Dividend Match: Pakistan vs India
Which Player (Industry) becomes the "Player of the Match"?

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Abstract

The study examines the importance and relevance of the various trends of dividend in Pakistan and India. Further, it evaluates and examines the inter and intra country analysis and the impact of liquidity, profitability and leverage on dividend payout policy over two developing countries (i.e. Pakistan and India). The sample is 85 listed companies of Karachi Stock Exchange (Pakistan) and 167 of National Stock exchange (India) for the period of 2002-2011. First hypothesis is about Inter country analysis. Second is about Intra Country analysis. Third is about the positive impact of Liquidity on Dividend payout. Fourth is about the positive impact of Profitability on Dividend payout. Fifth is about the negative impact of Leverage on Dividend payout. It used the Statistical techniques of descriptive statistics, Kruskal Wallis Test and panel data regression. It found significant results for all hypotheses. The findings show that the dividend policy in Pakistan and India as a developing country is influenced by factors similar to that of other countries.

Keywords: Dividend policy, leverage, liquidity, profitability, ISE, NSE

Match is defined as "a game played between two rivals". In another definition it is defined as "a competition and event in which two people or teams compete against each other". Each team consists of similar number of players. Every player has different features or characteristics. Match has a set and rules. After match one wins or loses or it is declared a tie. The similar phenomenon is to be used on that study. There is a dividend match between two teams' .i.e. Pakistan and India. Sample industries are the players of team. Numbers of Companies and variables such as liquidity, leverage, profitability and dividend payout are the features and characteristics of players. The match is on the basis of different three grounds. I.e. inter and intra country analysis, and on basis of variable impacts on dividend payout. After match, one country may win, lose or the match is a draw. Or the country may wins on one ground and loses over the other. After the match, it also analyzes that which player (industry) has better features.

The behavior and impact of dividend policy on different sectors is the most important issue in the study of corporate finance Hafeez and Attiya (2009). Dividend policy still has its outstanding place in both

developed and underdeveloped markets of world. Duha (2009) in his study stated that everyone wants to solve the puzzle of dividend and for this purpose the economist pays attention and consideration towards all this behavior of dividend. Lintner (1956) concluded that result of all these studies are to be in the form of hypotheses, models, theories and explanations. By dividend policy, we mean the amount of dividend payout that can help and guides the managers in the form of analyzing and deciding the size, pattern and value of cash distribution to shareholders from time being Hafeez and Attiya (2009).

When we study about the perfect capital markets, Miller & Modigliani's (1961) conclusion that dividends dividend paid by companies is mostly irrelevant to the value of companies. And this is generally held to be valid. However due to strict conditions of perfect capital market, existing financial markets are not satisfied. Frankfurter, et al (2003) Economist & researchers in different era have discovered and developed many models for helping managers in describing the behavior of dividend policy and its impact on dividend decisions. Lintner (1956) explained that there are many factors that can be worth considering for managers for making dividend decisions.

Many researchers and economist work on dividend behavior. They find no satisfactory result for dividend behavior (Black, 1976; Brealey and Myers 2005). Dividend behavior has the smoothing impact on the firm's dividend with respect to earning and growth of firm... Lintner (1956) concluded that firms listed in the United States enjoy long run payout ratio due to smoothing dividend and they keep its payout ratio in long run. Brealey, R.A. (1994) the most pertinent question to be answered here is that how much cash should firms give back to their shareholders? Hafeez and Attiya (2009).

According to Brealey and Myers (2002) dividend policy has been set aside as the top ten puzzles in finance. The study of dividend policy and its behavior provide a source for taking decision for decision makers. There is no single explanation for dividend policy behavior. Previous empirical studies and researches have studied dividend and mainly focused on developed economies of the world. But still there is a gap that exists in the context of Pakistan and India.

It is to be said that the given study may help and guide the researchers and economist in determining the impact and behavior of dividend policy by adding new theoretical and empirical data from companies listed on Islamabad stock exchange (ISE) and National Stock Exchange (NSE).

The specific objectives are:

- To make an intra-country study (Pakistan and India), to determine if a systematic association exist between a firm's dividend policy and its industry (Textile, Construction, Chemical, Oil & Gas and Food & Personal care products sector).
- To make an inter-country study (Pakistan and India), to determine if a systematic association exist between an industry's dividend policy and the country in which it operates.
- To determine whether the possibility of paying a dividend increases with liquidity.
- To determine whether the possibility of paying a dividend decreases with leverage.
- To determine whether the possibility of paying a dividend increases with profitability.

Literature Review

From last many decades, the several theoretical studies have been done for the purpose of drawing three main outcomes: value of any firm listed in any stock exchange affects the increasing or decreasing pattern of dividend payout Hafeez and Attiya (2009). However, we can say that empirical and theoretical evidence on the determinants of dividend policy is unfortunately very varied. In addition, there are various theories on why and when the firms pay dividends.

Miller and Modigliani (1961) recommend that firm’s value is not affected by dividend policy in perfect markets. Investors are not concerned in receiving their cash flows as dividend or in the form of capital gain, as for as this doesn’t change the investment policies of firms. In such situation, dividend payout ratio of firm is going to be affecting the company’s residual free cash flows which can be resulted in form of positive effect in free cash flow. Here, the conclusion is also that there is a guide line for firm future earning in case of dividend paying. And these all are due to changes made in dividend of firms

Gordon and Walter (1963) highlighted in their study that investors in the market always prefer to enjoy the high dividend and they always want to get the dividend in cash-in-hand rather than any other form. The theoretical and empirical analysis by Adaoglu (2000) shows that there is unstable dividend policy in sector of listed firm of Istanbul Stock Exchange. And they can determine the dividend policy by earning of firm. If there is earning in the firm than it has a dividend. Omet (2004) comes to the same conclusion. He analyzed the dividend behavior in case of Amman Securities Market.

