

# Dividend Policy, Stock Price Volatility & Firm Size Moderation: Investigation of Bird in Hand Theory in Pakistan

Saima Nasir Chaudry  
Scholars Mohammad Ali Jinnah University Islamabad

Sajid Iqbal  
Faculty of Management Sciences Indus International Institute DG-Khan

Maheen Butt  
Scholars Mohammad Ali Jinnah University Islamabad

## Abstract

The current study hypothesized dividend policy on stock price volatility with moderating impact of firm size with respect to bird in hand theory. The study investigated manufacturing sector of Pakistan. And have found significant impact of firm size between dividend policy facets and stock price volatility. The convenience sampling technique is used for data acquisition and the period of data consists from Jan 2009 to Dec 2013. Thus, up to the bird in hand theory all hypothesis of the study are accepted and study revealed key implication with respect to historic investigations.

**Keywords:** Convenience Sampling, Manufacturing Sector, Pakistan, Hypothesis

## 1. INTRODUCTION

The current study investigates the relationship of dividend policy of Pakistani corporate sector with stock price volatility by moderating impact of corporate size. The dividend policy is rich topic and stock price volatility has revealed hot implications for theorists and practitioners (Parkinson, 1980).

Stock prices volatility is a phenomenon where stock prices deviates in index from average level to upward or downward. Such upward and downward trends are re-pronounced as bullish and bearish trends of stock prices. Such trends occurs because of various activities interplayed by companies within their operation. Thus, dividend policy is one of the operational activity and ingredient that pinches corporate stock prices (Roll, 1983; Irfan and Nishat, 2003). Moreover, dividend policy is an operational procedure in order to pay returns towards corporate share holders with extent of their investment in company's shares.

Such investments of shareholder's are executed by them in companies up to their traditional, emotional and rational sentiments. Various financial sentiments are profound and investigated by historic studies regarding shareholders i-e rate of return, return on equity, and return on assets, preemptive right and voting rights. Thus, firm size is one of them that is mainly considered by corporate share holders and is rich in investigation. Moreover, Firm size is usually pronounced as actual size of the company that is measured through the value of net sales volume.

It is the firm size that shuffles various financial ingredients of the company including capital structure and amount of investment (Iqbal et al., 2014) Firm size has vital role in determining the level of credit risk and has negative relationship with credit risk (Iqbal, Chaudry and Iqbal, 2015). Moreover, it is the firm size that leads its improvised role with liquidity risk, enhances corporate productivity (Iqbal et al., 2015) and also increases systematic risk (Iqbal, Iqbal & Khan, 2015). Moreover, Zameer at al. (2013) explained in their study that firm size has positive relationship with dividend policy antecedents under the umbrella of bird in hand theory.

In this concern, Asghar et al. (2013) revealed in their study that there is positive relationship between dividend policy and stock prices but it is the firm size that shuffles such relationship because of variant nature of firm size in various sector's and such variability makes the relationship between dividend policy and stock prices more sensitive.

