



RESEARCH PAPER

Impact Of Dividend Policy On Stock Price Volatility: Evidence From Selected Companies Of Financial and Non-Financial Sector Of Pakistan

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ABSTRACT

The dividend policy is regarded as a key decision of a corporate since it may impact the perception of investors of a firm and the behavior of its share price in the market. The paper assesses the correlation between the dividend policy and stock price volatility using pay attention to selected financial and non-financial companies that are listed on the Pakistan Stock Exchange. It is analyzed using panel data, which is five-year based enabling the research to regulate both firm-specific and time variation in stock price movements. The dependent variable is the stock price volatility whereas the dividend policy is gauged by the dividend payout and dividend yield. Besides, control variables are also firm-specific, like the earnings per share, the size of the firm, leverage, and taxation, to enhance a more descriptive share price behavior. The data are analyzed by using panel regression techniques after carrying out pertinent diagnostic tests to determine the reliability of the analysis results. The results reveal that dividend policy is significantly related to stock price volatility, which signals that stock dividends are considered to affect the stability of share prices. Other control variables are also significant in their effects, indicating stock price runs by the effect of several firm specific factors as opposed to dividend policy alone. On the whole, the findings suggest that dividend policy is an important factor that should not be neglected by investors and corporate executives of Pakistani capital market. The research provides a contribution to the existing literature by presenting empirical evidence in an emerging market and giving information that can help companies in formulating dividend policies in order to minimize excessive price fluctuations.

KEYWORDS Pakistan, Dividend Policy, Stock Price, Volatility

Introduction

In the field of corporate finance, the matter of dividend policy has persistently posed as an enigmatic concern. Globally, scholars and financial analysts exhibit a pronounced inclination to engage with this enduring conundrum. Dividends, typically rendered as either cash or stock dividends, represent a form of remuneration disbursed to investors, signifying the financial standing of a given enterprise. Notably, a good payout ratio is a growth metric of business, financial health, and a promising future (Lintner, 1956). Consequently, the interplay between dividend policy and its repercussions on stock volatility holds paramount significance for an array of stakeholders, encompassing financial institutions, investors, and economists.

The presence of stock markets has engendered a substantive discourse regarding the extent to which stock prices accurately mirror the intrinsic worth of firms within the market. Predominantly, the typical investor exhibits a proclivity toward risk aversion, motivating their participation in the stock market with the ultimate objective of garnering profits. Consequently, profitability emerges as a seminal determinant capable of luring investors towards deploying their capital investments. In this context, investors tend to evince a preference for cash flows, thereby gravitating towards investments that promise dividends as a means to realize their financial objectives.

The formulation of dividend policy encompasses critical decisions regarding the allocation of earnings to stockholders, with considerations spanning the nature of dividend disbursement, whether in the form of cash, and the mechanisms governing the distribution process. Notably, the primary objective underpinning dividend payouts is to confer financial advantages upon shareholders, a practice which, it is imperative to underscore, does not inherently lead to a diminution in a firm's share values. In order to sustain their market worth, companies are compelled to adhere to a regimen of consistent dividend payments, a practice posited to maximize their market valuation (Batool and Javed, 2014). It is interesting to note, without transaction costs and taxes, Miller and Modigliani (1961) believe that dividend policy has no quantifiable impact on the valuation of the share of the firm.

In the Pakistani market context, firms predominantly opt to disburse dividends during periods of growth. However, various factors, encompassing prevailing market conditions and the attendant cost of capital, frequently render the execution of dividend payments infeasible. Furthermore, managers often evince a propensity to rely on internal financing mechanisms, in preference to external sources, thereby potentially influencing the distribution of shareholdings. Consequently, in pursuit of addressing their financial exigencies, managers tend to reinvest earnings back into their respective firms. As a result of these considerations, it is observed that merely 35% of Pakistani firms maintain a consistent regimen of dividend disbursements, as reported by Cheema et al. (2003).

