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Theoretical advancement and empirical evidence of Dividend policy

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Abstract

The objective of the study was to explore relationship between dividend and shareholders value. While talking of dividend it has been observed that there are two schools of thought. One thought advocate that the rise or fall in dividend increases or decreases the value of the company while the other is of the opinion that the dividend and company worth or value has no direct relationship. To test the hypothesis of the study whether Pakistani listed firms support relevance or irrelevance theory of dividend. For this purpose, secondary data was utilized through a sample of 319 firms with paying of dividend any time during 2008-18. The results from chi square and fixed effect model shows that there is significant positive association between dividend pay-out ratio, negative with dividend yield, positive with dividend decision to pay or not pay dividend. Study also check the impact of govt tenure and political affiliation impact on share value with dividends. Study concludes that Pakistani listed firms follow the theories of dividend such Catering, signalling, bird in hand theory, and agency theory of dividend. The current research study intends to minimize the knowledge gap on the referred topic. The present research study has analysed a number of observations in Pakistani context. Researchers have argued on the impact or influence of dividend and the value of the company. They forwarded their justifications on the basis of their varied observations. They have also argued whether dividend can be predicted on the basis of company business. However, there is no unanimous agreement on this issue. While studies on the established markets are available with conclusive opinion, the observations on emerging markets like Pakistan is still under the process of some conclusive opinion.

Keywords: Share Value, Dividend policy, Pakistan, Fixed Effect Model, signalling theory

Introduction

The financial management of an organization have multiple views for any subject or financial issues. It is because of a number of policies and procedures that need to be adjusted on the basis of perceptions and judgments of the relevant issues keeping in view of the existing surrounding circumstances.

Maximizing the creation of wealth and profit is the basic objective of a business organization. For this purpose the management takes a number of appropriate steps in its management policies. Ward (1993) in his study proposed the addition of a new dimension in this regard. His proposal

applies to the dividend policy for the company as a part of financial policies without any specific consideration to the type of the activities the organization undertakes.

To study a company for the impact of dividend policy on its market value is the result of a relationship between the two factors. A number of studies have been conducted on this relationship but the most important one is Miller and Modigliani 's study (1961). The Irrelevant Theory is basically based on this study. The theory explains that in an efficient market condition the relationship of market value of an organization and dividend policy does not exist as such and thus it does not affect the value of the organization or shareholders wealth.

The Irrelevant Theory gave rise to a number of arguments and controversies. Black and Scholes (1974), Merton and Rock (1985), Merton and Rock (1985) and Peter (1996) are in favour of the theory while Litzenberger and Ramaswamy (1979), Blume (1980), Litzenberger and Ramaswamy (1982), Ang and Peterson (1985), Dyl and Weigand (1998), Koch and Shenoy, (1999) opposed it. The controversies and conflicts created an ambiguity that need to be clarified with results.

The financial overlap due to the relationship between investment policy and dividend policy is a complicated subject. Therefore, management's preferences play a pivotal role in the selection of policy. However, as mentioned earlier, the Irrelevant Theory suggests that for profit maximization investment policy should be preferred.

The first essay of dissertation investigates the origins, modifications and advancement in corporate dividend policies and related empirical evidence from 1932 until 2018. Second assay focuses on development of the model for stock market valuation and dividend policy of Pakistani listed firms based on assumptions.

Research problems and motivation

The research problems that have been identified are as follows:

- The empirical validity of Irrelevant Theory has been questions by a number of experts. They have argued that the company's market value is affected by dividend policy. The opposing opinion is a problem to be solved.
- The relationship between investment policy and dividend policy is not uniform across the board and also varies from market to market or country to country. There is no perfect condition.
- The dividend and market price cannot reach a balanced perfect condition or equilibrium.
- Relevant theories of dividend advanced yet not validate in the world as finds experts.

Research Questions:

This study finds the answer the following given below questions through Pakistan data.

- How many theories advanced and their empirical evidences from the world?
- Is the Irrelevant Theory valid (empirically) in Pakistani context?
- How far the organization's market value is affected by dividend policy?
- Is there any difference in dividend policy changes with stock price changes?
- Does political government tenure impact on dividend and share price of listed firms?
- Does delisting risk have any impact on stock price with respect to dividend?
- Does all theory work in Pakistan using their proxy variables?

Research objectives

- To assess the validity of Irrelevant Theory in Pakistani context?
- To determine the relationship between company's market value and dividends policy in the tested companies of Pakistan.
- To determine how far the companies, follow a Catering Dividend Policy in Pakistan?
- To determine the deciding factors having an impact on management while deciding dividend policy in Pakistan?
- To determine the relationship of Corporate Governance and shareholding pattern of listed firms.
- To determine dividend theories using proxies are related in the context of Pakistani listed firms.

Research hypotheses

H1: There is a significant positive relationship between the market value of the sampled companies and their dividend policies.

H2: There is significant positive relationship between the Govt. Tenure and market prices.

H3: There is significant positive relationship between the delisting risk and market prices.

H4: There is significant positive relationship between the Dividend paying decision (DPD), yield and pay-out on market prices.

H10: There is a significant negative relationship between political affiliation with dividend policy and stock prices.

Contributions of the Study

With reference to Irrelevant Theory in Pakistan while examining its impact and validity, we see that the general concept of dividend policy includes cash dividend, share dividend and share buyback. In earlier studies authors excluded companies not giving dividends or those companies giving dividends intermittently. It is believed that zero dividend is still a dividend. Therefore, in the current study the researcher has included companies offering dividends as well as those not offering any dividend.

This study is the first one in Pakistan investigating companies offering a residual dividend policy helping to explore the relationship between investment policy and dividends policy giving indications about the management's preferences.

