

The Impact of Dividend per Share on Stock Price of Companies Listed on Dhaka Stock Exchange

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ABSTRACT

This study intends to observe the impact of dividend per share on stock price of companies listed on Dhaka Stock Exchange. The study uses a firm-level panel data set of 61 companies from eight major sectors of DSE for ten years from 2008 to 2017. Pearson correlation was used to examine the relationship between dividend per share and stock price of each sector under the study and mixed results were found. Simple linear regression was also used to investigate the impact of dividend per share on stock price. The findings of the impact of dividend per share on stock price of companies of eight selected sectors produced very interesting results. The results of simple linear regression show that Banking, Food & Allied Product, Pharmaceuticals & Chemicals and Insurance sectors have significant impact of dividend per share on stock price, which supports the relevance theory of dividend i.e., Walter's model and Gordon's model. Furthermore, dividend per share has significant positive impact on stock price of Food & Allied Product and Pharmaceuticals & Chemicals sectors, while in Banking and Insurance sector, dividend per share has significant negative impact on stock price. On the other hand, there is no significant relationship between dividend per share and stock price of Financial Institutions, Engineering, Fuel & Power and Textile sectors, which supports Irrelevance theory of dividend i.e., MM Hypothesis. Thus, the impact of dividend on stock price has still remained a controversial issue. That is, dividend puzzle (Black, 1976) has not yet solved.

Keywords: Impact, dividend per share, stock price, Pearson correlation, simple linear regression, Dhaka Stock Exchange

1. INTRODUCTION

Dividend policy still remains an academic debate amid the clouding picture of its importance among the financial economists till today. There are few aspects of corporate financial policy where the gap between the academics and the practitioners is larger than that of the dividend policy. Since the 1960s, there is an ongoing debate on dividend policy, which remains a controversial issue to this day. Why do firms pay

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dividends? For decades, the academics have not been able to agree on any convincing explanation, and at the same time, many even claim that firms should not pay dividends, and so we have a "dividend puzzle" (Borges, 2009)

In the middle of twentieth century, certain researchers developed theories explaining the impact of dividend policy on stock prices. This is known as dividend relevance theory. This theory was developed by Walter (1963) and Gordon (1962). However, Modigliani and Miller (1961) stated that dividend policy has no impact on stock prices in the perfect capital market. According to them the firm's value solely depends on the firm's earning power and not the dividend payout. Thus, dividend irrelevance theory was developed. And since then there has been a conflict between these two thoughts that are related to the impact of dividend on firm's value. Black (1976) wrote that "The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together" (p. 5).

2. PROBLEM STATEMENT

Dividend policy decisions in the emerging markets has continued to receive attention till today in academic research due to the differences observed between developed and emerging markets as well as sparse empirical evidence in this area. Ever since the work of John Lintner (1956), followed by the work of Miller and Modigliani (1961), dividend policy remains a controversial issue. Some of the questions that remain unanswered include: Does dividend policy affect value? Despite several studies done on the subject, the impact of dividend on stock price still remains a puzzle.

Significant differences in results of various studies across countries have left a bigger space to explore dividend issues in different countries. Moreover, a few studies on dividend policy of corporate sectors in Bangladesh have been made. Keeping this in mind, the study attempts to explore the impact of dividend per share on stock price in the context of Bangladesh.

3. RESEARCH QUESTIONS

The above research problem leads to the following research questions:

1. Is there any relationship between dividend per share and stock price of each sector under the study?
2. What is the impact of dividend per share on the market price of shares?

4. OBJECTIVES OF THE STUDY

The main objective of this study is to investigate the impact of dividend per share on stock price of shares. To achieve the main objective, following specified objectives are covered:

1. To examine the relationship between dividend per share and stock price.
2. To investigate the impact of dividend per share on stock price of each sector under the study.