DeAngelo *et al*. (2004) discovered the relationship between dividend payout ratio and ratio of earned equity to total equity. He found that this relationship helps in making decision for dividend payout. It affects the size of firm, growth, cash flow and leverage. Eriotis (2005) reported that the firms listed in Greek stock exchange distribute their dividend according to their predefined dividend payout ratio. And this is determined by the distributed earning and size of these firms.

Naceur *et al.* (2006) explored about the impact of dividend payout from research that the firms Tunisian stock Exchange. According to them, firms having high rate of profitability can manage high rate of cash flows. Baker *et al*. (2007) suggested that the Canadian dividend paying firms are significantly larger and more profitable as compare to the others; they are having greater cash flows, ownership structure and some growth opportunities. Daniel *et al*. (2007) examined that managers treat expected same dividend levels as a vital earning threshold for Korean firms.

Farinah and Foronda (2005) studied deeply about the impact of dividend payout ratio on countries having different legal system and agency cost problems. They also concluded that firms from Anglo Saxon culture follow close association between dividend and insider ownership. Every country has its own laws and regulations. Therefore it is evident from many studies that dividend pattern may vary from country to country. There are, however, several factors which may affect the dividend and country association, namely country risk, tax and accounting differences.

Mohammad et. al., (2013) studied the dividend policy on Jordan companies. He used data of 5 years from 2005-2010. Their consequences provide a strong support to dividends as a solution to agency problems. Aivazian, et al., (2003) concluded that developing market firms display dividend activities same to US firms, in the logic that dividends are described by market-to-book ratio; debt and profitability and though, their sensitivity to these factors differs across countries.

Another study by Droms (1990) showed that generally an organization's wealth and earnings growth lead to a rise in dividends, and thus raise the value of the stock and permit for capital gains. From this, it is cleared that every country has its own legislation regarding the dividend payout policy. But mostly the dividend behaviors are the same. As rightly pointed out by Zenonos (2003), numerous single country studies place dividend policy under the microscope.

Same conclusions can be made about industry influence. Lintner (1956), in a distinctive study, has recommended that industry and dividend policy has association. This association may be due to different factors i.e. internal funds flow, sales volume, current profits, etc. The Scott, David & John, (1975) also proposed that investment opportunity in the industry has an effect on the dividend decision. Michel (1979) examined the dividend policy. The sample of his study is pertinent to firms of America from 1967 to 1976. He originates suggestion that industry classification relates to the dividend level.

Sim and Appannan (2011) studied the dividend policy in food and consumer product industry. The data used in the study is of five years from Malaysian listed companies. The study used dividend per share as dependent variable. The study resulted that debt equity ratio is the vital factor in determining the policy of dividend. Bikhchandani and Shama (2000) explained the dividend policy as herding behavior that means "where companies follow the leader within the industry or they follow the first firm that declares dividend." Frankfurter and Wood (2003), Rozef (1982) and Dempsey et al (1993) found no significant relationship between industry type and dividend policy.

Kanwal and Kapoor (2008) researched the dividend payout policy in information technology sector of India. The main factors used in study are market to book value ratio, sales growth, corporate tax and cash flows. Agarwal (1987) did a study on dividend policy in automobile industry. He found that firms of non-car sector seemed to be reluctant to reduce the rate of dividend immediately as the profit level drops.

Theories

Economist and financial experts look towards the dividend behavior in many ways. Anil and Kapoor (2008) said that factors and theories recognized in the literature to describe corporate dividend policy have been rising from time.

Agency theory:

Jensen and Meckling (1976) described agency relationship as "A deal under which one or more individuals (the principal(s)) engage another person (the agent) to do some service on their behalf which includes assigning some decision making right to the agent."

Signaling theory:

As per this theory, "a firm uses dividend policy as a device to signal outsiders on the subject of the stability and growth view of the

firm". Aharony et. al., (1980) and Asquith & Mullins (1983) are the followers of the "signaling theory" of dividend decision.

Pecking order theory:

Pecking order theory seeks to explain how companies prioritize their financing sources. Firms keep an eye on a specific financing order: 1st option, use internal funds, 2nd option, draw on marketable securities, 3rd option issue new debt. Final and last option is to issue new common stock. This theory is originated on the work of Myers and Majluf (1984) and Myers (1977).

Research Hypotheses:

Intra-country analysis:

Lintner (1956) suggested that firm`s policies about dividend in the similar industry and various factors may be positively associated. Allen (1986) also recommends an association among firm`s dividend in the similar industry because of their similar investment opportunities. Michel (1979) did research on firms of America, the time period is from 1967-1976, and has originated proof that industry classification relates to the level of dividends.

H1: Systematic association exist among a dividend policy of firm and its industry (Textile, Construction, Chemical, Oil & Gas and Food & Personal care products sector)

Inter-country analysis:

Litzenberger and Ramaswamy (1982) examined evidence showing a positive relationship among dividend of firm and the country in which it operates. This association, they debate, could be attributed to a tax effect. Due to differing tax systems across different countries such as tax effect would likely result in inter-country differences in dividend policy.

Summers (1982), however, presents an alternative hypothesis to explain results in which taxation does not play a role. Allen, Michel and Shaked (1985) discussed that accounting differences may also affect the level of reported profits and as a result affect a firm's dividend policy.

