The Impact of Dividend Policy on Stock Price Volatility in Pakistan

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Abstract *The objective of this study is to inspect dividend policy influence on volatility of share prices. For investigation seven Non-financial segment/sectors have been selected. A sample of 137 firms who paid four dividend payments listed at PSX is analysed for the period of 2007-2017.Proxy for policy of dividend are earning per share, Payout ratio, dividend yield, while assets growth and firm size are taken as control variables. OLS regression model has been initially applied on panel data. The outcomes of fixed effect model are focused. Overall outcomes of the study confirmed that prices of stock is significantly influenced by policy of dividend and reject dividend irrelevance theory.*

Key Words: Dividend Policy, Stock Price, Volatility, Pakistan

Introduction

In finance dividend is most vital researched issue because of its puzzle. Policy of dividend refers to challenges faced by financial manager of a company. Dividend is that part of earning which is disseminated within shareholders (owners). Dividends can be paid in cash or as additional stock (Brennan & Thakor, 1990). Dvidend policy is associated with the distribution of net income within "earnings retained and dividend" (Ronald, John, & Sarig, 2000). More investors are attracted towards firms with higher dividend payment. Primary purpose of policy of dividend is to increase wealth of shareholder by increasing their buying power (Arnold, 2008). Amount of dividend to be paid is set by Board of directors and approved by owners/shareholders (Alayemi, 2013). The first firm to issue shares and announce dividend in 1661 was East India Company (Davis, 1917).

Stock price is worth of a single share of a sum of sellable shares of a firm. The performance of company is reflected by its share prices. If the firm share price is continuously increasing its means that management is working for the growth of firm. Based on share prices a company may be rated either high or low. Price volatility refers to variation in the shares prices over a given time period (Kinder, 2002).

Dividend policy and Stock Prices

Policy of dividend serves as financial strategy while making decision of investment. Based on it a firm will decide to finance its investment project from internal or external sources. Payment of dividend helps in reduction of risk and improvements of share prices (Gorden, 1963).Furthermore, policy of dividend and prices of shares has also influenced by some other factors. Baskin (1989) suggested to use control variable when analysing the linkage among share prices and dividend policy.

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Non-financial sectors

As this research paper is based on analysis of Non-financial sector. State Bank of Pakistan grouped all Non-financial firms into 14 economic groups/sectors so seven sectors are selected for this paper including Chemical, Fuel Energy, Fertilizers, Automotive, Textile, Cement and Sugar (SBP, 2017).

In 1956 Lintner iniated work on policy of dividend. His work boosted up discussion relating to dividend policy. After all dividend payment is started and procedures for policy of dividend were developed. He explained that firm increase dividend only if they are able to maintain in the future. Firm operating in a particular industry follows a particular dividend policy and it is economic indicator of company demand for shares depends on it (Masum, 2014). Business have two choices after making profit either to distribute among shareholders or to retain for some future expansion of firm. As for as shareholders concern they are in favor of dividend because of less risk (Gordon, 1959).On the other hand, Miller & Modigliani (1961) explained that dividend is irrelevant rather investment decisions determine firms value.

Earlier studies are classified into three groups. First one seems dividend as attractive having positive influence on stock price (Evanson & Soter, 1996). Second believes that share price has inversely associated with payment of dividend (Litzenberger & Ramaswamy, 1979). However, the third group believes that dividend policy is irrelevant in stock price valuation (Miller & Modigliani, 1961).

Dividend Policy in Pakistan

PSX formerly known as Karachi Stock Exchange has a lot of potential among the markets of developing countries. Nishat (1999) analysed KSE and concluded that because of being risky market so demand for reward/return is also high. During 1990s, reforms specific to policy of dividend ware introduced. Which were sealing tax on cash dividend, tax immunity on bonus and right share (Saif Ullah, 2009).

