

Impact of Dividend Policy on Shareholder's Wealth and Performance: A Case Study of Cement Industry

Ammara Sarwar* and Bilal Aziz**

Abstract: The objective of present study is to extend the evidence regarding impact of dividend policy on shareholder's wealth and performance. The study analyzes six years data from cement industries listed on the Pakistan Stock Exchange from 2011 to 2016 by applying panel data regression techniques. Financial performance measured through Return on assets and shareholder's wealth are used as dependent variables whereas Dividend policy is incorporated as independent variable. The control variables included in the study are earning per share and size of the firm. The research findings suggest that dividend policy significantly affects the financial performance of the firms while control variables are also positively related to return on assets. It is also suggested that earning per share is positively related to share prices of firms.

Keywords: Cement industry, Dividend policy, Performance, Shareholder's wealth, financial market, financial policy,

JEL Classifications: L11, O16, G32, L61.

1. Introduction

A payment that is made by the organization to the common stockholders of the company, and usually distributed from companies' profit is termed as a dividend. General factors that determine the Board's recommendation for giving dividends may include applicable taxes on dividend, the position of cash flow, future plans for capital expenditure and profit earned in a year as discussed by Jerop (2014). According to the discussion of Masum (2014), it is a major financing decision for the organization to formulate their dividend policy. Dividend policy involves the policies related to payment of a certain amount of financial reward to the shareholders when they invest in a firm.

Every organization and business sector follow a different pattern of paying a dividend, and it obviously acts as firms' financial indicator. Hence, it may be assumed, and have been discussed by some of the studies like Masum

* **PhD Scholar** University of Lahore, City Campus Lahore, (**Lecturer**) University of Lahore, Sargodha campus, Pakistan

** **Incharge** PDC, IBM University of Engineering and Technology Lahore, Pakistan

(2014) and Ali *et al.*, (2015), that demand of firms' share depends on its dividend policy. Theory of demand and supply determine that more the demand of a product in market more will be its price as discussed by Kalecki (2013). The determinants of dividend policy and the motive of the managers behind giving dividends are still unanswered by the research, although it has been a topic of interest since the inception of Joint Stock Companies. As there is no consensus has been found on the issue of the positive influence of the dividend payout on prices of their stock, the relevant impact of this policy on financial performance is also vague. This research is rare worldwide, however, due to the high volatility of macroeconomic factors in Pakistan, this topic has not engrossed the attention of researchers yet.

The research gap, which has also been established by Ali *et al.*, (2015) suggests that due to the rarity of research on this topic in Pakistan, Pakistani firms have ambiguous dividend policies. There is a need for a study that portrays the impact of effective policy related to dividend on share prices and financial standings, which may help the firms to make better dividend decisions.

2. Literature Review

Suwanna (2012) has discussed that dividend payout policy contributes in resolving the conflicts between shareholders and managers. Therefore, the positive experience of shareholders to hold the stock of a company leads to increase in demand of shares, hence resulting in an increase in its prices. A recent study conducted by Akbar and Baig (2010) used a sample of seventy-nine firms for studying the relationship between these two variables. The study has portrayed a positive result with the findings that announcement of both stock dividends and cash dividends lead to increase in stock prices of a particular organization. Other studies, like the research conducted by Hussainey *et al.*, (2011) have also investigated this relationship for firms of UK. The findings of research suggested that there is a significant and positive association between prices of stock and payment of dividend, while there is an observance of a negative relationship between prices of shares changes and ratio of payout of dividend.

Some researchers have a view that stock price changes are minimally affected by dividend payout ratio of the companies, the major influencing

factors include: 1) size of the firm, 2) level of debt, 3) growth rate, and 4) earnings of the firms. However, this study was negated by Khan (2012), which concluded a significant and positive relationship between the variables. All of these authors have concluded contradictory results. The reason behind the difference in their findings is that there are many factors like the political stability of the country, investors' sentiments, the size of organization etc. that may impact prices of shares. For instance, the stock market of Pakistan may be more volatile and hence prices of shares may not react to the dividend policies of the firm as UK or Japanese share prices do due to the stability of their economy. So, the authors like Malla (2009) believed that the theory of the impact of dividend announcements on stock prices is probably the most significant yet puzzling theory in finance that is still unsolved. So, there is a need for a study that may fill this gap by finding out the method of balancing firms' value i.e. financial performance and shareholders' value i.e. offering the dividend to make a well-balanced dividend policy.