H2: Systematic relationship exist between industry's dividend policy and the country in which it operates

Liquidity

Liquidity is usually measured by the cash flow of company. The cash flow position of a company is a considered as a main factor of dividend payouts determinants. Okpara and Chigozie (2010) found that if company has strong liquidity position then it means that Company has paid more dividends or dividend payout rate is more. Alli, *et al.*

(1993) said that a weak liquidity position means less dividend paid for the reason that of lack of cash. Amidu and Abor (2006) conclude similar positive association of dividend and liquidity. So, the hypothesis comes to be:

H3: All other things held constant, the probability of paying a dividend increases with liquidity.

Leverage

Pruitt and Gitman (1991) said that leverage affects dividend policy of firm. Firms with high leverage has low dividend payout ratio (Chehab, 1995). Emmery and Finnerty (1997) found the negative relation of leverage and dividend payout. Miller and Rock (1985) support the Emmry and Finnerly; they also suggest that leverage has negative impact on the dividend. Mollah et al. (2001) study an emerging and developed market and found an indirect affiliation between financial leverage and high leveraged level. Hartono and Ratanningsih (2003) argued that leverage policy has negative affect on dividend policy. From the bases of above arguments, the following hypothesis was formulated.

H4: All other things held constant, the probability of paying a dividend decreases with leverage.

Profitability

The financial literature expresses that a firm`s profitability is always a significant and positive descriptive variable of dividend policy (Jensen et al., 1995; Hanna, 2010; Fama & French, 2000). However, this relation has also been explained and confirmed by many scholars. (Nissim et al. 2001; La Porta et al. 2000). Taleb (2012) found the same positive significant association between dividend and profitability. The profitability has a significant positive impact on dividend payout (Baker et al., 1985; Gitman, 1991). Thus; profitable firms will find it more significant to pay dividends. The following hypothesis was formulated to test the Profitability of Firm:

H5: All other things held constant, the probability of paying a dividend increases with profitability.

Research Methodology

Data

In Pakistan and India, there are a small number of firms which are paying dividend constantly. In order to test the five hypotheses related to dividend policies of the firms the firms representing the characteristics of dividend need to be collected. Due to limited information provided on financial firms, and the problem of missing data, it was not possible and easy to collect the required data related to financial firms for the same time period. In the KSE (Pakistan), initially the study start with 162 listed firms, at the end got sample of 85 companies and similarly India, Initially there are 308 listed and at the end the study got sample of 167 companies.

The study was observed at different time periods (from 2002 to 2011). The sectors which are to be taken as a sample is pertinent textile, construction, chemical, oil & gas sector and household & healthcare sector.

The regression equation is as the following:

$$DVPO_t = \alpha_0 + \alpha_1 LQDT_t + \alpha_2 PRFT_t + \alpha_3 LVRG_t$$

Where

DVPO = Dividend Payout
LQDT = Liquidity
PRFT = Profitability and
LVRG = Leverage

The statistical techniques of Kruskal Wallis test and regression were used to describe the hypothesis.

Results and Discussions

This section presents the findings of the empirical analysis. First, team (country) analysis, second the player (industry analysis), third is Inter-country analysis and fourth is about intra-country analysis and; last part is about summary of dividend match.

Team (Country) Analysis:

Out team consist of Pakistan and India (sample countries). Both are neighboring countries and share same corporate environment to some extent. Pakistan and India both attained independence in 1947. The analysis is to be made on different basis. First, on the basis of sample distribution, second is on the basis of descriptive statistics, third is on the bases of variables means, fourth is on the basis of regression analysis. And fifth is on the basis of impact of variables analysis. The analyses are to be discussed in detail as below.

On basis of sample distribution

When we compared Pakistan and India, it is observed that India has more companies which pay dividend. India has 54.2% of the dividend payer companies, whereas Pakistan has 52.5%.The number of more dividend payers firms in India is one of the reasons of having large setup firms as compare to Pakistan. However, Belanes et al. (2007) said in his study that large companies used to pay more dividends as compare to small firms.

On basis of Descriptive Statistics

The results reported in Table 1 show the mean value of the dividend payout in Pakistan is 1.77 and in India it is 7.46. And it provides the information that most of the firms in Pakistan dividend paid per share are Rs.1.77 and in India it is Rs, 7.46. Maximum amount of dividend paid per share is Rs 28.12 by India.

Regarding the leverage, it was calculated by debt ratio (total debt divided by total asset). The mean value of the leverage is 3.08 in Pakistan and in India it is 1.28. And that provide the information that India had more levered firms as compare to Pakistan. Maximum leverage is 42.81 in Pakistan and 38.96 in India. The mean value of liquidity is 3.03 in Pakistan and 2.66 in India. That means that Pakistani's firms have strong liquidity position as compared to India. Maximum liquidity is 71 in India and 67.14 in Pakistan. Finally, the average value of the profitability is 10% in Pakistan and 14% in India. The results show that India has strong profit position as compared to Pakistan.

Table 1. Descriptive statistics of Pakistan and India

	Dividend		Leverage		Liquidity		Profitability	
	Ind	Pak	Ind	Pak	Ind	Pak	Ind	Pak
Mean	7.46	1.78	1.28	3.08	2.66	3.03	14.17	10.81
Standard Deviation	0.96	0.16	0.06	0.2	0.08	1.19	2.72	5.29
Skewness	7.04	13.41	19.09	8.3	11.89	12.16	27.56	23.41
Maximum	28.12	16.14	38.96	42.81	71	67.14	77.76	43.42

All the values of the explanatory are positively skewed. Standard Deviation displays the variation in the data. The highest value Standard Deviation is 5.29 which show that the great variation in the Profitability of Pakistan is due to dividend payout. Leverage has a minimum value of Standard Deviation i.e. 0.06 which expresses that Leverage causes minimum variant in the Dividend payout of India. P-

value of all variables is less than 5%, implying that the variables are significant at 95% confidence interval (Gharaibeh, 2013).