In Pakistan different researchers find mixed results. Nishat and Irfan (2004) identified positive association of policy of dividend with share prices. Nazir and Nawaz (2012) found negative association of dividend policy with share prices. Furthermore, Nadeem Nazir (2014) reported positive influence of earning per share and share prices while negative influence of payout ratio on stock prices. Similarly, Ilyas Sharif and Farzand Ali (2015) concluded positive effect on share prices by dividend. In addition, Shah and Noreen (2016) reported inverse relation of dividend policy with share prices. Moreover, Noor Ahmmad Memon (2017) found positive connection of policy of dividend on share prices. Furthermore, Waheed (2018) explained negative relationship amongst policy of dividend and share prices. Moreover, Iftikhar and Ahmad (2019) reported a significant affact of dividend on prices of shares. In contrast, Abrar et al. (2015) confirmed no connection of dividend with prices of shares.

Problem Statement

Dividend policy in relation with share prices had been comprehensively studied in advanced stock markets round worldwide but work is limited in Pakistan. Payments of dividend is not an obligation yet firms are paying dividend so the matter why firms pay dividend is still pending. Nimat (2011) explained that an average of forty percent profitable Pakistani firms are paying dividends. The fore most question is that, firm pay dividend if it is taxed at a higher rate as compared capital gains attract towards thorough investigation in the area. Moreover, capital gain was not taxed Up to 2010 even though firms declared dividend. These are the reason that invites us to study dividend policy in Pakistan. The literature in Pakistan shows that previous studies on dividend policy had mostly examined financial sector while work on Non-financial sector is limited. This research aims to fill the gap by inspecting dividend policy influence on volatility of share prices taking firms of seven Non-financial sectors.

Research Question

1. What is the influence of dividend policy on volatility of share prices of the seven Non-financial sector firms in Pakistan?

Research Objective

Overall purpose of the study undertaken is to explore and measure dividend policy influence on volatility of share prices taking firms of seven Non-financial sector registered on PSX.

Literature Review

In finance, dividend refers to the distribution of earnings to the shareholders. Dividend policy is associated with the allocation of profit among dividend and retained earnings. When generated profits are not adequate, firms may abstain from paying any dividends (Ronald et al., 2000).Earlier researches on policy of dividend proves existence of relation with share prices. Previous studies carried on association of policy of dividend with share prices first incorporate work of Lintner (1956) who conduct interviews with 28 manager and concluded that firm's value depends on payment of dividend. On the other hand, Modigliani & Miller (1961) gave the concept of dividend irrelevance.

Dividend Policy Theories

The association of dividend with pries of shares is also explained by various theories. Next section considers these developments from a theoretical view.

Irrelevance Theory of Dividend

In 1961, (Miller & Modigliani) develop this theory. M&M (1961) explained that payment of dividend does not affect firm's value.Since they believe that investment decision determine the value of firm. Theory assumes that there is no agency problem, and all information is free and there is equal access for all investors. Moreover, under ideal circumstances there is no transaction costs on sale and purchase of shares, same tax rates for dividends and capital gains.

Bird In Hand Theory

Lintner (1964) & Gordon (1963) recommended this theory which has an opposed viewpoint of M&M theory. They explained that firm value is determined by dividend payments. In their view that as compared to capital gain shareholder would prefer dividend payments, because of low risk. Robinson (2006) explained that rise in dividend will lead to rise share prices.

Tax Preference Theory

This theory was developed by (Litzenberger & Ramaswamy, 1979). Tax on capital gain is deferred till stocks are sold however, dividends are taxed directly. Moreover, shareholder will pay double tax on dividend so shareholder chose such firms that retain earnings.

Agency Theory

Miller and Modigliani's theory, assumed no agency problem. However, in real conflict between managers and shareholders exist. Paying large amount of dividend will help in minimizing agency problem (Easterbrook, 1984).

Dividend Signalling Theory

Signalling theory is based on the assumption that information is not equally available to all parties at the same time, and that information asymmetry is the rule. As compared to shareholder manager has more information about firm (Robinson, 2006). Dividend payout is used by investors as signal of firm performance. Therefore, more pay-outs mean more positive signals of firm performance. Similarly, a decline in dividend payouts may be considered as bad news about future earnings. Therefore, the share price may react unfavourably (Al-Malkawi, 2008).