Literature Review

Corporate finance literature suggests that a company's pay-out policy regarding dividend has more correlated with firm's capital structure as well as investment policies, and therefore they have strong association with its firm-specific characteristics as described by (Smith and Watts 1992; Gaver and Gaver 1993; Barclay et al 1995). Theoretically, many firms' managers focus on mainly intention towards increase the stock value of the firm and consequently make ultimate decisions to outperform their share market performance through high value in the market (Ward 1993; Bishop et al 2000). Firm deciding to pay dividend is a major part of study either to influence value of shares or not and has this decision significant impact on the value of company. For the reason that, decision and distribution about payment of earning to shareholders

by managers (see, for instance, to pertain the cash dividend size) towards stock holder or else use the earning retained which earned during any period will for reinvestments purpose called (investment policy) also, yet again retaining a profit, take on capital with lower cost of capital as well as less ratio of leveraging with choices between equity with liability, has more impact on share value of common stock with respect increase or decrease owners wealth (Glen et al 1995; Lease et al 2000; Brealey and Myers 2003). They also emphases that decision of corporate pay-out has important relationship with maximizing value of firms, specific firms' factors has also determine and play important role on dividend policy. Managers are more responsible when setting firms objective with different factors analysing corporate strategy to obtain goals of firm owners. Ascertaining such determinants assistances decision about firm future corporate policy in the direction of evaluation their decision and practical implication of dividend pay-out and when they compare these policies in the perspectives of market competitors. Manager main focus is to use income retained in a best way to create value of the firm's owners. In the market, there are many types of investors such some of them prefer to pay dividend, many favours increase and decrease share price through gain, and some want mix of dividend as well as capital gain from their investment returns. Investors and portfolio managers might not on the same page due risk return in the investments as their choices varied from their own perspectives. Henceforth, familiarity about firm-specific factors that may determine the policy of corporate dividend which may well guide to both investors as well as portfolio managers towards perceive firm's pay-out policy in an appropriate manner in respect of preference in dividend to achieve target of investment. To using the firm specific characteristics variable in the study for analysis, give a good and clear picture for academician, researcher and management of the companies to understand pay or not to pay cash dividend to shareholder. This also compare the study with others with theoretical as well as using multiple models to understand which factor affect more the policy of dividend. These are more important factors to capture pay-out policy and effect on share value in the market. Many economic analysts from finance check the relationship of firm financial variable such firm size, sale growth, leverage ratio and firm earnings ratios with theories of dividend based on different market data to increase strong viewpoint (see, for example, Fama and French 2001; Aivazian et al 2003; Ferris et al 2006; Al-Najjar 2009).

It has been seen that usually authors focus on developed markets, but recently a number of authors have also recorded the emerging markets as well. Aivazian et al (2003) in their study compared dividend policies of eight developing countries (India, Jordan, Malaysia, Pakistan, South Korea, Thailand, Turkey and Zimbabwe). The study had a control sample from US market. It was found that while the financial determinants were important in taking dividend decisions in the emerging markets, the sensitivity differs when it was compared with the developed markets (e. g. US). In the researches done earlier a major difference was found in dividend policy practices when the emerging markets were compared with the developed markets. The reasons include political instability, inappropriately defined regulations and laws, weak corporate governance and different ownership structures (Glen et al 1995; La Porta et al 2000; Faccio et al 2001). However, during the last three decades a rapid increase in the magnitude of equity portfolio flow has been observed in the developing countries. As a result of this development authorities have been encouraged and regulations have been redefined for a convergence to world markets (Bekaert 1995; Kumar and Tsetsekos 1999). In the same context some financial and structural reforms are being undertaken to integrate with the developed markets (Bekaert et al 2002; 2011). In the light of the above developments it is seen that the

market integration process has put a significant impact on firm's attributes and their financial policies (e. g. dividend policies).

The listed companies in the PSX KHI100 index have been operating under a regulatort boundary which has been changed significantly in recent years. This change has been in line with the established markets of developed economies (e. g. Australia, Canada, USA, UK, EU member countries). This adoption of this change originated from Turkeys' civil laws tradition involving the weak corporate governance, lack of transparency as well as disclosure practices. Vague tax and accounting regulations (La Porta et al 1997; Ararat and Ugur 2003; Aksu and Kosedag 2006). The Turkish code formulated in 1957 was based on accounting and auditing principles generally accepted in those days. Therefore, the financial reporting was not effectively monitored and regulated according to international practices of developed economies (Aksu and Kosedag 2006). The objectives of accounting regulations in Turkey was to protect the interest of treasury. However, the international standard practiced in developed countries enforce high quality financial reporting as compulsory regulations. Therefore, due to reduced demand of the relevant authorities in Turkey about the financial reporting and disclosures, the firms in Turkey preferred to submit financial statements to tax authorities for taxation rather than to support financial decisions (Cooke and Curuk 1996; UNCTAD 2008).

During the last decades the business accounting culture has changed drastically. Now it is more linked to financial decision making as compared to tax calculations. This has led PSX listed companies to produce reliable financial reports on the basis of business performance ad thus the making a more accurate financial decision making has become easier (e.g. investment, capital structure and dividends) in a positive way (Balsari and Varan 2014).

De Wet and Mpinda (2013) evaluate the effect of payment of cash dividend on value of company shares. A sample of 46 listed companies of Australians local security exchange in Johannesburg market to check whether corporate dividend policy and share prices using a panel regression approach for data period 1995 to 2010. Based on data nature and check fixed or random effect model for their study. Study output relates fixed effect model, findings shows that stock price of share and dividend policy has significant positive impact in a long term. Another study Al-Hares et al. (2012) shows the relationship between cash payment from profit, incomes, and book value of Kuwaiti listed non-financial companies from 2003-09 panel data. They concluded that dividend is not valuable as earnings is part of the model. On the other hand, model is related as an additional impact as used earnings and dividend.

