Association of Dividend and Share Price in Longrun

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Abstract

This research is to scrutinize the long-haul causal relationship between dividend and share price. It helpsinvestors to make right decisions and also organization to build dividend policy. Prior to this, FMOLS shows long-run associationto dividend that influence share price. Panel unit root tests, Panel Least Squares test and Granger Causality tests are used for statistic findings of unit root test thataffects the results of existing long-run causal link between the variables. 50 non-financial organizationsof different sectors are selected from the panel of KSE-100 index, 25 top listed firms are selected from KSE-100 and 25 are multinational organizations are selected. The criteria for the selected firms are that those organization that have paid the dividend from 2003-2013 for at least three consecutive years. The result of the causal relationship between variables explainsthe movement of the share prices into two opposite direction.

Keywords: Share Price, Dividend, Unit Root Process

Introduction

News about the economy is vital and imperative for the financial specialist's to learn and analyze situations. Most agents decode or explain what is going on in the business sector by taking a glance at the business records. Thus, the significance of business stock concerning the industry is essential for the comprehension of the general pattern in the industry. In Pakistan there are 3 indexes that are running in which KSE-100 index seems to be better and also unpredictable because of the movement of the stocks. In 2010, 644 organizations recorded the business of PKR- 3,269 billions. KSE-100 index recorded all the data of the organization to help the investors by keeping a close view in the business sector; for instance, it shows all the organizations that are listed and even those that are delisted as per the Laws and regulations. Pakistan market gives idiosyncraticsettings to profit related inquiry and it also exhibits the disappointments of a productive organization to enunciate a profit

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(money or offer) over a time of five years from its specific date. Furthermore KSE issues a yearly positioning about organizations on the foundation from claiming "good" execution.

Every year the index shows top 25 listed organization that play effective role in distinctive areas for the revelation about "sizeable" dividend for shareholders. However, KSE-100 index demonstrates that fewer than 50 % recorded organizations pay dividend each year to its investors.

Examining the long-haul causal relationship between share price and dividend in Pakistan market. Firms need to provide rules and policies to build arelation between share price and dividend. If there is a change in dividend policy that wouldaffect the business sector, on the other hand business sector needs to construct dividend policy to improve the market value and give high benefits to the investors. Likewise, financial specialists need to examine the impact share price and dividend on one another. While organizations settle their investment decisions they have to consider that better dividend construct the better share price.

Research Questions

1. To analyze the impact of share price and dividend?

2. To check the impact of long-haul relationship between share price and dividend?

Research Questions

1. There is a significant impact of share price and dividend

2. There is a significant long-haul relationship between share price and dividend.

Literature Review

The connection between dividend policy and the instability of share price is investigated by different analysts several times (Al-Yahyaee, K. H., Pham, T. P., & T. W. (2010). The endeavor to define the Impact of corporate dividend by looking at its share price is been studies by several authors. These theories incorporate the clientele effect, signaling effect, those bird-in-hand principles and the ROR.

Share price is the return that investors get is through P.V. This model is linear function though which future dividend is predicted. Similarly, Campbel, J. Y., &Shiller, R. J. (1987), results exhibits that if the model of P.V is true, the linear alliance of the variable is co-integrated and stationary: i-e. If the value of the stock holds profit and share price becomes co-integrated. U.S organizations found that if share price and dividend took a longer time than profits do change accordingly.

After the global economic crisis, the acknowledgment of dividend strategy by organizations has achieved the lost investors.The situation that vitally stimulated inquires about the dividend arrangement.

Though most scholars focused on dividend and share price. To test the long-run causality between share price and dividend the panel datafrom the period of 1999-2008 is used. The result of the new theory study that that allowing movement into two opposite direction between share price and dividend. Share price and dividend therefore impact one another over the long haul. (A, A. Lonie; Abeyratna, G.; Power, D. M; &Sinclair, C. D. (1996).

Combination of dividend and share price & difference of these two budgetary variables are used for the purpose of estimation. Charles, K. A., Anastacia, C. A., Joshua, A., & Mohammed, A. (2014) shows that the profit and stock prices are used separately for time arrangement under this hypothesis. Results of these two monetary variables show that in time series it doesn't have a long-run relationship. VAR and MSIAH tests support the hypothesis and show that the share price and dividend moves in opposite direction and it scrutinize the relationship of the co-movement of stocks. At the end of the day, financial specialists and investor ought not to look into dividend information when foreseeing future developments in share price in the USA. The finding shows that the profit doesn't change as Granger-bring about share price gives support to the theory of dividend that suggests that dividend yield does not contain large data about stock business sector returns. Further, Goddard, J., McMillan, D.G. & Wilson, J.O.S. (2008) tests analyzes the long-haul relationship between share price and dividend utilizing broad information about UK business sector. Utilizing board unit root and board co-integration procedures, the study discovered confirmation of co-integration between share price and dividend.

