



DIVIDEND POLICY AND STOCK PRICE VOLATILITY THROUGHOUT PAKISTAN

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ABSTRACT

The purpose of this study is to examine the relationship between price volatility and the dividend policy of manufacturing firms listed in Karachi Stock Exchange (KSE). For this reason are sample of 53 manufacturing firms are taken in our sample data. Data is obtained for 6 years from 2006-2011. Data cross sectional in nature. The regression model are used to see the relationship between the dependent variable is price volatility and its relates with independent variables such as dividend yield, net income, dividend payout ratio, Tobin's Q, return on equity, size and debit equity. The result shows that dividend yield (Dy), size shown a considerably positive impact on price volt (P.volt). However dividend payout ratio (dpr), Tobin's Q (tq) and net income (Ni) have a significantly negative impact on price volatility (P.volt) shows in our study.

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INTRODUCTION

The particular primary analyze can be thought out to look at the Impact of Dividend Policy about stock price tag volatility inside the organizations of Pakistan. The particular Dividend Policy is still an issue of attention inside the economical and economic literature. Dividend Policy as an unique evaluation from the supervision to settle on exactly what the main income can be dispersed on the list of shareholder to satisfy their interior needs (Booth, 2010). Several researchers are conducted about dividends however it is an uncertain difficulty. However, little function may be conducted with emerging marketplaces involving nations around the world like Pakistan. The particular harder we glance at the dividend image, a lot more it appears as though a new dilemma, using bits in which simply just don't match jointly (Black, 1976). The actual Dividend Insurance policy establishes which precisely what percent from the getting should be allocated to the investors. It offers dividend yield as well as dividend payment rate. Hence dividend is considered because the supply of earning to the investors determined by their own ownership. The normal objective of any firm would be to make best use of investor's success. In the event the objective is just not achieved, next organizations prefer to arrange cash flow in the form of held on to cash flow. Even so, supervisors from the organizations tend to be unwilling to the returns if it is

necessary to do so as well as increase the returns only once there're confident in relation to long term raise throughout cash flow. Dividend plan has been stored because the top ten questions throughout financial (Brealey & Myers, 2002). This organizations should consider options concerning the portion that needs to be returned thus to their shareholders as well as the portion that needs to be kept because held on to profits. This organization may sometimes fork out the shareholders as a result of cash dividends or perhaps as a result of repurchase of the gives. (Lintner, 1956).

Whom recorded that will agency offered help to raise the dividends only once these were reasonably sure that the new higher commission pace may very well be taken care of in the potential. Forking over huge dividends decreases chance thereby effect stock options selling cost (Gordon, 1959). These imply bird-in-hand theory. Second theory states that shareholders value total profits simply, rather than during dividend repayments or perhaps talks about value appreciation. Thus, shareholders tend to be inconsequential towards conclusion associated with agency to spend minimal returns as well as to hold maintained profits as well as to spend far more returns or perhaps concern brand new share or perhaps credit card debt. This particular signifies dividend irrelevance theory. Dividend policy doesn't have an impact on agency price, resulting in your theory that returns tend to be inconsequential (Miller, 1961). This elaborates your signaling theory.

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Companies commonly find the dividend insurance policy of which finest suits your stage of life routine they may be currently doing work in. dividend insurance policy may very well be of two varieties: You are continuing dividend insurance policy, which usually shows the quantity of dollars quit following your attractive expenditure on the company utilizing NPV strategy. Additional can be been able dividend insurance policy, that's acquired while dividend insurance policy is recognized as of importance to shareholders along with absolutely impact on survey of reveal costs. The actual volatility in the purchase regarding investors within the agency is regarding immense magnitude in their mind as it exhibits this measure of the degree of chance they face. Firms have an interest within the investor's nearness for the dividend earnings. The actual riskiness in the investor's purchase affects this worth regarding stock costs in the agency inside long run. So this volatility regarding stock costs turns into important to this investors or even shareholders. Every time the actual dividend payments are usually reduced, reveal prices in the company can also be reduced. The announcement connected with increase inside dividends creates anomalous optimistic dividends, even though reduction in dividends creates anomalous damaging dividends. As a consequence of signaling outcomes connected with dividends, reduction in reveal prices happens. The theoretical systems in which result in dividend yield(DY) and dividend payout rates(DPR) to change inversely together with reveal price volt are usually; length influence, price connected with return influence, arbitrage charges influence and data influence. Anytime the actual dividend payments usually are reduced, write about costs on the company may also be reduced.