5. REVIEW OF EMPIRICAL LITERATURE

Dividend policy remains a source of controversy despite years of theoretical and empirical research, including one aspect of dividend policy: the linkage between dividend policy and stock price. Numerous studies have been conducted across the world on the relevance of dividend policy to the value the firm. Many researchers argue that dividends increase share prices and hence shareholders' wealth (Gordon,

1959, 1962; Walter, 1963; Miller & Rock, 1985; John & Williams, 1985; Baker, Veit & Powell, 2001. Gordon (1959) asserts that dividend decision influences the value of shares as investors are rational and risk averse, so they prefer current dividends to future dividends. Walter (1963) asserts that dividend is relevant and it influences equity share price of firms.

Balagobei and Selvaratnam (2015) found that there is a significant relationship between the dividend policy and shareholders' wealth as well as dividend per share has a significant impact on shareholders' wealth of listed manufacturing companies in Sri Lanka. Memon, Channa and Khoso (2017) observed that there is the significant negative impact of dividend yield and significant positive impact of dividend payout on stock market prices of the nonfinancial sectors of Pakistan. Ngoc and Cuong (2016) clearly showed the positive effect of dividend announcements on the stock return of listed companies in Vietnam. Share prices increase when the ex-dividend date draws near. Priya and Mohanasundari (2016) reviewed the empirical findings of the existing theories on dividend policy and found a positive relationship between dividend payout and firm value. Dharmarathne (2013) observed that the stock price reacts positively to subsequent announcements of dividend in the Sri Lankan capital market. Suwanna (2012) empirically confirmed the signaling theory of dividend in the Stock Exchange of Thailand (SET) as announcements of dividend have significant effect on share prices.

Ahmed (2018) observed that dividend per share and earnings per share impact positively and significantly on stock prices of Textile composite sector of Pakistan. Velankar, Chandani and Ahuja (2017) examined the impact of EPS and DPS on stock price of twelve selected public sector banks of India for the period of 2006-2007 to 2014-2015. The study has disclosed that 83.43% variation in stock price is being explained by EPS and DPS. Yilmaz and Gulay (2006) confirmed the price-volume reaction on dividend payment date in addition to the significant effect of cash dividend on the stock price of companies listed on Istanbul Stock Exchange. Bajaja and Jain (2019) found that there exists a robust relation between dividend payout ratio and market price of shares of automobile sector companies listed in NIFTY 50 for 10 years i.e. 2009 to 2018. The study of Maditinos, Sevic, Theriou and Tsinani (2007) found strong evidence that individual investors in Greece want dividends.

Javed and Shah (2015) suggested paying huge amount of dividends, as retention of earnings does not contribute in enhancing the stock returns of firms listed in Karachi Stock Exchange. Warrad (2017) showed that book value per share, dividend per share and dividend yield have significant effect on stock price of Jordanian banks. Zainudin, Mahdzan and Yet (2018) stated that dividend policy is a strong predictor of stock price volatility in Malaysia, mainly during the post-crisis period. Zakaria, Muhammad and Zulkifli (2012) found that changes in stock price are significantly influenced by dividend payout ratio. Oliver C., Iniviei S. and Daniel S. (2016) empirically showed that dividend per share is significantly and inversely related to stock price of companies. Samiloglu, Bagci, Oztop and Kahraman (2017) found that cash dividend amount has a positive and significant relationship with share price of companies listed in Istanbul Stock Exchange (BIST).

A major controversy in the literature involves the relationship between dividend policy and the value of the firm. Miller and Modigliani (1961) first formally presented the irrelevance theory of dividend. In this regard, Miller and Modigliani (1961) suggest that dividend policy has no effect on the value of the firm in a world without taxes, transactions costs, or other market imperfections. In support of irrelevance theory, some argue that dividends are irrelevant and have nothing to do with the price of the share (Miller & Scholes, 1978, 1982) and still others argue that dividends decrease stockholders' wealth (Litzenberger &

Ramaswamy, 1919). Bhattacharyya (2007) reviewed the major theories of dividend policy and found that empirical evidence is indecisive and the famous dividend puzzle is still unsolved.