Urrutia and Sung (1995) study shows the two ways opposite link between share price & dividend.Kanas, A. (2003) results show the Granger causality for developed countries like Japan, UK and USA.Linear and non-linear co-reconciliation and casual test explainsindirect relationship between variables. On the other hand, basic statement of causal link between share price and dividend is found for all four countries by non-linear combination and causality. After Kanas, A. (2003), Shen and Chen (2009) explain the relationship of causality tests between stock expenses and profits in USA, UK, Japan and Germany by straight and nonlinear co-joining. While immediate and nonlinear causality benefits to stock expenses is found among USA, UK and Germany.

Financial specialists have a tendency to incline toward organizations that fulfill a specific need. On account of financial specialists diverse medications for profits and capital additions confronts some exchange costs when they exchange securities. Mills, T.C. (1993)

contended that for these expenses to be minimized, financial specialists focuses towards firms that would give them those craved advantages. Firms would pull customers in distinctive light of their dividend arrangements. Despite the fact that customer base effect may change a company's profit approach, one demographic is in the same class, along lines profit arrangement stays insignificant.

Hussainey, K., Mgbame, C. O., &Mgbame, A. M. (2011) confirms that organizations in their development stage have a tendency to pay lower profits that would pull customers base on yearning capital gratefulness, while firms in their development stage pay higher profits thatencourages the customer base to earn profits and have an impact into two gatherings, that are driven by assessment impacts and those determined by exchange cost. He contended that speculators in higher assessment sections that would favor firms to pay almost no profits and to get reward in the type of offer value thankfulness. Exchange expense instigated customer base, on the other hand, emerges when little financial specialists rely upon profit installments for their needs; this customer base lean towards organizations who fulfill this need in light of the fact that they could not bear high exchange expense of offering securities.

Data asymmetry happens in the share trading system when a few speculators' have private data about the association's worth which others are not special to have inside of the period. (Godwin, Chigozie, and, &Okpara, 2010) The study explored the long run impact of this dichotomy of data on profit approach and found that profit arrangement is a positive in critical capacity of data asymmetry. The finding is reliable with profit flagging models. The arrangement suggestion is that insiders have advantaged data of the genuine estimation of the firm and usurp this data for benefit partitioning. Furthermore, liquidity applies a negative and noteworthy impact on profit approach while the variables have a positive and huge impact on the approach.

Oyinlola, O. M., &Ajeigbe, K. (Sep 2014) clarified that the yield on one offer in a specific period in the past was higher or lower than the yield on another, and the normal yield on all shares was x per penny. Search for elements which may empower one to foresee the offer that would ascend in value in respect to that share, and not for components that empower one to anticipate whether offer share price as a rule are liable to rise or fall. It appears that financial specialists responded quickly to the last's declaration dividend. This is recommended by the better fit got for a regression relating respect the different informative variables effectively said portage bay a, the day after the profit's announcement It is proposed by the way that just insignificant benefits could have been made (and now and then irrelevant misfortunes) by

constructing buys or deals with respect to two theories: first cap offers to be "underestimated" and the second offers the shares which had ascended the share price after the dividend declaration.

J.,Y.How, Teo&Izam, H. Y (1992) outcomes uncover the vicinity of a factually huge association in situations where the changes in profit and dividend tend to fortify one another. Outcomes additionally show that both earnings and dividend declarations have data content without anyone's input to actuate irregular stock returns.

The goal of the firm is to amplify the benefits of its owners. Corporate directors can expand the market value of the firm by controlling profit installments. The ideal profit approach, if there is one strategy which boosts shareholder wealth. As the estimation of the firm relies on expected operational money streams, new venture, and chance, then it seems implausible that administrators can make assets by distributing money streams produced by effective trading between profit installments and maintenance inside the company. Increment in dividend per share results in an equivalent reduction in price per share. The present price per shares changes with the change in dividend arrangement. Research must concur with Black that in the quest for the goal of business worth boost money installments to shareholders remain 'the dividend riddle'.