The announcement involving increase inside dividends generates anomalous constructive profits, though decrease in dividends generates anomalous negative profits. Due to signaling outcomes involving dividends, cut in write about costs comes about. The theoretical components that will cause dividend deliver and dividend commission proportions in order to change inversely with write about price volatility usually are; length of time effect, rate involving come back effect, arbitrage rates effect and facts effect. Timeframe consequence signifies that the bigger the particular dividend produce, the particular closer the bucks flows. Dividend payments reduce costs and also improve earnings that are settlement regarding payouts drives managers to be able to disgorge cash as opposed to committing on beneath the money necessary for money or even squandering this on organizational inefficiencies (Rozeff, 1982) (Easterbrook, 1984). Consequently, the particular stock options price ranges are definitely more refined towards modifying approximations regarding rates regarding go back in the time period. This particular analyze will probably be diverse from preceding studies in how who's may try and examine the end results regarding dividend policy plan upon write about charges regarding Pakistani corporations stated upon Karachi Stock market within economic and financial sector solely. Karachi Stock market (KSE) is usually a critical growing marketplace from the spot on the list of building countries. KSE is mentioned as high-risk higher give back marketplace where investors seek high-risk advanced (Nishat, 1999).

## Literature Review

This specific materials evaluation will Endeavour to conclude thoughts involving distinct authors relating to dividend plan and also talk about price volatility. The particular materials will summarize the connection in between dividend plan and also volatility involving talk about rates. The particular literature's will probably conclude through implying space regarding the present examine. A lot of studies have been done within countries using created stock markets such as the US (Pettit 1972). Dividend strategy plan is considered to be your choice concerning just what percentage of the particular dividend, as funds, need to be distributed to the shareholders particular of the explains to you. A group of experts claim that the surge inside dividend commission increases the price of the organization since benefits convey details to traders around the upcoming leads with the corporation (Pettit 1972); (McCluskey, 2006); (Lonie, 1996). Companies are likely to increase their particular benefits as long as we were holding fairly sure that the newest increased commission pace could be managed in the upcoming (Lintner, 1956).

Within a earth connected with reasonable objectives, unexpected dividend bulletins might transmit emails in relation to changes throughout cash flow potential, that had been not really incorporated out there value previous. Your re-appraisal occurring as a result of these alerts brings about value movements, that took including reactions to the payouts themselves, though there're in fact brought on by a great fundamental modification of the estimation connected with cash flow potential (Muth, 1961). (Britain, 1966) documented in which earnings ended up being the most important take into account your dividend administrative procedure. (Britain, 1966) Kind of dividend integrated any earnings determine along with a lagged dividend payout relation since informative parameters. Many precious experiments with dividend policy are already conducted; even so, this specific theme is certainly not come to the conclusion. The more difficult all of us go through the dividend photo, the greater it appears as if a new puzzle, along with bits of which simply don't match with each other (Black 1976). (Easterbrook, 1984) Dispute whenever corporations deliver cash to help shareholders by having to pay payouts; these corporations reduce the bureau fees connected with managers' over trading. Analysis by (Farrelly, Baker, & Edelman, 1986) signifies that corporate professionals usually assume that dividend policy affects a new firm's benefit which a great best degree of dividend commission prevails. A high commission relation may well push managing to become additional willpower in the use of this firm's assets and therefore boost corporation benefit (Jensen, 1986). Management will suffer the distress of having to be able to cut the dividend (or cut elsewhere), as well as the market will certainly react through decreasing the stock price (Barclay & Smith, 1995). (Chowdhry & Nanda, 1996) formulated the model, during which organizations deliver some funds by means of benefits rapidly relative duty negatives and also bring the remainder forwards to be able to future periods. (Baker & Wurgler, 2004) Produced a theory to describe that wills managers' conclusion to pay for returns is decided simply by individual need. (Naeem & Nasr, 2007) Discovered the determinants and movements connected with dividend

procedures. Results of their research present that will Pakistani companies are generally possibly unlikely to pay for returns or pay out small quantity while returns and their current dividend selections be based upon earlier 12 months returns and Success Ratio. The learning carried out by means of (Ahmad & Javid, 2009) during which that they reviewed this variables that will decide dividend coverage in the economy of Pakistan, exhibited that will a lot of the Pakistani companies decide their funds dividend check on such basis as their existing along with past year gains. (Booth, 2010) features identified Dividend policy as an unique conclusion with the managing to make the decision precisely what percent of revenue is usually dispersed among the investors as well as precisely what percent of turnover holds to meet its inside requirements. Volatility is regarded since the quantity of doubt or maybe risk in relation to the length of adjustments inside a security's value. Considerable attempt went towards being familiar with the reason why get worse investment price ranges are therefore unpredictable in accordance with corresponding reduced dividend steams (LeRoy, Porter and Shiller 1981).