Lashgari and Ahmadi (2014) analysed the corporate decision about dividend and value of shares in the stock market either they have any relation with respect to Iran listed market companies in Tehran Stock Exchange. Multiple regression analysis used to use a panel data set for the period of 6 year from 2007-12. Results shows that DPR has significant negative association with share value volatility. Other study of Giriati's (2016) explore the associations and impact of share price and dividend payment decision of the companies. Utilising the OLS model to explore this relation applying data of 29 top listed companies of Indonesia stock market known as BEI. Results of data from 2009-13 shows a significant positive impact on share value with dividend ratio.

Budagaga (2017) applied a residual earnings model to approach to find out either any association between dividend and value as of Ohlson's (1995) done through this model. Study applied the fixed effect model is appropriate for study panel data of 44 registered companies to show that

there is a highly significant positive connection between share value and pay-out policy of dividend ratio on the Istanbul Stock Exchange (ISE) utilizing data 2007-15.

Zainudin et al. (2018) studied the association between volatility of share value in the market with manufacturing sectors pay-out policy of dividend applying company's data from Bursa Malaysia. They used the data of 166 manufacturing firms to capture either what relationship exist with a length of period 2003-12 published data. Findings suggest that dividend is a main determinant to influence share prices values in manufacturing sample data taken from Malaysia listed corporation, predominantly throughout the post crises historical data used by Phan and Tran (2019) examine the influences taking structure of share pattern by each class of owners with instability of share value and pay-out policy of dividend in the Vietnamese listed firms market data. They also suggest that applying panel set of data from manufacturing sectors listed in the Ho Chi Minh Stock Exchange as well as Hanoi Stock Exchange from the year 2008-15 data. The consequences point out that market value and dividend per share has impact on share price instability on study listed firms of Vietnam.

Lee (1979) has also study on cash dividend and valuation of share price in the US market taking 78 firms' samples of banking sectors from the period of 6 years 1971-76. Lee (1979) developed 3 different models with CAPM to check the connections of cash payment from profit and their impact on value of firms share especially in banking sectors. Study outcomes shows that dividend policy has positive impact on firm value and suggest that as dividend increased during any specific period by firm has higher the value of share and vice versa. So, they show a positive link with return of firm's shares.

Bessler and Nohel (1996) examine the firms those not pay dividend or has decrease in payment of cash from their yearly earnings to check either any impact on value or not by taking banking sectors data. A sample of 81 firms cut payment in dividend from big 56 banks of USA market utilising daily prices data with three modes of exchanges listed firms in New Yark Stock Exchange, AMEX and NASDAQ for 1974-91. Study findings shows that anomalous prices pattern discover as dividend change date announced by firms has opposite and significant impact on markets. Moreover, study findings suggest that as higher the return anomalies, has higher chances to cut the dividend payment to shareholders, of banks assets and they advising that big banks have high chances of losing their customer in a JCMS 4,130 when banks facing financial distress.

Ahmadi (2014) examined a sample of Iran listed firm with 51 top TSE (Tehran stock exchange) to check the association between market price of shares and playout policy of dividend. Research study empirically check the effect of firm pay-out policy with share value in the market during payment of cash dividend. Study results shows that DPR has inverse association on stock shares in Tehran stock exchange. On the other hand, growth in assets has most important and significant connection with price of shares listed in Iran but debt ratio, firm size and profitability shows a non-significant impact on instability of stock shares. The study limited in explaining the adverse effect of pay-out policy with volatility of shares prices which is may be because the period examine includes global financial crisis period which make difficult to identify the main impact of factors.

Yet and Zainuddin (2017) analysed the significant association among volatility of share market with manufacturing firm's dividend payment decision on Bursa Malaysia. The study results show that volatility in share value and profit earns has excellent significant association during

financial crises in the world market before and after crises tenure. Study also find that dividend impact on SPV during both period of crisis. There are some limitations in this examination, research has basis on some specific industry which does not represent share price volatility behaviour across various industry. Further them tests multiple variables related to financial characteristics as main factors to influence SPV. They also find out the impact of macro factors to check the variance in the share price to extend model strength. Variables of interest applied were rate of consumer price index, capital volatility inflows, rate of borrowings, gross domestic product has significant association with market value of firm's shares.

Hussainey (2010) examine the nature of associations in price behaviour and policy of dividend payout in respect of UK listed firms. Study findings shows a strong association between volatility and yield of dividend from the listed firms but shows a significant inverse association between SPV and DPR. There are some restrictions in this study findings, research is conducted in the UK perspectives consider as developed country which does not represent share price volatility behaviour across various country. Further study uses firm-specific variables however other external variables if included in the study will give high and additional widespread enlightenment on the behaviour of share value on market.

Okafor, Mgbame, and Chijoke-Mgbame, (2011) studied the association of changes in the value of shares in the market and payout policy of the firms applying Nigerian Stock Exchange data. They applied the linear regression test for the study data. Results shows that there is negative relationship between price change risk and dividend yield and on the other hand, DPR has opposite association in particular period but not for all period. Findings support the relevant theory of dividend to increase or decrease value as dividend changes on the sample of test study companies listed in the Nigerian Stock Exchange.