The primary result in this article is that dynamic dividend conduct is represented fundamentally by the adjustments in changeless profit. John Y. Campbell & Yasushi Hamao. (Mar., 1992) Profits react unequivocally and constantly to changes in dividend.This demonstrates that the PAH performs better when the objective profit level is corresponding to lasting dividend than when it is relative to current earnings. The first translation of the PEH is that chiefs change dividend just when there is an adjustment in the changeless segment of dividend. That is, an adjustment in current profit that is seen by administration as fleeting would not influence profit decisions. The discoveries in this article affirm the thought that dynamic dividend conduct is fundamentally represented by lasting changes in profit. Profit reacts firmly with no noteworthy overcompensation, while it reacts insignificantly to short lived developments in dividend. The discoveries additionally demonstrate that the ordinary PAH, which speculates that profits are a weighted normal of current and past target profits, is not good with the information when the objective dividend level is corresponding to current income. These discoveries are indicated to be subjectively invariant concerning the two diverse sub-sample periods (prewar and after war periods) and the two measures of profits (standard profits and a wide measure of profits).

N., U. Khan; B., M. Burton; & D., M. Power. (2011) study elaborates the meetings with 23 Pakistani organization authorities about impacts on their policy of dividend build in organizations. A semi-organized meeting report was scrutinized to the expert and mechanical foundations to study and manage the discourses. This comes with the purpose that, the profit basic leadership process in Pakistani organizations is comparative in numerous vital regards to that in the USA and other created markets. In any case, the interviewees proposed that past profits don't impact current profit levels in Pakistan rather, firms concentrate just on current income and respondents were not hesitant to report news of a profit cut and organization liquidity when settling on a dispensing level.

Hypotheses:

H1: There is significantly causal link between share price and dividend.

H2: There is positive impact dividend on share price.

H3: There is significantly long-haul relationship between share price and dividend.

Table-4.1 Panel root test (share price in first difference)

Null Hypothesis: Unit root (individual unit root process)

Series: D(SHARE_PRICE,2)		
Date: 09/30/15 Time: 12:46		
Sample: 2003 2013		
Exogenous variables: Individual effects		
User-specified lags: 1		
Total (balanced) observations: 350		
Cross-sections included: 50		
Method	Statistic	Prob.**
ADF - Fisher Chi-square	224.208	0.0000
ADF - Choi Z-stat	-7.31878	0.0000
** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.		

Intermediate ADF test results D(SHARE_PRICE,2)

Cross Section	Prob.	Lag	Max Lag	Obs
Oil & Gas Development Company Limited	0.1146	1	1	7
NATIONAL FOODS LIMITED	0.1273	1	1	7
Pakistan Petroleum Limited	0.1504	1	1	7
Pakistan State Oil Company	0.1128	1	1	7

Limited				
Shell Pakistan Limited	0.0403	1	1	7
BOC PAKISTAN	0.0985	1	1	7
ABBOTT LABORATORIES (PAK) LTD	0.1113	1	1	7
Agriautos Industries Limited Pakistan Limited	0.0906	1	1	7
Atlas battery Limited	0.0106	1	1	7
Atlas Honda Limited	0.0278	1	1	7
Attock Cement Pakistan Limited	0.2719	1	1	7
Bata Pakistan Limited	0.7578	1	1	7
Biafo Industries Limited	0.0437	1	1	7
Clariant Pakistan Limited	0.0391	1	1	7
CLOVER PAKISTAN	0.0294	1	1	7
Dawood Hercules Chemicals Limited	0.0257	1	1	7
Engro Pakistan Limited	0.0379	1	1	7
Exide Pakistan Limited	0.6037	1	1	7
Fauji Fertilizer Bin Qasim Limited	0.0884	1	1	7
Fauji Fertilizer Company Limited	0.0026	1	1	7
FerozesonsLabortaries Limited	0.1511	1	1	7
GlaxoSmithKline Pakistan Limited	0.0598	1	1	7
Highnoon Laboratories Limited	0.3607	1	1	7
HinoPak Motors Limited	0.1378	1	1	7
Hub Power Company	0.1813	1	1	7
ICI Pakistan Limited	0.0093	1	1	7
Indus Motor Company Limited	0.0170	1	1	7
Lucky Cement Limited	0.2293	1	1	7
Millat Tractors Limited	0.1429	1	1	7
National Refinery Limited	0.1607	1	1	7
Nestle Pakistan Limited	0.3983	1	1	7
Otsuka Pakistan Limited	0.1002	1	1	7
PAK SUZUKI MOTORS CO LIMITED	0.0930	1	1	7
Pakistan Cables Limited	0.1205	1	1	7
Pakistan Gum & Chemicals Limited	0.2023	1	1	7
Pakistan Oilfields Limited	0.0812	1	1	7
Pakistan Paper Products Limited	0.0027	1	1	7
Pakistan Refinery Limited	0.0545	1	1	7