This volatility involving share selling price alternatively could be the systemic risk encountered simply by buyers whom have everyday gives you purchase (Guo, 2002). The volatility connected with everyday stock is a evaluate that may be utilized to determine danger. The idea presents the rate connected with transform in the cost of some sort of security over a period. The harder the volatility, the higher the possibilities of a gain as well as burning from the brief function is usually. Volatility presents the alternative of any security's price tag. Hence, if a stock is considered seeing that volatile, it's price tag could significantly fluctuate after some time, and it's also more challenging to state with certainty that will what exactly its upcoming price tag will be. People naturally prefer to invest in futures that will cause reduced danger. The lower the number of danger, the higher the purchase is usually (Kinder, 2002). Signaling Theory: Even though (Pettit 1972) observes that the amount of dividend compensated apparently hold fantastic specifics of your prospects of any firm. (Brickley, 1983) Indicated dividend signaling could present info any time operator's fork out each frequent return in addition to occasional special returns (extras, deals or maybe year-ends). In order to connection the particular hole in between management as well as investors, management employs dividend to be an instrument to convey private data to be able to investors (Malkawi, 2007). Bird in hand concept: In a world connected with data asymmetry, where by administrators learn more in comparison with outsiders concerning the current businesses and upcoming options of the business, a difference with dividend might signal the actual philosophy of the insiders and have an effect on the value of the corporation (Bhattacharya, 1979). An expansion within the payment to help buyers might reveal that the corporation doesn't have any profitable ventures to try while some sort of dividend minimize might reveal that the company is retain earnings to funding development opportunities (Woolridge & Ghosh, 1985). (Malkawi, 2007) Assert that in the world connected of uncertain and data asymmetry, benefits are generally highly valued diversely from earning (capital gains). "A bird in hand (dividend) may be valued at in excess of a couple within the plant (capital gains)". (Irfan & Nishat, 2003)

researched the effects regarding dividend policy on inventory price possibility as well as discovered Dividend Provide as well as Payout Percentage tend to be absolutely linked to the particular discuss price volatility. (Kanniainen, 2007) Locates if you have larger connection concerning dividend expectations you will have larger volatility and when connection is usually a smaller amount the particular volatility will be a smaller amount. In line with (Hussainey, 2011) corporation using higher pay out rate or even dividend generate, can lead to less volatile investment selling price. Dividend payout rate will be the primary determinant of the volatility of investment selling price. The more expensive how big the company, investment selling price will probably be less volatile. While, when corporation incurs high leverage, there's higher chances in which investment selling price be volt. They have been several valuable reports on romantic link between dividend coverage and also talk about selling price volatility. Major reports are actually done outside of this framework connected with Pakistan, in a variety of sectors. In numerous studies are present inside framework connected with Asia concerning current subject (Kapoor, 2008). Nevertheless, many studies have also been done inside Pakistan (Habib & Kiani, 2012), many reports furthermore protect Karachi Stock market (Anjum, 2013) (Sadiq & Ahmad, 2013). The current examine would are likely to add this literature concerning dividend coverage and also inventory selling price volatility inside financial field connected with Pakistan.

## MATERIALS AND METHODS

### Data

The data for different variables obtained from Balance sheet analysis (BSA) of State Bank of Pakistan (SBP). This source of data was used because these are official figure published by the Government and are more reliable. These firms are include in the analysis that paid Dividend and observation for different variables used in our study throughout the sample year. This study is cross sectional in nature and year 2011 is the year of analysis. We have obtained data from 2006-2011 these data were helpful to calculate different variables used in our base line regression model. After filtering our data on above two criteria we were left with 53 manufacturing firms. However it is notable that all the 53 firms represent every industry which is listed in Karachi Stock Market (KSE).

