Earnings Management and Dividend Policy: Empirical Evidence from Major Sectors of Pakistan

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ABSTRACT

This paper means to inspect the relationship between price earning (P/E) ratio as a proxy of earning management and dividend payout proportion. This paper utilizes multivariate analysis using 10 years annual data from 2006 to 2016. It delivers new confirmation demonstrating that when the return on equity is more prominent than the required rate of return, the P/E ratio and dividend payout ratio shows a negative relationship and positive convexity or vice versa. This study helps the corporate superintendents and stock financial experts to focus on decreasing payout ratio than the increasing payout ratio. No past review has handled the issue of the contingent relationship between P/E proportion and payout proportion in Pakistani Industry and specifically on fertilizers, cement, food and oil & gas sectors.

Keywords: Dividend Per Share, Price Earnings Ratio, Returns on Equity, Earning Per Share
JEL Classifications: C10, G12, G35

1. INTRODUCTION

Dividend policy (DP) is one of the three important choices of financial management. The selection of the firm on the basis of income level that could be paid as profit and the degree that could be held by the firm is the concern of DP. In short, dividend refers to profit earned by the investor on their investment. A specific amount of profit is distributed to shareholders of listed companies on a particular date after the closing of accounting records. As it was, the DP figures out what proportion of profit is to be paid to shareholders on their investment and what amount is ploughed back in the firm itself for its reinvestment purposes. Over the prior decades, the practices of various organisations for paying the dividends to shareholders has changed essentially. The number of companies may not be able to adhere to their objective for distribution of dividends and showing the earnings are particularly low in the specific year, in this way organisations earn a higher percentage of income and paying a lesser amount of dividend to shareholders. This will create the negative impact in the eyes of shareholders for investing their equity in the same company or sector.

The motivation behind this review is to research the relationship between DP and earning management. In economic condition, a number of financial consultant and financial experts are worried about profits and dividends policy of the organisations. DP is the most questionable theme among the experts. It is talked about people that majority of individuals which have the wrong idea about profit strategy means DP and share value relationship to expand the shareholder's capital that is earning management mechanisms.

DP is the most discussed question in the world of business. Many of the financial specialists are figured with expanded free factors like management strengthens, future productivity, and proprietorship yet at the same time we can't have any predictable justification for the experiential conduct of profit/dividend of various organisations (Ahmed and Javed, 2009).

The level of a dividend of firm specifically reflects the variability in income rank of the enterprises. Financing choices of Finance workforce of the organisation, for example, dividend payout proportion can have an impact on the association's net operating income scale. Retained Earnings of a firm portrayed the volume of financing that the firm can work without motivated against different firms in the capital market. For the most part, the dividend

is considered as the straight method for communication to outside financial experts as well as investors about the performance of the organisation (Naceur et al., 2006).

It is observed that capital market and the economy of Pakistan has various fundamental structures for investigating the changing parts of DP. To begin with that the Pakistan is moving toward advance progress, improvement and change of financial circumstances since 1980 in the world. Now a day Pakistani market discovered impressively developed rather than a capital market in later years.

It is determined through various previous studies that due to in generous corporate control of proprietorship structure of listed companies in Pakistan, the habitually set through the control of single principle title holder who try to deal with a huge gathering of related firms with slight volume of shares or bargain that outcome, which surely create conflict among the shareholders and the proprietors. Where representing or main shareholders seize an incentive from lesser shareholders which fit the effect of DP method without any trouble (Mostafa, 2017).

There are a couple of variables through which organisations centre in forming their profit approach like productivity, dedication, the devotion to the organisation and so on. In the US, choice of top administration with respect to DP is overstated by behavioural condition and administrative (Juma'h and Pacheco, 2008, Salman, 2013). They encouraged that occasionally it happens that economically and financially stable organisations do not pay dividends on their profits and the organisations with small development area pay dividends on the net income they earn, either it will be the very undersized amount. They are of perspectives that the organisations, which pay dividends, are the ones who are typically huge in size, returns, in liquidity proportion and more concentration in innovative work as a contrast with the organisations, which frequently pay profits (Schreiner & Spremann, 2007).

1.1. Research Problem
Firms for the most focus about whether to pay a small, large or zero rates of their profit as dividends or to keep them for future ventures. Since the management of organisations, make an effort to fulfil the requirements of shareholders. An organisation ought to attempt to pay profit yet in the meantime keep up adequate held profit to abstain from raising a new fund. This study aims to assess the impact of DP on the price-earnings ratio.