Pakistan Telecommunication Company Ltd.	0.1248	1	1	7
Pakistan Tobacco Company Limited	0.9162	1	1	7
Rafhan Maize Products Co. Ltd.	0.5243	1	1	7
fi-Aventis Pakistan Limited	0.9408	1	1	7
Security Papers Limited	0.0826	1	1	7
Shezan International	0.2669	1	1	7
Siemens Pakistan Engineering Co. Limited	0.6756	1	1	7
SITARA CHEMICAL INDUSTRIES LTD	0.1100	1	1	7
Searle Pakistan Limited	0.0279	1	1	7
UNILEVER PAKISTAN LTD	0.5692	1	1	7
Wyeth Pakistan Limited	0.8108	1	1	7
Colgate - Palmolive Pakistan Limited	0.5676	1	1	7

Methodology

Method of Data Collection

The objective of this research is to long-haul causal relationship between share price and dividend. To examine the variables, share price and dividend from the company's financial statement and Kse-100. Data comprises 50 listed non-financial companies. 50% of data comprise with top listed local companies and 50% of data comprise with multinational companies.

Sampling Technique and sample size

The criteria for selected firm are that those organization paid the dividend 2003-2013 at least consecutive three years paid dividend. 50 non-financial organization from listed companies in KSE-100 different sectors, 25 organizations are top listed KSE-100 and 25 are multinational organizations are listed in KSE-100

Research Model Development

$$P_{i,t} = \alpha_{i,t} + \mathrm{B}_i D_{i,t} + e_{i,t}$$

$$P_{.} = 125.9986 + 13.2249\ D_{.} + e_{.}$$

Panel Fully Modified Least Squares (FMOLS) is evaluated to inspect the long-run causal relations between share price and dividend. Preceding this, panel unit root tests, Panel Least Squares and Granger Causality Tests.

Results

To test the hypothesis study used Multiple Regression. This part of study comprises of findings of the results, interpretation of the results and assessment summary of hypothesis.

Table-3 Panel root test (share price in level)

Null Hypothesis: Unit root (individual unit root process)

Series: SHARE_PRICE
Date: 09/30/15 Time: 12:45
Sample: 2003 2013
Exogenous variables: Individual effects
User-specified lags: 1
Total (balanced) observations: 450
Cross-sections included: 50

Method	Statistic	Prob. **
ADF - Fisher Chi-square	104.458	0.3603
ADF - Choi Z-stat	0.94915	0.8287

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results SHARE_PRICE

Cross Section	Prob.	Lag	Max Lag	Obs
Oil & Gas Development Company Limited	0.8443	1	1	9
NATIONAL FOODS LIMITED	0.2016	1	1	9
Pakistan Petroleum Limited	0.0686	1	1	9
Pakistan State Oil Company Limited	0.5026	1	1	9
Shell Pakistan Limited	0.8733	1	1	9
BOC PAKISTAN	0.4120	1	1	9
ABBOTT LABORATORIES (PAK) LTD	0.7626	1	1	9
Agriautos Industries Limited Pakistan Limited	0.1912	1	1	9
Atlas battery Limited	0.9815	1	1	9
Atlas Honda Limited	0.1374	1	1	9
Attock Cement Pakistan Limited	0.3076	1	1	9
Bata Pakistan Limited	0.9822	1	1	9
Biafo Industries Limited	0.8736	1	1	9
Clariant Pakistan Limited	0.1256	1	1	9
CLOVER PAKISTAN	0.2824	1	1	9
Dawood Hercules Chemicals Limited	0.2266	1	1	9
Engro Pakistan Limited	0.0840	1	1	9
Exide Pakistan Limited	0.9518	1	1	9
Fauji Fertilizer Bin Qasim Limited	0.4416	1	1	9