### Regression Model

The following base line Quintiles regression model will be used for our analysis. The regression model is expressed as follows:

$$P.volt = \alpha + b_1(dpr)_i + b_2(dy)_i + b_3(roe)_i + b_4(de)_i + b_5(ni)_i + b_6(size)_i + b_7(tq)_i + e_i$$

Where,

P.volt = Share price volatility

DY= Dividend yield

DPR= Dividend Payout ratio

Size= Market value

TQ= Tobin's q

NI= Average of net income for the six years.

ROE= Average of the return on equity for the six years.

D/E= Average of the Debt on equity for the six years.

P.volt is calculated by following formula:

$$P.volt = \sqrt{\frac{\sum_{i=1}^6 ((H_i - L_i) / (\frac{H_i + L_i}{2}))^2}{6}}$$

Where,

P.volt = share price volatility

H<sub>j</sub> = Higher price of share

L<sub>i</sub> = Lower price of share

### Dividend yield

$$D.yield = \sum_{i=1}^6 \left( \frac{D_i / MV_i}{6} \right)$$

Where,

D<sub>i</sub> = Cash dividend.

MV<sub>i</sub> = Market value.

### Dividend payout ratio

$$Payout = \sum_{i=1}^6 \frac{D_i / E_i}{6}$$

Where:

D<sub>i</sub> = Cash dividend.

E<sub>i</sub> = Net income.

### Size

$$Size = \ln \left( \sum_{i=1}^6 MV_i / 6 \right)$$

MV<sub>i</sub> = Market value of firm.

We will use Quartile regression because it performed in depth and irrefutable analysis of relationship among independent and dependent variables. Also its result is more robust and generalizable because it takes into account the factor of heteroskedasticity.

## RESULTS AND DISCUSSION

**Table 1. Descriptive statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
pvol	53	0.655716	0.185801	0.148718	1.2552
dpr	53	0.473125	0.301846	0.054885	1.868864
dy	53	0.077206	0.053859	0.020131	0.32966
roe	53	34.03981	19.98333	1.445	107.6583
de	53	1.198585	1.020173	0.09	4.598333
ni	53	4248427	1.17E+07	5370.167	7.75E+07
size	53	15.42681	1.763794	12.2831	20.05793
tq	53	0.822962	2.773095	0.085502	20.56951

Table-1 indicates descriptive statistics of sample we have obtained 53 manufacturing firms observation they starting from 2006 and ended on 2011. The descriptive indicates that P.volt has mean value is 0.655 percent and has a minimum value of P.volt is 0.148 percent and have the maximum value of P.volt is 1.255 percent. The mean value indicates the sample manufacturing firms have been a major part of P.volt in manufacturing firms. The Dividend payout ratio is having the mean value is 0.473 percent its shows that these manufacturing firm have large dividend payout ratio. Dividend yield have a mean value is 0.0772 percent, the maximum value of dividend yield is 0.329 percent and the minimum value is 0.020 percent which is shown in sample table-1. The mean value of 0.772 percent represents that overall the firm pay the dividend each year to its shareholder. The return on equity mean value is 34.039 percent has the minimum value is 1.445 percent and its maximum value is 107.658 percent for the sample manufacturing firms. Debt equity has the mean value is 1.198 percent has its maximum value is 4.598 percent. Tobin's Q has the mean value is 0.822 percent and its maximum value is 20.057 percent. Size has the mean value is 15.426 percent and its maximum value is 20.56 percent. The above discussion in the table shows that the variable indicates the financial growth of manufacturing firms.

**Table 2. Correlation Analysis**

	pvol	dpr	dy	roe	de	ni	size	tq
pvol	1.00							
dpr	-0.04	1.00						
dy	0.18	0.41	1.00					
roe	-0.01	0.32	0.00	1.00				
de	-0.06	-0.13	-0.25	0.19	1.00			
ni	-0.02	0.09	0.03	0.46	-0.06	1.00		
size	0.02	0.36	-0.07	0.48	0.17	0.46	1.00	
tq	-0.17	0.22	0.13	0.11	-0.02	-0.03	0.07	1.00

In Table-2 indicates the correlation analysis among the variables used in our study. In the above table-2 shows the independent variables have the correlation is less than 50 percent among themselves. They indicate that model is free from multicollinearity.

### Uni-variant Analysis

In Table-3 show of quartile generated on the basis of dividends paid by firms. Its quartile represents highly paying dividend firm. While the last quartile represents low dividend firms.