Within the sphere of financial literature, a persistent absence of consensus prevails with respect to the issue of whether firms should indeed remit dividends to their shareholders. This ambiguity underscores the exigency for a more comprehensive exploration of dividend policy. Modigliani and Miller (1958) were the first researchers to suggest that in the idealized conditions in the absence of tax and bankruptcy charges, investors would show an insignificant vested interest in corporate dividend policy because they are able to purchase shares through borrowing. Thus, within this context, it follows that, absent such factors, dividend strategy is rendered irrelevant and exerts no discernible influence upon the valuation of a firm's shares.

Throughout the annals of financial literature, dividend policy has perpetually engendered a contentious discourse, triggering debates and deliberations amongst financial institutions, researchers, and practitioners alike. The main issue here is whether to distribute or save the earnings to shareholders in the form of dividends or to save it to fund other internal uses of the company. This decision-making process is further compounded by the need for managers to grapple with the delicate balance between disbursing dividends to shareholders and preserving a portion of profits for contingencies in an uncertain future. With such complexities and controversial arguments around the dividend policy, it is not surprising that managers often reduce dividend payments as a tactic move in order to improve internal financing sources and growth.

M & M hold that dividend policy is irrelevant, and that it does not affect a firm's share values and stock prices. But according to financial literature and many studies dividend has strong impact on stock price volatility. In such situations, companies remained puzzled to pay dividends or not regularly because they think that paying dividend may short their future investment and retain earnings, same as investors hesitant to invest in dividend paying companies. The discoveries have baffled both investors and companies that pay dividends.

Literature Reviews

The section provides both theoretical and empirical literature that would support the dividend policy and its impact on stock price volatility in the non-financial and financial markets of Pakistan.

Followings are the theoretical justification for dividend policy because it remains an argue able topic in financial literature and numerous studies have been developed by many researchers. In this regard following theories are as follows;

Dividend Irrelevance Theory

M&M (1961) proposed that under perfect market condition dividend is irrelevant and had no effect on value of firms. M&M Theory presents His own assumptions:

Perfect capital market: In the existence of perfect capital market investors are rational they have free access to information regarding investments and having no flotation and transaction cost and no large investors to influence the market value of the stock.

No taxes: In an efficient market, with no taxes and transaction costs, same tax system applies on both dividends and gains. All the agents have same information related to investment opportunities.

No risk of uncertainty: in this hypothetical scenario, it is posited that investors possess perfect foresight regarding future conditions, thereby obviating any elements of uncertainty. Furthermore, within this construct, considerations of bankruptcy costs are rendered obsolete, and the specter of conflicts of interest between shareholders and management is entirely eliminated.

Additionally, within the purview of this idealized framework, customers are characterized as price takers in the marketplace. This implies that customers operate within a market structure where they accept prevailing prices as given, without any capacity to influence or alter them.

After that financial researchers criticized M&M Theory. In real sense no perfect market exists Taxes and transaction costs is applied on shares So, under such imperfect market conditions dividends is relevant and having affects on the firms' value.

Bird in hand Theory

Gordon (1963) and Linter (1962) explains "A bird in hand (dividend) is worth more than too in the bush (capital gains)". It means that in the under the condition of asymmetric information investor's gives preference to dividends rather than capital gains which is expected to be earning future.

Agency Theory

Ross et al., (2008) explains that Agency theory is concerned with the clash between holders of share and administration of a firm. Agency theory of Jensen and Meckling (1976) states that disagreement arises between manager and shareholder and equity is controlled by owners which may influence dividend policy.

Signaling Theory

M&M (1961) believe that investors have perfect information on the performance of firms but this assumption has been challenged by various scholars and practitioners.

This theory was analyzed by many researchers stating that due to skewed communication between manger and investors, mangers use dividend as a signal for outsider to provide information regarding performance firms. (Al Malkawi, 2007).