Nishat and Irfan (2001) study build foundation for testing dividend impact on listed Pakistani firms to check the volatility on stock as Pakistani market consider as a developing market due to different legal and nature of environment. Many studies focus on this study and study such as Nasir et al (2010) using a manufacturing listed companies' data from Karachi stock market. They test the impact using 2003-08 period to check relationship applying a sample of 73 corporation who pay cash dividend in each period. Panel data results shows that there is an inverse association between both dividend decision policy and share price volatility and significant relation exist.

Another study of Waheed and Ali (2017) shows the relationship between firms' divine of dividend and fluctuation of share prices in the PSX market taking top ten firms listed on Pakistan applying 2007-16 data. Study utilized the various new variables such as pay-out, yield in dividend, size of the firms, sales growth, profitability, and debt ratio as independent factors to check with share valuation behaviour. The above mentioned all variables has major determinant and factors that affect the share prices in Pakistani listed firms significantly. They suggest that as firms pay dividend in regular basis has more chances to increase on share value and vice versa. Many study also focus on only cash dividend in Pakistan. They also suggest that firms price increases as firm pay stable or constant dividend to shareholders. They also suggest that scholars or academician must focus more on firms specific factors and macroeconomic variables shows better behaviour with share prices in the market.

Nazir (2012) examined the impact of return fluctuation of share market and cash dividend applying data of non-manufacturing companies from listed in Pakistan as KSE 100 index. They

analysed relationship in a way that to control multiple financial factors such as debt, size of the company, growth of wealth, profit instability.

Asghar, Shah, Hamid, and Suleman (2011) findings shows that firm share value increases as dividend paid to share has an increased value. They check the impact on share volatility of Pakistani firms and applying data of manufacturing companies with only 5 main industries who pays more cash dividend in the market to get benefits of financing external during 2005-09 data.

Pittit (1972) studied a relationship of earning with policy regarding dividend. To change the dividend and earnings he considered some portfolios Aharoni and Swairi (1980) studied dividend and earnings declared on different dates for identifying the specific influence of dividend from earnings. At the same time, it was found through some other studies the market reaction to dividend and earnings. Some authors studied the response of stock market to instantaneous announcement of profit and payment of amount in dividend (Brown, Finn and Hancock (1977, Kane, Lee and Marcus, 1984). Some other authors are of the opinion that companies indicted of avoiding payments of dividends (Lobo et al., 1986; Doron and Ziv, 2001).

Miller and Modigliani (1961), Horne and McDonald (1971), Partington (1985) and Holder et al. (1998) are of the opinion that reliance should be made on only one type of dividend (often cash). Some authors said that sample size is usually not sufficient for generalization and that too without any discrimination about the nature of activity of the companies Marsh and Power (1999). Chauhan, et al. (2019) research mentioned about the have an effect on of dividends on monetary performance. The Chauhan, et al. (2019) lookup paper described dividend policy as "a compensation payable to shareholders for threat tolerance. DPS, EPS, DPR and Price Earnings Ratio (PER) have been viewed as established variables and ROA and ROE had been regarded as structured variables. There is no giant relationship between DPR and ROA. Al-shattarat, et al. (2018) research mentioned about the way of assessing the signaling effect. Al-shattarat, et al. (2018) lookup learn about normally targeted on tournament find out about methodology to decide the signaling impact of dividend decisions. The ulimate goal of tournament learn about administration is to decide whether or not the shareholders earn extra returns or now not when asscociating with one of a kind event. Applications of tournament find out about methodology inside this lookup have been described as follows. Firstly, the established meeting assembly date used to be viewed as the tournament date. Then, Al-shattarat, et al. (2018) find out about used to be frequently centered on a hundred every day buying and selling observations. Selected tournament duration used to be from day T to time T (T= -11 & Time T = -110). Further eleven buying and selling days have been considered. Phan and Tran (2019) check out the influences of dividend coverage and possession on inventory fee volatility in the Vietnamese market. The authors use a complete panel dataset of nonfinancial companies listed publicly on the Ho Chi Minh Stock Exchange and Hanoi Stock Exchange over the duration from 2008 to 2015. The outcomes point out that dividend yield mitigates inventory fee volatility in the rising market of Vietnam. Similarly, Almanaseer (2019) examines the relationship between dividend coverage and share fee volatility in insurance plan businesses listed in the Amman Stock Exchange. A pattern of 20 agencies from 23 insurance plan groups used to be taken. The find out about finds a sizable terrible relationship between share fee volatility and dividend yield and payout ratio. Budagaga (2020), outcomes indicate that current dividend and yield of dividend have no have an impact on on inventory return of MENA place companies. They additionally indicate that groups greater center of attention on make investments on

projects, expand, operation desires and guidelines of compliance. Thirumagal,.and Vasantha (2018) seeming that payout has terrible impact on buyer's wealth of all Indian Companies. Their discovering additionally indicates that there is vast distinction with SP and dividend earlier than and after announcement. Kolawole, E.et al. (2018) suggests that dividend payout ratio is wonderful or favorable have an effect on with retention ratio on EPS of Nigerian firm. At present, there are many producers that have invested in applied sciences associated to the improvement of automobile Lithium batteries so that the lithium battery enterprise can be greater ideal Wang & Seidle (2020).

Business overall performance additionally displays the monetary state of affairs of an enterprise. The higher the mechanism of company governance is, the extra inclined an organisation will be to pay dividends Kadim, Sunard ,& Husain (2020). Future operation plans, shareholder expectations, and the choice preferences of executives are virtually additionally emphasised by means of this lookup It was once additionally determined that the threat desire of a decision-maker immediately influences the components of the dividend coverage Kadim, Sunard, & Husain (2020). The find out about of quite a number of dividend theories and the influencing elements of dividend insurance policies intentionally includes the mechanisms and tactics of decision-making through organisation executives. Different industries face one of a kind funding possibilities and economic administration issue. Individual industrial features have an effect on the money dividend pay-out fee amongst unique organizations in a given enterprise Atanassov & Mandell, (2018).