There are several studies which concluded that financial performance of the firm has positive and significant relationship with dividend policy as stated by Sifunjo (2015); and Ajanthan (2013). The study of Sifunjo (2015) investigated the data of ten commercial banks listed on NSE, from which some of the banks paid year to year consistent dividend payments and their profits have also increased year by year which shows that the relationship is significant and positive. In addition, Ajanthan (2013) stated that it is very critical to adjust dividend policy for improving the financial performance but there is an affirmative and robust relationship between both variables. As Mutie (2011) also revealed in his study that after paying a dividend, financial performance of the firm improved which means "dividend paid" variable is significantly associated with the "financial performance of the firm" variable.

Naum (2014) also concluded that corporations work for adjusting and developing dividend policy for improving their financial position in the market and it is a key factor which impacts the organizational performance. Moreover, Chumari (2014) argued that there is an association between liquidity, profitability and organization's performance. Furthermore, Musyoka (2015) mentioned his study's result and assured that both dividend policy and financial performance of all firms which are listed on NSE have impact on each other. Dividend pay-out works as a motivation

for the investors after each financial period (Kajola *et al.*, 2015). Their study elaborated that strong dividend policy is a way to attract more investment.

Ndirangu (2014) conducted a study to prove that dividend policy has an impact on the future performance of the firms which are listed on Stock Exchange of Nigerian. The five years' data has been collected for this research work from 2009 to 2013. The correlational analysis resulted in a positive relationship between variables of the study which are "dividend payout" and "earnings growth in the future". The study was conducted in Kenya and selected focus point was listed commercial banks only rather than industries. The study of Chumari (2014) also involved these variables to elaborate the relationship between four financial performance elements such as sales growth, profitability, market to book value, cash flow and dividend payout. Additionally, the data was collected from the secondary sources which are financial statements of the companies. This study supported the dividend theory. Wasike and Ambrose (2015) researched about the determinants of the dividend policy and regression analysis was conducted to analyze the data of 60 companies listed on NSE for the years 2004 to 2014. The conclusion was that there is a significant result between tax, profitability and cash flow while the negative and not significant relationship is between risk, growth, market to book value and dividend policy.

3. Methodology

This section of the study aims at discussing the detailed clarification of development of hypothesis, discussion of dependent and independent variables, and theoretical framework of the study. In addition, it will discuss the data collection and analysis techniques used to complete this research.

There are three types of variables included in this study, including dependent variables, independent variables and control variable. For simplifying the relationship between the study's chosen variables as well as measuring the actual impact of independent variable on dependent variable, only one independent and dependent variable are used in the models. However, two control variables are also included, which may have impact on this relationship.

Independent variable utilized for this research is dividend policy of the organization, which is measured through the payments of dividend on yearly basis. Two dependent variables included in the research are financial performance and shareholder's wealth. So, two regression models are used. Financial performance is measured by Return on Assets (ROA) and shareholder's wealth measured through share prices, which is the average of share prices per year.

As far as control variables are concerned, there are two control variables including Earning per share and Size of the firm. Earnings per share is measured by dividing Income after interest and tax to number of shares outstanding while size of firm is measured by taking natural logarithm of total assets.

By concluding the discussion on dependent and independent variables of the study, following models are developed:

$$ROA_{it} = \beta_0 + \beta_1 DivP + \beta_2 Size + \beta_3 EPS + \mu_{it} \quad (1)$$

$$ShWealth_{it} = \beta_0 + \beta_1 DivP + \beta_2 Size + \beta_3 EPS + \mu_{it} \quad (2)$$

Where

ROA:	Return on assets
Shwealth:	Shareholder's wealth
DivP:	Dividend policy of firm
Size:	Size of firm
EPS:	Earnings per share

4. Data Collection

The sample chosen for the study is from cement and construction & materials industry of Pakistan. For the purpose of data collection, 10 companies from the sector that were listed on Pakistan Stock Exchange (PSE) were selected for analysis. The selection of the companies was dependent on the availability of data for at least 6 years. Data is collected by the investigator from the official websites of the companies, annual reports, and KSE's official website. In order to analyze the collected data from these resources, panel data analysis methods have been utilized. In addition, for the purpose of finding the relationship between all variables, correlation analysis has also been conducted. The software used for regression and correlation analysis is E-views, which is a statistical package used for conducting all type of empirical data analysis.

5. Empirical Results

This particular section of the paper is going to discuss the statistical results concluded from the data analysis of the collected variables. It includes correlation analysis for checking the multi-collinearity issue between independent variables and finding the strength of relationship between dependent and independent variables. After correlation analysis, regression analysis will be done for finding the significant relationships of the models.