Baskin& Miranti, (1997) states that in order to bridge this gap between manger and shareholder, manager should share information to the outsider so that they can understand the firm's financial performance. M&M (1961) proposed that prices of a share changes when markets become imperfect. i.e, dividend announcement may be taken as positive signal and

information for firm's performance. This concept has after become as "information content of dividends".

Tax Preference Theory

The M&M model proposed that no tax is imposed on dividend or capital gains but in a perfect market there is tax on dividends and capital gains and can significantly affect the firm's value.

This concept was given by Litzenberger and Krishna Ramaswamy. (1979) explains that Investors have different tax preferences. This theory states that dividends are highly taxed than capital gains, further it explains that there is directly taxed on dividend while tax is imposed on capital gains when stock is sold.

Based on the above theories dividend policy is irrelevant under hypothetical assumptions by M&M but so many have developed consensus on the importance of dividend policy like AL Makawi and Rosses etc. Dividend policy is a bird in the hand not in a bush also a signal to the investors in choosing particular firms.

Review of Empirical Evidences

This section highlights an empirical review of national and international researchers

International Evidence

According to Modigliani and Miller (1961), in the ideal market the dividends bear no impact on the share price value. Gordon and Walter (1963) explained the theory of the bird in hand meaning investors prefer liquidity to capital gains in an effort to moderate the risk.

According to Hussainey, Mgbame, and Chijoke-Mgbame (2011), a strong negative correlation existed between the ratio of dividend paid and the volatility of the stock price, and on the other hand, there was a strong negative correlation between dividend yield and volatility. An increase in payout ratio is associated with low stock price volatility.

Hashemijoo, Ardekani and Younesi (2012) found a significant correlation between the payout policy and fluctuation as negative, and also found a negative correlation between share price volatility and firm size.

Baskin (1989) supports the use of control variables such as dividend yield and price mercurialness, earnings performance, size of company, debt structure, payout behavior, and growth prospect in order to determine how dividend yield is related to price volatility; the mentioned control elements influence on stock returns and dividends.

Anil & Kapoor (2008) investigates the dividend policy using Information Technology sector of India for period of 2000 to 2006. They concluded that profitability, corporate tax and sales do not explain dividend payment in IT industry, But cash and Beta have significant impact on the payment of dividend within industry.

Hashemijoo, Ardekani, and Younesi (2012), indicate that dividend yield and firm level have stronger effect on the mercurialness in share price.

Mehta (2012) analyses dividend payout ratio comparing lucrateness, threat, growth, fluidity, size, and hold of companies which traded on Abu Dhabi Stock exchange within 2005-2009 (period 4 years). Associations were measured using multiple-regression techniques and it was found that profitability and the size of the firm have a significant impact in dividend distribution and is negatively correlated with stock price volatility.

Sanjari & Zarei (2014) identified the factors that influence the distribution behavior of 70 companies scheduled in Tehran stock exchange for the period of 2009 to 2013 from

financial and non-financial sector. Multiple regression was used for statistical analysis. He concludes that leverage, size and liquidity have significant positive impact on dividend payment while growth and profitability having negative impact.

Baker & Kapoor (2014) conducted survey of Managers firms paying dividend on regular basis listed on National Stock Exchange (NSE) India in order to get their point of views regarding factors affecting dividend yield and dividend payout. They found that earnings and the dividend past patterns influencing dividend policy.

Shawawreh (2014) examine the impact of payout decisions on the price swings of company listed in the Amman Stock Exchange between 2001 and 2013. The correlation studies the relationship between volatility of share prices and the variables of firm size, stock dividends, and share repurchases. Results show that there is a negative correlation between remittance and market price and weak positive correlation between distributional behavior and mercurialness. On the same note, Qudah and Yusuf (2015) examine the sample of listed firms in Jordan between 2001 and 2011 and record that payout-related decisions are likely to mitigate the market price instability. Its findings indicate that stock companies sharing earnings on a more regular basis will have comparatively reduced price volatility.