Tharshiga and Velnamby (2017) explored that corporate dividend policy does not influence market price of shares of Sri Lankan firms in consistent with the Dividend Irrelevance Theory. Dedunu (2018) showed that dividend announcements have no positive or negative reactions to market price of shares in the Colombo Stock Exchange. Geetha and Swaminathan (2015) showed that the dividend per share doesn't have positive or negative effect to the market price of shares of companies from automobile and IT industries listed in BSE and NSE in India. Dhungel (2013) found that share price of most of the banks in Nepal is not significantly impacted by dividends. Seyedimany (2019) showed that shareholders are not in a position to gain value from the announcements of special dividend in NASDAQ, which is in consistent with the dividend irrelevance hypothesis of Miller and Modigliani (1961)

Alaeto (2018) found that dividend announcements fail to impart any information to react stock prices of firms listed on London Stock Exchange (LSE), which is in support of the M-M Dividend Irrelevance Theory. Allen and Rachim (1996) found no evidence that dividend yield is correlated with stock price volatility of Australian listed companies. Vavilina, Levanova and Tkachenko (2019) found no statistically significant dependence of stock prices of most Russian companies on the size of dividends paid out. Ahmed (2000) stated that dividends convey valuable information to the investors of the listed companies in Bangladesh and thus supporting Dividend Relevance Theory (Lintner, 1956). Misir (2010) stated that variations in dividend announcements impart tidings about the earnings of the company, which affects market price of shares of the companies listed in Dhaka Stock Exchange (DSE).

Hasan, Akhter and Huda (2012) empirically confirmed the market price reaction of companies listed on Dhaka Stock Exchange over the announcements of cash dividend in the event date and post event date. Uddin (2009) stated that market price of share has a significant linear relationship with earnings per share, net asset value per share and dividend payout ratio. Al Masum (2017) showed that dividend yield has a significant negative relationship with the market price of shares of banking sector companies listed on Dhaka Stock Exchange. Ali and Chowdhury (2010) stated that dividend announcements do not impart any information due to strong contribution of the insider trading as well as some other influencing factors in the capital market of Bangladesh.

The results of the empirical analysis of Misir and Khandoker (2017) evidenced that there exists dynamic relationship among earnings, dividends, and share prices of firms listed in Dhaka Stock Exchange (DSE). Mamun, Hoque and Mamun (2013) showed that dividend declarations do not convey any gain to the investors; rather they incur loss due to considerable decline in share prices both in pre-dividend and post-dividend periods. Rashid and Rahman (2008) identified the positive but insignificant relationship between share price volatility and dividend yield. Masum (2014) found that share prices of banks listed in Dhaka Stock Exchange is significantly affected by dividend policy of the banks. Al- Hasan, Asaduzzaman and al Karim (2013) evaluated the effect of dividend policy on market price of share in the context of Bangladesh. The study has found that the effect of dividend payout is more on market price than retention.

Rahman and Rahman (2008) observed that the ex-dividend prices in Dhaka Stock Exchange (DSE) increase instead of dropped, showing a clear preference for capital gains without having any focus on dividends. Uddin and Uddin (2014) found no effect of dividend announcements on share prices of Dhaka Stock Exchange (DSE) over the observation periods. The findings of the study of Islam, Humyra and Sultana (2015) observed that the reaction of share prices to dividend omission announcement is

statistically significant in Dhaka Stock Exchange. Golder, Akter and Sheikh (2019) found that announcement of dividend affects the price of mutual funds listed on Dhaka Stock Exchange (DSE).

6. RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem (Kothari & Garg, 2019). This section outlines the research method used in order to achieve the objectives outlined above. Specifically, this section describes the theoretical framework, research design, population and sampling design, sources of data and panel database construction, operational definitions of variables, hypotheses of the study, and data analysis techniques.

6.1 Theoretical Framework

Based on the problem statement of the study and careful review of the literature, a theoretical framework has been formulated to investigate the impact of dividend per share on stock price of companies listed on Dhaka Stock Exchange.

