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Impact Of Dividend Yield On Stock Price Volatility Moderated By Ownership Structure

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Abstract

The purpose of this research is to identify the impact of dividend yield on stock price volatility moderating by ownership structure in the context of Pakistani stock exchange market. Researcher selected 40 listed non- financial companies of Pakistan stock exchange. Researcher selected secondary data for the research and applied panel data series to analyze the data. Further secondary data were analyzed through statistical package for social sciences (SPSS updated version). Conclusively, this study concluded positive impact of dividend yield on stock price volatility with p=0.021. Apparently, this research also concluded positive and significant moderating impact of ownership structure with dividend yield on stock price volatility in the context of Pakistan Stock Exchange. This research concluded that stock price volatility is strong predicator for financial decision making.

Keywords: Dividend yield, Price stock volatility, Moderating Ownership Structure and listed Non-Financial organization on Pakistan Stock Exchange.

1. Background

Conventionally it has been observed that firms have ability to influence their share prices by manipulating the dividend policy (Asquith, Paul, & Mullins, 1983). The most supporting view is that organizations have capability to increase share prices with the help of increasing payout ratio (Kishore, 2004). Similarly, the dividend decisions have remained much debated among various stakeholders e.g., the shareholders, management and academicians (Sajid, Razzaq, Iqbal, and Khan, 2012). According to Li and Lie (2006) the dividend decisions are changed on the basis of investors' demand for dividend.

It seems that the investors give priority to cash dividends rather than capital gains by assuming a bird in hand is more valuable than one in the bush (Baker and Jabbouri, 2017). Baskin (1989) suggests dividends not only play the role of information circulation but dividends also gave indication of market trust to the firms' outlook. Miller and Rock (1985) further add that dividend payout possesses information content that it delivers positive indications to investors regarding the organizations' future performance of earnings.

According to the dividend signaling theory dividends fulfil two purposes. First it proposes that to what level the financial managers adopt dividends to influence the stock prices whether they impact them positively or negatively. Second it observes that to what level the investors perceive the dividend payout as part of their return, on their invested amount in the market (Eldomiaty, Atia, & Hafez, 2014). In addition, Harada and Nguyen (2005) added that investors expect increment in dividends. As these firms have trend for regularly issuing dividends due to continues increment in the profits of firms and favorable financial ratios.

2. Literature Review

2.1Dividend Yield (DY)

This variable is determined with the aid of dividing the entire coins dividends given by the companies to their stockholders each percentage through the common annual stock market cost. Al- Nawaiseh, (2013) shows that while stock price fluctuation is significantly, negatively related to dividend payout ratio, dividend yield is weakly, positively related to the changes in stock price. In Pakistan, Nazir, Nawaz, Anwar, and Ahmed (2010) argue that the stock price volatility is significantly impacted by dividend policy. Of which, dividend yield is positively related to stock price fluctuation, whereas payout ratio is negatively linked to share price movement (Marito and Sjarif, 2020).

Shah and Noreen (2016) also study the Pakistan market and find that both dividend payout ratio and dividend yield are significantly, negatively associated with stock price volatility. Apparently, Nazir et al. (2010) and Shah and Noreen (2016) affirm the influences of dividend policy on stock price movements in Pakistan and confirm that the arbitrage realization effect, duration effect and information effect are reinforced by their empirical evidence from this market.

2.2 Stock Pricing Volatility (PV)

As a dependent variable, we utilize price Volatility, that's often decided by means of estimating the most and lowest values or by computing the square of the usual deviation of the inventory prices. In our research, we compute each year PV via taking the annual range the difference among the lowest and highest stock rate—dividing it via the averages of the two fees, after which taking the rectangular (2d power) of that result. Shah and Noreen (2016) discovered that there was significant association between dividend yield and stock price volatility in their study. Similar results are inferred by Hussainey, et al. (2011) who also found relation between dividend yield and stock price volatility. They studied UK firms from 1998 to 2007. In addition, Profilet and Bacon (2013) observed same results

between dividend yield and stock price volatility by studying 599 US firms listed on the Standards & Poor's 500. Hashemijoo, Ardekani, and Younesi (2012) revealed that dividend yield and stock price volatility were positively correlated by studying 84 consumer products firms listed on Bursa Malaysia. A recent study by Sew, Albaity, and Ibrahimy (2015) and Zainudin, Mahdzan, and Yet (2017) also found the study supportive results.

2.3Ownership Structure (OS)

Many researchers have contributed to the existing pool for the ownership structure and policy of dividends. They found different results and told us that it is better criteria on which we see the share of dividends and ownership structure to work for the better future of organizations on the foundation of stock exchange markets. It is said that when shareholders kill them for the share, the base is considered the level of difference and ownership of assets on the basis of which they claim their share. In addition to this, it is decided that many of economists and researchers have worked for the planning and policymaking to get the outcome of shareholders, who claim that the relationship of companies is either on the basis of stock exchange companies or the base is ownership structure (Szilagyi 2006).