There exist a range of inner and exterior elements which have an effect on company finance and dividend policies. Therefore, the literature overview of this study, whilst concurrently discussing the improvement of dividend coverage theory, additionally opinions the literature associated to the elements influencing the determinants of dividend insurance policies Atanassov & Mandell, (2018). Generally speaking, this lookup considers that these elements can be divided into unique subjects, such as the economic scenario of an enterprise, future operation plans, shareholder expectations, and govt choice preference.
However, the researches with the aid of Zainudin, Mahdzan, and Yet (2018) in Malaysia declare that each dividend yield and payout ratio are negatively related with inventory charge volatility. It is apparent that the empirical lookup outcomes associated to the have an impact on of dividend coverage on inventory charge volatility are conflicting, which might also be induced via variations in chosen samples and lookup methods. Suwanhirunkul and Masih (2018) use a dataset of Islamic shares listed in the Dow Jones Islamic US Index and different shares listed in the Dow Jones US Index from 2005 to 2017 to analyses the relation between dividend coverage and inventory fee volatility thru the quintile regression and GMM approach. They conclude that the fee volatility of all shares and Islamic shares are now not impacted by using dividend coverage when the use of the GMM approach.
The outcomes from quintile regressive fashions are comparable to these of the GMM models. However, Islamic share charge volatility is drastically and positively associated to dividend yield by using using the quintile regression method. Camilleri, Grima, and Grima (2019) learn about the have an impact on of dividend coverage on inventory rate moves for Mediterranean banks from 2001 to 2016. When checking out the total sample, the lookup end result suggests that dividend yield is greater vital than dividend pay-out ratio in explaining their influences on volatility. Nevertheless, pay-out ratio will become a significant explanatory variable in assessment with dividend yield when trying out the fashions by using the cluster

approach. Chiang and Chan (2019) additionally observe the relationship between dividend and share prices return fluctuation of Taiwanese organizations over the length of 1994–2014. The authors conclude that between dividend and share price change has a poor relation in the course of the lookup period, which is referred to as the stabilizing effect.

On the contrary, Almanaseer (2019) find out the association among pay-out policy of dividend and SPV of insurance industries data of Amman stock market listed firms with top market capitalization and trading volume. Study applied on the 20 firms out of 23 listed firms to show the consensuses about the relationship. Study findings concludes that insurances firms show an inverse association between policies of dividend known factors DY and DPR on market prices return variances. Little studies have focus on banking sectors associations between share value and decision of management about dividend.

Research and Data Methodology

Econometric Model:

While analysing the association between firm's dividend policy decision and value of share in the stock market, it must be studied from two viewpoints: one from firm's management and other with the firm's stock holders.

As we know that firms has more concern about full vision almost shareholders 'preferences settings of stockholders preferences regarding policy of cash dividend. Therefore, the dividend policy is a function can be represented as:

$$\boldsymbol{SP = f(D)} \quad \text{(1)}$$

Where D is the dividend policy of net of all taxes at all levels.

The model can be extended with dividend policy functions variables such as:

$$\boldsymbol{SP = \alpha 0 + \alpha 1(DPR) + \alpha 2(DY) + \alpha 2(DPD) + \mu} \quad \text{(2)}$$

Where DPR, and DY represents dividend pay-out ratio, and dividend yield.

The share price or market value of the company here is represented on the basis of dividend pay-out ratio, dividend yield and last year paid dividend. Market price is also derived from net profit as well as Retained Earning. The net profit and retained earnings also alternative for firms. Net profit and retained earnings also are derived from the current investment of the company. The higher the net profit, the higher will be the share price. In addition, the market value of the company also depends upon the dividend paid to shareholders representing the dividend policy and the retained earnings representing the investment policy which will contribute to future profit.

The changes in the market value of the company are guided by the preferences of the shareholders for dividend or retained earnings. If majority of the shareholders of a company prefer dividend but the policy of the company changes in favours of retained earnings, then one can expect the market value to fall. On the other, if the majority shareholders of the same

company expect higher retained earnings and the company policy moves towards more retained earnings, then the market value is likely to go up.

Now, I include the Government Tenure as dummy variable with dividend policy to check the effect on share price behaviour. The model is specified as follows:

$$\boldsymbol{SP = \alpha 0 + \alpha 1(DPR) + \alpha 2(DY) + \alpha 3(Govt\_Tenure) + \mu ------- (3)}$$

Where:

SP = share price of the firm,

DPR = dividend pay-out ratio

DY = Dividend Yield

Govt_Tenure = Government Tenure if PMLN = 1 and PPP = 0

Now, researcher includes delisting risk with dividend policy to check behaviour on share prices.

$$\boldsymbol{SP = \alpha 0 + \alpha 1(DPR) + \alpha 2(DY) + \alpha 3(Govt\_tenure) + \alpha 4(Prob\_delist) + \mu - (4)}$$

The next step is to include a new variable PCNC measure as political connection of the directors, CEO, and any other higher authority who have connected directly or indirectly with any political party.

$$\boldsymbol{SP = \alpha 0 + \alpha 1(DPR) + \alpha 2(DY) + \alpha 3(Govt\_tenure) + \alpha 4(Prob_{delist}) + \alpha 5(PCNC) + \mu - (5)}$$

To check the effect of GDP on share prices combining dividend policy.

$$\boldsymbol{SP = \alpha 0 + \alpha 1(DPR) + \alpha 2(DY) + \alpha 3(Govt\_(\_tenure)\,) + \alpha 4(Prob\_delist\,) + \alpha 5(PCNC) + \alpha 6(GDP) + \mu - (6)}$$

To check the effect of Taxes on share prices combining dividend policy.

$$\boldsymbol{SP = \alpha 0 + \alpha 1(DPR) + \alpha 2(DY) + \alpha 3(Govt_{tenure}) + \alpha 4(Prob_{delist}) + \alpha 5(PCNC) + \alpha 6(GDP) + \alpha 7(TAX) + \alpha 8(DPD) + \mu - (7)}$$

In this chapter, detailed of dependent, independent and firm specific variables given below.