1.2. Research Questions
- Is decrease in payout ratio has more influence in price-earnings ratio than the increase in a payout ratio of equal magnitude?
- Is there any impact of payout dividends and earnings in the Recession and Economic Recovery Session?.

1.3. Objectives of Study
- To identify the distinct effect of payout proportion on DP.
- To concentrate the relationship amongst DP and Price earnings ratio on major areas of Pakistan by deciding the presence of co-coordinating of size, leverage and profitability ratios.
- To help the financial specialists and portfolio supervisors in their basic leadership and decision making.

1.4. Justification
Presently a-days financial specialists or investors require quick decision making for expanding their profits so that is the reason this research makes less demanding for the investors to take their choices. This Research represents four Pakistani sectors through which investors have an extraordinary clear thought regarding firm's performance, dividend payout, their profitability and leverage terms. By distinguishing investors point of view this research is able to provide the clear image of the sector's DP that either they should manage those dividends or reinvest in the same sector.

1.5. Limitations
In view of the restricted period, we orbited our parameters and work on main four sectors of Pakistan and the information will be gathered from the website of State Bank of Pakistan (State Bank of Pakistan, 2017). Through this site, information is easily accessible which help us to distinguish the impact of DP on the different variables like payout ratio, market capitalization, debt to assets and many others, in order to make a quantitative analysis on the sectors of Pakistan. Along with time constraint, there is an issue of budget constraint as it is a student project so it is funded less otherwise meetings will be conducted with the financial specialist to understand the clear image of Pakistani markets.

1.6. Scope
This study determines concrete sectors of Pakistan by examining the 10 accounting years of the financial statements from 2006 till 2016 of the 4 sectors of Pakistan whom data is easily accessible. All the data of 4 Sectors will be accessible from the SBP Website along with the individual financial statements of the companies. Another source from where the data is collected is through Thomas Reuters datastream, which provides the data daily, monthly, or on yearly basis.

1.7. Assumptions
1.7.1. Perfect capital market
This hypothesis has confidence in the presence of 'flawless capital markets'. It accepts that financial experts are balanced and rational, they have right to use free data, there are no floatation or exchange costs and no expensive speculator to affect the market cost of the share.

1.7.2. No taxes
There is no presence of taxation. On the other hand, both profits and capital gains are implementing on a similar rate.

1.7.3. Fixed investment policy
This implies new speculations that are financed through retained earning do not change the risk or hazard and the rate of required return of the firm.

1.7.4. No risk of uncertainty
Every one of the financial specialists is sure about the future market costs and the profits. This implies a similar discount rate is relevant for a wide range of stocks in unequalled periods.

This paper is classified into different sections. The first section consists of introduction and objectives. The second section or

chapter is of review from national and international studies under DP and earning management domain. In the third section, data and methodology have been discussed. The fourth and fifth sections of this paper consist of analysis and major findings and conclusion and future research directions respectively.

2. LITERATURE REVIEW

Many of the theories analysed the relationship between corporate leverage and DP of the organisations crosswise over parts in India on board information of 73 firms for a period 1996-2007 (Amidu, 2007). The review demonstrated that there was a noteworthy effect of chose indicator factors on profit conduct; the DP of little size, medium size and huge size firms and general corporate firms all over in India was subject to the obligation on debt to equity ratio that is financial leverage (Azhagaiah and Veeramuthu, 2010).

Another review looks into the concentrated the relationship between financial performance and dividend payout among the recorded firms in Nigeria for a time of 5 years i.e., 2005-2010 and found that there was a huge positive co-productive of the execution of firms and the dividend payout; ownership structure and company's size on profit payout of the organisations. (Uwuigbe et al., 2012)