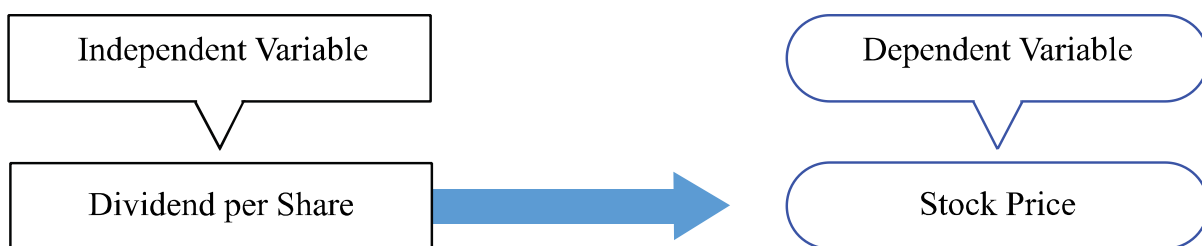


Figure 1: The Theoretical Framework

In the Theoretical Framework, stock price (SP) is dependent variable and dividend per share (DPS) is independent variable.

6.2 Research Design

A research design is a blueprint for the collection, measurement, and analysis of data, based on the research questions of the study. Selecting a design may be complicated by the availability of a large variety of methods, techniques, procedures, protocols, and sampling plans (Cooper & Schindler, 2008). The current study is causal in nature. Causal research is used to obtain evidence of the cause-and-effect (causal) relationships (Malhotra & Dash, 2016).

In this study, the dependent variable is Stock Price and the independent variable is Dividend per Share. The relationship and the strength of association between variables and the impact of independent variable on dependent variable have been studied using correlation and regression analysis.

6.3 Population and Sampling Design

The population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate and wants to make inferences based on sample statistics (Sekaran & Bougie, 2013). The population of the study comprises all the companies listed on Dhaka Stock Exchange. Eight major sectors on the basis of the highest number of companies listed during the study period have been selected. The working population of the study is 158 companies.

A sample design is a definite plan for obtaining a sample from a given population (Kothari & Garg, 2019). Proportionate Stratified Sampling technique has been used for the study.

6.3.1 Sample Selection Criteria

- i. The sample period is 10 years from 2008 to 2017.
- ii. The companies having no time series data are excluded from sample.

- iii. The companies which are enlisted after the year 2008 or delisted from 2009 to 2017 are excluded. Without differentiation, this study includes both dividend paying and non-dividend-paying companies that satisfy specified criteria i – iii above. The inclusion is to avoid selection bias.

6.3.2 Sample Size Determination

Sample size refers to the number of elements to be included in the study.

Yamane and Yamane (1967) provide a simplified formula to calculate sample sizes.

$$n = \frac{N}{1 + N(e)^2}$$

n = Sample Size

N = Population Size

e = Level of precision

Thus, the sample size would be

$$n = \frac{158}{1 + 158(.10)^2}$$

$$n = 61$$

The final sample consists of 61 companies listed on Dhaka Stock Exchange. The size of the sample from each sector is determined by proportionate allocation scheme (Chawla & Sondhi, 2016).

$$n_i = n \times \frac{N_i}{N}$$

n = Sample Size

N = Population Size

n_i = Sample Size of each stratum

N_i = Population Size of each stratum

The sample companies are selected from each sector using Random Number Table.

6.4 Sources of Data and Panel Database Construction

The study is analytical and empirical in nature and makes use of secondary data. The data are taken from Dhaka Stock Exchange, Website of Dhaka Stock Exchange Limited (www.dse.com.bd), Monthly Review of Dhaka Stock Exchange Limited, Annual Reports and Websites of the sample companies. The time period of this study is 10 years from 2008 to 2017.