Variables calculation and Definitions

Variables	**Definition of the variables**
Dependent Variables	

SP = share price	share price at the end of period calculated difference beginning and ending and divided by beginning period
Independent Variables	
PCNC = Political connected not connection	Political connection of the directors, CEO, and any other higher authority of the firms with any political party. If yes = 1 and No = 0
Tax	Total Taxes paid by the firms during specific period
Probdelist= Probability of Delisting	Delisting risk calculated using criteria if firms not pay continuous more than 3 years = 1 otherwise =0
pcnc_instsh	Total institutional shareholder interaction with Political connection of the firms during specific period
DPR = Dividend Payout Ratio	Total dividend divided by net income of the firm during specific period
DY =Dividend yield	Total dividend divided by share price of the firm during specific period
Mkt cap = Market Capitalization	Total market value calculated as total shares multiplied by share price of the specific period
Cash dividend	Total cash dividend paid by the firm during specific period
DPS = Dividend per Share	Dividend per share paid by firms during a specific period
LogMKTCAP = log of Market Capitalization	Log of total market capitalization of firms shares
DPD = Dividend paying decision	Decision to pay dividend or not to pay dividend made by the firm board of directors during specific period
Govt_tenure = Government Tenure	Democratic Government tenure if PMLN = 1 and PPP = 0
Divdincdcnc = Dividend increase, decrease and no change	Total dividend increase, decrease and no change during specific period
Turnover	Total number of share volume traded during a specific period of the firms

Spincdcnc = share price increase, decrease and no change	share price increase, decrease, and no change as dividend increase, decrease and no change during specific period of the listed firms

Sample Size

The sample size of the data was 319 firms with 11 years' data with total 3509 observations. The data of sample is taken on the basis of annual for each variable. The sample data was selected on the basis dividend, delisting risk, political connection and also with government tenure.

Sampling techniques

The sampling techniques used in this study by researcher convenient sampling due to criteria as mentioned above. This technique is more appropriate when research must focus on their own criteria of selection.

Statistical techniques

A panel data technique, fixed or random effect model utilized to test the study.

Results and Interpretation

In this chapter, study results will be presented. The aim of the study was to theoretical advancement and empirical evidences of dividend policy a case of Pakistan. Using dividend theories to examine the influence of dividend policies on stock prices valuation. First study the share prices on stock market with dividend changes into dividend policy increased, decreased or constant year by year.

Tabel 1: Dividend changes and share price behaviour of listed Pakistani firms

2014	Divdincdenc	-1	Count	14	0	38	52
			Expected Count	10.1	.5	41.4	52.0
		0	Count	42	3	107	152
			Expected Count	29.5	1.4	121.0	152.0
		1	Count	6	0	109	115
			Expected Count	22.4	1.1	91.6	115.0
	Total		Count	62	3	254	319
			Expected Count	62.0	3.0	254.0	319.0
2015	Divdincdenc	-1	Count	36	0	40	76
			Expected Count	27.0	.5	47.5	75.0
		0	Count	66	2	86	154
			Expected Count	55.5	1.0	97.5	154.0
		1	Count	14	0	76	90
			Expected Count	32.4	.6	57.0	90.0
	Total		Count	116	2	202	319
			Expected Count	116.0	2.0	202.0	319.0
2016	Divdincdenc	-1	Count	33	1	16	50
			Expected Count	28.2	.6	21.2	50.0
		0	Count	90	2	52	144
			Expected Count	81.3	1.8	60.9	144.0
		1	Count	57	1	67	125
			Expected Count	70.5	1.6	52.9	125.0
	Total		Count	180	4	135	319
			Expected Count	180.0	4.0	135.0	319.0
2017	Divdincdenc	-1	Count	15	2	47	64
			Expected Count	10.2	.8	53.0	64.0
		0	Count	20	2	118	140
			Expected Count	22.4	1.8	115.9	140.0
		1	Count	16	0	99	115
			Expected Count	18.4	1.4	95.2	115.0
	Total		Count	51	4	264	319
			Expected Count	51.0	4.0	264.0	319.0
2018	Divdincdenc	-1	Count	70	1	6	77
			Expected Count	58.2	1.0	17.9	77.0
		0	Count	104	2	32	138
			Expected Count	104.3	1.7	32.0	138.0
		1	Count	67	1	36	104
			Expected Count	78.6	1.3	24.1	104.0
	Total		Count	241	4	74	319
			Expected Count	241.0	4.0	74.0	319.0
Total	Divdincdenc	-1	Count	367	9	259	635
			Expected Count	269.1	12.7	353.2	635.0
		0	Count	766	55	891	1712
			Expected Count	725.5	34.2	952.4	1712.0
		1	Count	354	6	802	1162
			Expected Count	492.4	23.2	646.4	1162.0
	Total		Count	1487	70	1952	3509
			Expected Count	1487.0	70.0	1952.0	3509.0