On basis of Regression analysis

For the regression test, there is first need to perform the hausman test. The results of hausman test shows that for Pakistan and India, the fixed effect model is to be applied for regression analysis.

Regression discussion

In Pakistan overall regression model explains approximately 84% (R^2 = 0.84), whereas in India it is 91%. This value shows the variation in the dependent variables due to the independent and explanatory variables The F-statistics is 11.17 in Pakistan and in India it is 27.24 that determine the significance of the model.

The value Durbin-Watson stat is 1.91 in Pakistan and in India it is 1.47 which is close to 2 and that provides the evidence that there is no autocorrelation in our data. This result is consistent with Najjar (*2009*), Araujo *et al* (2011). The common average dividend payout rate for whole Pakistan is 1.482931 while for India it is 18.92571.

Table 2. Regression

	Pakistan			India		
Variable	Coefficient	t	P.	Coefficient	t	P.
C	1.482	6.638	0	18.925	11.61	0
Liquidity	.041	2.676	.0115	.287	1.66	.0103
Leverage	-.013	.511	.0121	-.101	-.41	.0468
Profitability	.011	-1.512	.0214	.155	1.68	.01
Fixed Effects (Cross)						
Chemicals-C	-.393			12.754		
Construction-C	-.198			10.144		
Food-C	-.391			-2.814		
Oil-C	-.57			2.5		
Textiles-c	1.554			-3.66		
R-squared	.844					.916
Adj. R-square	.768					.883
Durbin-Watson	1.91					1.476
F-statistic	11.171					27.247

From the analysis of regression, it shows the variation in the dependent variables due to the independent and explanatory variables.

From the regression equation, our study makes the two regression equation i.e. of Pakistan and India.

Pakistan $DVPO_t = 1.428+ 0.0412\ LQDT_t + 0.0118\ PRFT_t - 0.0135\ LVRG_t$

From the regression analysis of Pakistan, its coefficient is positive and this positive sign shows the positive relation of liquidity with the dividend payout. The liquidity is significant. The next variable is Profitability, it is significant and the positive sign proves that the Pakistan companies' profitability is positively related to dividend payout. The other variable is leverage, it is significant and its negative sign shows that the leverage has negative impact on dividend payout.

India $DVPO_t = 18.925+ 0.2875\ LQDT_t + 0.1553\ PRFT_t - 0.1011\ LVRG_t$

From the regression analysis of India, the liquidity has positive sign and it shows the positive relation of liquidity with the dividend payout. The next variable is Profitability. Its positive sign proves that the India companies' profitability is positively related to dividend payout. .the profitability is significant. The other variable is leverage. Its negative sign shows that the leverage has negative impact on dividend payout. The leverage is significant.

On the basis of Impact of variables:

The dependent variable is dividend payout and the independent variable is liquidity, leverage and profitability.

Liquidity: Liquidity is one of the most important explanatory variables. The coefficient is positive in both India and Pakistan. The positive sign and statistical significance outcomes show the acceptance of our hypothesis. This positive relationship is supported by the "signaling theory" of dividend policy (Ho, 2003). Thus, this study supports the hypothesis that liquidity has a positive and significant impact on dividend policy in Pakistan and India companies.

Leverage: Leverage is one of another most significant descriptive variable. The coefficient is negative in both India and Pakistan. The negative sign accept our hypothesis that the leverage has negative impact on dividend payout. The reason for this negative association is that high leverage firms carry a large volume of transaction costs from external source of finance. (Al-Malkawi, 2005; Naser et al., 2004; Aivazian et al., 2004; Faccio et al., 2001; Mollah, 2001; Crutchley, 1989).

Profitability: Profitability is one of another most significant explanatory variable. The coefficient is positive in both India and

Pakistan. The positive sign and statistical significance results verify the acceptance of our hypothesis that profitability has positive impact on dividend payout. The observed positive relationship among dividend payout and profitability is like with the outcomes by Fama and French (2000) and Han et al. (1999). The profitability is a vital factor that effect the dividend payout is supported by Al-Malkawi (2005), Wang et al. (2002), Pandy (2001) and Adaoglu (2000).

Player (Industry) Analysis:

Today, industry is an important part of most societies and nations.The industries of any country depicts the economic growth and development of any economy. If these industries work properly then it gives the positive impact on economy. The analysis is to be made on different basis. First is on the basis of sample distribution, and second on basis of descriptive statistics. The third is on basis of regression analysis. The analyses are to be discussed in detail as below.

On the basis of sample distribution:

The study used sample of five industries of Pakistan and India for studying the dividend behavior. The dividend paid companies in Textile sector is 39% in Pakistan and in India it is 44%. Similarly in the chemical sector, the dividend payers are: 53% in Pakistan and 67% in India.

Most of the companies listed in oil & gas sector are dividend payers: 66% in Pakistan and 51% in India. Another sector is the food sector. The dividend payers in this sector are 66% in Pakistan and in India it is 58%. Cement sector is not a large sector of the Pakistan and India. But most of the companies are dividend paid. Dividend payers: are 58% in Pakistan and 56% in India. This shows that this industry attracts more investors as compared to others.