Descriptive statistics of variables are given in Table 1 which includes Mean, Median, Minimum values, Maximum values and Standard deviation. The highest mean value is observed for DivP while lowest mean value is for ROA. The deviation of variable value from its mean is measured through standard deviation. Minimum variation is shown for ROA which depicts that lowest variation in dependent variables caused due to ROA. The highest value of standard deviation is observed for DivP which shows the maximum variation in dependent variables is due to DivP.

Table 1: Descriptive Statistics

	Mean	Median	Max	Min	Std. Dev.
ROA	0.1147	0.1155	0.2438	- 0.05251	0.0730
ShWealth	88.2940	54.9875	553.1800	2.2800	104.5867
DivP	1033.0	4853.0	6854.0	0.0000	1419.0
EPS	11.2620	10.8600	40.0300	-3.72	10.1676
Size	7.2571	7.4640	7.964395	6.2993	0.4811

Correlation analysis can be termed as one of the greatly significant and commonly used statistical analysis in research studies. A correlation value is a number that may describe the positivity or negativity of the association between two variables. Table 2 presents the relationship between the variables of the study.

Table 2: Correlation Analysis

	ROA	DivP	EPS	Size	ShWealth
ROA	1.0000				
DivP	0.4099	1.000			
EPS	0.7063	0.4767	1.0000		
Size	0.0542	0.5061	0.3683	1.0000	
ShWealth	0.5287	0.4730	0.9241	0.3599	1.0000

The correlation value between two variables is being considered strong if the value is more than 0.3. As it can be seen in the table that dividend paid by the company have a strong positive relationship with its financial performance that was measured by ROA i.e. Return on Assets because its value is 0.409. This concludes that paying more dividends by a company in Pakistan will lead to increase in their financial performance as well. In addition, the relationship between dividend paid by the company and share prices of the firm that are listed on the above-mentioned stock exchange have stronger and relationship that is positive with the value of 0.528. This

implies that with an increase in the dividend paid by the company in a year impacts its stock prices positively, and the price of the stock of a company will rise. The result in the table portrays that both control variables that are Earning Per Share and Size of the companies also have a strong positive relationship with the dividend paid by the firms in that year.

These results imply that when the firm will pay more dividends to its stockholder the size of the companies will also rise and due to more profit the company will have more of the earning against each share held by the shareholders. These results clearly show that all of the firms included as a sample in this study have a positive impact of their dividend giving the policy to their stock holders on their financial performance as well as on their stock prices. So, giving continuous and higher dividend in a year can lead to more EPS earning, ROA; increasing size of the company and prices of shares in stock market.

Table 3 gives the data to analyze the financial performance which is measured through ROA of companies that is a dependent variable and to state that other variables are important to the model of the statistical model. The first value is constant and is 0.405 which shows that when the value of independent variables and mediating variables are zero than ROA is 0.405. For each unit change in independent variables (EPS, Dividend paid and Size of the firm) the dependent variable will change by 0.000000121, 0.005175 and -0.049836 respectively. From these values, it is analyzed that all variables are significant because all of the values' p-value elaborates the significance level which should be less than 0.05 and in this study that is less than this value.

Table 3: Regression Analysis Dependent variable, ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.4052	0.109509	3.7003	0.0005***
DivP	1.21E-08	5.59E-09	2.1730	0.0341**
EPS	0.0051	0.000727	7.1234	0.0000***
Size	-0.0498	0.015536	-3.2078	0.0022***
R-squared	0.5837	F-statistic	25.7057	
Adjusted R-squared	0.5609	Prob(F-statistic)	0.0000***	
Durbin-Watson stat	1.21022			

***shows 1 per cent and ** shows 5 per cent level of significance.

The regression analysis of in Table 4 shows that the value of R squared, which is the coefficient of determination, is 0.855 and this value shows the total variations in the model. The value of adjusted R square in the model is 0.847 and this shows that the effect of the independent variables included in the model is 84.7% on the dependent variable as it can be seen in the Table 4 below.