Fauji Fertilizer Company Limited	0.0003	1	1	9
FerozesonsLabortaries Limited	0.5328	1	1	9
GlaxoSmithKline Pakistan Limited	0.6063	1	1	9
Highnoon Laboratories Limited	0.5738	1	1	9
HinoPak Motors Limited	0.2441	1	1	9
Hub Power Company	0.9894	1	1	9
ICI Pakistan Limited	0.4438	1	1	9
Indus Motor Company Limited	0.3974	1	1	9
Lucky Cement Limited	0.5923	1	1	9
Millat Tractors Limited	0.9152	1	1	9
National Refinery Limited	0.0322	1	1	9
Nestle Pakistan Limited	0.9965	1	1	9
Otsuka Pakistan Limited	0.2030	1	1	9
PAK SUZUKI MOTORS CO LIMITED	0.3007	1	1	9
Pakistan Cables Limited	0.6133	1	1	9
Pakistan Gum & Chemicals Limited	0.3020	1	1	9
Pakistan Oilfields Limited	0.6200	1	1	9
Pakistan Paper Products Limited	0.3383	1	1	9
Pakistan Refinery Limited	0.6035	1	1	9
Pakistan Telecommunication Company Ltd.	0.5853	1	1	9
Pakistan Tobacco Company Limited	0.8151	1	1	9
Rafhan Maize Products Co. Ltd.	0.9844	1	1	9
Sanofi-Aventis Pakistan Limited	0.7357	1	1	9
Security Papers Limited	0.4895	1	1	9
Shezan International	0.5756	1	1	9
Siemens Pakistan Engineering Co. Limited	0.0985	1	1	9
SITARA CHEMICAL INDUSTRIES LTD	0.1400	1	1	9
Searle Pakistan Limited	0.1373	1	1	9
UNILEVER PAKISTAN LTD	0.9967	1	1	9
Wyeth Pakistan Limited	0.6305	1	1	9
Colgate - Palmolive Pakistan Limited	0.9979	1	1	9

Coefficients

Table-4.4 Panel root test (dividend in first difference)

Null Hypothesis: Unit root (individual unit root process)		
Series: D(TOTAL_DIVIDEND,2)		
Date: 09/30/15 Time: 12:50		
Sample: 2003 2013		
Exogenous variables: Individual effects		
User-specified lags: 1		
Total (balanced) observations: 343		
Cross-sections included: 49 (1 dropped)		
Method	Statistic	Prob.**
ADF - Fisher Chi-square	283.892	0.0000
ADF - Choi Z-stat	-9.98925	0.0000
** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.		
Intermediate ADF test results D(TOTAL_DIVIDEND,2)		

Cross section	Prob.	Lag	Max Lag	Obs
Oil & Gas Development Company Limited	0.1894	1	1	7
NATIONAL FOODS LIMITED	0.0888	1	1	7
Pakistan Petroleum Limited	0.1707	1	1	7
Pakistan State Oil Company Limited	0.1185	1	1	7
Shell Pakistan Limited	0.0961	1	1	7
BOC PAKISTAN	0.2300	1	1	7
ABBOTT LABORATORIES (PAK) LTD	0.0217	1	1	7
Agriautos Industries Limited Pakistan Limited	0.1938	1	1	7
Atlas battery Limited	0.0522	1	1	7
Atlas Honda Limited	0.0144	1	1	7
Attock Cement Pakistan Limited	0.0087	1	1	7
Bata Pakistan Limited	0.0328	1	1	7
Biafo Industries Limited	0.1264	1	1	7
Clariant Pakistan Limited	0.7565	1	1	7
CLOVER PAKISTAN	Dropped from Test			
Dawood Hercules Chemicals Limited	0.0601	1	1	7
Engro Pakistan Limited	0.4048	1	1	7
Exide Pakistan Limited	0.2605	1	1	7
Fauji Fertilizer Bin Qasim Limited	0.0167	1	1	7
Fauji Fertilizer Company Limited	0.0062	1	1	7
FerozesonsLabortaries Limited	0.0160	1	1	7
GlaxoSmithKline Pakistan Limited	0.2000	1	1	7
Highnoon Laboratories Limited	0.0143	1	1	7
HinoPak Motors Limited	0.0686	1	1	7
Hub Power Company	0.2184	1	1	7
ICI Pakistan Limited	0.1549	1	1	7
Indus Motor Company Limited	0.5500	1	1	7
Lucky Cement Limited	0.0436	1	1	7
Millat Tractors Limited	0.0139	1	1	7
National Refinery Limited	0.0001	1	1	7
Nestle Pakistan Limited	0.2149	1	1	7
Otsuka Pakistan Limited	0.1004	1	1	7
PAK SUZUKI MOTORS CO LIMITED	0.5466	1	1	7
Pakistan Cables Limited	0.1865	1	1	7
Pakistan Gum & Chemicals Limited	0.0001	1	1	7
Pakistan Oilfields Limited	0.2000	1	1	7
Pakistan Paper Products Limited	0.0118	1	1	7
Pakistan Refinery Limited	0.0006	1	1	7
Pakistan Telecommunication Company Ltd.	0.0497	1	1	7
Pakistan Tobacco Company Limited	0.1730	1	1	7
Rafhan Maize Products Co. Ltd.	0.0444	1	1	7
Sanofi-Aventis Pakistan Limited	0.2259	1	1	7