**Table 3.**

variable	uni-variant analysis		t Stat
	1st quartile mean	4th quartile mean	
pvolt	0.7058323	0.695800183	0.131576
DPR	0.5408206	0.283302459	3.406462
DY	0.0872737	0.083483578	0.15879
SIZE	17.505662	13.44212021	9.812446
TQ	0.4964997	0.384894126	1.211541
ROE	49.562821	23.30269231	3.643189
D/E	1.4723077	1.018717949	1.172069
NI	14613347	313252.2564	2.480915

Table-3 indicates that there is size changing in mean of dpr, size, roe and Ni. Whoever P.volt has insignificant t-stat and hasn't change when we move from higher dividend firm to lower dividend paying firms.

## RESULTS

**Table 4. Cross section Quantile regression**

pvol	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
dpr	-0.28256	0.075819	-3.73	0.001	-0.435267 -0.12985
dy	1.404808	0.237439	5.92	0	0.9265808 1.883035
size	0.054459	0.017328	3.14	0.003	0.0195592 0.08936
tq	-0.0099	0.001998	-4.96	0	-0.013927 -0.00588
roe	-0.00174	0.001233	-1.41	0.166	-0.00422 0.000745
de	-0.01078	0.018711	-0.58	0.567	-0.048469 0.026904
ni	-2.83E-09	1.20E-09	-2.35	0.023	-5.25E-09 -4.06E-10
_cons	-0.0688	0.238723	-0.29	0.775	-0.54961 0.412015

Table-4 shows that dividend payout ratio (dpr), dividend yield (Dy), size, Tobin's Q (tq) and net income (Ni) have a significant impact on price volatility (P.volt). While return on equity and debit equity have an insignificant impact on Price volatility. The dividend payout ratio shows in our result is high then the price volatility becomes low. In which firm pay more dividends out of its net income. Generally considered as table and have more cash. This information sends a signal to market and the price volatility is less for these firms. The dividend yield is a strong significant positive relation between Price volatility and Dividend yield. In previous study result shows a strong relation between dividend yield and share price volt (Baskin 1989). Share price volt and dividend yield are not linked with share price volt and size shows positive relation in result (Allen and Rachim, 1996). Net income shows the revenue and expenses of the firm for the specific time period. Net income used to measure the firms profitability by adjusting all the expenses and cost of firms. In our study result shows the significantly negative impact. Return on equity shows that shareholders invest interim of capital in the firm that capital are reinvest by firms in different sectors to gain profit. Profit a company generate with the money of shareholders that are distribute accordingly. Return on equity results shown in our study is significantly negative. Debt equity is measured the overall level of financial risk faced by the firm and its shareholders. The greater the amount of debt involved, the more chances of financial risk and bankruptcy. Debt equity shows insignificantly negative result. Tobin's Q shows significant negative result in study. Large firm have big size and thus they have low growth opportunity and vice versa. Since TQ show the growth opportunity the result have implies that the firm having large number of growth opportunities have lesser price volatility as compare to the firm that have low growth opportunities. The reason is that in Pakistan large firms tend to make investments that instead of increasing share holder value they end up in decreasing them. Also they are not as efficient in investments as these as growth in firms.

## Conclusion

The study examines the impact of price volatility and dividend policy with a focus on shareholders. The manufacturing firms

listed in Karachi Stock Exchange (KSE) we choose a sample of 53 firms from Karachi Stock Exchange for the period of 2006-2011 that is six years observation. The regression model are used to see the relationship of price volatility and its impact on these variables such as dividend payout ratio(DPR), dividend yield(DY), size, net income(NI), debt equity(DE), Tobin's Q, return on equity(ROE), the result of this study which shows the positive or negatively significant impact on dependent variables that is price volatility. The empirical result shows in our study that dividend yield, size have a significant positive impact on price volatility. And dividend payout ratios, Tobin's Q, net income have a significantly negative impact on price volatility. The study shows that in Pakistan manufacturing firms gives dividend to its shareholders are few in nature. So that the reason of selling shares to general public is to gain capital. Some firms use debt services that are too costly, so a firm sells its share to general public to avoid debt services. However the firm's uses share as a capital, this capital is used for different sectors to reinvest and get more profit. The profit receive from the investment are dividend payout ratio. That dividend payout ratio are distributed its shareholders accordingly. Firms use certain amount of profit as a capital reserve to avoid uncertain risks.

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