From the available financial data, the database was constructed with all financial data for all firms. The sample consists of 61 companies of which 12 are from banking sector, 7 from financial institutions sector, 7 from engineering sector, 5 from food & allied products sector, 4 from fuel and power sector, 8 from textile sector, 7 from pharmaceuticals and chemicals sector, and 11 from insurance sector. A balanced panel is constructed as the number of observations for each company is identical. The study includes both dividend-paying as well as non-dividend-paying firms. In the study sample of 61 companies, there are 27 companies that paid dividends throughout the study period of 10 years. Therefore, including all companies in the analysis should give the result more robustness.

6.5 Operational Definitions of Variables

Dependent and independent variables used in this study have been defined and presented here. The variable whose value is influenced or is to be predicted is called the dependent variable. The dependent variable is the variable of primary interest of the researcher (Sekaran & Bougie, 2013). The variable that influences or impacts the dependent variable is called an independent variable (Chawla & Sondhi, 2016).

6.5.1 Dependent Variable

Stock price of companies is taken as dependent variable in line with the objective of the study.

Y: Stock Price (SP)

Stock price is the cost of purchasing a security on an exchange. Stock price of the share depends upon many factors including dividend per share. The investors are always careful when purchasing stock in the company, as the stock price is known to fluctuate greatly in this specific market (Velankar, Chandani & Ahuja, 2017). Closing price of each company share has been considered as stock price for the present study.

6.5.2 Independent Variable

X1: Dividend per Share (DPS)

Dividend per share is the actual amount of cash dividend paid per share. It has a significant influence on the market price of shares. Dividend per share (DPS) has been used as independent variable in line with previous studies (Zahir & Khanna, 1981; Srivastava, 1984; Balkrishan, 1984; Karathanassis & Philippos, 1988; Zahir, 1992; Singania, 2006; Khan, 2009; Uddin, 2009) that examined the impact of dividend policy on stock price.

6.6 Hypotheses of the Study

Hypotheses are logically conjectured relationships between two or more variables expressed in the form of testable statements (Sekaran & Bougie, 2013). By testing the hypotheses and confirming the conjectured relationships, it is expected that solutions can be found to correct the problem encountered.

6.6.1 Null Hypothesis

H₀: There is no significant relationship between Stock Price and Dividend per Share of the selected sectors of Bangladesh.

6.6.2 Alternative Hypothesis

H₁: There is significant relationship between Stock Price and Dividend per Share of the selected sectors of Bangladesh.

6.7 Data Analysis Techniques

6.7.1 Correlation

Correlation measures the degree of association between two variables. Pearson Correlation is used to examine the relationship between dividend per share and stock price. The correlation test has been run for each selected sector and the variables mentioned above.

6.7.2 Regression Analysis

The term “regression” was first used by Sir Francis Galton in 1877. Regression analysis is the process of developing a statistical model, which is used to predict the value of a dependent variable by at least one independent variable (Bajpai, 2010). In a simple linear regression analysis, a straight line relationship between two variables is examined.

We have used simple linear regression analysis with a view to developing a regression model by which the value of the dependent variable can be predicted with the help of the independent variable, based on the linear relationship between these two. Simple regression investigates a straight-line relationship of the type

$$Y = a + \beta X$$

Where,

Y = Dependent variable
 X = Independent variable
 a = Y-intercept
 β = Slope coefficient

Model Specification for the Study

We have developed the following regression model for our study.

$$SP = b_0 + b_1DPS$$

Where,
 SP = Stock Price
 b₀ = SP- intercept
 DPS = Dividend per Share
 b₁ = Regression coefficient of DPS

7. DATA ANALYSIS, INTERPRETATION AND FINDINGS

7.1 Correlation

Sector-wise Correlation Coefficient

Sector	Correlation Coefficient	Significance (2-tailed)	Significant at (level)
Banking	-.795	.006	0.01
Financial Institutions	-.408	.242	Not Significant
Engineering	-.102	.779	Not Significant
Food & Allied Product	.914	.000	0.01
Fuel & Power	.532	.113	Not Significant
Textile	-.031	.932	Not Significant
Pharmaceuticals & Chemicals	.882	.001	0.01
Insurance	-.887	.001	0.01

Banking Sector

H₀: There is no correlation between Dividend per Share and Stock Price of Banking Companies.