Table 4: Regression Analysis Dependent variable: Shareholder's wealth

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-31.778	92.4663	-0.3436	0.7324
DivP	2.87E-06	4.72E-06	0.6091	0.5449
EPS	9.3602	0.6134	15.2588	0.0000***
Size	1.6737	13.1177	0.1275	0.8989
R-squared	0.8554	F-statistic	108.4581	
Adjusted R-squared	0.8475	Prob(F-statistic)	0.0000***	
Durbin-Watson stat	0.8652			

***shows 1 per cent level of significance

The value of constant in the model is -31.77 and this value shows the average value of share price when the values of independent and mediating

variables will be zero. The coefficient of dividend paid is $2.87E-06$ and this shows that with a 1 unit change in the dividend paid will change the share prices by $2.87E-06$ and the probability value of dividend paid is 0.544 which shows the insignificant relationship between share price and dividend paid. With a one unit change in EPS and size of the firm there will be a change in the share price by 9.36 and 1.67 respectively, however, the probability value of EPS shows a highly significant and the probability value of the size of the firm shows an insignificant relationship with the share price.

A significant positive relationship has been found between the independent variables (dividend paid, EPS, and size of the firm) and dependent variable ROA from the regression of model 1. This relationship between dividend paid and ROA is consistent with the findings of Khan *et al.*, (2016) and it is considered that when the firms pay dividend their performance increases. The result is also consistent with Ehikioya (2015) which stated that when the firms pay dividends, this phenomenon is observed by the investors and increases the performance of the firm. The results, however, are contrary to the findings of Enekwe *et al.*, (2015). They found a positive and significant relationship among the Earning per Share and ROA and these results are not consistent with the results of Yegon *et al.*, (2014) and Balaputhiran (2014) and both of them found a positive yet insignificant relationship between these two. The reason of this contrary result is because the investors are attracted towards the firms that have high EPS and this thing increases the Firm's performance. There found a positive and a significant relationship among the size of the firm and firm's ROA and these results are according to the results of Ehikioya (2015) and these results can be explained by the words that the larger a firm is the more investments it can take and can increase its performance. The results are contrary to the findings of Khan *et al.*, (2016) which shows insignificance between the size of the firm and its performance. So, here it can be said that the ROA is affected by dividend, EPS, and size of the firm.

A positive yet insignificant result has been found among the dividends paid the share prices of a firm. The results of this regression model are according to the findings of (Hussainey *et al.*, (2011); Dhungel (2013)) and the reason behind these results may be the uncertain conditions of this sector in Pakistan where the share prices are influenced by multiple other factors.

These are not consistent with the results of Khan (2012), Masum (2014), and Botchwey (2014). In their studies, they all found that the dividends when paid affect the share prices positively. A significant and positive result has been found among the EPS and the share prices of organizations. The significant results match with the results of Seetharaman and Raj (2011). EPS can affect the share price of any firm because earnings are considered as a determinant of the financial health and prosperity of any firm. Higher the EPS of a firm will increase in the financial health and prosperity of the organization and it will affect the share price positively. The association among the share prices and the size of the firm is found as insignificant and this association can be justified through the findings of Pani (2008) where an insignificant relationship was witnessed between these two variables. So here it can be concluded that only EPS has effects on share prices and remaining two don't have.

6. Conclusion and Recommendations

To measure the relationship of financial performance and share prices with the dividend paid is an important issue these days. The effects are recorded as both positive and negative in previous literature and in this study. The study has been started with an aim to investigate the impact of dividend payout on ROA and share prices on the firms. The objective of this study is to find out the impact of dividend payout on shares prices and on the performance of the firms. For the investigation purpose, data of 10 different firms of the construction and material industry listed on KSE for the period of 6 years is being used in this study. Annual reports of the firms of construction and materials industry have been used as a source to obtain data. Following can be concluded from the findings of the results:

The significance between the variables is obtained by regression through OLS technique. A positive and a significant association have been found among dividend paid, EPS, the size of the firm and the firm's performance. The results found are consistent with the previous literature. A positive correlation has been found between the dividend paid and all the variables through the correlation test.

It is recommended for the organizations that they should focus on making a better dividend policy because the performance is highly affected by it so

a better dividend policy will enhance the performance of firms. According to the general point of view, there should be significant association among the dividend paid and ROA but the results of this study are contrary to the general observation. The reason is that the construction and materials sector of Pakistan is not paying the dividends on regular basis. From the many past studies and from general observation, it can be seen that the investors are attracted towards the company that paid the dividend on regular basis and this thing affects their share prices. It is recommended for the companies that they should focus on giving the dividend on a continuous basis if they want to increase their share prices more. In addition, the EPS is having a highly significant relationship with share price, so, it is recommended for future to use it as an independent variable. There are some studies that have already investigated this relationship but still, there is a gap that should be filled in future.

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