Security Papers Limited	0.0096	1	1	7
Shezan International	0.4682	1	1	7
Siemens Pakistan Engineering Co. Limited	0.0859	1	1	7
SITARA CHEMICAL INDUSTRIES LTD	0.1033	1	1	7
Searle Pakistan Limited	0.0304	1	1	7
UNILEVER PAKISTAN LTD	0.0941	1	1	7
Wyeth Pakistan Limited	0.1051	1	1	7
Colgate - Palmolive Pakistan Limited	0.0444	1	1	7

Table-4.5 Panel least square

Dependent Variable: SHARE_PRICE
Method: Panel Least Squares
Date: 06/27/15 Time: 14:19
Sample: 2003 2013
Periods included: 11
Cross-sections included: 50
Total panel (balanced) observations: 550

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TOTAL_DIVIDEND_AMOUNT	13.22249	0.515845	25.63270	0.0000
C	125.9986	28.66280	4.395893	0.0000

R-squared	0.545241	Mean dependent var	378.5408
Adjusted R-squared	0.544412	S.D. dependent var	935.2126
S.E. of regression	631.2431	Akaike info criterion	15.73689
Sum squared resid	2.18E+08	Schwarz criterion	15.75256
Log likelihood	-4325.644	Hannan-Quinn criter.	15.74301
F-statistic	657.0351	Durbin-Watson stat	1.397998
Prob(F-statistic)	0.000000		

Table-4.6 Panel root test (share price in level)
Null Hypothesis: Unit root (individual unit root process)

Series: SHARE_PRICE
Date: 09/30/15 Time: 12:45
Sample: 2003 2013
Exogenous variables: Individual effects
User-specified lags: 1
Total (balanced) observations: 450

Cross-sections included: 50				
Method			Statistic	Prob.**
ADF - Fisher Chi-square			104.458	0.3603
ADF - Choi Z-stat			0.94915	0.8287
** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.				
Intermediate ADF test results SHARE_PRICE				
Cross Section	Prob.	Lag	Max Lag	Obs
Oil & Gas Development Company Limited	0.8443	1	1	9
NATIONAL FOODS LIMITED	0.2016	1	1	9
Pakistan Petroleum Limited	0.0686	1	1	9
Pakistan State Oil Company Limited	0.5026	1	1	9
Shell Pakistan Limited	0.8733	1	1	9
BOC PAKISTAN	0.4120	1	1	9
ABBOTT LABORATORIES (PAK) LTD	0.7626	1	1	9
Agriautos Industries Limited Pakistan Limited	0.1912	1	1	9
Atlas battery Limited	0.9815	1	1	9
Atlas Honda Limited	0.1374	1	1	9
Attock Cement Pakistan Limited	0.3076	1	1	9
Bata Pakistan Limited	0.9822	1	1	9
Biafo Industries Limited	0.8736	1	1	9
Clariant Pakistan Limited	0.1256	1	1	9
CLOVER PAKISTAN	0.2824	1	1	9
Dawood Hercules Chemicals Limited	0.2266	1	1	9
Engro Pakistan Limited	0.0840	1	1	9
Exide Pakistan Limited	0.9518	1	1	9
Fauji Fertilizer Bin Qasim Limited	0.4416	1	1	9
Fauji Fertilizer Company Limited	0.0003	1	1	9
FerozesonsLabortaries Limited	0.5328	1	1	9
GlaxoSmithKline Pakistan Limited	0.6063	1	1	9
Highnoon Laboratories Limited	0.5738	1	1	9
HinoPak Motors Limited	0.2441	1	1	9
Hub Power Company	0.9894	1	1	9
ICI Pakistan Limited	0.4438	1	1	9
Indus Motor Company Limited	0.3974	1	1	9
Lucky Cement Limited	0.5923	1	1	9
Millat Tractors Limited	0.9152	1	1	9
National Refinery Limited	0.0322	1	1	9
Nestle Pakistan Limited	0.9965	1	1	9
Otsuka Pakistan Limited	0.2030	1	1	9
PAK SUZUKI MOTORS CO LIMITED	0.3007	1	1	9
Pakistan Cables Limited	0.6133	1	1	9
Pakistan Gum & Chemicals Limited	0.3020	1	1	9
Pakistan Oilfields Limited	0.6200	1	1	9