H₁: There is correlation between Dividend per Share and Stock Price of Banking Companies.

Interpretation

Null hypothesis is rejected. Pearson correlation value is -.795 and significance value is .006, which is less than the level of significance of 0.01. So, there is a high degree of negative correlation between Dividend per Share and Stock Price of Banking Companies.

1. Financial Institutions Sector

H₀: There is no correlation between Dividend per Share and Stock Price of Financial Institutions.

H₁: There is correlation between Dividend per Share and Stock Price of Financial Institutions.

Interpretation

Null hypothesis is accepted. Pearson correlation value is $-.408$ and significance value is $.242$, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Stock Price of Financial Institutions.

2. Engineering Sector

H_0 : There is no correlation between Dividend per Share and Stock Price of Engineering Companies.

H_1 : There is correlation between Dividend per Share and Stock Price of Engineering Companies.

Interpretation

Null hypothesis is accepted. Pearson correlation value is $-.102$ and significance value is $.779$, which is higher than the significance level. So, there is no significant correlation between Dividend per Share and Stock Price of Engineering Companies.

3. Food & Allied Product Sector

H_0 : There is no correlation between Dividend per Share and Stock Price of Food & Allied Product Companies.

H_1 : There is correlation between Dividend per Share and Stock Price of Food & Allied Product Companies.

Interpretation

Null hypothesis is rejected. Pearson correlation value is $.914$ and significance value is $.000$, which is less than the level of significance of 0.01 . So, there is a very high degree of positive correlation between Dividend per Share and Stock Price of Food & Allied Product Companies.

4. Fuel & Power Sector

H_0 : There is no correlation between Dividend per Share and Stock Price of Fuel & Power Companies.

H_1 : There is correlation between Dividend per Share and Stock Price of Fuel & Power Companies.

Interpretation

Null hypothesis is accepted. Pearson correlation value is $.532$ and significance value is $.113$, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Stock Price of Fuel & Power Companies.

5. Textile Sector

H_0 : There is no correlation between Dividend per Share and Stock Price of Textile Companies.

H_1 : There is correlation between Dividend per Share and Stock Price of Textile Companies.

Interpretation

Null hypothesis is accepted. Pearson correlation value is $-.031$ and significance value is $.932$, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Stock Price of Textile Companies.

6. Pharmaceuticals & Chemicals Sector

H_0 : There is no correlation between Dividend per Share and Stock Price of Pharmaceuticals & Chemicals Companies.

H₁: There is correlation between Dividend per Share and Stock Price of Pharmaceuticals & Chemicals Companies.

Interpretation

Null hypothesis is rejected. Pearson correlation value is .882 and significance value is .001, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Stock Price of Pharmaceuticals & Chemicals Companies.

7. Insurance Sector

H₀: There is no correlation between Dividend per Share and Stock Price of Insurance Companies.

H₁: There is correlation between Dividend per Share and Stock Price of Insurance Companies.

Interpretation

Null hypothesis is rejected. Pearson correlation value is $-.887$ and significance value is .001, which is less than the level of significance of 0.01. So, there is a high degree of negative correlation between Dividend per Share and Stock Price of Insurance Companies.

7.2 Simple Linear Regression

This section provides details about simple linear regression analysis for dividend per share as independent variable and stock price as dependent variable.

1. Banking Sector

Simple Linear Regression						
Sector	SPSS Output					
Banks	Model Summary	R		R Square	Adjusted R Square	
		0.795		0.632	0.586	
	ANOVA	F		Significance		
		13.765		0.006		
	Coefficients	Constant	Sig.	DPS	Sig.	
		100.447	0.000	-49.946	0.006	

Statistical Inference

The correlation coefficient (R) of .795 in the Model Summary indicates that there is a high degree of positive relationship between the variables. The coefficient of determination (R Square) of .632 denotes that 63.2% of variations in SP are explained by DPS. Therefore, 36.8% of variations are for factors outside the model. The Adjusted R square of .586 indicates that in actuality, 58.6% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 13.765 is significant at .006, which is less than the significance level of 1%).