Year				Spincdcnc -1	Spincdcnc 0	Spincdcnc 1	Total
2008	Divdincdcnc	-1	Count	0	0	1	1
			Expected Count	.0	.0	.9	1.0
		0	Count	1	13	150	164
			Expected Count	1.0	7.2	155.8	164.0
		1	Count	1	1	152	154
			Expected Count	1.0	6.8	146.3	154.0
	Total		Count	2	14	303	319
			Expected Count	2.0	14.0	303.0	319.0
2009	Divdincdcnc	-1	Count	63	3	17	83
			Expected Count	58.8	4.7	19.5	83.0
		0	Count	115	14	42	171
			Expected Count	121.1	9.6	40.2	171.0
		1	Count	48	1	16	65
			Expected Count	46.1	3.7	15.3	65.0
	Total		Count	226	18	75	319
			Expected Count	226.0	18.0	75.0	319.0
2010	Divdincdcnc	-1	Count	36	1	29	66
			Expected Count	34.3	1.9	29.8	66.0
		0	Count	100	7	63	170
			Expected Count	88.5	4.8	76.7	170.0
		1	Count	30	1	52	83
			Expected Count	43.2	2.3	37.5	83.0
	Total		Count	166	9	144	319
			Expected Count	166.0	9.0	144.0	319.0
2011	Divdincdcnc	-1	Count	38	0	10	48
			Expected Count	25.6	.9	21.5	48.0
		0	Count	93	5	62	160
			Expected Count	85.3	3.0	71.7	160.0
		1	Count	39	1	71	111
			Expected Count	59.2	2.1	49.8	111.0
	Total		Count	170	6	143	319
			Expected Count	170.0	6.0	143.0	319.0
2012	Divdincdcnc	-1	Count	47	1	6	54
			Expected Count	40.3	.7	13.0	54.0
		0	Count	121	3	39	163
			Expected Count	121.6	2.0	39.3	163.0
		1	Count	70	0	32	102
			Expected Count	76.1	1.3	24.6	102.0
	Total		Count	238	4	77	319
			Expected Count	238.0	4.0	77.0	319.0
2013	Divdincdcnc	-1	Count	16	0	49	65
			Expected Count	7.3	.4	57.3	65.0
		0	Count	14	2	140	156
			Expected Count	17.6	1.0	137.4	156.0
		1	Count	6	0	92	98
			Expected Count	11.1	.6	86.3	98.0
	Total		Count	36	2	281	319
			Expected Count	36.0	2.0	281.0	319.0

Table 2 Overall Spincdcnc * Divdincdcnc Cross tabulation

			Divdincdcnc -1	Divdincdcnc 0	Divdincdcnc 1	Total
Spincdcnc	-1	Count	367	766	354	1487
		Expected Count	269.1	725.5	492.4	1487.0

	0	Count	9	55	6	70
		Expected Count	12.7	34.2	23.2	70.0
	1	Count	259	891	802	1952
		Expected Count	353.2	952.4	646.4	1952.0
Total		Count	635	1712	1162	3509
		Expected Count	635.0	1712.0	1162.0	3509.0

This table show the relationship between dividend and share price behaviour of the listed firm in the stock exchange during 2008-2018. Table also shows that as share price of the listed firms decrease most of the firm's dividend has no change. In other case, as share prices of listed firms has no change at any period then most of the firms have no change in dividend. Share prices of listed firm's increases, then most of the firms have no change in dividend as well as increase in the dividend policy of the firms. As dividend decreased at any particular period, then overall most of the listed firms share prices also decreases. As dividend of firms has no changes, then most of the firms has also increased. As dividend of firm's increases then share prices of the listed Pakistani firms also increases.

Table 3 Overall Spincdcnc * Divdincdcnc Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	169.866[a]	4	.000
Likelihood Ratio	173.931	4	.000
Linear-by-Linear Association	142.909	1	.000
N of Valid Cases	3509		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.67.

From the top row of the output table we observe the Pearson Chi Squared statistic, $\chi 2 = 169.866$, degrees of freedom 4, corresponding to $p < 0.05$. Therefore, we reject the null hypothesis with 95% confidence and conclude that there is very strong evidence of an association between dividend and share prices of listed firms of Pakistan and results are significant which means that share price and dividend are an independent of each other

The results show that SP is significant positive relationship between DPD, and DPR but DY shows a negative significant association between dividend yield and share prices or market price of listed firms. F- Value 42.49 with F-Statistics value $0.00 \leq 0.05$ show model is good fit. R-Square value shows that 81.594% variation explained by DPS, DPR, and DY in SP and 19.406% variations unexplained due to other variables not taken in this study.

In this model I included dividend per share to DY, DPR, and DPD to test the effect on SP. The results show that SP is significant positive relationship between DPS and DPR but DY shows a negative significant association between dividend yield and share prices or market price of listed firms. After adding DPS to the model, DPD shows positive but non-significant in the model. F-Value 284.23 with F-Statistics value $0.00 \leq 0.05$ show model is good fit. R-Square value shows that 63.21% variation explained by DPS, DPR, DPD and DY in SP and 36.789% variations unexplained due to other variables not taken in this study

SP = (DPS, EPS, TAX, Mkt-Cap, Govt_Tenure)

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	44.479	7.563	5.881	0.000
DPS	0.004	0.000	28.232	0.000
GOVT_TENURE	87.195	10.728	8.128	0.000
EPS	0.755	0.186	4.050	0.000
TAX	-0.032	0.005	-6.313	0.000
MKT_CAP	0.005	0.000	20.462	0.000
R-squared	0.803341		F-statistic	39.75
Adjusted R-squared	0.783131		Prob(F-statistic)	0