The association of policy of dividend with prices of shares of various firms have been studied by number of

researchers at different period of time. Baskin (1989) examined US firms for a period of (10) ten years. The outcome of his study revealed negative connection of dividend Policy with prices of share measured by payout ratio and dividend yield. Moreover, Nishat (1992) examined the combine effect of earning retained and dividend on shares prices listed in KSE from 1980-1986. The authors reported that dividend policy and retained earnings has an influence on stock prices. Moreover, he concluded that "the effect of dividend is greater as compared to retained earnings".

Similarly, Nishat and Irfan (2001) analysed 160 Pakistani firms registered on the KSE from 1981 to 2000. The results displayed that both Dy and DPOR used as proxy for dividend policy had negative affect on prices of shares. Furthermore, Kanwer (2002) analysed 317 firms registered on KSE from 1992 to 1998.The result of the study supported the signalling theory.

In addition, Zaman (2007) reported positive connection of dividend with share prices. The author analyzed six highly- traded companies listed on PSX from 2000 to 2005. Similarly, Saifullah (2009) reported positive association of policy of dividend with share prices. The author used Dy and DPOR as proxy for dividend policy while, analysing 171 firms registered on KSE during 1998-2006. Alayemi (2013) reviewed the connection of dividend payout with share prices. The outcomes of the study reported significant positive relationship amongst share prices and dividend payout in Nigeria. Moreover, Masum (2014) declared positive connection within dividend policy and prices of shares analysed data of 30 banks registered in Bangladesh for the period of 2007 to 2011.

Shah and Noreen (2016) studied, data of 50 firms and reveal that policy of dividend is inversely associated with share prices. Moreover, the study also revealed a significant positive association of stock price volatility with asset growth and Earnings per share. Furthermore, Noor Ahmmad Memon et al. (2017) analysed sixty seven firms listed on PSX from 2005 to 2015. The findings summarised negative influence of dividend yield and positive influence of payout ratio and control variables (Growth in Assets &Size) on market prices of shares.

Waheed et al. (2018) examined data of 10 banks listed on PSX for the period of 2014 to 2016 and reported negative association of dividend yield and control variable assets growth on stock price. On the other hand,Payout ratio and firm size were insignificant in valuation of stock price volatility. Moreover, Ahmad, Alrjoub, and Alrabba (2018) analysed 228 companies registered on Amman Stock Exchange from 2010 to 2016.Their study findings reported inverse influence of Dy and DPOR on share prices.

Iftikhar & Ahmad (2019) reported a significant posative affect of earning per share on share prices examined data of 17 banks from 2014 to 2017. Furthermore, the study also revealed that effect of ROE and dividend yield on prices of share is negative. Similarly, Shah and Ajmera (2019) analyzed data of Sun Pharma firms of India from 2009 to 2018.The outcomes of their study confirmed positive impact of Retention ratio, Growth of the firm,Return on equity, Earning per share, size and payout ratio on share prices.

In contrast, Allen and Rachim (1996) examined 173 Australian firms from 1972 to 1985. Outcomes of their research summarised no effect on share prices by dividend policy. In addition, Chowdhury and Ali (2010) analysed price variation in stock of banks registered at Bangladesh towards the dividend declaration and fond no association of dividend with share prices. Similarly, Abrar et al. (2015) summarized no connection of dividend with prices of shares in Pakistan analysed 11 firms for the period of 2001 to 2014. Moreover, Velnamby (2017) studied relationship of dividend policy with value of firms listed in Srilanka and concluded no influence on market value hence support dividend irrelevancy theory.

Research Methodology

In this paper panel data approach is utilized to measure the relationship of dividend Policy with volatility of share prices. Population consists of seven Non-financial major sectors firms. Total firms for seven sector is 260. A sample of 137 companies listed on PSX is taken for eleven years from 2007 to 2017. Only those firms were selected which at least paid four dividend payments during the research period. The secondary data of Non-financial firms concerning seven sectors ware collected from the annual reports of individual companies however, share prices are collected from the PSX. OLS regression model is initially utilized.