Pakistan Paper Products Limited	0.3383	1	1	9
Pakistan Refinery Limited	0.6035	1	1	9
Pakistan Telecommunication Company Ltd.	0.5853	1	1	9
Pakistan Tobacco Company Limited	0.8151	1	1	9
Rafhan Maize Products Co. Ltd.	0.9844	1	1	9
Sanofi-Aventis Pakistan Limited	0.7357	1	1	9
Security Papers Limited	0.4895	1	1	9
Shezan International	0.5756	1	1	9
Siemens Pakistan Engineering Co. Limited	0.0985	1	1	9
SITARA CHEMICAL INDUSTRIES LTD	0.1400	1	1	9
Searle Pakistan Limited	0.1373	1	1	9
UNILEVER PAKISTAN LTD	0.9967	1	1	9
Wyeth Pakistan Limited	0.6305	1	1	9
Colgate - Palmolive Pakistan Limited	0.9979	1	1	9

Coefficients[a]

Table-4.7 Panel root test (dividend in first difference)

Null Hypothesis: Unit root (individual unit root process)

Series: D(TOTAL_DIVIDEND,2)

Date: 09/30/15 Time: 12:50

Sample: 2003 2013

Exogenous variables: Individual effects

User-specified lags: 1

Total (balanced) observations: 343

Cross-sections included: 49 (1 dropped)

Method	Statistic	Prob.**
ADF - Fisher Chi-square	283.892	0.0000
ADF - Choi Z-stat	-9.98925	0.0000

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results D(TOTAL_DIVIDEND,2)

Cross section	Prob.	Lag	Max Lag	Obs
Oil & Gas Development Company Limited	0.1894	1	1	7
NATIONAL FOODS LIMITED	0.0888	1	1	7
Pakistan Petroleum Limited	0.1707	1	1	7
Pakistan State Oil Company Limited	0.1185	1	1	7
Shell Pakistan Limited	0.0961	1	1	7
BOC PAKISTAN	0.2300	1	1	7
ABBOTT LABORATORIES (PAK) LTD	0.0217	1	1	7
Agriautos Industries Limited Pakistan Limited	0.1938	1	1	7
Atlas battery Limited	0.0522	1	1	7
Atlas Honda Limited	0.0144	1	1	7

Attock Cement Pakistan Limited	0.0087	1	1	7
Bata Pakistan Limited	0.0328	1	1	7
Biafo Industries Limited	0.1264	1	1	7
Clariant Pakistan Limited	0.7565	1	1	7
CLOVER PAKISTAN		Dropped from Test		
Dawood Hercules Chemicals Limited	0.0601	1	1	7
Engro Pakistan Limited	0.4048	1	1	7
Exide Pakistan Limited	0.2605	1	1	7
Fauji Fertilizer Bin Qasim Limited	0.0167	1	1	7
Fauji Fertilizer Company Limited	0.0062	1	1	7
FerozesonsLabortaries Limited	0.0160	1	1	7
GlaxoSmithKline Pakistan Limited	0.2000	1	1	7
Highnoon Laboratories Limited	0.0143	1	1	7
HinoPak Motors Limited	0.0686	1	1	7
Hub Power Company	0.2184	1	1	7
ICI Pakistan Limited	0.1549	1	1	7
Indus Motor Company Limited	0.5500	1	1	7
Lucky Cement Limited	0.0436	1	1	7
Millat Tractors Limited	0.0139	1	1	7
National Refinery Limited	0.0001	1	1	7
Nestle Pakistan Limited	0.2149	1	1	7
Otsuka Pakistan Limited	0.1004	1	1	7
PAK SUZUKI MOTORS CO LIMITED	0.5466	1	1	7
Pakistan Cables Limited	0.1865	1	1	7
Pakistan Gum & Chemicals Limited	0.0001	1	1	7
Pakistan Oilfields Limited	0.2000	1	1	7
Pakistan Paper Products Limited	0.0118	1	1	7
Pakistan Refinery Limited	0.0006	1	1	7
Pakistan Telecommunication Company Ltd.	0.0497	1	1	7
Pakistan Tobacco Company Limited	0.1730	1	1	7
Rafhan Maize Products Co. Ltd.	0.0444	1	1	7
Sanofi-Aventis Pakistan Limited	0.2259	1	1	7
Security Papers Limited	0.0096	1	1	7
Shezan International	0.4682	1	1	7
Siemens Pakistan Engineering Co. Limited	0.0859	1	1	7
SITARA CHEMICAL INDUSTRIES LTD	0.1033	1	1	7
Searle Pakistan Limited	0.0304	1	1	7
UNILEVER PAKISTAN LTD	0.0941	1	1	7
Wyeth Pakistan Limited	0.1051	1	1	7
Colgate - Palmolive Pakistan Limited	0.0444	1	1	7