SP = b0 + β1*DPS +β2*Govt_Tenure + β3* EPS + β4 *Tax + β5 *Mkt_cap +e

The results show that SP is significant positive relationship between DPS, Govt. Tenure, Market Capitalization and EPS while Taxes have negative. Results implication shows that as dividend per share increases share prices also increases. Share prices also depend on political Government tenure which party govern during specific periods. These findings shows that Share prices increase during democratic Government of PMLN as compare to PPP. Results also shows that in Pakistan, Government tenure affect more on shares price other than variables due to changes in Government policies for listed firms regarding Pakistan Stock Market

SP = (DPS, DY, DPR, DPD, Prob_Delist, Govt_Tenure)

Fixed Effect Model

Varibles	Coefficients	Standard Error	t - Statistics	Prob.
Dependent Variable = SP	**Period 200-2018**		**N = 319**	
DY	-0.005	0.001	-4.970	0.000
DPR	2.224	0.069	32.378	0.000
DPS	0.001	0.000	3.811	0.000
GOVT_TENURE	79.051	13.817	5.721	0.000

PROBDELIST	-44.829	20.411	-2.196	0.028
DPD	-8.590	18.903	-0.454	0.650
C	27.623	15.883	1.739	0.082

R-squared	0.6331		F-statistic	990.7
Adjusted R-squared	0.6324		Prob(F-statistic)	0.000

In this model, now check the political affiliation impact on share prices. I included PCNC (Political connections not connection) with dividend policy for SP of listed firms. The results show that SP is significant positive relationship between DPS, and DPR but PCNC and DY has negative relationship with SP. Results also predicts that dividend paying decision DPD shows positive and non-significant relationship with SP. Results implication shows that as dividend per share, dividend pay-out ratio and dividend paying decision made will increases share prices also increases but as dividend yield and political connection affirms lower the firm value. F- Value 1170.87 with F-Statistics value $0.00 \leq 0.05$ show model is good fit. R-Square value shows that 62.87% variation explained in SP and 37.13% variations unexplained due to other variables not taken in this study. The study results also show that there is no serial correlation and heteroscedasticity issue in the data. Also, Hausman test values p-value less than 0.05 shows that fixed effect model is appropriate.

To explore the relationship between share prices and dividend policy, data was taken from the SBP website publication on the variables data of share prices and dividend per share from the period 2008-2018. Panel data utilized on 319 listed companies for a period of 11 year (2008-2018). For Panel data, first evaluate regarding test such as panel least square, fixed effect and random effect model. Comparing values of criteria such as Wald test, houseman and LM test to compare which test results are appropriate. Panel regression results shown above and interpretation below. Hausman and Wald test values both favours in Fixed effect.

Conclusion

The main purpose of this study was to find out the impact of firm's dividend policy on the share prices of listed corporations in Pakistan Stock Exchange. To find out this purpose, the important theories on this subject have been outlined. The most important one is the Irrelevant Theory formulated by Miller and Modigliani (1961) and relevant theories by Gordon 1959, Sharpe (1964) and many more. To check the effect of dividend pay-out ratio as well as dividend yield on stock prices behaviour of Pakistani listed firms either positive, negative or no effect on the listed firm's prices.

This study applied the different empirical models. These models finds to check the association between firms dividends policy (represented by cash dividend pay-out, dividend pay or not pay dividend yield), income earn by firms (EPS), the investment policy (characterised by reserved profits), delisting risk probability, corporate governance, shareholding pattern, size, Economic factors, political connection or not, earning per shares, Taxes and share prices of a listed companies during 2008-2018. This study applied multiple models to examine whether or not companies in the Pakistan adopt a dividends policy to influence share prices of stock market.

This section shed on the influence of dividend pay-out policy on the share prices of a corporation listed in the Pakistani Stock Exchange. To check the impact on the stock shares value in common in addition through every single economic segment, was tested through fixed effect model (within) regression applied and measured through eleven years from 2008 to 2018 in order to evaluate the differences in effect through the different market industries firms. Study used the data of annul basis from firm's web sites as well as from other sources such as PSX, SBP and business recorder data sources. The secondary data was used to collect the data with time series of panel data. First, I check the relationship between dividend changes with share prices changes through chi-square by falsification test. The chi- square test assures that there is a strong relationship between dividend and share prices of the listed firms during 2008-2018.

Therefore, people will not like to hold the shares for more than few days. The share price will fluctuate unpredictably. This will make the investors hesitant for any big investment. Under the above circumstances it may also be said that that for the same reason the relationship between share price and dividend will remain positively correlated

The following areas can be explored in by future researchers on the effect of dividends policy on share prices of listed firms:

1) Researchers can retest the models using the same methodology by increasing the size of the sample, using financial as well non-financial data and prolonging the time period in order to attain results that can be considered stronger and more comprehensive and therefore open to generalization.

2) The researcher believes that retesting the Signalling, agency theory, catering, and life cycle theory using different proxies with multiple variable using secondary data to generalize the results.

3) The researcher believes that escalating the multiple models and theories of dividend with firm's specific, political affiliation, macroeconomic factors that affect management when preparing their dividends policy is only part of the picture. This picture will be completed if investors 'wishes are investigated regarding their preferences towards cash dividends or capital gains along with the reasons for such a preference. This would add an extra dimension to understanding the relationship between dividends policy and market value which will improve the results of study and make the results more comprehensive.

4) Furthermore, using methodologies of multiple models, penal data, and/or shareholders will increase the explanatory power of the results.

5) Finally, a new theoretical advancement in dividend policy which name Incremental theory which combine all dividend theory have impact on share price ant not irrelevant to Pakistani firms. Many countries adopted single dividend theories regarding valuation

The future study may be conducted on capital structure, corruption, and other economic factors mixture to find out the effectiveness of the dividend with share price of Pakistani firms.

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