From the Unstandardized Coefficients of the Coefficients table, the prediction equation for the Banking Sector can be developed as under:

$$\text{Stock Price} = 100.447 - 49.946 \text{ DPS}$$

2. Financial Institutions Sector

Financial Institutions	Model Summary	R		R Square		Adjusted R Square
		0.408		0.167		0.062
	ANOVA	F		Significance		
		1.600		0.242		
	Coefficients	Constant	Sig.	DPS	Sig.	
		211.8880	0.031	-60.54	0.242	

Statistical Inference

The correlation coefficient (R) of .408 in the Model Summary indicates that there is a moderate degree of positive relationship between the variables. The coefficient of determination (R Square) of .167 denotes that only 16.7% of variations in SP are explained by DPS. Therefore, 83.3% of variations are for factors outside the model. The Adjusted R square of .062 indicates that in actuality, only 6.2% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has not fitted the data well and overall regression model is not statistically significant to predict the dependent variable (as the value of F-statistic 1.600 is significant at .242, which is higher than the significance level of 5%).

Thus, there is no significant effect of dividend per share on stock price of Financial Institutions Sector and the prediction equation for the Sector cannot be developed from the Unstandardized Coefficients of the Coefficients table.

3. Engineering Sector

Engineering	Model Summary	R		R Square		Adjusted R Square
		0.102		0.010		-0.113
	ANOVA	F		Significance		
		0.084		0.779		
	Coefficients	Constant	Sig.	DPS	Sig.	
		195.085	0.002	-3.113	0.779	

Statistical Inference

The regression coefficient (R) of .102 in the Model Summary indicates that there is a low degree of positive relationship between the variables. The coefficient of determination (R Square) of .010 denotes that only 1% of variations in SP are explained by DPS. Therefore, 99% of variations are for factors outside the model.

The ANOVA table shows that the regression model has not fitted the data well and overall regression model is not statistically significant to predict the dependent variable (as the value of F-statistic .084 is significant at .779, which is higher than the significance level of 5%).

Thus, there is no significant effect of dividend per share on stock price of Engineering Sector and the prediction equation for the Sector cannot be developed from the Unstandardized Coefficients of the Coefficients table.

4. Food & Allied Products Sector

Food & Allied Product	Model Summary	R		R Square		Adjusted R Square
		0.914		0.835		0.814
	ANOVA	F		Significance		
		40.492		0.000		
	Coefficients	Constant	Sig.	DPS	Sig.	
		-363.226	0.510	84.977	0.000	

Statistical Inference

The correlation coefficient (R) of .914 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .835 denotes that 83.5% of variations in SP are explained by DPS. Therefore, only 16.5% of variations are for factors outside the model. The Adjusted R square of .814 indicates that in actuality, 81.4% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 40.492 is significant at .000, which is less than the significance level of 1%).

From the Unstandardized Coefficients of the Coefficients table, the prediction equation for the Food & Allied Product Sector can be developed as under:

$$\text{Stock Price} = -363.226 + 84.977 \text{ DPS}$$

5. Fuel & Power Sector

Fuel & Power	Model Summary	R		R Square		Adjusted R Square
		0.532		0.283		0.193
	ANOVA	F		Significance		
		3.157		0.113		
	Coefficients	Constant	Sig.	DPS	Sig.	
		157.104	0.082	27.054	0.113	

Statistical Inference

The correlation coefficient (R) of .532 in the Model Summary indicates that there is a moderate degree of positive relationship between the variables. The coefficient of determination (R Square) of .283 denotes that only 28.3% of variations in SP are explained by DPS. Therefore, 71.7% of variations are for factors outside the model. The Adjusted R square of .193 indicates that in actuality, only 19.3% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has not fitted the data well and overall regression model is not statistically significant to predict the dependent variable (as the value of F-statistic 3.157 is significant at .113, which is higher than the significance level of 5%).

