability of meeting expenditures from its own sources. Large firms are definitely capable in paying of dividend to their shareholders because they are at the stage where they can easily generate their capital. Zakaria (2012) found the impact of dividend policy on share price volatility for material and construction companies in Malaysia. His results clearly show that there is a significant impact of dividend payout ratio on the changes of share prices, and leverage is negatively impacted on the changes of stock prices. Habib (2012) exhibited the impact of dividend policy on share price volatility in Pakistani listed companies by using the dataset of 10 years (2001-2010). The results show that all variables including DY, EPS, ROE are positively related to stock prices. Gordon (1963) states that shareholders should get their dividend before getting the capital gain in future because they tend to be riskier. This view predicts that there is a direct relationship between cash flow and dividend as higher dividend reduces the improbability about future cash flow because of increased share values. Bhattacharya (1979) pointed out that firm that pays dividend indicates its future profitability, while, cutting the dividend may fall the share prices which shows that dividend and share prices have a positive relationship. Omet (2004) studied ASE listed companies and used the data from 1985 to 1999 on Linter's model, he found that Jordanian companies have a steady policy of cash dividend, and the results indicate that dividend policy is directly related to share prices. Azhagaiah (2008) investigated the impact of dividend policy on share price volatility and concluded that increase in share prices is caused by increasing dividend. Salih (2010) shows that profitability, size of firm, and dividend policy are positively related to each other, but ownership, risk, leverage, and dividend policy are negatively related. Aly (2010) investigated the relationship between dividend policy and share price volatility on the United Kingdom's firms for a period 1998-2007 and found a positive relationship between

dividend yield and stock prices, and a negative relationship between payout ratio and share prices, which shows that an increase in the payout ratio causes the stock prices to fall.

3. THEORETICAL FRAMEWORK

3.1 Dividend Irrelevance Theory

Modigliani (1961) stated that prices of shares and the capital cost are not impacted by dividend policy, that is why, irrelevancy is occurred in the policy of dividend. They also stated that income generated from the assets and the main risk of business are associated with the firm's value. The following assumptions were used by them:

- No transactional cost and taxes.
- All investors are said to be rational in the market.
- For the shareholders of the firm, managers always act as best agents.
- Policy of the firm should be certain.

The Dividend Irrelevance Theory is proven correct if all assumptions stated above are considered correct. The theory states that customer is irrelevant about market or company's conditions but only cares his own expectations. If customers are getting good dividend (above their expectation level) than they will reinvest the surplus cash flow again but when they don't get their expected dividend they move to other companies who can give them expected returns.

3.2 Bird-in-Hand Theory

Gordon (1959) and Linter (1962) stated that expected or predicted dividend are high as compare to the predictable capital gain as per the expectations of investors.

Main assumptions of this theory are:

- Only the realization of the capital gain took when the sales of shares occur.
- If company is paying the dividend to its shareholders, it would be the sign of expected cash flow.
- Investors are not clearly aware about firms' profit consideration.

This theory says that investors are more interested in present cash flow rather than a long-term capital gain because they think future is uncertain. In case of Bankruptcy of a firm they will get nothing, that is why, they prefer short run cash flow over a long run capital gain.

3.3 Clientele Effects of Dividend Theories

This theory is based on a couple of effects i.e. Tax effects and Transactional cost effects. Al-Malkawi (2007) stated that company faces burden of high taxes effect its dividend policy. In such scenario the company pay either low or no dividend. Similarly, transactional cost effects in two behaviors. Small investors invest only for the sake of good or continuous dividends, so they reluctant to invest in companies who have high transactional costs, either the cost of securities or high transactional cost. Clientele effect theory have a couple of drawbacks. First, the category of stocks i.e., which category of stock the clients want to invest like high dividend stock (which pays the good dividend from time to time) or high growth/ capital gain stocks (stocks which value or capital gain will increase in future). Second, reaction of clients against the changes in the dividend policy, for example, if a company's stock are high dividend stock and company decides to retain profit for a certain period (for capital gain and future growth), so dividend-oriented investor will exit. On the other hand, if company pays high dividends growth-oriented investors will exit but dividend-oriented will stay.

