

Analysis of Factors Affecting Stock Price Behaviour: A Study on Listed Companies in Bombay Stock Exchange

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Abstract: Dividend is the portion of profit which is being taken from corporate profits of the company after retaining the amount for further investment (retained earnings). Dividend Policy is influenced by various factors i.e. external as well as internal. Dividend policy is associated with the profitability positioning of the company. This research is an attempt to analyze the effect of different determinants on the market price of the share in context of Indian economy. Seven specific variables namely Return on Equity, Dividend Per Share, Earning Per Share, Dividend pay out ratio, Debt equity Ratio, Total asset turnover ratio and Dividend Yield has been analyzed to see their effect on Market Price Per Share. After analyzing the result of Market Price Per Share the dividend policy can be made or can have alterations in it. For the purpose of study the data for the period 2011-12 to 2015-16 has been analyzed by using the statistical tools. Correlation, Muticollinearity and regression Analysis concept has been tested in this research. This study is limited to the time period of 5 years and only 31 companies has been considered. The results can show the variations if the number of companies and time period is being increased.

JEL CLASSIFICATION: G3,G11

Key Terms: determinants, Statistical Tools, Dividend Policy, Profitability

INTRODUCTION

The study of corporate dividend has been the key research area in the finance industry. We don't have the acceptable dividend policy till now that can solve the "dividend puzzle" being faced by every company in whosever field.(Black,1976).Dividend determinants plays a very important role in deciding the amount of dividend. Companies having high growth rate propagates less dividend payout ratio ,but the Investors seeking high income growth prefers companies with high dividend payout ratio.High

growth rate firms in early stage prefers low dividend per share but as the profits rises the investors begins to gain more on their investment.

Determinants of dividend policy plays a very crucial role in making of dividend policy. The main aspects of dividend policy of a firm can be classified into:

- a. Availability of Profitable Reinvestment Opportunities
- b. Composition of Shareholding
- c. Contractual Restrictions by Financial Institutions
- d. Availability of divisible profits

Formulation of a dividend policy is a complex decision because of conflicting interests of various parties involved like the directors, shareholders, debenture holders ,lending institutions ,employees etc.

The financial market in India is philanthropy. Indian economy is having a vast variety of firms. Every firm is distinguished to other firms in terms of size, Income, registration in stock exchange, etc. and because of this variant factor decision regarding the dividend varies from firm to firm. Any Firm or company pays the dividend in order to give financing assistance to the existing shareholder and galvanize other investor to buy new issues of shares.

Literature Review

There are numerous research work which are already being done in the field of dividend, which shows the relationship between determinants of market price of share and further with the dividend policy. Since the establishment of companies(1956)dividend puzzle remains the area of interest .Linter (1956) through his research work has given the conclusion that shareholders want smooth flow of income in the form of dividend.

[1]Taimi Megameno Engombe (2014) got printed an article “Dividend policy and its effect on Firm value:A review of theories & Empirical Evidence ”shows the relationship of various theories related to the dividend policy ,with the other common theories he had also explained Erasmus quantitative study in South Africa (1990-2010),Barman’s study in south Africa (2008) and Merekefu, Ouma study in Kenya(2012),Amidu’s study in Ghana (2007), Adediran and Albe study in Nigeria (2013) with the other studies in Asia.With all these theories he had explained that the organization straves for the growth and the individual investor focused on the performance of the firm in order to get the fair return on their investment.

[2] Anil and Kapoor (2008) in their paper to analysis the determinants of dividend payout ratio of the Indian Information Technology sector. For this pooled data for seven years i.e. 2000 -2006 has been analysed and they founded that cash flows, corporate tax, sales growth and market-tobook value ratio do not explain the dividend payment pattern that existed in the information technology industry. However, only liquidity and beta (year-to-year variability in earnings) were found to be noteworthy determinants.

[3]Anupam Mehta (2012) published the research paper on the analysis of determinants of dividend policy in UAE companies especially in real estate, energy sector, construction sector, telecommunications sector, health care and industrial sectors.For the analysis the data for 2005-2009 has been taken with 149 firm taking into consideration .It has been found that size and risk and profitability explain 42% of the total variations in the dividend payout policy.