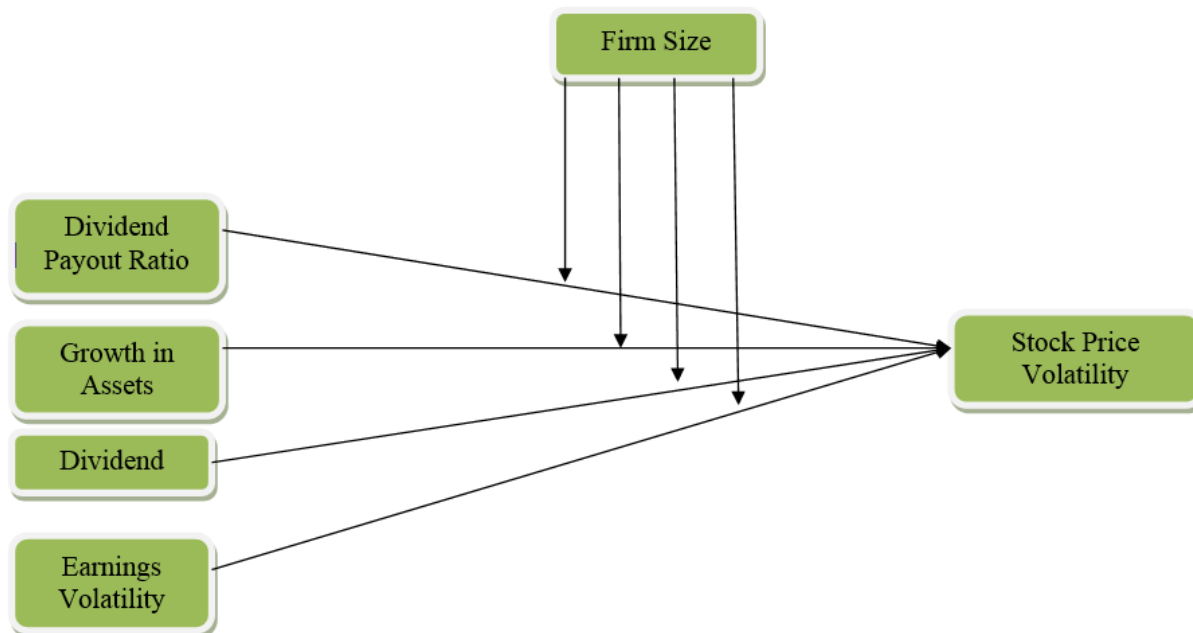
Thus, current study aimed to investigate the moderating impact of firm size between dividend policy and stock price's volatility. Moreover, study aimed is to investigate the nature of decisions and shareholders sentiments towards stock prices volatility and dividend policy. While, bird in hand theory is used as theoretical base that explains as dividend provisions by the companies enhance corporate value. Moreover, study will reveal key implications for theorists and practitioners of financial world specifically in Pakistan.

The part 01 of current study explains introduction and literature citations relevant to theoretical framework; part two elaborates the study methodology, including measurement models and hypothesis. Part three explains the study results and analyses. While, part four clarifies the findings and conclusion of study.

## 2. RESEARCH METHODOLOGY

The current is exploratory in nature and explores the nature of relationship with moderating impact of firm size among dividend policy and stock price volatility. Thus, the study contains on one dependent variable dividend policy measured by four proxies' i-e dividend payout ratio, earnings volatility, dividend yield and growth in assets. While, there is one dependent variable as stock price volatility and one moderating variable named as firm size.

Thus, the study used convenience sampling approach to gather the data and to use it further for analyses. And the sector of investigation is manufacturing sector of Pakistan mainly where cement sector, pharmacy sector, Beverages sector, Food Sector and electronics sectors are used as study investigation units. Thus, the data consists from 2009 to 2013. The nature of data of the study is panel. Moreover, regarding instrumentation study used descriptive analyses, data reliability and validity tests, correlation analyses and moderating regression analyses. So the thematic model of the study is as follows,



In above mentioned model there is one independent variable as dividend policy and it is measured by four proxy's i-e dividend payout ratio (DPO), growth in Assets (GA), earnings volatility (EV) and dividend yield (DY) respectively. There is one dependent variable as stock price volatility (PV) and one moderating variable as firm size (FS).

So on the bases of above model and theoretical frame work hypothesis of the study are,  
 (Main Hypothesis)

*H1: There is positive relationship between dividend policy facets and stock price volatility*

*H2: There is moderating relationship of firm size between dividend policy facets and price volatility*

(Sub Hypothesis)

*H1: There is positive relationship of dividend payout ratio with price volatility*

*H2: There is positive relationship of growth in assets with price volatility*

*H3: There is positive relationship of dividend yield with price volatility*

*H4: There is positive relationship of earnings volatility with price volatility*

*H5: There is a moderating relationship of firm size between dividend payout and price volatility*

*H6: There is a moderating relationship of firm size between growth in assets and price volatility*

*H7: There is a moderating relationship of firm size between dividend yield and price volatility*

*H8: There is moderating relationship of firm size between earnings volatility and price volatility*

Thus, the measurement models on the bases of above hypothesis of mentioned variables are as follows,

$$\text{Dividend Pay Out} = \frac{\text{"Total Dividend"}}{\text{"Total Earnings"}}$$

$$\text{Earnings Volatility} = \frac{\text{"Operating Profit"}}{\text{"Total Assets"}}$$

$$\text{Dividend Yield} = \frac{\text{"Annual Cash Dividend"}}{\text{"Average Stock Market Value"}}$$

$$\text{Growth in Assets} = \Delta \text{ Total Assets}$$

$$\text{Price Volatility} = \text{Variance of Returns Rate}$$

$$\text{Firm Size} = \text{"n. log (Net Sales)"}'$$

### 3. RESULTS

Table 01  
 (Descriptive Statistics)