It is also decided that the number of shares is considered in the registration of stock exchange companies; if the number of shares is higher, the number of companies will be higher, and if the number of shares is lower, the number of companies will be lower (Raimo et al., 2020). This is decided in different economies of the world: Germany, Finland, Italy, the United Kingdom, and the United States. DC economies have the best ownership structure on the basis of the number of companies; if the number of companies is higher, the output is higher, and if the number of companies is lower, the output is lower. This is an example of the ownership structure and the structure of capital on which we have to decide for the

companies (Trojanowski, 2007; Alkurdi and Mardini, 2020).

2.4The Relationship between Dividend Yield and Stock Price Volatility

It is clearly expected that the size of the firm and the value of leverage have a positive relationship because if the size of the firm increases, the rate of return increases, and if the size of the firm decreases, we have no more return. Here it is clearly suggested that this size of function should be a focus for policy making. In setting policy parameters, we should have a clear idea of the size of companies (Overfelt 2008). According to the theory of agency, when we have a large number of firms in terms of size, it means they will need more finance, which is not properly manageable. That's why the owners should take more debts from others.

In certain conditions, when we have small organizations, they should have proper management of finance because they have a smaller budget, which is needed in a lesser form (Fama and French 2002). From an asset point of view, we have more privilege and authority over the assets for liquidity. Here we can say that if we have more liquid assets, it means they have more liquidity and convertibility, which is more power to the firm. On the other hand, unconvertible assets have less flexibility for conversion, which is not considered good for the organizations. It is clearly suggested that the firms should have more in the sets for better policy making (Chin and Roger 2005).

In other words, there is a positive relationship between the structure of a set and the structure of capital (Almanaseer, 2019). It means that when we have more capital, the number of assets will be greater, and when we have less capital, our assets will be smaller. In this way, we can say that the level of capital is determined by the level of a set. On the basis of that, if it is flexible capital, it means it is more convertible; if it is rigid capital, it means it is not convertible. In this sense, the

level of assets is also determined by the level of capital (Baker, De Ridder and Rasbrant, 2020).

The structure of capital and the structure of ownership are based on both factors, which are considered internally and externally. It is clearly suggested that if the number of sectors is internal, then we will focus on the time management number for study and total time given by the manager in an organization. If these factors are working in a strong way, then the results will also be fruitful, and if the factors are working in the opposite direction, then the results will not be fruitful. It is also very clear that these internal factors also depend on the timing and working community services.

2.5Dividend Yield on Stock Price Volatility Moderating by Ownership Structure

The relationship between policy of dividend and structure of ownership is determined here on the basis of comparative analysis for the different stock exchange markets specifically for corporate finance. Very core analysis is done for market in distinct context for policy making and strategy formulation. This research is determined on the basis of cross- sectional time series data set for the period of 2011 to 2020. The ownership of directorship and ownership of institution is kept as base for this analysis. It is also concluded that ownership structure positively and significantly associated with dividend yield and stock price volatility. Furthermore, ownership structure plays a vital role for attraction to investors (Demsetz and Villalonga, 2001; Bustani, 2020).The policy in terms of dividend for the organizations in a simple sense is a decision that is taken to impact the ownership structure of the capital. The level of dividend is utilized to change the problems of agencies in the company on the level of cost. It is further declared that the decision-making of the corporations on the basis of the structure of ownership is clearly a decision for the level of assets and level of liabilities in the context of the resources, not financially, but as a base for the organization (Easterbrook 1984).

H1: There is significant and positive relationship between Dividend Yield (DY) and Stock Price Volatility (SPV).

H2: There is significant and positive moderating relationship of Ownership Structure (OS) between Dividend Yield (DY) and Stock Price Volatility (SPV).

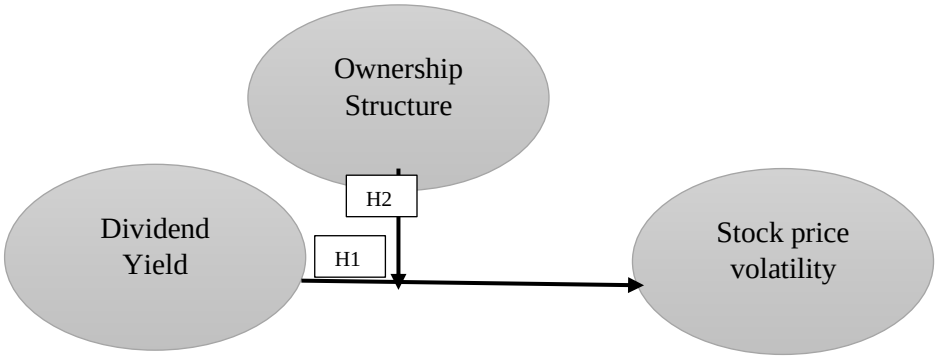

Figure 1: Conceptual Model

3. Research Methodology

3.1 Research Design

The quantitative method was adopted for the selection and collection of required data. Theoretical support was taken from the renowned published work.