Different observational investigations of signalling Asquith and Mullins (1983) have tried hypothesis, Healy and Palepu (1988), Michaely, Thaler, and Womack (1995), DeAngelo et al. (1996) and (Stacescu, 2006) works on the same strategy. The exact outcomes of this theory are, nevertheless, conflicting and inconsistent. To conclude, despite decades of studies, researchers have not come to a common consensus on the rationale of dividend payment by firms. In order to analyse and investigate the causality between price earning proportion and cost of value capital, a review was directed by (Rahman, 2010).The specimens of 50 firms were chosen listed in KSE that is Karachi Stock Exchange that time from the period of 2001 till 2006. The strategy they have embraced was Fixed Effect Model and Hausman test. The outcome uncovered that there was a negative connection between price-earnings ratio and the equity of the firm. On the other hand, control variable MR affected a positive connection with the value of the firms. They identify barrier that time period of study depended on just 6 years which could be upgraded along with slacked impact can likewise be checked that ROE and Growth would be connected to the cost of value of the firms in order to analyse the effects of the above proportions on the overall industry rather than a single firm. (Khan & I., 2009), investigated the impacts of budgetary proportions on stock returns by utilising 30 centre firms in the textile sector of Karachi Stock Exchange from 2001 to 2006. In addition, for that research, the organisations were chosen on the premise of their firm size only.

Examination of inconsistency and discrepancies connected alongside different regression and correlation strategies, which were utilised to check the relationship among dependent and independents factors. The outcomes discovered that stock return is free of price earning proportion and book to market proportion. Each situation implies that there was a low rate of progress in

stock return by independent factors. The effect of firm size on stock cost amid the income declaration was analysed by (Fan-Fah et al., 2008). The day and age they utilised from 1988 to 1997 from Kuala Lumpur Stock trade. They utilised different regression and correlation strategies. Examination of the outcome demonstrated the negative connection between's the size of the organisation that is market capitalization and it's procuring which likewise shows that the strange or abnormal returns are essentially clarified by the profit declarations. They additionally clarified that the share cost of large organisations has no <8% less valuation as contrasted and less significant firms, despite the fact that the distinction was unimportant.

The soul of hypothesis worked by Baker and Wurgler alludes to the point financial or monetary director's gives shareholders that are required at the season of investing. When it's about profits, hypothesis alludes that fund people of organisation start profits when financial specialists contribute nearly more share as an incentive on profits instalments as well as profits expenditures (Baker and Wurgler, 2004).

2.1. Shareholders Patterns and Dividend Payout

Another analyst analysed the impact of a shareholding example of the Indian corporate hotels. Information was gathered from 152 Indian firms (both listed and unlisted) in lodging industry from the electronic corporate database called CMIE and CATALINE database. Settled impact firm model estimation uncovered that there was a positive relationship between dividend, earnings, debt-equity ratio, the size of sales, the age of the firm and institutional shareholding. (Devaki and Kamalaveni, 2012).

There is ample of literature demonstrating P/E proportions are helpful in esteeming stocks. One of the researchers straightforwardly demonstrates that organisations with low price to earning proportion beat firms with a high price to earning proportion. (Basu, 1983).

(Liu et al., 2007), find that the price to earning proportion is the most imperative evaluating different apparatus in surveying the estimation and value of the firm, much more on the basis of cash flows measurements or profits.

The firm is obliged to be exceptionally in decision making in settling on a choice of the assignment of income to these two destinations that are retaining and profit distribution. When the firm has no inconvenience in meeting its fleeting necessities for cash, the firm is usually working for payout dividends, or else, it's held retaining income has moreover diminished payout and thus dividend yield for the year have continuously decreased (Okpara & Chigozie, 2010).

It is the regular observation that there is an industry standard for distribution of dividends (Wenjing, 2008). Firms simply take some unique trademark in a specific industry represents their dividend strategy. The relationship of dividend payout designs as indicated by industry have been considered by (Chin-Bun, 2005) in light of UK listed organisations highlighted in the FTSE. Nonetheless, he finds no solid or strong proof that payout examples are influenced

by industry. He contends that profit arrangement is specially chosen at individual firm level.

2.2. Function of Expected Earnings Growth and Expected Rate of Return

Valuation models, for example, the Gordon Growth show and the Ohlson and Jeuttner-Nauroth (OJ) demonstrate, recommend that the P/E proportion is a component of expected profit development and expected the rate of return. In particular, the hypotheses anticipate that P/E proportion is positively associated with the expected development and negatively corresponded with an expected rate of return. A few reviews find that P/E proportion is preferably clarified by forecasted growth than realised growth (Beaver & & Morse, 1978) (Zarowin, 1990). (Thomas & Zhang, 2006), demonstrate that supplanting the trailing P/E proportion with the forward P/E proportion yields comes about that is more steady with the theoretical predictions.