Variables	Mean	Median
DPO	0.78	1.71
EV	1.56	3.44
DY	3.45	6.09
GA	7.89	11.11
FS	2.31	7.33
PV	11.56	24.56

The table 01 explains the results of descriptive statistics where the mean value of DPO is 0.78 and standard deviation is 1.71, EV has mean value as 1.56 and standard deviation value is 3.44, DY mean value is 3.45 and deviation value is 6.09, growth in assets mean value is 7.89 and deviation value I 1.11, firm size has mean value as 2.31 and standard deviation value is 7.33, price volatility has mean value as 11.56 and deviation value is 24.56 respectively.

Table 02  
 (Reliability Analyses)

Variables	No of Observation	Cronbach's Alpha
DPO	2289	0.89
EV	2289	0.71
DY	2289	0.77
GA	2289	0.82
FS	2289	0.76
PV	2289	0.75

The table 02 elaborates the reliability results where total number of observations consists of 2289 of the entire sample tested in current study. Moreover, reliability alpha value of dividend payout (DPO) is 0.89, earnings volatility (EV) is 0.71, dividend yield (DV) 0.77, growth in assets (GA) 0.82, firm size (FS) is 0.76 and price volatility (PV) is 0.75 respectively. Hence, data of all variables is reliable and suitable for testing because their reliability values are found greater than 0.71.

Table 03  
 (Correlation Analyses)

Variables	DPO	EV	DY	GA	FS	PV
DPO	1					
EV	0.21**	1				
DY	0.31**	0.33**	1			
GA	0.36**	0.39**	0.44**	1		
FS	0.55**	0.57**	0.61**	0.67**	1	
PV	0.52**	0.58**	0.64**	0.67**	0.72**	1

The table 03 explains the correlation matrix of study. Thus, dividend payout is correlated with earnings volatility as 0.21\*\* ( $p < 0.01$ ), earnings volatility is significantly correlated with dividend yield as .33\*\* ( $p < 0.01$ ), dividend yield is significantly correlated with growth in assets as 0.44\*\* ( $p < 0.01$ ), growth in assets are significantly correlated with firm size 0.67\*\* ( $p < 0.01$ ) and firm size is significantly correlated with 0.72\*\* ( $p < 0.01$ ). Moreover, rice volatility is significantly correlated as 0.52\*\* ( $p < 0.01$ ), 0.58\*\* ( $p < 0.01$ ), 0.64\*\* ( $p < 0.01$ ) & 0.67\*\* ( $p < 0.01$ ) respectively.

Table 04  
 (Moderated Regression Analyses)

Predictor's	B	R <sup>2</sup>	ΔR <sup>2</sup>
Step 01			
DPO	0.05**	.553	.745
EV	.235**		
DY	.178**		
GA	.265**		
FS	1.29**		
Step 02			
DPO*FS	.157	.431	.004
EV*FS	.087		
DY*FS	.113		
GA*FS	.174		

The moderated regression analyses are used of firm size in current study because the stock market performance and matter of return to shareholders are pinched by small and large size of the firms. Thus, table 04 reported moderated regression of firm size between dividend policy and stock price volatility. In step one dividend payout beta is found 0.05 ( $p < 0.01$ ), earnings volatility 0.235\*\* ( $p < 0.01$ ), dividend yield 0.178\*\* ( $p < 0.01$ ), growth in assets 0.265\*\* ( $p < 0.01$ ) and firm size 1.29\*\* ( $p < 0.01$ ) respectively. There all variables are predicted significant in current study with price volatility.

Moreover, in third step interaction terms are generated for the purpose to test firm size moderation. So firm size moderates dividend payout ratio with 1.57, earning volatility is moderated with 0.87, dividend yield is moderated with .113 and growth in assets is moderated with 174. Thus, over all dividend policy is moderated by firm size as 0.531. Hence, there is insignificant interaction of firm size with explanatory variable facets.

#### 4. CONCLUSION

The current study found significant positive relationship between dividend policy facets i-e dividend payouts, growth in assets, earning volatility, dividend yield and stock prices volatility. Moreover, there is found a moderation of firm size between dividend policy facets and stock prices. Thus, the managers have to focus firm size more importantly in their decisions and have to execute the policies in a way that investment of shareholders may boost that will rise corporate share prices towards premium prices that will give more returns to companies and dividend to shareholders.

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