[4] Dr.R.Velmurugan in his study finds that dividend declaration is related with previous year dividend, current year depreciation, current year profit after tax, current year sales and previous year cash flow.

Objectives of the study :

- 1) To analyze the determinants of market price of share
- 2) To analyze the impact of dividend policy on the market price of shares
- 3) To find the relationship between dividend policy of firms with the market price of shares.

Research Methodology:

Data Collection

The study is based on the secondary data.The study covers four industries-Automobile,computer software industry,pharmacy and textile.Total 31 companies have been selected .The period for study is being taken for 2012 to 2016.The study based on secondary data and annual report of each company has been taken from various websites of respected companies and other related websites.Following is the summary of all the independent variables and dependent variable.

Dependent Variable: MPPS(Market Price Per Share)

Independent Variable:

Independent Variables	Definition	Abbreviatons
Dividend Per Share	Dividend Paid/Number of outstanding shares	DPS
Earning Per Share	Net Income/ Number of outstanding shares	EPS
Dividend Pay Out Ratio	Dividend Per Share/Earning Per Share	DPR
Debt equity Ratio	Total Liabilities/Shareholder’s Equity	DER
Return on Equity	Net Income/Shareholders equity	ROE
Dividend Yield	Dividend Per Share/Price Per Share	DY
Total Asset turnover Ratio	Revenue/Total Assets	ATR

Data Processing and Analyzing:

SPSS 20 and Excel is being used to assess the data and draw inferences from the same.Dependent and Independent variable has been defined with proper research on the listed companies.Correlation ,Multicollinearity and Regression analysis has been used to examine the relationship between all the variables.

Model Specifications:

The sample of study helps in analyzing the relationship between various variables and which further helps in determining the effect of dividend policy on share price. For finding the relationship between different variables firstly Pearson Correlation Coefficients are calculated. Looking at the above scenario our Empirical Model is :

$$MPPS = \alpha + \beta_1 DPS + \beta_2 EPS + \beta_3 DPR + \beta_4 ROE + \beta_5 DER + \beta_6 DY + \beta_7 ATR + \epsilon$$

α = Constant term of the model

ϵ = Error Term

Descriptive Statistics of variables:

Table 1 : Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
							Std. Error		Std. Error
DPS	155	.00	505.00	16.722	43.130	9.658	.195	108.048	.387
DPR	155	-3.06	46.96	.569	3.766	12.287	.195	152.367	.387
EPS	155	-164.850	1242.960	47.047	104.367	9.867	.195	113.492	.387
MPPS	155	21.550	4670.000	807.149	919.53	1.833	.195	3.243	.387
DER	155	.000	2.610	.388	.551	1.899	.195	3.203	.387
TATR	155	.000	7.240	1.409	1.346	1.431	.195	2.507	.387
ROE	155	-28.42	175.50	21.929	18.171	3.835	.195	32.937	.387
DY	155	.00	68.20	2.403	5.603	10.702	.195	125.401	.387

Source: Primary

Table 1 shows the descriptive analysis of various variables that affect the Market price of the shares of various listed 31 companies. The very first important determinant i.e. Dividend Per share is ranging from 0 to 505 with a mean value of 16.72 and having the standard deviation of 43.13. Second Variable i.e. dividend pay out ratio is ranging from -3.06 to 46.96 with a standard deviation of 3.76 and mean value of 0.569. The third descriptive variable earning per share which ranges from -164.850 to 1242.960 with a mean value of 47.047 and standard deviation of 104.367. The fourth descriptive

variable Debt equity ratio ranges between 0 to 2.61 and having the standard deviation of .551 with a mean value of .388. The fifth important variable Total asset turnover ratio is having a standard deviation of 1.346 and mean value of 1.409 ranges from 0 to 7.24. The sixth descriptive variable return on equity ranges from -----28.42 from 175.50 having standard deviation of 18.171 with a mean value of 21.929. Market price per share which is a dependent variable having a standard deviation of 919.53 and mean value of 807.149 ranges between 21.55 to 4670.