2.3. Effects of DP in companies

2.3.1. Malaysian companies

Zulkifli et al. (2012) in their review demonstrated the effect of dividend strategy in share cost unpredictability and instability in development organisations of Malaysia. A specimen of 106 development and textile organisations' and 77 construction and textile organisations for the time of six years was chosen. Instability share value used as the dependent variable and dividend yield. Dividend payout proportion use, development and growth, size and income as the independent variables. Variables were utilised. The least square regression model is utilised to translate or interpret the consequences of this review. The outcomes demonstrate that the dividend yields have a beneficial outcome that is a positive relationship between the share price (Bradley, Jarrell, & G, 1984).

2.3.2. Indian companies

Bawa and Kaur (2013), chose 308 firms, which have posting banner in National stock trade and Bombay stock trade with the goal to concentrate the effect of DP on SW (DP on shareholders wealth). Factors *viz.*, dividend per share (DPS), retained earnings (REPS), price earning proportion (PER) per share market price (MPS) were considered as independent factors and market cost per share (MPS) was considered as a dependent variable. Panel data methodology was connected to concentrate the effect of DP on market estimation of value. The outcomes demonstrated that over the longer period of time, shareholders' abundance of profit paying IT firms had been expanded fundamentally when contrasted with the expansion in SW of nonprofit paying IT firms (Bawa & Kaur, 2013).

2.3.4. Nigerian companies

Chidinma et al. (2013), in their review titled "Shareholders' value and firms' along with profit arrangement, utilised secondary information of 216 open restricted firms recorded on Nigerian stock trade for the time period of 11 years from 2000 to 2011. Per-share dividend (DPS) was considered as reaction variable, while income per share (EPS) and market cost per share (MPS) were considered as independent factors. The review found that dividend per share and market cost per share had a noteworthy effect on SW; a high-profit payout builds the market estimation of shares and in this way the SW. (Chidinma et al., 2013)

2.3.5. Sri Lanka companies

(Kumaresan, 2014), in his review concentrated on main ten firms in Sri Lanka amid the period of 5 years from 2008 to 2012. Shareholders' wealth or earning per share (EPS) was considered as reaction variable which is generally known as dependent factors while independent factors were profit for value (ROE), profit payout proportion (DPR), profit per share (DPS) and maintenance proportion (RR). The researchers utilized connection by correlation and regression models to evaluate and analyze information, and found that there was a positive connection between return on equity (ROE), dividend per share (DPS) and profit payout proportion (DPO) and shareholder's wealth (SW) of the chose firms under hotels and travel areas in Sri Lanka; and ultimately there was a negative connection between retention ration and wealth of the shareholders (Khan, Khan, Arab, Qaiser Khan, & Ahmed, 2013).

2.4. Reinvestment in Assets and Earning Management

The investigation of Hafeez Ahmed and Aliya Y.Javid in 2009 watches the elements of dividend payout strategy of 320 non-monetary firms recorded in Karachi Stock Exchange (PSX, Pakistan Stock Exchange, 2006) aid the period of 2001 until 2006. The outcomes demonstrate the non-money related a firm of Pakistan relies on the on acquiring per share and the past per share profit with a specific end goal to choose the future profits instalments. In addition, it is watched that the productive firms with more steady net income can think of the cash for bigger cash flow streams and therefore pay higher profits to shareholders (Myers, 1984). In like manner, the financial specialist's prediction and use affect the strategy of profit payout negatively. The market capitalization and the size of the firm have an unfriendly impact on profit payout approach, which exhibits that organisations put resources into their benefits or the long-term assets relative to paying profits to the shareholders. The aftereffects of the review Ahmed and Javid demonstrates that the recorded firms of Pakistan generally depend on the current gain instead of past-pronounced profits to ensure their profits instalments (Ahmed & Javid, 2009).

Dewet and Mpinda (2013) concentrated the effect of profit instalments on SW with a specimen of 46 firms recorded on the Johannesburg Securities trade (JSE) for the period of 15 years from 1995 to 2010, which is a long time period to analyse the effect of dividends on the earning per share. The Johansen co-combination and Granger causality test was utilised to portray the short – run and long-run elements of the factors *viz.*, Market per share (MPS), profit per share (EPS) and per share dividend (DPS). The outcomes demonstrated that over the long haul, dividend per share (DPS) was positively identified with market cost per share (MPS), while profit per share (EPS) don't have a noteworthy effect available on per share market price(MPS). JSE company focuses on the reinvestment of the dividends rather pay to the shareholders this will increase the efficiency of the company (Khan, Khan, Arab, Qaiser Khan, & Ahmed, 2013).