Table-4.8 Panel least square

Dependent Variable: SHARE_PRICE
Method: Panel Least Squares
Date: 06/27/15 Time: 14:19
Sample: 2003 2013
Periods included: 11
Cross-sections included: 50
Total panel (balanced) observations: 550

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TOTAL_DIVIDEND_AMOUNT	13.22249	0.515845	25.63270	0.0000
C	125.9986	28.66280	4.395893	0.0000
R-squared	0.545241	Mean dependent var		378.5408
Adjusted R-squared	0.544412	S.D. dependent var		935.2126
S.E. of regression	631.2431	Akaike info criterion		15.73689
Sum squared resid	2.18E+08	Schwarz criterion		15.75256
Log likelihood	-4325.644	Hannan-Quinn criter.		15.74301
F-statistic	657.0351	Durbin-Watson stat		1.397998
Prob(F-statistic)	0.000000			

This result shows fixed effect model reject the null hypothesis sig value <0.05 here co integration b/w share price and dividend. Coefficient value indicate the positive relationship, R-squared indicate fit model and Durbin-Watson stat reject Ho< 2 indicate positive correlation. Hence, there exist long-run causal relationship between share price and dividend. Therefore it appear that granger causality run two way from total dividend to share price and the other way from share price to total dividend. Total dividend does affect share price and share price does affect total dividend, sig value less than 0.05 it's accept the alternative hypothesis. The overall model is also significant because the value of F-statistics is > 3

Table 4.2Panel Fully Modified Least Squares (FMOLS)

Dependent Variable: SHARE_PRICE				
Method: Panel Fully Modified Least Squares (FMOLS)				
Date: 06/27/15 Time: 14:19				
Sample (adjusted): 2004 2013				
Periods included: 10				
Cross-sections included: 50				
Total panel (balanced) observations: 500				
Panel method: Pooled estimation				
Cointegrating equation deterministics: C				
Coefficient covariance computed using default method				
Long-run covariance estimates (Bartlett kernel, Newey-West fixed bandwidth)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
TOTAL_DIVIDEND_AMOUNT	13.08304	0.889628	14.70618	0.0000
R-squared	0.687807	Mean dependent var		402.2177

Adjusted R-squared	0.653041	S.D. dependent var	975.4194
S.E. of regression	574.5534	Sum squared resid	1.48E+08
Durbin-Watson stat	1.451853	Long-run variance	362287.7

As the clearly seen of table-4.7,.the result of Panel Fully Modified Least Squares (FMOLS) long run relation co-integrate each other Durbin-Watson stat accept hypothesis, indicate positive correlation. R-squared >65% show FMOL model reflecting the data fit with the model well.
Thus table-2 and table-4 indicate that share price and dividend both are stationary at first difference null hypothesis reject.
Conclude that panel least square show the impact of dividend on share price and sig value accept alternative hypothesis, granger causality show two way relation, share price and dividend both influence each other. FMOLS show long-run relation and dividend influence to share price

Discussion and Conclusion

The aim of this study is to find the causal relationship between share price and dividend for long time period. Panel least square, Panel Fully Modified Least Squares, and Granger Causality results are consistent with proposed hypothesis. The coefficients of explanatory variables are significant at $p<0.05$ and there signs are conform to those predicted. It appears that dividend of firms is influenced by share price and share price of firms is influenced by dividend.
The objective of this study is to examine the causal relationship between share price and dividend for long time period. Data of 50 listed firms collected from Karachi stock market over the period 2003-2013Panel least square, Panel Fully Modified Least Squares, and Granger Causality results are consistent with proposed hypothesis. Obtained results conclude that coefficients of independent variable are significant at $p<0.05$ level and there signs are also consistent with those as predicted. Durbin-Watson stat< 2 accept alternative hypothesis and indicate positive correlation. R-squared >65%in FMOL model reflecting the data fit with the model well. The findings confirm that there exists bi-directional long-run causal relation between share price and dividends.

This study is beneficial for organizations presents long run causal relationship between share price and dividend in Karachi stock exchange best emerging market in Asia. The interaction between share price and dividend should be given due thought by firms while build their policy. An adjustment in dividend approach would affect the business sector

estimation of the firm; Dividend policy needs to build by firms because they want to improve market worth. In addition impact of share price and dividend to each other interested to look investor for investment decision. They consider more profit and believe that better profit bring better share price.Data collected only one country this research also compare one country to another country and also limited time consider, this research also conduct on time series data

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