Table 2 : Pearson Correlation Coefficient for independent and dependent variable

		MPPS	EPS	DPR	DPS	DER	TATR	ROE	DY
MPPS	Pearson Correlation	1							
	Sig. (2-tailed)								
	N	155							
EPS	Pearson Correlation	.458**	1						
	Sig. (2-tailed)	.000							
	N	155	155						
DPR	Pearson Correlation	.046	-.026	1					
	Sig. (2-tailed)	.571	.750						
	N	155	155	155					
DPS	Pearson Correlation	.227**	.007	.114	1				
	Sig. (2-tailed)	.005	.936	.157					
	N	155	155	155	155				
DER	Pearson Correlation	-.379**	-.205*	-.029	-.184*	1			
	Sig. (2-tailed)	.000	.011	.716	.022				
	N	155	155	155	155	155			
TATR	Pearson Correlation	.133	-.008	-.046	.011	-.078	1		
	Sig. (2-tailed)	.100	.922	.567	.897	.336			
	N	155	155	155	155	155	155		
ROE	Pearson Correlation	.113	.071	.182*	.709**	-.192*	.106	1	
	Sig. (2-tailed)	.162	.378	.023	.000	.017	.188		
	N	155	155	155	155	155	155	155	

DY	Pearson Correlation	-.088	-.166*	.101	.918**	-.069	-.057	.688**	1
	Sig. (2-tailed)	.276	.039	.213	.000	.396	.484	.000	
	N	155	155	155	155	155	155	155	155
**. Corr. is termed as significant at the 0.01 level (2-tailed).									
*. Corr. is termed as significant at the 0.05 level (2-tailed).; Source: Primary									

Table 3

Model	Collinearity Statistics	
	Tolerance	VIF
DPS	.119	8.414
EPS	.767	1.303
DPR	.955	1.047
DER	.880	1.136
TATR	.924	1.082
ROE	.440	2.270
DY	.113	8.881
Mean		3.447

a. Dependent Variable: MPPS

Table 4 (Model Summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.806 ^a	.649	.633	557.359139

a. Predictors: (Constant), DY, TATR, DER, DPR, EPS, ROE, DPS

Correlation Analysis:

Correlation is considered as an important tool for considering the correlation between two variables. Therefore correlation matrix of all the variables that are used to detect multicollinearity in this analysis is depicted in table 2 .Our calculation is based on data of 155 observation.Data shows significant relationship between various variables.Market price per share shows positive relationship with Earning Per Share,Dividend per share,Dividend pay out ratio,Total asset turnover ratio,Return on equity but it has a negative correlation with debt equity ratio and dividend yield.In order to further check the multicollinearity among the independent variables, VIF (Variance Inflation Factor) test has been conducted.According to the rule of thumb if(β_i)>10 then multicollinearity is high.As it is being seen from table 3 that the mean value of VIF s 3.447 (less than 10,rule of thumb) thus affirming the absence of any multicollinearity .The model developed for MPPS shown in Table 4 is strong enough because coefficient of determination (R^2) =0.633 .It can be affirmed that MPPS is dependent upon mentioned factors and on dividend policy by 63.33% and 36.67% on various factors.

Conclusion:

This paper discusses the relationship among MPPS and the various determining factors of market price. This paper also examines the effect of dividend policy on market price of shares. It can be easily seen from the data collected that as the dividend per share is increasing market price per share is increasing thus showing the positive relationship between them.The result has shown that industries having high dividend pay out ratio have more MPPS than less pay out industries. The study has proved that mentioned factors are affecting price of the shares and dividend policy is also affecting the MPPS.By this analysis we tried our objective of the study to be submitted.This study strongly shows the positive relationship between MPPS and various factors affecting it.This study acts as a guide to future investors in BSE to focus on the factors discussed above before making investment in it.

Limitations of the study:

The study is based on the secondary data that is given on various annual reports of industries and on stock exchange (BSE,NSE).The viability and accuracy of the data will therefore,affect the results of the study. There are large number of industries

that can also be incorporated. As the present study only considers some specific factors and excludes other factors like GDP, business cycle, market conditions and we cannot override these factors. In present study only 5 years span is used and we think that longer study period should be selected in order to get more accurate result. This opens the arena for further researchers and considers all the micro and macro factors too to be taken in further research.

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