Similar conclusions are backed by the evidence of Sri Lanka. Dewasiri and Korallalage (2015) in their sample of Colombo Stock Exchange companies, 2003-2012, claim that payout behavior is negatively related to price variability. Their discussion also indicates that bigger companies are more likely to be volatile and no significant correlation exists between measures dependent on yields and price fluctuations.

Additional support comes with Ahmed, Alrjoub, and Alrabba (2018), who use correlation analysis and panel-based estimation methods in companies that are listed in Jordan. Their findings indicate that the intensity of payouts is linked to lower market price fluctuations. Similar results are also noted by Sugathadasa (2018) who notes that the payout indicators are associated with a negative correlation with price variability in the case of the Sri Lankan companies, whereas firm size, leverage, and growth prospects play a significant role in the market price dynamics..

National Evidence

According to Nishat and Irfan (2006), the payout practices observed in firms are associated with the volatile changes in the market share values. According to their results, the corporate payout decisions are co-implicated in price changes that are aware of timing-related reaction, information indications, and market adaptation in the Pakistani equity market.

Tahir and Mushtaq (2016) analyzed the factors of subsidy of oil and gas companies on Pakistan Stock Exchange between 2008 and 2014. It has revealed positive correlation with profitability and firm size and government ownership has negative relation with dividend payout. There are no significant relationships in stock prospects, reserves and managerial ownership.

Nazir, Abdullah & Nawaz (2012) investigated the relations and highlighted the negative connection between dividend and price volatility of a company's scheduled on Pakistan Stock Exchange. This investigation additionally highlights that dividend is a critical apparatus in order to find out the price of shares in developing business sector like Pakistan.

Javed, & Ullah (2014) explained that there is dividend yield, size of a firm shown a significant positive impact on price volatility. However, dividend payout ratio, net earnings have significant negative effect on volatility of share prices.

Haq, Akram, and Imdad-Ullah (2015) did not establish a association between remittance procedure and market price swings. Likewise, the scholars, Ullah, Saqib, and

Usman (2015) discussed the linkage between emolument and the market rate of Karachi Stock Exchange listed companies. Their models were good in terms of the determination coefficients as well as showed that dividend policy affects share price levels.

Khan, Jahan and Shah (2017) examined the association between excise and disbursement rule to non-financial companies listed at Pakistan Stock Exchange. The analysis was done on data of 284 firms that dealt with the period of 2006-14. Dependent variable: dividend to total asset; independent variables: fluidity, control, proportions, value, payment of the previous year and tax dummy. Findings reveal that taxation has no influence on the dividend policy and profitability, leverage and historical dividend have a sharp influence on the dividend payout in Pakistan.

According to the reviewed literature, dividend policy typically does not have an impact on stock price. However, many researchers find a negative correlation between dividend policy and market price swings with the adjustment of other variables that include firm size, leverage, earnings performance and growth. A negative correlation between yield and volatility was reported by Baskin (1989), but positive associations were reported by Hussainey et al. (2011).

This study distinguishes itself from previous research works in several significant ways. Firstly, previous studies have predominantly concentrated their investigations on a singular sector, either the financial or non-financial sector, typically involving a limited set of variables. In contrast, this study stands apart by conducting a comparative analysis encompassing both the financial and non-financial sectors within the context of Pakistan's stock exchange, the PSX. This comparative framework extends to the examination of various pertinent variables, including but not limited to dividend yield, earning volatility, firm size, earning per share, and taxation. Such a comprehensive approach lends a more holistic perspective to the assessment of dividend policy dynamics within these sectors.

Hypotheses

Drawing upon the insights from prior research within the relevant literature, this study has formulated hypotheses to guide its investigation.

H₀: There is no statistically significant relationship between dividend policy and stock price volatility.

H₁: Dividend policy has a statistically significant relationship with stock price volatility.