On basis of descriptive statistic (Means)

It is considered to be the best way for describing the variables by taking the means of every industry and sector (Attaullah, 2007). The table presents means for the variables discussed above.

Table 3. Means of Selected variables by Industries

	Chemicals		Construction		Food		Oil and Gas		Textiles	
	Ind	Pak	Ind	Pak	Ind	Pak	Ind	Pak	Ind	Pak
Dividend	3.78	.91	17.95	1.148	3.26	1.14	20.89	1.01	25.9	23.3

Leverage	.89	2.82	4.25	2.54	.79	4.77	1.16 3	4.77	1.88	2.74 6
Liquidity	2.34	1.99	2.22	1.25	4.82	5.43	5.84	4.95	5.11	10.8 8
Profitability	16.1 8	20.4 5	15.9 4	24.4 6	25.0 1	18.6 6	20.7 2	19.4 8	20.5 7	14.3 7

Analysis of the table shows that textile sector paid high dividend as compared to other sample sectors. The possible explanation for this high dividend is that textile sector is relatively more capital intensive. The results confirmed those reported by Attaullah (2007). In chemical sector Pakistan has low dividend payout ratio whereas in India food sector has low.

Leverage ratio is the highest in oil and gas industry in Pakistan whereas in India Construction industry has high leverage. Liquidity ratio is highest for textile sector in Pakistan. In India Oil and Gas have high liquidity position. This shows that textile sector has the strong liquidity position in Pakistan.

On the basis of Regression analysis

The sampled sectors are analyzed one by one.

Textile sector in Pakistan has the deviant amount in that industry. This shows that textile industry of Pakistan has different dynamics. It has downward slope, whereas in India it has upward slope. The textile areas carry on to be the carrying force for economic growth in both Pakistan and India. Sector in both economies accounts for an important portion of traded goods. (SBP report, 2013). Most of the companies in textile sector are family control (Ghani and Ashraf, 2005). They concluded that 60% Textile companies are the owner of same family.

Table 4. Dividend Payout Trend on Sample Industries

	Pakistan			**India**		
Sector	c	Difference *	Specific industry value **	c	Difference *	Specific industry value **
Textiles	1.482	1.554	-0.071	18.92	2.5	16.425
Chemicals	1.482	-0.393	1.876	18.92	12.754	6.17
Oil & gas	1.482	-0.57	2.053	18.92	-2.814	21.739
Cement	1.482	-0.198	1.681	18.92	-3.66	22.586
Food	1.482	-0.391	1.874	18.92	10.144	8.78

* Difference = c – Specific Sector value

** Fixed effect (cross) value

The chemical sector is highly contributed sector in the economic development of any country. In Pakistan, the deviant amount in that industry is above the c. This shows that chemical industry of Pakistan has upward slope, whereas in India, the deviant amount in that industry has upward slope. Both countries have different dividend dynamics in chemical industry.

Oil and Gas sector contains most of the blue chip companies. In Pakistan, The deviant amount in that industry is 0.57. It shows that oil & gas industry of Pakistan has different dynamics. It has upward slope. In India, the deviant amount in that industry is 2.814. It indicates that oil & gas industry of India has upward slope.

Cement Sector is not a large sector of the Pakistan and India. But most of the companies are dividend paid. In Pakistan, the deviant amount in that industry is 0.198. This shows that cement industry of Pakistan has different dynamics. It has upward slope. In India, The deviant amount in that industry is 3.66 which show that cement industry of India has upward slope.

Food sector has the main sub-categories of fresh food and processed food. These are mostly the perishable goods for which they need proper packing within the time. After the time they become waste. Government of both countries has make policies for betterment of that sector. Both countries have different dynamics of dividend. In Pakistan, it has upward slope, whereas in India it has downward slope.

lntra-Country Analyses:

The intra-country analysis is made on three bases. First is over dividend Yield. Second is on dividend Payout and Third analysis is on basis of ranking correlation.

Intra country analysis on basis of Dividend Yield:

The outcomes brief dividend yield data by industry are displayed in table 5. They pointed out with the exclusion of Pakistan in 2009 that the H Statistics significantly go above the critical x^2 values for each year in the era 2002-2011 for both the Pakistan and India. In other words, the null hypothesis that across-industry dividend yields are produced from the similar population is rejected for both Pakistan's and India's samples.

The outcomes confirm those reported throughout the period 1967-1976 for the American sample by Michel (1986), Shaked (2002) and Michel (1979). The present research, though, recommends that the industry-influence occurrence also occurs in both countries Pakistan and India.

Our hypothesis is accepted by these results that there is a systematic association exists among a dividend policy of firm and its industry (Textile, Construction, Chemical, Oil & Gas and Food & Personal care products sector).

Intra country analysis on basis of Dividend Payout:

In addition to the dividend yield, intra country analysis is also measured by dividend payout. The industry impacts on dividend payout have been examined, and this data by industry is shown in table 6.

The table displays that the H statistics significantly go above the critical x^2 values for each year in the era 2002-2011 for both the Pakistan and India. In other words, the null hypothesis that the dividend payout ratios of the sampled industries are created from the similar population is rejected for both countries.

Our hypothesis is accepted by these results that there is a systematic association exists among a dividend policy of firm and its industry (Textile, Construction, Chemical, Oil & Gas and Food & Personal care products sector)

These results are also confirmed by those reported during the period 1967-1976 for the American sample by Michel (1986) and Michel (1979).