Measurement of Variables

a. Price volatility: The annual range of share prices divided by mean of high and low share price and take power.
b. Dividend yield: Dy refers to dividend per share to Average share market price in the year.
c. Payout Ratio: It is computed as Dividend per share divided by Earning per share.
d. Earnings per share: It is calculated as dividing Earning available to common shareholder by Number of common shares outstanding.
e. Growth in Assets: The ratio of the change in total assets in a year divided by previous year assets value.
f. Size: Firm size is computed as total common shares multiplied by the mean market price of the share and then taking its log10.

Model Specification

The study employs panel data regression analysis. In panel regression equation each variable has attached dual subscript. Following model is developed.

Model:

$$PV_{i,t} = \alpha_1 + \beta_3 EPS_{i,t} + \beta_1 DY_{i,t} + \beta_2 POR_{i,t} + \beta_4 GA_{i,t} + \beta_5 SZ_{i,t} + \mu$$

Results and Discussion

Table 4.1 covers descriptive statistics for both dependent and independent variables in the model. Variables are Price volatility, payout ratio, earning per share, dividend yield, assets growth and firm size. Here it can be seen that the mean value for earning per share is maximum with a highest value of 19.8.The value of standard deviation for the earning per share is also max with a value of 31.3 as compared to other selected variables.

Table 1. Descriptive Statistics

Variables	Mean	Median	S.D.	Min	Max
PV	0.447	0.298	0.469	0.000000486	3.48
DY	0.0853	0.0612	0.0848	0.000974	1.00
POR	0.503	0.366	1.03	-15.8	14.3
EPS	19.8	10.0	31.3	-9.80	296
GA	0.143	0.0996	0.323	-0.896	5.42
SZ	6.34	6.24	0.920	1.89	9.84

Collinearity

One of the problems always exists with regression equation term as multicollinearity. The strong connection between variables undertaken for study refers to the problem of multicollinearity. The coefficients of the model become ambiguous every time the factors found multicollinearity problem and very hard to allocate variations in dependent factors or explanatory variables. The bench mark proposed by the researcher for correlation is 50.0% (Gujarati, 2009). For the investigation of multicollinearity between the variables Variance inflation factor and correlation matrix is used. The appended table show the results of correlation matrix among the variables of study.

Table 2. Pearson Correlations

Vari	PV	DY	POR	EPS	GA	SZ
PV	1.0000	0.1041	-0.0669	0.0716	-0.0079	-0.1730
DY		1.0000	0.2438	-0.0661	-0.0287	-0.1486
POR			1.0000	-0.0979	-0.0500	0.0799
EPS				1.0000	0.0702	0.0357

GA	1.0000	0.0880
SZ		1.0000

The coefficient of correlation is used to identify the kind as well as strength of association among variables of study. On the other hand the V.I.F is also used for checking problem of multicollinearity and the outcome of V.I.F test clarified that all the variables are within the set value of ten not possess multicollinearity problem. So data can be used for analysis.

Table 3. Variance Inflations Factor

Variables	VIF
DY	1.098
DPOR	1.090
EPS	1.017
GA	1.015
SZ	1.047

Heteroscedasticity's

Heteroscedasticity refers to the non-constant variance and the regression model considered to be a constant variance always refers to homoscedasticity. For the clarification of heteroscedasticity in residual term of the model white decomposing test is used. The results of test proposed P-value above 0.050 which clarified that no heteroscedasticity problem has been exist in the model and the data is homoscedastic can be used for analysis.

Linearity

This assumption states that the linearity must be found in every parameter and not be cubed, multiplied, divided and squared in the proposed model. In the current study linearity assumption is confirmed in the model.

Normality

Normality is used to check whether the figures used for analysis in the model distributed normally or not. Figure shows that data is normally distributed.