3.2 Population of the Study

384 non-financial firms from 14 non-financial Sector/industries are the population of this research work which were registered on the PSX (Pakistan Stock Exchange) indicated by SBP (State Bank of Pakistan, 2011-2020). The nature of non-financial firms is different because most of the non-financial firms offer products, their Assets vary from financial firms and capital structure (Ukaegbu andOino, 2014) from financial firms and also in its financial reporting(Khan, Jehan, & Shah, 2017).

3.3 Target Population

For this study the six non-financial sectors had been selected due to their highest contribution in GDP (Gross

Domestic Product) and there were highest number firms in each sector. These six non-financial sectors have 280 listed firms (PSX, 2017).

3.4 Sample Size and Sampling technique

The sample selected for the study was 40 firms. The sample was selected after screening out the firms and those firms had not been accepted for the sample which had not offered cash dividends more than two consecutive years by random sampling. As Khadija et al. (2017) had also screened out firms and avoided those firms whose values were missing in their study "Impact of dividend policy on shareholders' wealth".

3.5 Data Collection

Secondary data was used to conduct this research work. For recent years the annual reports were obtained from companies' websites and years back annual reports had been extracted from the State Banks' financial analysis report 2010-15 and 2015-20 because some of the company's annual reports were not available on their websites so for required data of study the State Bank of Pakistan Financial Analysis report were considered more authentic. The share price data had been extracted from Business Recorder website.

3.6 Data Analysis

State Bank of Pakistan and companies' websites were used to collect required data. Total 40 firms were selected for study analysis for the period of ten years from 2011 to 2020. There was total 400 observations (40 firms for 10 years) in the study because there were two independent variables, one dependent variable and one moderating variable along with forty firms and data analysis period was for ten years. As the nature of study was quantitative so statistical analysis techniques were used. To analyze the data IBM SPSS statistics software had been used as Ponsian, Prosper, Yuda, and Samwel (2015) also had used SPSS in their work. Pooled ordinary least square (OLS) regression analysis was

used in this study as Zakaria et al. (2012) also used in their study. Panel data had been used in this work due to the nature of study because when data was based on different units and for specific time period (Nazir, Abdullah, & Nawaz, 2012).

4. Analysis and Results

4.1 Descriptive Statistic

The following statics are indicating the descriptive statistic of this research. The table contain details about the firms' stock price volatility, dividend yield, ownership structure and Earning Volatility. The details include average values of the variables. The average values describe the deviation of variable to point mean position that how much they are deviated either positively or negatively. Smallest and extreme value of the factors have also been mentioned in the table. Each variables' standard deviation was incorporated in the table. So standard deviation helps to tell the deviation in data. Higher standard deviation would tell that particular variable's data is scattered. In table-1 shows descriptive statistics of dividend yield, ownership structure and stock price volatility. In this research ownership structure consist on higher standard deviation with SD=1.37520 along with mean (2.3688). Dividend yield shows SD=1.04943 with mean (2.8968) and stock price volatility with SD=.47932 with mean (3.2381).

Table: 1 Descriptive Statistics

Constructs	N	Mean	Std. Deviation
Dividend Yield	400	2.8968	1.04943
Ownership Structure	400	2.3688	1.37520
Stock Price Volatility	400	3.2381	.47932

4.2Correlation

Correlation statistics help to check out the multicollinearity. Multicollinearity would describe

whether there is a strong association among explanatory variables. If correlation between the variables exists greater than 0.75 then it is very difficult to differentiate the influence of individual associated variables. It results that there will be same phenomena among variables. For checking multicollinearity, correlation matrix was used in this study, results are in Table-2 for equation 1. Results from the above table show that DY is correlated SPV is positively correlated with DY. In this research results concluded that there is no any issue of multi collinearity and data is distributed normally.

Equation of the research:

$SPV=\alpha+\beta_1 DY+\beta_2 EV+\beta_3 OS+\beta_4 DY*OS+\beta_5 EV*OS+\varepsilon$

Table: 2 Correlation

		DY	OS	SPV
DY	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	400		
OS	Pearson Correlation	.108*	1	
	Sig. (2-tailed)	.031		
	N	400	400	
SPV	Pearson Correlation	.097*	.009	1
	Sig. (2-tailed)	.051	.855	
	N	400	400	400

4.3 Hypothesis Testing

As data is balanced panel data, we use Pooled regression by keeping "Ordinary least square regression" to investigate explanatory variables of stock price volatility. SPSS V 16.0 software was put in forth to analyze the results of OSL. Before conducting test, we measured the correlation between variables of the following Linear Regression Assumptions. In this research results concluded that there is a positive and significant influence of dividend yield on stock price volatility. According to Hair et al., (2019) significance should be less than p=0.05 Result of first hypothesis through SPSS software concluded that DY has significant influence on SPV with p=0.03 and t=4.502

which shows a significant and positive influence.