3. RESEARCH METHODOLOGY

The research is based on the positivist philosophy as it is based on the quantitative research approach, which is deductive from general

to specific by outfitting only the Pakistani Market. The research configuration is settled on the basis of the secondary information of 4 sectors of Pakistan gathered from the site of SBP (State Bank of Pakistan, 2017). Taking the Balance Sheet Analysis (BSA) and the Thomas Reuters DataStream of 10 years from 2006 to 2016 which is effectively and easily understandable by the financial specialists. In this way, quantitative approach is reasonable to analyse the financial related structure of the organisations.

After chosen the sectors on the premise of earning management, which is given below:

- Cement Sector, 23 companies are listed in Pakistan Stock Exchange (PSX) but due to unavailability of data 14 companies are to be taken for further analysis.
- Fertilizers sector is now a day is very famous in the while distributing their dividends among the shareholders. And due to availability of data, we have taken all the 7 companies which are listed on Pakistan Stock Exchange (PSX).
- Food Sector, 7 companies are taken for analysis.
- Oil and Gas Sector all the companies to be taken based on dividend distribution as well as retention ratio. So, all the 4 companies are to be taken for analysis in order to find out the effect on the overall sector.

Along with this in this research, I include the Panel Least Square model for analysis the regression and the F-Statistics which is given below:

$$(PE)it = \alpha_i + y_t + \delta_1 dpr_{it} + \delta_2 roa_{it} + \delta_3 roe_{it} + \delta_4 dy_{it} + \delta_5 dte_{it} + \delta_6 mcap_{it} + \delta_7 eps_{it} + \delta_8 mtb_{it} + \delta_9 erp_{it} + \varepsilon_{it}$$

Where i is the i industry, t denotes the time period in years, α_i is the fixed effect of industry, y_t is the fixed effect of time, δ_1 to δ_9 shows the symbol of parameters, ε_{it} is simply the error term? Other than that, there all other are independent variables, which is supportive and reassuring to analyse the effect on the price earning of the particular sector of Pakistan.

The fixed effect controls of the industry are basically the time-invariant characteristics of the which are not directly observed by the researchers which directly or partially influence the PE ratio of the industry.

3.2. Sample Companies
In the balance sheet, analysis (BSA) 14 sectors are listed so the population size of this research project is 14 sectors along with their companies listed in stock exchange.

From the 14 sectors 4 sectors to be taken to analyse the effect of dependent variables that is price earnings ratio on the other dependent variable so the sample size is 4 sectors. Sectors to be selected on the basis of paying a lot of dividends, market value is continuously increased and last but not the least through earning management process (Table 1).

3.3. Hypothesis Development
H_1: There is a positive relationship between the price-earnings ratio and return on equity.

H_2: There is a positive relationship between the price-earnings ratio and market to book ratio.

H_3: There is a positive relationship between the price-earnings ratio and market capitalization.

H_4: There is a negative relationship between the price-earnings ratio and equity risk premium.

H_5: There is a positive relationship between the price-earnings ratio and earning per share.

H_6: There is a negative relationship between the price-earnings ratio and dividend yield.

H_7: There is a negative relationship between the price-earnings ratio and debt to equity.

H_8: There is a positive relationship between the price-earnings ratio and dividend per share.

In this research, the annual information from 2006 to 2016 will be attained from secondary sources like statistics and annual financial statements, journals and publications by State Bank of Pakistan and from the BSA published by the SBP (State Bank of Pakistan, 2017).

Data analysis and major findings are covered in next chapter.

4. EMPIRICAL ANALYSIS & FINDINGS

The Table 2a-d show the descriptive statistics of the data series taken for different sectors. After analysing 132 observations, the dependent variable (PE ratio) show an average of 17.76 value of cement sector. Median is defining the middle value between the largest and the smallest values. Here different variables derive different values of median which is clearly defines in the above calculation. Maximum and the minimum in the descriptive statistics show the maximum and minimum value of the particular data that is of 132 observations and if I consider the dependent variable the maximum value of the price-earnings ratio is 250.0000 and a minimum value of observation is 1.200000. Standard deviation measures the dispersion of data that is it describes the unsystematic risk. Higher the standard deviation higher will be the unsystematic risk. Here debt to equity ratio shows the higher unsystematic risk 92. 499. While the other variables show lesser risk than debt to equity ratio.