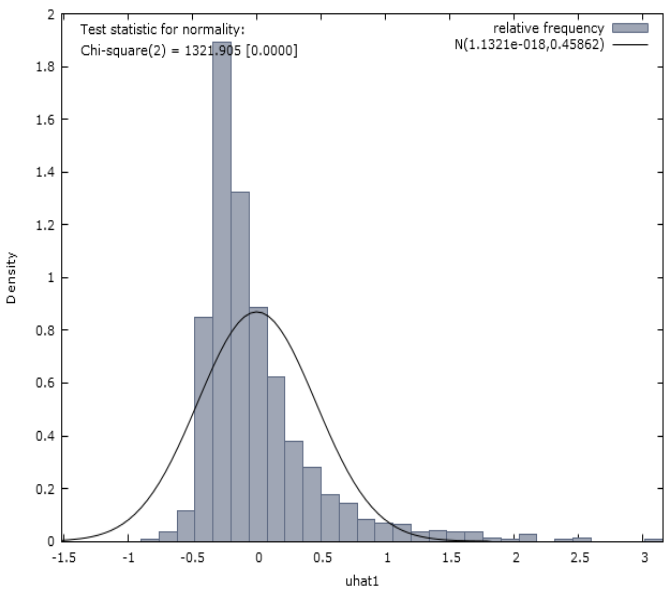

Table 4. Regression Analyses

Variables	*Coeff*	*p-v*
DY	0.574185	0.0248**
POR	−0.0327990	0.0383**
EPS	0.00115157	0.0304**
GA	−0.000486329	0.9908
SZ	−0.0787684	<0.0001***

*Significance at 1%***, 5%** and 10% *level*

Table 5.

Model fitness of Regression			
R-squared	0.047909	Adj R-squared	0.043313
F(5, 136)	6.094472	P-value(F)	0.000040

The result of Pooled OLS is listed in table 4.4. It is cleared from the analysis that proxy used for dividend policy are significant along with a control variable SZ. The coefficient of DY and EPS are positive means that share prices of a firm will be positively influenced by these variables. Negative variation in the share prices will be caused by POR and SZ because of negative betas coefficient. In conclusion, the last independent variable which is Growth in Assets is insignificant in relation with share price volatility.

Diagnostic Test

This test is carried in panel data for selection within Pooled, Fixed and Random model. Outcomes of the test is summarised in table 4.5.

Table 6. Diagnostic Test

Test	**P-value**
Joint significance Test	4.19867e-008
Breusch-Pagan Test	0.00107786
Hausman Test	0.0284143

It is cleared from the low p-value (less than 0.05) of Hausman test that fixed model is best.

Table 7. Fixed Effect Model Regression Analyses

Variables	*Coeff*	*p-v*
DY	1.00824	0.0002***
POR	−0.0250623	0.0484**
EPS	0.00162082	0.0632*
GA	−0.0432098	0.2496
SZ	−0.0288940	0.5334

*Significance at 1%***, 5%** and 10% *level*

Model fitness of Regression			
R-squared	0.260309	Within R-squared	0.05746
F(5, 136)	5.88317	P-v (F)	0.000012

It is pretty clear from the results of Fixed Effect method that three variables are significant. Variation in the prices of share is positively affected by DY and EPS. Moreover, DPOR will change share prices negatively. Furthermore, control variables assets growth and firm size has no connection with prices of shares.

Summary and Evidence

The purpose of the research is to investigate dividend policy influence on volatility of share price in Pakistan. For analysis seven Non-financial sectors have been selected. A sample of 137 listed firms on PSX is analysed from 2007 to 2017. The empirical estimation is based on panel regression analysis. The result of fixed effect model is focused in the light of Housman test. Inferences summarised that dividend yield and earning per share has positive but DPOR has negative influence on share price volatility. Moreover results further explain that control variables assets growth and firm size are insignificant in association with volatility of share prices. Furthermore, control variable size is significant in Pooled OLS. These outcomes are consistent with the findings of prior studies of (Ahmad & Mei, 2005; Iftikhar & Ahmad, 2019; Khaled et al., 2010; ULLAH, 2009; Zuriawati Zakaria, 2012).