4. RESEARCH METHODOLOGY

The data of seventeen (17) listed firms of automobile sector for a period of 12 years from 2005 to 2016 are selected which is collected from the audited financial reports. The dividend policy measures are dividend yield, earning per share (EPS), dividend payout ratio, retention ration, and share prices.

Table 1: Operationalization of Variables

S #	Variables	Symbols	Formula	Citation
1	Dividend Yield	DY	Dividend Per Share/Market Price	Farrukh (2017)
2	Earing per share	EPS	Earing available to common stockholder/Number of common share outstanding	Nasir (2014)
3	Dividend Payout Ratio	DPR	Dividend Per Share/Earing Per Share	Farrukh (2017)
4	Dividend per share	DPS	Dividend/No of Shares Outstanding	Farrukh (2017)

4.1 MODEL SPECIFICATION

$$SP_{it} = f(DY_{it}, DP_{it}, EPS_{it}, DPR_{it}) \quad 1$$

Panel regression model is

$$SP_{it} = \beta_0 + \beta_1 DY_{it} + \beta_2 DPS_{it} + \beta_3 EPS_{it} + \beta_4 DPR_{it} + \varepsilon_{it} \quad 2$$

Fixed effect model is

$$SP_{it} = \alpha_i + \beta_1 DY_{it} + \beta_2 DPS_{it} + \beta_3 EPS_{it} + \beta_4 DPR_{it} + u_{it} \quad 3$$

Random effect model is

$$SP_{it} = \mu + \beta_1 DY_{it} + \beta_2 DPS_{it} + \beta_3 EPS_{it} + \beta_4 DPR_{it} + U_i + W_{it} + v_{it} \quad 4$$

whereas,

SP_{it} = Stock prices of company i at time t

DY_{it} = Dividend Yield of company i at time t

DPS_{it} = Dividend per share of company i at time t

EPS_{it} = Earing per share of company i at time t

DPR_{it} = Dividend Payout Ratio of company i at time t

μ = Average share price of entire population for automobile companies

U_i = Company specific random effect

W_{it} = Individual-specific random effect means the deviation in share price at time t from the average of i -th company.

α_i = Company-specific intercepts that capture heterogeneities across companies

ε_{it} = Error Term of company i at time t .

5. EMPIRICAL RESULTS

The above table shows the descriptive statistics of the data set. Total number of observations are 1,596 with the sample size of 17 companies of the automobile sector of Pakistan, covering the period 2005-2016. The highest mean of earning per share among all the variables is 16.28162 and the lowest mean of dividend yield is 0.010278. The least variation is shown in dividend yield as compare to other variables like the standard deviation is 0.014. A high value of standard deviation shows that data is widely dispersed, the maximum value is 300.508 and the minimum value is 0.0148. The value of the Kurtosis for all variables are more than three which means that the distribution is leptokurtic, the skewness for all variables is also positive so distribution is positively skewed as extreme values are on the left side.

Table 2: Descriptive Statistics

	SP	EPS	DY	DPS	DPR
Mean	197.22	16.28	0.01	8.08	0.34
Median	86.32	9.56	0.01	2.00	0.27
Maximum	2349.88	145.74	0.12	100.00	4.00
Minimum	1.49	-12.78	0.00	0.00	0.00
Std. Dev.	300.51	21.30	0.02	15.83	0.43
Skewness	3.57	2.35	3.36	3.48	4.37
Kurtosis	20.22	11.26	20.41	16.17	33.01

Table 3: Correlation Matrix

	SP	EPS	DY	DPS	DPR
SP	1.00				
EPS	0.69*	1.00			
DY	0.47*	0.61*	1.00		
DPS	0.64*	0.78*	0.85*	1.00	
DPR	0.24*	0.28*	0.68*	0.56*	1.00