As same as above the mean is the average of 55 observations of fertiliser sector of Pakistan that the sum of all the values divided by the no of observations that is 55. Medium determines the middle value of variables, along with the minimum and maximum value of the data. Standard deviation shows how to spread the information is out from the mean. Higher the standard deviation higher will be the unsystematic risk for the sector and away from the mean. Here the return on equity has 25% risk criteria to minimise for the overall fertiliser sector and set up the benchmark for estimating or organising the overall variations in the period of 10 years.

After analysing the data of food sector of Pakistan it is clearly shown that earning per share of the particular sector has higher standard deviation so ultimately this sector having higher unsystematic risk on the basis of one independent variable which is earning per share. All the 65 observations of food sector are significant because of the probability is <5%.

In oil and gas sector the 4 companies are listed in Karachi Stock Exchange analyse the positive tail skewed distribution and not having the greater unsystematic risk due to the minimum standard deviation. Along with this, there was not much variation in the minimum and the maximum value of the 41 observations taken from the oil and gas sector.

In the Table 3, this is clearly shown that 1 unit or 1 PKR increases

Table 1: Description of variables

Variable	Formula	Definition
Price earnings ratio	$\dfrac{\text{Market value of share}}{\text{Earnings per share}}$	The percentage for valuing an organisation that measures its present share value with respect to its per-share income
Dividend per share	$\dfrac{\text{Total dividend}}{\text{Total number of outstanding shares}}$	Total Dividend in amount is divided by the total number of shares outstanding
Earnings per share	$\dfrac{\text{Net income}}{\text{Total number of outstanding shares}}$	Ratio of Net income after tax and total number of outstanding shares
Market to book	$\dfrac{\text{Book value of the firm}}{\text{Market value of the firm}}$	The market value of company with respect to its books and accounting value
Return on equity	$\dfrac{\text{Net income}}{\text{Shareholder's equity}}$	At what level company generates its profits through shareholders' equity
Market capitalization	Stock price* total number of shares outstanding	Market capitalization indicates to the worth of an organisation's regarding their outstanding shares
Dividend yield	$\dfrac{\text{Annual dividend per share}}{\text{Share price}}$	It shows how much return in percentage, investors earn by paying the specific cost for a stock
Debt to equity ratio		Analyse the leverage that how much company using its debts to finance its assets

Table 2a: Descriptive statistics of cement sector

Particulars	ROE	P_E_RATIO	MTB	MC	DPR	DTE	DY	EPS	ERP
Mean	13.59091	17.76212	1.363485	17163774	18.73705	101.6483	2.304848	6.011515	31.97652
Median	14.82500	8.750000	1.145000	6301138.	0.000000	71.93000	1.075000	3.110000	33.37000
Maximum	56.68000	250.0000	4.350000	2.09E+08	88.21000	516.5400	10.89000	45.32000	64.52000
Minimum	−94.14000	1.200000	0.100000	273372.0	0.000000	0.000000	0.000000	0.000000	0.000000
Standard deviation	21.17611	30.38453	0.947923	29880641	23.54249	92.49932	3.004444	7.863720	18.63062

Table 2b: Descriptive statistics of fertilizer sector

Particulars	ROE	P_E_RATIO	MTB	MC	ERP	EPS	DY	DTE	DPR
Mean	31.42036	13.93636	2.394364	52886855	33.33618	7.617636	6.275273	115.4369	49.50564
Median	23.84000	8.500000	2.110000	39279326	30.59000	6.010000	5.270000	98.26000	48.90000
Maximum	108.5000	114.6000	5.370000	1.66E+08	67.03000	27.80000	34.39000	360.9400	99.06000
Minimum	−20.43000	0.800000	0.650000	9821251.	2.990000	0.000000	0.000000	3.330000	0.000000
Standard deviation	25.79514	18.59544	1.346588	44000521	14.65658	6.397792	5.904855	88.96175	35.17107