References

Ahmad, M. A., Alrjoub, A. M. S., & Alrabba, H. M. (2018). The effect of dividend policy on stock price volatility: empirical evidence from amman stock exchange. *Academy of Accounting and Financial Studies Journal.*

Al-Malkawi, H.-A. N. (2008). Factors Influencing Corporate Dividend Decision: Evidence from Jordanian Panel Data. *International journal of business, 13*(12), 2008 ISSN: 1083−4346.

Alayemi, S. A. (2013). Relationship between dividend payout and market price of shares (A case study of selected companies in food and beverages companies in Nigeria). *indian journal of commerce and management studies, 4*(1), 116.

Ali, M. B., & Chowdhury, T. A. (2010). Effect of dividend on stock price in emerging stock market: A study on the listed private commercial banks in DSE. *International journal of Economics and Finance, 2*(4), 52-64.

Allen, D. E., & Rachim, V. S. (1996). Dividend policy and stock price volatility: Australian evidence. *Applied Financial Economics, 6*(2), 175-188.

Arnold, G. (2008). Corporate financial management: Pearson Education.

Arnott, R. D., & Asness, C. S. (2003). Surprise! Higher dividends= higher earnings growth. *Financial Analysts Journal, 59*(1), 70-87.

Baskin, J. (1989). Dividend policy and the volatility of common stocks. *Journal of portfolio Management, 15*(3), 19.

Brennan, M. J., & Thakor, A. V. (1990). Shareholder preferences and dividend policy. *The journal of Finance, 45*(4), 993-1018.

Davis, J. S. (1917). Essays in the earlier history of American corporations. Number IV: eighteenth century business corporations in the United States: *Harvard University Press.*

Financial Statements Analysis Companies (Non-Financial) *State Bank of Pakistan*. (2012-2017)

Gordon, M. J. (1959). Dividends, earnings, and stock prices. *The review of economics and statistics*, 99-105.

Gordon, M. J. (1962). The investment, financing, and valuation of the corporation: RD Irwin Homewood, IL.

Gordon, M. J. (1963). Optimal investment and financing policy. *The journal of Finance, 18*(2), 264-272.

Gujarati, D. N., & Porter, D. (2009). Basic Econometrics Mc Graw-Hill International Edition.

Hausman, J. A. (1978). Specification tests in econometrics. Econometrica: *Journal of the econometric society*, 1251-1271.

Iftikhar, Y., & Ahmad, L. (2019). Dividend Policy and Share Price volatility: Evidence From Pakistan Stock Exchange of Listed Commercial Banks. Available at SSRN 3432199.

Ilyas Sharif, A. A. & Farzand Ali. (2015). Effect of Dividend Policy on Stock Prices *Journal of Management Info 6*(1), 55-85.

Kanwer, A. (2002). The determinants of corporate dividend policies in Pakistan: An empirical analysis. *Foundation for Business and Economic Research*.

Khaled Hussainey, C. O. M., Aruoriwo M. Chijoke-Mgbame. (2010). Dividend Policy and Share Price Volatility: *UK Evidence Journal of Risk Finance*, 1-21.

Khan, N. (2011). Dividend policy and the stock market reaction to dividend announcements in Pakistan. *University of Dundee*.

Kinder, C. (2002). Estimating stock volatility. Available at: available at: http://finance. Yahoo. Com [Accessed 21 December 2015].

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American economic review, 46*(2), 97-113.

Lintner, J. (1964). Optimal dividends and corporate growth under uncertainty. *The Quarterly Journal of Economics, 78*(1), 49-95.

Litzenberger, R. H., & Ramaswamy, K. (1979). The effect of personal taxes and dividends on capital asset prices: Theory and empirical evidence. *Journal of financial economics, 7*(2), 163-195.

Masum, A. (2014). Dividend policy and its impact on stock price–A study on commercial banks listed in Dhaka stock exchange. *Global Disclosure of Economics and Business, 3*(1).