Material and Methods

Data Description

The current paper will consider companies operating in Pakistani capital market and listed at the Pakistani Stock Exchange. The sample will comprise 58 companies (financial and non-financial) that will be followed over a 5-year period (2011-2015). The firms were chosen based on the frequency of the cash payments to the shareholders and this has ensured that the practices of payouts are similar across the sample. The sources needed to generate data that were used in the analysis process included publicly available data such as annual reports of the company and official records of the Pakistan Stock Exchange. EViews 8 and Microsoft Excel were used in data management and analysis.

The study uses descriptive statistical methods in combination with panel data regression methods in order to examine the connection that exists between payout behavior and market value changes in firms. The Hausman specification test was run to estimate which model of estimation is suitable and it was the fixed effects model that will consider that there are firm specific characteristics that cannot change with time.

Model

This model used for this investigation is resembles is to that of Baskin (1989) and Rachim (1996). Stock Price Volatility (SPV) is the dependent variable in this model with the following independent variables, dividend yield, and dividend payout ratio (DPR). For this purpose, basic equation has been developed, which are as follows.

Fundamental condition has been produced, which are as per the following.

$$P_V = \alpha + \beta_1_{DY} + \beta_2_{DPR} + \varepsilon$$

DY and DPR have same effect on stock price volatility but others variables such as control variables can affect this relationship. In order to overcome this problem introduced another equation using control variables.

$$P_{V\ it} = \alpha + \beta_1_{DY\ it} + \beta_2_{DPR\ it} + \beta_3_{E_{VOL\ it}} + \beta_4_{Tax\ it} + \beta_5_{FZ\ it} + \beta_6_{EPS\ it} + \mu_{it}$$

Where,

PV= Volatility of Stock Price

DY = dividend yield

DPR= Dividend Payout Ratio

E.Vol= Earnings Volatility

Tax= Taxation

SZ= Firms size

EPS=Earnings per share

μ_{it} = Error Term

Variable's definition of the study:

Dependent Variable:

Price Volatility (PV):

Price volatility variable is dependent concerned with the measurement of fluctuating prices of a stock it means it calculates risk of the stock traded in financial markets. It is related to change in the prices of stocks.

According to Parkinson (1980) SPV can be calculated as, "Annual highest price (HP) of a stock minus the lowest price of a stock i.e divided by average of highest and lowest share prices and then taking the square of it"

$$PV = \{(HP - LP) / (HP + LP / 2)\}^2$$

Where

PV = Price Volatility,

HP = Highest Stock Price

LP = Lowest Stock Price

Many practioners used this technique to find out SPV like Hussainey Nazir et al, Rashid and Anisur Rahman.

Independent Variables :(IV)

Dividend Yield

Dividend yield measures the market as denominator. According to Baskin (1989), the definition of dividend yield is the ratio of annual income per share to the price of the shares of the market that is calculated as dividends per share/market price per share.

$$DY = DPS / MPS$$

Where;

DY = Dividend yield

DPS = Divided per share

MPS = Market price per share

DPR

Basically, a DPR (Dividend Payout Ratio) is the ratio of yearly issued net income paid to shareholders as dividends; it is indicated as cash dividend per share divided by after tax earnings per share.

$$DP = DPS / EPS$$

Firms Size

The main concerned of size of a firm is fluctuations of stock's price because big size firms are always exposed to risks while small ones less exposed to risk due to not familiar in financial markets and their shares are less volatile as compared to large firms. So, price of a shares become more volatile. This relation is calculated by taking natural logarithm (LN) of total assets.

$$FS = LN (Total Assets)$$

EV

It alludes to the changing in income of the specific organizations with the adjustment in time. Higher earnings are responsible for high dividends payment while low income means the payment of low dividends to investors (Ramadan, 2013).

Earnings volatility (EV) can be measured as the standard deviation of the ratio of earnings before interest and taxes (EBIT) to aggregate assets during the fiscal year.