Table 2c: Descriptive statistics of food sector

Particulars	ROE	P_E_RATIO	MTB	MC	ERP	EPS	DY	DTE	DPR
Mean	45.52631	23.77385	10.43015	49309079	19.78923	67.12246	2.828615	64.00262	46.56292
Median	32.71000	17.50000	4.090000	10529527	19.19000	30.06000	2.420000	42.09000	45.28000
Maximum	192.2000	125.8000	70.94000	4.13E+08	52.76000	354.5900	7.540000	269.5000	99.94000
Minimum	−3.040000	2.400000	0.550000	472447.0	0.000000	0.300000	0.000000	0.000000	0.000000
Standard deviation	42.38170	20.36238	14.08162	94300130	18.61070	84.23363	1.872870	73.67569	29.44707

Table 2d: Descriptive statistics of oil & gas

Particulars	ROE	P_E_RATIO	MTB	MC	ERP	EPS	DY	DTE	DPR
Mean	33.92024	11.41220	2.771220	2.63E+08	1.922195	19.86561	5.073415	6.143659	43.96805
Median	34.50000	10.10000	2.480000	1.45E+08	0.130000	17.09000	4.270000	0.160000	38.43000
Maximum	73.03000	50.30000	11.03000	1.12E+09	15.21000	49.38000	15.41000	94.37000	99.30000
Minimum	8.440000	2.300000	0.420000	4648875.	0.000000	1.690000	0.600000	0.000000	3.790000
Standard deviation	13.61479	7.723671	1.943073	2.90E+08	3.600891	13.51585	3.108716	15.66127	27.15360

in dividend per share (DPR) will fall to decrease in the price-earnings ratio (PE) by 0.19 units or 19 PKR by other independent variables kept fixed or constant and vice versa. In the same way, other variables show the positive or negative impact. Here the R-squared explain about the joint test, means 15.22% fluctuation in the price-earnings ratio is just because of the above independent variables while the rest 84.78% is from the other variables which influenced the price-earnings ratio of the Cement Sector. Next to this F-statistics is also a joint hypothesis of independent variables. Here the probability of F – statistics is significant that is 0.7%, which is less than 5% so the independent variables are joint, influenced the dependent variables.

From the above counts it is clearly demonstrated that if the theory is significant then reject the null hypothesis; here according to the panel least square I reject the null hypothesis of H_2 and H_4 that is there is no positive (negative) relationship between the price earning and the Market to book value (equity risk premium). Otherwise, in the case of H_1, H_3, H_5, H_6, H_7, and H_8 I accept the null hypothesis.

In Table 4, 1% expansion in the DPR will influence the price earnings proportion in a negative way by 0.23% while taking the other independent variables constant and vice versa. In a similar way, all the particular independent variable interprets in an increase of 1% will increase the price earnings ratio or vice versa by keeping all other independent variables constant.

On the other side, the R- squared explains the approx. 31% variations in the price earnings ratio are just because of these independent variables while the rest of 69% is about the external factors or variables. In addition, in the same manner, the probability of F-statistics is 1.9% <5% shows the significant influenced of independent variables on the price earnings ratio.

According to the above data, the probability of ERP, EPS and DRP is less than 5% so it considers the significant data but rejects the null hypothesis that is H_4, H_5 and H_8 and accepts that other hypothesis. The research of (Chidinma et al., 2013) in Nigerian Companies proves same that is a positive relationship between the PE and dividend per share of the firms.

Table 5 shows that 1 unit increases in Dividend per share will increase the earning per share by 0.147 per unit or vice versa by other variables constant. In the same way, R-squared explained the 43.37% is fluctuation in the price-earnings ratio is due to the independent variables of the research. While the probability of F –statistics is less than 5% means the joint hypothesis has significant probability and jointly influenced by dependent variable.

Here the above calculation proves that there is no positive relationship between the price-earnings ratio and the Market to book value. So, I reject the null hypothesis of H_2 while another hypothesis will be accepted because of the probability is above than 5%.