Moreover r^2=0.669 of this model which indicates a good fit for the research though threshold of r^2 should be equal or more than r^2=0.20. Furthermore, ownership structure positively and significantly moderate the impact of dividend yield on stock price volatility. In addition, results of second hypothesis of this research also indicates a positive and significant influence. Where moderating effect of ownership structure has p=0.032 which is lower than accepted threshold although t value also indicate positive influence with t=3.087. The R-squared values tell variation of dependent variables that how much is described by variation in independent variables. In this case (step-01) the value of R-squared is 0.669 (66.9%) and in step-2 where moderating effects variable were tested was 0.578 (57.8%) The rest value from 100 (percentage) consider as the explained by error terms.

In this case when there are multiple variables to explain response variable we must consider the adjusted R-squared which is adjust for the number of explanatory variables and sample size. Adjusted R-squared is never greater than R-squared, so in our case it is 0.667, explaining 66.7% of the variation in SPV (stock price volatility).

Table:3 Hypotheses Testing

Model	Unstandardized Coefficients		Standardized Coefficients	T	R2	Sig.
	B	Std. Error	Beta			
1 (Constant)	255.16	56.672		4.502		0.03
DY ➔ SPV	0.012	0.922	0.166	5.55	0.669	0.021
DV ➔ OS ➔ SPV	25.02	0.891	0.817	3.087	0.576	0.032

Stock Price Volatility

5. Discussion and conclusions

5.1 Dividend yield

One-unit change in DY can cause the change by 18.8% in SPV (stock price volatility) considering other variable effects constant. Positive sign of the coefficient shows the direct relationship. But it is statistically substantial in its parameter for the acceptance of hypotheses. Zakaria et al. (2012) also found such relation in their study and claiming DY as a good indicator to predict the stock price volatility. Nazir et al. (2012) also observed that relationship existed between dividend yield and stock prices. Jiang et al. (2016) also examined the relation between dividend yield and share price so they also detected positive relation between variables. Shah and Noreen (2016) discovered that there was significant association between dividend yield and stock price volatility in their study. Similar results are inferred by Hussainey, et al. (2011) who also found relation between dividend yield and stock price volatility.

5.2 Ownership Structure

A change by one unit in OS will cause an effect of 81.7% increase in stock price volatility. The beta's positive sign and statistically significance shows it has significant relationship with stock price volatility. Statistically it is highly significant and accepting hypothesis. Mokaya et al. (2013) studied the relation dividend and shareholder's wealth (stock price volatility). They found positive relation between variables; it meant when the dividends increased it would also lead in the increment of firm's stock price. The dividend policy variables like dividend yield, ownership structure and earning volatility had significant association with wealth maximization of shareholders (Ozuomba et al., 2016). Swarnalatha and Babu (2017) surveyed fifty-one companies listed on Pakistan stock exchange and concluded that the association among variables were positive.

5.3 Conclusions

This study covered for a period of ten years (2011 to 2020). The sample selected for the study was 40 firms.

The sample was selected after screening out the firms and those firms had not been accepted for the sample which had not offered cash dividends more than two consecutive years by random sampling. As Khadija et al. (2017) had also screened out firms and avoided those firms whose values were missing in their study "Impact of dividend policy on shareholders' wealth". Secondary data was used to conduct this research work. For recent years the annual reports were obtained from companies' websites and years back annual reports had been extracted from the State Banks' financial analysis report because some of the company's annual reports were not available on their websites so for required data of study the State Bank of Pakistan Financial Analysis report were considered more authentic. This research concluded a positive and significant influence of dividend yield on stock price volatility additionally it also concluded there is a positive and significant moderating impact of ownership on dividend yield on stock price volatility. Another study estimated that there is no specific pattern for the workings of industrial development. If it can be counted in a better way, there is a specific pattern for the betterment of companies, either in a specific case or a general case, but it is very important to revise that if we have limited resources, we cannot control the values of stock exchange companies (Motaghimini, 2008). Stock price volatility and quality of cost have a strong influence on the decision-making of taxation and finance for healthy and desirable firms towards better strategies in context to the size of firms, capital of firms, and decision-makers of the companies (Bayat 2015). In other words, we can say that there is a comparison of cost and choice in the decision-making of firms; the firms should have a choice of profit rather than cost and disadvantages.

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