Table 5. Intra Country analysis of Dividend Yield 2002-2011

INDUSTRY		**02**		**03**		**04**		**05**		**06**		**07**		**08**		**09**		**10**		**11**	
		pak	ind	pak	ind	pak	ind	pak	ind	pak	ind	pak	ind	pak	ind	pak	ind	pak	ind	pak	ind
Oil & gas producers	*x*	0.64	1.48	0.61	1.94	0.66	1.69	0.75	2.22	0.64	1.91	0.86	1.91	0.88	1.93	0.79	1.72	0.78	1.76	1.06	1.62
	σ	(0.39)	(0.77)	(0.38)	(1.25)	(0.44)	(0.77)	(0.63)	(2.38)	(0.45)	(1.19)	(0.65)	(1.08)	(0.64)	(1.45)	(0.53)	(0.69)	(0.59)	(0.84)	(0.63)	(0.81)
Chemicals	*x*	1.03	1.99	1.06	1.98	1.15	1.82	1.22	2.15	1.09	2.34	1.07	2.34	1.10	1.95	1.14	1.92	1.18	2.21	1.26	2.12
	σ	(0.71)	(1.06)	(0.80)	(1.30)	(0.96)	(0.89)	(0.93)	(1.56)	(0.81)	(1.52)	(0.74)	(1.46)	(0.82)	(0.91)	(0.84)	(1.00)	(0.91)	(1.34)	(1.03)	(1.48)
Food and Personal care	*x*	0.59	1.90	0.66	1.63	0.67	1.73	0.67	1.50	0.65	2.00	0.69	2.00	0.70	2.02	0.73	2.09	0.70	2.40	0.89	2.16
	σ	(0.59)	(1.79)	(0.62)	(1.41)	(0.60)	(1.45)	(0.60)	(0.97)	(0.62)	(1.81)	(0.65)	(1.41)	(0.63)	(1.39)	(0.64)	(1.65)	(0.64)	(2.11)	(0.70)	(1.78)
Cement	*x*	0.53	1.59	0.48	1.23	0.64	1.95	0.61	2.07	0.61	2.35	0.48	1.77	0.65	1.81	0.80	2.18	0.62	2.11	0.78	1.61
	σ	(0.33)	(1.46)	(0.35)	(0.67)	(0.50)	(2.15)	(0.72)	(1.99)	(0.55)	(2.29)	(0.34)	(0.94)	(0.45)	(1.04)	(0.74)	(1.78)	(0.57)	(1.39)	(0.53)	(0.75)
Textile	*x*	1.81	1.79	1.94	1.80	2.20	2.67	2.22	2.64	2.59	2.58	2.46	2.58	2.37	2.53	2.56	2.76	2.95	2.99	2.54	2.20
	σ	(1.32)	(0.79)	(1.40)	(0.93)	(1.49)	(2.42)	(1.51)	(1.89)	(2.06)	(1.49)	(1.42)	(1.23)	(1.47)	(1.32)	(1.70)	(1.37)	(2.18)	(1.56)	(1.65)	(0.92)
H static		22.71	22.70	14.90	20.00	19.80	26.40	16.50	20.80	20.12	21.72	21.72	13.08	17.43	35.00	7.00	9.44	11.97	15.80	13.50	13.08
level of significance		.00 1	.001	.00 5	.015	.001	.00	.00 2	.00 2	.00	.002	.003	.001	.005	.475	.336	.357	.451	.454	.457	.459

x. mean σ (standard deviation) in percent.

Table 6. Intra Country analysis of Dividend Payout 2002-2011

INDUSTRY		**02**		**03**		**04**		**05**		**06**		**07**		**08**		**09**		**10**		**11**	
		pak	ind	pak	ind	pak	ind	pak	ind	pak	ind	pak	ind	pak	ind	pak	ind	pak	ind	pak	ind
Oil & gas producers	*x*	13.74	15.96	16.43	15.22	16.92	18.05	18.30	17.20	18.04	19.12	17.01	19.17	16.93	21.76	16.35	23.40	16.12	23.81	18.66	19.38
	σ	(3.03)	(14.18)	(3.54)	(14.32)	(3.23)	(17.23)	(4.08)	(15.06)	(3.34)	(15.69)	(4.06)	(14.90)	(4.78)	(16.82)	(7.10)	(18.31)	(6.63)	(16.93)	(5.47)	(13.70)
Chemicals	*x*	12.76	27.92	12.77	30.09	12.85	30.84	13.60	36.29	12.55	32.22	12.54	29.85	12.99	31.52	12.40	28.98	13.08	26.78	13.10	28.52
	σ	(8.74)	(23.78)	(8.90)	(22.69)	(8.42)	(23.37)	(6.88)	(33.03)	(6.16)	(23.92)	(5.91)	(22.47)	(5.56)	(21.65)	(4.78)	(22.32)	(5.10)	(20.88)	(4.55)	(22.29)
Food and Personal care	*x*	14.23	25.20	15.03	27.74	14.57	34.40	16.21	28.81	12.80	29.11	6.99	33.35	4.81	34.53	16.30	34.35	17.47	35.27	23.23	32.29
	σ	(12.41)	(25.18)	(12.33)	(27.75)	(11.26)	(28.38)	(13.93)	(24.46)	(11.76)	(26.84)	(6.76)	(29.61)	(4.72)	(27.68)	(15.81)	(27.60)	(14.97)	(27.48)	(20.76)	(22.46)
Cement	*x*	8.97	11.04	8.68	12.95	10.47	14.52	9.85	14.62	9.51	17.37	8.43	14.56	9.66	15.21	8.90	16.16	8.54	21.23	8.86	14.28
	σ	(3.84)	(10.97)	(4.36)	(12.74)	(5.26)	(12.80)	(5.91)	(11.58)	(4.83)	(14.50)	(3.21)	(13.06)	(5.83)	(11.09)	(3.14)	(11.36)	(2.91)	(15.89)	(3.29)	(10.88)
Textile	*x*	18.22	20.41	19.56	22.60	22.24	26.05	22.40	23.10	26.11	25.58	24.85	17.66	23.90	15.69	25.82	22.37	29.78	19.55	25.62	15.93
	σ	(13.31)	(18.78)	(14.15)	(20.86)	(15.01)	(22.59)	(15.26)	(18.31)	(20.81)	(22.01)	(14.37)	(13.96)	(14.79)	(15.48)	(17.10)	(19.66)	(21.94)	(13.88)	(16.64)	(13.42)
H static		21.65	21.14	21.13	10.90	15.20	21.62	10.20	14.40	19.57	26.20	18.10	3.74	6.74	18.10	23.20	19.57	26.20	13.93	17.94	30.40
level of significance		.004	.003	.0003	.028	.004	.0006	.07	.013	.0006	.0001	.001	.588	.241	.001	.0001	.0006	.0001	.003	.0005	.0001