Earnings per Share (EPS)

EPS may be calculated by dividing the amount of earnings of a financial year by the amount of the number of shares outstanding at the start of the year.

Unit of Analysis

The sample unit is that of the chosen dividend paying firms of both financial and non-financial sectors of Pakistan Stock Exchange within the period of five years between 2011 and 2015.

Results and Discussion

This chapter primarily focuses on presenting and interpreting the results derived from the Fixed Effect regression model. It commences with an interpretation of descriptive

statistics, providing essential context for the subsequent regression analysis. Additionally, this chapter offers a comprehensive exposition of the empirical outcomes obtained from the dataset.

Table 1
Descriptive Statistics for Financial Sector

Variables	OBs.	Mean	SD	Min.	Max.
DPR	125	6.155	3.53	0	19.126
DY	125	1.015	.617	0	3.03
E.Vol	125	5.42	1.05	-3.92	4.46
Tax	125	43.35	31.6	1	99
Fs	125	19.36	3.9	.603	25.23
Eps	125	33.5	161.74	.01	1711
SPV	125	.098	.074	0	.396

The Descriptive statistics shows that how data is normally distributed. The data set consists of 125 observations of 25 firms selected from financial sector of Pakistan for the period of 2011-15. The value of stock price volatility is 0.074 which is mean. In applying Parkinson (1980) method used to compute SD of prices of stock by the multiplication of the value of (0.074) with constant value 0.6008. The result is (0.0444592 or 44%) which is 44 percent. The value of SPV as a dependent variable is having maximum value of 0.396 and value is 0 expressing a range 0.396 with standard deviation of 0.074 Or 74%. This shows that there are stock price fluctuations during these years.

Hausmann (1978) specification test

Hausmann test indicates a choice among fixed effects and random effects modal.

Following is the result of Hausmann's Test

Table 2
Hausmann Test

	Co.ef
Chi-square	.216
P-value	0.0086

The above Table 2 gives Hausmann Test results which bifurcate fixed effect and random effect modal. P. Value of test is 0.0086 which is approximately equal to 0.05. It shows that the model is good fit which is fixed effect.

The null hypothesis of the Hausman Test is as follows.

H₀: A fixed-effect model is the suitable model.

H₁: A random-effect model is the suitable model.

Table 3
Regression analysis financial fixed effect

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.162405	0.180770	0.898404	0.3715
DPR	0.000694	0.000482	1.440295	0.1535
DY	-0.030877	0.015884	-1.943898	0.0552
EPS	0.000113	9.94E-05	1.133757	0.2601
EVOL	3.13E-10	2.61E-10	1.198895	0.2339
FS	-0.002853	0.008998	-0.317058	0.7520
TAX	-8.67E-12	4.17E-12	-2.081830	0.0404
R ²	0.568214	Prob.(F-statistic)		0.000001
Adjusted R ²	0.415819	Number of Obs.		125
Durbin-Watson stat	2.940880			

The above table 3 shows that the Independent variables (DY and tax) has significant positive impact on dependent variable Volatility of Stock Price, while others like Dividend

payout ratio, Earning volatility, Firms size and earnings per share have insignificant impact on dependent variable so we are rejecting null hypothesis.

R-square shows the model is good fitted, its value is 0.568214 which means that 56.82% Change in DV is explained by the independent variable.

F-Statistics shows the significance of the model its p-value is less than 0.05 which is 0.000001, suggesting that the model is good and significant.

Durban Watson shows an autocorrelation its value ranges from 0 to 4. Its value is 2.940880 which mean there is no autocorrelation problem (Fisseha 2010).