Miller, M., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares ", *Journal of Business, 34*(4), pp.411-33.

M Abrar-ul-haq, K. A., & Muhammad Imdad Ullah. (2015). Stock Price Volatility and Dividend Policy in Pakistan. *International Journal of Scientific and Research Publications*, *5*(2), February 2015, 1-7.

Nadeem Nazir, D. A. A., Dr. Hazoor Sabir. (2014). Impact of Dividend Policy on Stock Price Volatility:A Case Study of Pakistani Capital Market European *Journal of Business and Management*, 1-14.

Nazir, M. S., Abdullah, M. M. N., & Nawaz, M. (2012). How dividend policy affects volatility of stock prices of financial sector firms of Pakistan. *American Journal of Scientific Research, 61*(61), 132-139.

Nishat, M. Irfan. CM (2001). Dividend Policy and Stock Price Volatility in Pakistan. Paper presented at the 19th Annual General Meeting of PSDE, *Pakistan Institute of Development Economics*, Pakistan.

Nishat, M. (1992). Share Prices, Dividend and Share Retained Earnings Behaviour in Pakistan Stock Market. *Indian Economic Journal, 40*(2), 56.

Nishat, M. (1999). The Impact of Institutional Development on Stock Prices in Pakistan. ResearchSpace@ Auckland.

Nishat, M., & Irfan, C. M. (2004). Dividend policy and stock price volatility in Pakistan. In Pide-19th annual general meeting and conference, 13-15.

Noor Ahmmad Memon, D. N. K. (2017). Impact Of Dividend Policy on Market Price Of Shares: Evidance From Pakistan. *Journal of Business Strategies*, 11(2), 57-72.

Pani, U. (2008). Dividend Policy and Stock Price Behaviour in Indian Corporate Sector: A panel data approach. Retrieved from Indian Institute of Technology: http://ssrn. com/abstract, 1216171.

Rashid, A., & Rahman, A. A. (2008). Dividend policy and stock price volatility: evidence from Bangladesh. The *Journal of Applied Business and Economics, 8*(4), 71.

Robinson, C. J. (2006). Dividend policy among publicly listed firms in Barbados. *Journal of Eastern Caribbean Studies, 31*(1).

Ronald, L., John, K., Kalay, A., Loewenstein, U., & Sarig, O. (2000). Dividend policy: its impact on firm value. Financil Management Association.

Shah, M. N. K., & Ajmera, B. C. (2019). AN IMPACT OF DIVIDEND POLICY ON STOCK PRICE OF SUN PHARMA.

Shah, S. A., & Noreen, U. (2016). Stock price volatility and role of dividend policy: Empirical evidence from Pakistan. *International Journal of Economics and Financial Issues, 6*(2), 461-472.

Soter, D., Brigham, E., & Evanson, P. (1996). The Dividend Cut "Heard 'round the World": The Case of FPL. *Journal of Applied Corporate Finance, 9*(1), 4-16.

ULLAH, S. (2009). The Effect of Dividend Policy on Stock Prices With Reference To Karachi Stock Exchange, Pakistan. *International Financial Accounting*, 1-16.

Velnamby, T. (2017). An analysis of dividend policy and market value of listed manufacturing companies in sari lank.

Waheed-Ur-Rehman, Syed Gohar Abbas & Muhammad Imran Qureshi. (2018). The Impact of Dividend Policy on Share Price Volatility in the Context of Banking Sector of Pakistan. *Journal of Managerial Sciences*, 3-19.

Walter, J. E. (1963). Dividend policy: its influence on the value of the enterprise. *The journal of Finance, 18*(2), 280-291.

Zaman, F. (2007). Effect of company related news and events on its stock prices research conducted on top six companies listed at Karachi Stock Exchange. Available at SSRN 1019179.

Zuriawati Zakaria (2012). The Impact of Dividend Policy on The Share Price Volatility: Malaysian Construction and Material Companies. *International Journal of Economics and Management Sciences*, 1-8.