x. mean σ (standard deviation) in percent.

Intra country analysis on basis of Industry Ranking by Dividend Yield:

In order to define the stability of rankings across industries, the five industries have been ranked through their average dividend yield, for each year in the research period 2002-2011. Michel (1979) only used dividend yield instead of dividend payout for measure industry ranking. Therefore this study only used dividend yield for measure industry ranking.

Table 7. Industry Ranking by Dividend Yield (India) (1=highest, 5= lowest)

	11	**10**	**09**	**08**	**07**	**06**	**05**	**04**	**03**	**02**
Oil & gas producers	4	5	5	4	4	5	2	5	2	5
Chemicals	3	3	4	3	2	3	3	3	1	1
Food and Personal care	2	2	3	2	3	4	5	4	4	2
Cement	5	4	2	5	5	2	4	2	5	4
Textile	1	1	1	1	1	1	1	1	3	3
r	0.9	0.7	0.4	0.9	0.4	0.3	0.3	0.3	0.3	

In India: As shown by the results, the striking characteristics of the industry-effect are its intertemporal stability. e.g., in Table 7 the median year-to year change in ranking is zero. In India, during the period of 2004-2011, textile industry has topped the dividend yield ranking. However in 2002-2003 chemical industry are in the top rank. And there is no fixed industry ranked in bottom. One time food industry, five times oil & gas industry and four times cement industry are ranked bottom.

Table 8. Industry by Dividend Yield (Pakistan) (1=highest, 5= lowest)

	11	**10**	**09**	**08**	**07**	**06**	**05**	**04**	**03**	**02**
Oil & gas producers	3	3	4	3	3	4	3	4	4	3
Chemicals	2	2	2	2	2	2	2	2	2	2
Food and Personal care	4	4	5	4	4	3	4	3	3	4
Cement	5	5	3	5	5	5	5	5	5	5
Textile	1	1	1	1	1	1	1	1	1	1
r	1	0.7	0.7	1	0.9	0.9	0.9	1	0.9	

In Pakistan: the results are reported in Table 8. In the Pakistan, in every single year, the textile industry has topped the dividend yield ranking. While the cement industry is at bottom in rank in all periods except in 2009. In 2009, food industry is at low rank.

This stability is formally considered through a set of rank correlations described in Table 7 and 8. For the Pakistan sample, the nine correlations are very high; they are all in the range 0.70-1.00 and significant at 1 %. The industry ranking for the India data is to some extent less stable than for the Pakistan data (Table 8). However, the Pakistan ranking is practically more stable. While India with nine rank correlations in the range 0.30-0.90, each is significant at better than five percent.

Our hypothesis is accepted by these results that there is a systematic association exists among a firm's dividend policy and its industry (Textile, Construction, Chemical, Oil & Gas and Food & Personal care products sector). The similar results are reported by Michel (1986) in USA and Japan data.

Finally, it was set up to be useful to measure the intra-country association among dividend payout and yield. The results are similar to those found for Michel (1979) using classes of industry payout and yield data, and by Black and Scholes (1974) for USA data, using well-diversified portfolios.

Inter-Country Analyses

Two dividend parameters are used for measure Inter-country analysis. And these parameters are dividend payout and dividend yield.

Inter country comparison on basis of Dividend Yield:

Table 9 shows the outcomes for the tests where dividend yield have been used as the applicable dividend parameter. Strikingly, in all conditions where the test results are statistically significant (at 5 percent); the dividend yields of the numerous industries in Pakistan are larger than those of its India matching part. From 2004-2011, Pakistan has high dividend yield. In cement sector, in not any single year, Pakistan has high yield.

Table 9. Pakistan dividend yield compared with India

Industry	11	10	09	08	07	06	05	04	03	02
Oil & gas producers	-	-	-	-	-	-	-	-	-	H
Chemicals	-	-	-	-	-	-	-	H	H	-

Food and Personal care	H	H	H	H	H	H	H	H	-	-
Cement	-	-	-	-	-	-	-	-	-	-
Textile	H	-	-	-	-	H	-	-	H	H
all (combined)	-	-	-	-	-	H	-	-	-	H

Note. H: High

These high payout ratios are obviously surprising to those familiar with the generally believed proposition that the India have a long-term orientation. It has been argued that particular features of India`s system stimulate a long-term orientation in general, and low dividend payout in particular.