Thus, there is no significant effect of dividend per share on stock price of Fuel & Power Sector and the prediction equation for the Sector cannot be developed from the Unstandardized Coefficients of the Coefficients table.

6. Textile Sector

Textile	Model Summary	R		R Square		Adjusted R Square
		0.031		0.001		-0.124
	ANOVA	F		Significance		
		0.008		0.932		
	Coefficients	Constant	Sig.	DPS	Sig.	
		207.038	-7.773	0.156	0.932	

Statistical Inference

The correlation coefficient (R) of .031 in the Model Summary indicates that there is a low degree of positive relationship between the variables. The coefficient of determination (R Square) of .001 denotes that only .1% of changes in SP are explained by DPS. Therefore, 99.9% of variations are for factors outside the model.

The ANOVA table shows that the regression model has not fitted the data well and overall regression model is not statistically significant to predict the dependent variable (as the value of F-statistic .008 is significant at.932, which is higher than the significance level of 5%).

Thus, there is no significant effect of dividend per share on stock price of Textile Sector and the prediction equation for the Sector cannot be developed from the Unstandardized Coefficients of the Coefficients table.

7. Pharmaceuticals & Chemicals Sector

Pharmaceuticals & Chemicals	Model Summary	R		R Square		Adjusted R Square
		0.882		0.778		0.750
	ANOVA	F		Significance		
		28.070		0.001		
	Coefficients	Constant	Sig.	DPS	Sig.	
		313.562	0.002	23.418	0.001	

Statistical Inference

The correlation coefficient (R) of .882 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .778 denotes that 77.8% of changes in SP are explained by DPS. Therefore, only 22.2% of variations are for factors outside the model. The Adjusted R square of .750 indicates that in actuality, 75% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 28.070 is significant at .001, which is less than the significance level of 1%).

From the Unstandardized Coefficients of the Coefficients table, the prediction equation for the Pharmaceuticals & Chemicals Sector can be developed as under:

$$\text{Stock Price} = 313.562 + 23.418 \text{ DPS}$$

8. Insurance Sector

Insurance	Model Summary	R		R Square		Adjusted R Square	
		0.887		0.787		0.761	
	ANOVA	F		Significance			
		29.595		0.001			
	Coefficients	Constant	Sig.	DPS	Sig.		
		162.163	0.000	-108.212	0.001		

Statistical Inference

The correlation coefficient (R) of .887 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .787 denotes that 78.7% of variations in SP are explained by DPS. Therefore, only 21.3% of variations are for factors outside the model. The Adjusted R square of .761 indicates that in actuality, 76.1% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 29.595 is significant at .001, which is less than the significance level of 1%).

From the Unstandardized Coefficients of the Coefficients table, the prediction equation for the Insurance Sector can be developed as under:

$$\text{Stock Price} = 162.163 - 108.212 \text{ DPS}$$

8. CONCLUSION

The findings of the impact of dividend per share on stock price of companies of eight selected sectors produced very interesting results. The results of simple linear regression show that Banking, Food & Allied Product, Pharmaceuticals & Chemicals and Insurance sectors have impact of DPS on stock price, which supports the relevance theory of dividend, i.e., Walter’s model and Gordon’s model. Again, DPS has negative impact on stock price of Banking sector and Insurance sector whereas DPS has positive impact on stock price of Food & Allied Product sector and Pharmaceuticals and Chemicals sector. On the other hand, there is no significant relationship between DPS and stock price of Financial Institutions, Engineering, Fuel & Power and Textile sectors, which supports Irrelevance theory of dividend, i.e., MM Hypothesis. Thus, the impact of dividend on stock price has still remained a controversial issue. That is, dividend puzzle of Black (1976) has not yet solved.

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