Table 4
Descriptive Statistics nonfinancial Sector

Var.	OB.	Mean	SD.	Min.	Max.
DPR.	165	3.012	14.319	-157.895	51.724
DY	165	0.66	.75	0	4.386
FS	165	17.656	3.655	12.974	25.322
E.VOL	165	7.391	31.847	0	209.833
TAX	165	66.946	41.287	1	137
EPS	165	79.309	45.62	1	159
SPV	165	0.175	.149	.012	1.043

The Descriptive statistics shows that how data is normally distributed. The data set consists of 165 observations of 33 firms chosen from non financial sector of Pakistan from 2011-2015. The mean of SPV is 0.175. Parkinson (1980) method used to measure SD of stock prices by multiplication of value of (0.175) with constant value 0.6008. The result is (0.10514 or 10.514) which is 10 percent. The value of Baskin (1989) his results from US was 36.9%, from Australian economy Allen and Rachim (1996) results 29.42% and Hussainey et.al. (2011) UK results 17.66%. The value of SPV as a dependent variable is having highest value of 1.043 and smallest value is 0.012 expressing a range 1.031 with standard deviation of 0.149 or 15%. This shows that there is a nominal stock price fluctuation during these years as compared to financial sectors of Pakistan.

Table 5
Regression results non financial fixed effect

Wpvp	Coefficient.	Std.Er.	T.Val.	P.Val.	Signif.
DPR	0.022	0.004	1.91	0.054	*
DY	-0.032	0.032	-1.84	0.052	*
E.VOL	-0.035	0.143	-0.46	0.677	
TAX	0.000	0.000	-2.04	0.033	**
EPS	0.000	0.000	-0.06	0.962	
FS	0.005	0.032	0.27	0.872	
C	0.048	0.321	0.19	0.928	
R ²	0.52489		SD		1.112
F.Test	1.584		Prob. > F		0.00068
Durbin watson	1.82657				

The above table 5 underlines that the Independent variables (DPR, DY and Tax) have substantial effect on dependent variable SPV, while others like E.VOL, earning per share and firms size has insignificant relationship rejecting null hypothesis.

R-square shows that the model is good fitted modal; its value comprises of 0.52489 which means that 52.48% change in variable which is dependent is explained by the variable which is independent variable.

F-Statistics shows the model's significance, its P-value is lower than 0.05 which is 0.0068, that indicate the model is significant and good fitted.

Durban Watson shows an autocorrelation its value ranges from 0 to 4. Its value is 1.82657 which means there is no autocorrelation problem (Fisseha 2010).

Table 6
Descriptive Statistics (Financial and non financial sector)

Var.	OBs.	Mean	SD.	Min.	Max.
DPR	290	4.36	11.158	-157.895	51.72
DY	290	.813	.717	0	4.386
E.Vol	290	2.34	7.40	-3.92	4.46
FS	290	8.72	9.639	0	25.23
SPV	290	.142	.128	0	1.043
EPS	290	131.224	74.794	1	261
TAX	290	108.653	72.461	1	235

The Descriptive statistics shows that how data is normally distributed. The data set consists of 290 observations of 57 firms selected from financial and non financial of Pakistan for the phase of 2011-15. The stock price volatility mean value is 0.128. By applying Parkinson (1980) method used to compute SD of stock prices by the multiplication of the value of (0.128) with constant value 0.6008. The result is 0.0769024 which is 07 percent. The value of SPV as a dependent variable is having highest value of 1.043 and smallest value is 0 expressing a range 1.043 with standard deviation of 0.128 or 12%. This shows that there is a nominal stock price fluctuation during these years.

Table 7
Regression results: fixed effect (Financial and non financial sector)

PV	Co.f.	Std.Er.	T.Val.	P.Val.	Signif.
DPR	0.006	0.003	1.75	0.082	*
DY	-0.033	0.020	-1.69	0.093	*
E.VOL	0.000	0.000	-0.73	0.468	
TAX	0.000	0.000	-1.84	0.067	*
EPS	0.000	0.000	-0.81	0.416	
_cons	0.160	0.023	6.86	0.000	***
R ²	0.5268		SD		0.082
F.Test	23.385		Prob > F		0.000

The above table 7 highlights that the Independent variables (DPR, DY and TAX) have prominent influence on dependent variable SPV while others like E. VOL, EPS and firms size has insignificant relationship rejecting null hypothesis.