Table 3 above reveals that EPS and DPS are positive and strongly correlated with share prices, whereas DY is positive but moderately correlated. Among all, DPR is weakly correlated but fortunately its relation is significantly positive. Further, it can be evident that multi-collinearity does not exist as the correlations between all the independent variables are

below 0.9 (Gujarati, 2003). The results of pooled regression show that Earning per share, Dividend Yield, and Dividend per share have significant relationships with share prices but Dividend payout ratio have no significant relationship. The value of Adjusted R-square shows that the model explains variations about 51% that can be considered a good-fit. The results of Fixed Effect Model show that Earning per share and dividend per share have significant relationship with share prices but Dividend Yield, and Dividend payout ratio have no significant relationship. The Adjusted R-square is 59% which shows that volatility in share price explained 41% by Earning per share, Dividend Yield, Dividend per share and dividend payout ratio whereas adjusted R-square defines that 53.56% of the variation in the dependent variable. F-statistic value of this model is 13.23 with the Prob (F-statistics) value is 0.000 which shows the fitness of the model. In the last, Durbin Watson value is 1.310 which indicates that there is negative auto correlation. If share price increases by 1 than Earning per share, Dividend per share and dividend payout ratio will also increase by 4.302, 11.421 and 1.511 respectively while dividend yield is decreased by 3212.125. Earnings per share and Dividend per share have significant relationship with share prices, whereas dividend yield and dividend payout ratio have no significant relationship with share prices.

Table 4: Model Significance (Hypothesis Testing)

Variables	Pooled Model	Fixed Effect Model	Random Effect Model
	Coeff.	Coeff.	Coeff.
C	60.2*	66.84*	63.05**
EPS	6.72*	4.3*	5.87*
DY	-3173*	-3212.1	-3201.8
DPS	7.76*	11.42*	9.06*
DPR	-9.11	1.51	-5.81
R-squared	0.512	0.59	0.472
Adj. R-squared	0.51	0.546	0.462
F-statistic	280.3 *	13.24 *	46.93 *
Durbin-Watson	1.17	1.31	1.17
<i>Hausman Test</i>			
Chi-Sq. Statistic			

*** Significant at 10%, ** Significant at 5 %, * Significant at 1%.

The Random Effect Model shows that Earning per share and Dividend per share have significant relationship with share prices but Dividend Yield, and Dividend payout ratio have no significant relationship. The Adjusted R-square is 47.20% which shows that volatility in share prices is explained about 52.80%. The F-square value of this model is 46.93 with the Prob (F-statics) value is 0.00 which shows the fitness of the model. In the last, Durbin Watson value is 1.170 that indicates that there is negative autocorrelation. If share prices increase by 1 than Earning per share and Dividend per share will increase by 5.87 and 9.06 respectively, while dividend yield and dividend payout ratio will decrease by 3201.82 and 5.81 respectively. Whereas, dividend yield and dividend payout ratio have no significant relationship. The results of Hausman test revealed that the random effect model is more suitable for this study.

6. CONCLUSIONS

This study revealed that there is a significant positive relationship among Earning per share (EPS), Dividend per share (DPS) and stock prices (SP). Both earning per share and dividend per share are the fundamental factors that impact stock prices. The outcome of this research is consistent with the findings of Ebrahimi and Chadegani (2011) and Challa and Chalam (2015). The empirical result of this study show that earning per share is a main factor which creates major impact on the stock prices of the company. Another factor which have a major positive impact on the prices of stock is dividend per share. It is worth noting that dividend policy has significant relationship with share prices. The dividend policy is an effective measure which helps to find out the share prices and market value of the firms in Pakistan. Previous studies in Pakistan were based on the investigation of relationship between share prices and dividend policies on multiple sectors but there is a lacking on the study of impact of dividend policy on share price volatility on automobile sector, but to the best of our knowledge no study has conducted yet on listed firms of automobile sector in Pakistan. This research could be extended to other countries for various time-periods to get some robust results on the topic under consideration.

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