Inter country comparison on basis of Dividend Payout:

However, as indicated by Table 10, whenever the test results are statistically significant, the payout ratios of the sampled India industries are higher than those of the matched Pakistan groups. Pakistan has low dividend payout in all years in Chemical sector. But in food sector, Pakistan has high dividend payout in all years.

Table 10. Pakistan dividend payout compared with India

Industry	Dec '11	Dec '10	Dec '09	Dec '08	Dec '07	Dec '06	Dec '05	Dec '04	Dec '03	Dec '02
Oil & gas producers	-	L	L	L	L	-	-	L	-	-
Chemicals	L	L	L	L	L	L	L	L	L	L
Food and Personal care	-	-	-	-	-	-	-	-	-	-
Cement	L	L	L	L	L	-	L	L	L	-
Textile	-	-	L	-	-	-	L	L	L	L
all (combined)	L	L	L	-	-	-	L	L	L	L

Note. L: Low

In overall Pakistan has low dividend payout in seven years and having high dividend payout in three years from 2006-2008. Our hypothesis is accepted in both cases of dividend parameters that there is a systematic association exists among a dividend policy of firm and the country in which it operates. The similar results are reported by Michel (1986) in USA and Japan data.

Summary of Dividend Match:

That study is about the dividend match played between Pakistan and India. Whenever there is a match played, one team wins and other losses, or there is a draw at the end of match. And then the awards are distributed to the players. There is always a one "player of the match".

In that study Pakistan and India were the teams. Match is about the dividend. The players are the sampled industries. That match has played on basis of team (countries) and player (industries) analysis. In case of Team, India has highest score in dividend payer firms i.e. 54.2 and in highest average leverage i.e. 24.94 and in highest average profitability i.e. 14. And India has highest dividend payout mean i.e. 26.98. In case of other team score, Pakistan has highest score in dividend non-payer firms i.e. 47.5, and in highest average liquidity i.e. 9.032. And Pakistan has also highest average dividend yield i.e. 4.02. Now the turn is about the score board of Players (industries) award. Pakistan has highest percentage of dividend paid firms, in the oil & gas sector i.e. 66.7 %, and In the Food & personal sector i.e. 66.7 % , and in the cement sector i.e. 58.3 % . And in case of India, chemical sector and Textile sector has highest score in dividend paid firms. I.e. chemical has 67.3 % and Textile has 44.2 %.

In average dividend, Textile industry of India has highest score, i.e. 25.90. And in leverage, player (oil and gas industry) of Pakistan has highest score, i.e. 4.77. Than the turn is of liquidity award, player (textile) of Pakistan has highest score i.e. 10.88. And the last award is of average profitability, highest score is of player (food industry) of India has highest score i.e. 25.01.

Conclusion and Recommendation

The purpose of this study is to determine the different dynamics and trends of dividend payout between Pakistan and India. This study is made in the form of dividend match between these two countries. More specifically, the analyzes were done using data resulting from the financial statements of listed companies of textile, construction, chemical, oil & gas sector and household & healthcare sector of Karachi Stock Exchange (Pakistan) and National Stock exchange (India). The results are on the period of 10 years from 2002-2011. This study empirically studied the data for a sample of 85 companies of Pakistan and 167 companies of India. Dividend payout ratio is taken as the dependent variable

In order to achieve the objective of study, five hypotheses had been developed. First two were about inter and intra country analysis. And for testing the same approach used as by Michal (1986). For this, the study used the empirical tests to perform intra and intra country analyses for Pakistan and India. The first hypothesis was to determine if a systematic relationship exists between a dividend policy of firm and the industry in which it operates. The outcomes point out that the hypothesis accepted for both the Pakistan and India.

Second hypothesis was carried about the inter-country analyses. Kruskal Wallis test was used for that analysis. In all circumstances where the test outcomes were significant, the payout ratios of the sampled Pakistan industries were higher than those of their Indian counterparts.

Fixed and Random effect model was used to test the other three hypotheses. A Hausman test result showed that fixed effect model was used. Third hypothesis was about the profitability which has positive impact on dividend payout. The result showed and confirmed hypothesis that the firms with high profitability have chances to pay more dividends (Mannos, 2002). Fourth hypothesis was accepted and the result showed a positive relationship between dividend payout and liquidity. That indicated a good liquidity position of companies (Gitman, 2009).

Fifth hypothesis was accepted and the results also showed significant negative associations between dividend payout and leverage. These results obtained here provided support to all previous research found the similar outcomes (Al-Malkawi, 2005; Kic.Han, 1999). The significant negative coefficient on the leverage variable supported agency cost.

In general, the results suggested that more profitable and high liquid companies pay more dividends while more levered companies tend to pay lower dividends. Also the study clearly showed that profitability, liquidity and leverage were the three most significant factors affecting dividend policy of Pakistan and India.

No research work seems to be in its conclusive form without suggesting the directions for future researchers as have been found.

- In the segment of future research the need arises to enhance the size of sample corporate entities along with its period of study.
- This research focused on annual data. Monthly, weekly and daily data can also be considered
- External and internal factors affect the decision of paying dividends. For this more variables will be taken

to check the inter and intra country analysis and to check the impact of liquidity, leverage and profitability on dividend policy.

- More research can be done by taking other industries. Comparison between different companies and industries inside the country can be done.

Perhaps the famous statement of Fisher Black about divined policy "the harder we look at the dividends picture, the more it seems like a puzzle, with pieces that just do not fit together" (Black, 1976, p. 5) is still valid.

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