The value of R² measures the goodness of fit of the model observed value of .5268 shows the independent variable explains about 52.5268 percent of the variance on the dependent variable.

F-Statistics shows the p-value is less than 0.05 which is 0.000 indicating the suitability of the model.

Discussion

This study examined the impact of dividend policy on stock price volatility: Evidence from financial and non financial sector of Pakistan. Data were collected for five years from 2011-2015 of selected regularly dividend paying firms.

Fixed effect and random effect modal are used on panel data estimation after Hausmann's test.

Many studies, such as like Nishat and Irfan(2006) have focused on these relations and highlighted the substantial correlation between these two variables. Baskin (1989) showed that dividend have negative impact on stock prices. But according to M&M (1961) showed that dividend is irrelevant and having no effect on share value of a firms.

Results of financial sector showed that the Independent variables (Dividend Yield and Tax) has significant positive impact on SPV while others like Dividend payout ratio, Earning volatility, firms size, and earnings per share have insignificant impact on dependent variable.

Results of non financial sector showed that the Independent variables (DPR, DY and Tax) have positive and substantial impact on dependent variable SPV while others like E.VOL, EPS and firms size has insignificant relationship rejecting null hypothesis.

It is showed that DY has positive effect on SPV especially in Pakistan.

Conclusion

This study investigated the impact of distributional payout on market price fluctuation by collecting data from both the financial and non-financial sectors of Pakistan. The dataset consisted of a total of 58 dividend-paying companies, comprising 25 from the financial sector and 33 from the non-financial sector, all of which are listed on the Pakistan Stock Exchange and spanning the period from 2011 to 2015. Panel data analysis is employed for the estimation, utilizing both Fixed Effect and Random Effect models. To discern the appropriateness of these models, Hausmann's test was applied, ultimately affirming the suitability of the Fixed Effect model over the Random Effect model.

Results of financial sector showed that the Independent variables (DY and tax) has positive and substantial impact on dependent variable VPS, while others like Dividend payout ratio, Earning volatility, Firms size, and EPS have insignificant effect on dependent variable so we are rejecting null hypothesis.

R-square shows the model is good fitted and F- statistics showed that the there is significant relationship between these relations.

Durban Watson shows an autocorrelation its value ranges from 0 to 4. Its value is 2.940880 which mean there is no autocorrelation problem.

Results of non financial sector indentified that the Independent variables (DPR, DY and Tax) has significant impact on dependent variable Stock Price Volatility while others like Earning volatility, earning per share and firms size has insignificant relationship rejecting null hypothesis.

R-square shows that the model is good fitted modal; its value comprises of 0.52489 which means that 52.48% change in variable which is dependent is explained by the variable which is independent variable.

F-Statistics shows the model's significance, its P-value is smaller than 0.05 which is 0.0068 means that model is significant and good fitted.

Durban Watson shows an autocorrelation its value ranges from 0 to 4. Its value is 1.82657 which means there is no autocorrelation problem.

Recommendations

In the light of study and empirical findings, the followings are the recommendations for financial analysts, Mangers and financial institutions while paying dividends,

- Government should reduce corporate tax because an increase in tax rate decreases in total income and earnings results in decreases in dividend payment and increases earnings volatility.
- Firms should have a stable dividend policy so that local and international investors may attract.

- Businesses are depended upon divided policy, as the results showed that large firm's size businesses paid huge amount of dividend indicating their business growth. So, for business growth dividend should be paid in order to attract investors.
- For a manager, increases in corporate tax should be discouraged, i.e no double taxation should be imposed on firms.
- Managers should focus on dividend rather than retained earnings of the stock
- Financial Institutions should prefer dividend policy and distribute to its shareholders. Managers should emphasize increased in the financial health of firms through regular payment of dividend.

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