The Table 6 shows the panel least square estimation of Oil and Gas sector of Pakistan. When there is an increase in 1% of

Dividend per share, there is a positive effect of about 0.06% in Price earnings ratio or vice versa, while the other independent variables like DTE, DY, EPS, ERP, MC, MTB, ROE remains fixed

Table 3: Panel least square of cement sector

Variable	Coefficient	Standard error	t-statistic	P
C	7.726402	11.13773	0.693714	0.4892
DPR	−0.196892	0.155055	−1.269819	0.2065
DTE	−0.079471	0.057386	−1.384842	0.1686
DY	1.024338	1.064002	0.962722	0.3376
EPS	−0.836834	0.720389	−1.161641	0.2476
ERP	0.536893	0.321837	1.668213	0.0978
MC	1.35E-07	1.61E-07	0.837088	0.4042
MTB	5.928876	3.089092	1.919294	0.0573
ROE	−0.227401	0.162546	−1.398994	0.1643
R-squared	0.152210			
Prob (F-statistic)	0.007712			

Table 4: Panel least square of fertilizers sector

Variable	Coefficient	Standard error	t-statistic	P
C	2.837859	8.823897	0.321611	0.7492
DPR	−0.235730	0.120314	−1.959295	0.0562
DTE	−0.108280	0.065182	−1.661184	0.1035
DY	0.009308	0.525818	0.017702	0.9860
EPS	−1.193357	0.471312	−2.531988	0.0148
ERP	0.985860	0.414018	2.381199	0.0215
MC	6.40E-08	7.99E-08	0.800584	0.4275
MTB	4.637534	3.022034	1.534574	0.1317
ROE	−0.097167	0.139488	−0.696599	0.4896
R-squared	0.310997			
P (F-statistic)	0.019781			

Table 5: Panel least square of food sector

Variable	Coefficient	Standard error	t-statistic	P
C	16.28965	7.559978	2.154722	0.0355
DPR	0.147058	0.107860	1.363422	0.1782
DTE	−0.010551	0.084591	−0.124733	0.9012
DY	−2.269254	1.427329	−1.589860	0.1175
EPS	0.002257	0.034523	0.065379	0.9481
ERP	0.135097	0.348554	0.387592	0.6998
MC	1.79E-08	3.57E-08	0.502846	0.6170
MTB	0.799384	0.325224	2.457954	0.0171
ROE	−0.094797	0.111562	−0.849723	0.3991
R-squared	0.433783			
Prob (F-statistic)	0.000051			

Table 6: Panel least square of oil & gas sector

Variable	Coefficient	Standard error	t-statistic	P
C	10.57999	5.171117	2.045978	0.0491
DPR	0.062273	0.067216	0.926456	0.3611
DTE	−0.004452	0.156410	−0.028465	0.9775
DY	−0.898534	0.602385	−1.491628	0.1456
EPS	−0.185562	0.097276	−1.907583	0.0655
ERP	0.194237	0.697188	0.278601	0.7823
MC	−4.88E-09	4.26E-09	−1.145291	0.2606
MTB	−1.009947	1.196754	−0.843905	0.4050
ROE	0.296992	0.151393	1.961733	0.0585
R-squared	0.392943			
P (F-statistic)	0.026462			

or constant. In particulars, R-squared is a joint test that provides the answers of 39.29% variation in price-earnings ratios is thought the independent variables mention above. While the probability in F-statistics explains the joint, test of the population rather than sample.

For the oil and gas sector and through analysis there is a rejection of the null hypothesis of H1 and H5 while in the cases of remaining variables we accept the null hypothesis.

One Chinese researcher explains the same though and shows the negative relationship between the PE and ROE of the Firms. It means the research was done in China also helps us to reject the null hypothesis of H_1 (Wenjing, 2008).

5. CONCLUSION AND FUTURE RESEARCH DIRECTIONS

It is concluded from the above research that the Pakistani market is dynamic instead of predictable. This market is consistently changing and makes an effect now and again positive and now and then negative. This research helps to analyse the effect of price earning ratio on different variables of the different Pakistani sector in order to identify the way of behaviours of different sector either they are in the same economy but predict different behaviours. The time frame of 10 years will surely help the investors or the financial supporter to makes their decision in short time frame rather receive the dividends or to reinvest for the in the particular stocks for future benefits. That if one of the sectors doesn't show this model best fitted then it should be like that other sectors will also reject the panel least square model but it not like that because of the dynamic structure of Pakistani Market. In the end, it is clearly shown that every sector has a different mindset or we can say the different proportion to analyse or identify the price earning on different independent variables.

Forthcoming or the expected researchers can scrutinise ranges such as in spite of taking 4 sectors to analyse the earning management they easily work on the all the sectors sideways with their companies listed in the Pakistan Stock Exchange. Along with this, this research could be for the other countries as well whose has the same cultural activities as if the Pakistan has. This will create the number of opportunities for the researchers that either the cultural values or mindsets of the population effect the earning management in the organisations and for overall sectors.

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