

A STUDY ON RELATIONSHIP BETWEEN MARKET PRICE & EARNINGS PER SHARE WITH REFERENCE TO SELECTED COMPANIES

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ABSTRACT

The most basic factors that influence price of equity share are demand and supply factors. If most of the people start buying then prices move up and if people start selling prices go down. Government policies, firm's and industry's performance and potentials have effects on demand behaviour of investors, both in the primary and secondary markets. The factors affecting the price of an equity share can be viewed from the macro and micro economic perspectives. Macro economic factors include politics, general economic conditions - i.e. how the economy is performing, government regulations, etc. So, the Present study tries to find out the relationship and the impact of EPS on Market price of selected companies.

Introduction: Equity is the residual claim or interest of the most junior class of investors in assets, after all liabilities are paid. If liability exceeds assets, negative equity exists. Shareholders equity or stockholders equity or shareholders' funds or shareholders capital all are one and the same. They all represent the remaining interest in assets of a company, spread among individual shareholders of common or preferred stock. In Equity Market, there are number of factors which influence the market price of a share. An analysis of which factors will affect and to what extent they affect the market price helps an investor to make an investment decision Knowledge of fundamental factors and their impact on equity share prices is helpful to corporate, management, government and investors (*Chandra, 1981*). This Study seeks to analyze the various dimensions in a quantitative framework in improving the understanding of share prices and their determinants in broadening the base of share market, which may assist in creating a better investment culture in the country.

Investment is a most important essential element for the growth of the country Investments translates economy in to a robust economy. For an industry, this study helps to identify the variables which contribute to its growth in comparison with other industries. From the Investor perspective, the study helps the investor to know the factors to be considered while making an investment decision. An understanding of determinants of share prices is useful in the formulation of management policies relating to dividend payment, bonus declaration, right issues, etc. Investors can also form better judgments and make intelligent and rational investment decisions (*Sachdeva, 1994, p.5*).

The most basic factors that influence price of equity share are demand and supply factors. If most of the people start buying then prices move up and if people start selling prices go down. Government policies, firm's and industry's performance and

potentials have effects on demand behavior of investors, both in the primary and secondary markets. The factors affecting the price of an equity share can be viewed from the macro and micro economic perspectives. Macro economic factors include politics, general economic conditions - i.e. how the economy is performing, government regulations, etc. Then there may be other factors like demand and supply conditions which can be influenced by the performance of the company and, of course, the performance of the company vis-a-vis the industry and the other players in the industry.

To the corporate management an understanding of the valuation mechanism in stock market is essential for the sound financial management of the company. An understanding of determinants of share prices is useful in the formulation of management policies relating to dividend payment, bonus declaration, right issues, etc. Investors can also form better judgments and make intelligent and rational investment decisions (*Sachdeva, 1994, p.5*).

Investment in equity share is one of the most liquid forms of investment. Market price of the share is one the most important factor which affects investment decision of investors. It is also suggested from the theories that market price of the share depends upon many factors, such as earning per share, dividend per share, size of the firm etc.,. This is the most frequent question that most stock/options traders may have in their minds. Stocks price changes due to market forces, i.e. buying and selling of the available stocks in the market. The following are the factors that affect or even predict the buying or selling of stock that ultimately affects stock prices of companies.

Review of Literature:

Faris Nasif AL- Shubiri observed that the changes in the stock price also depend up on the micro and macro economic factors .In his study, he conducted Simple and multiple regression analysis and found out that there is a highly positive significant relationship between market price of stock and net asset value per share.

Dr. Sanjeet Sharma in his study analysed that earning per share being the strongest determinants of market price in a positive direction.. So, investors are suggested to take care of earnings per share variable in to account before investing in a company.

Malakar, B. and Gupta, R., (2002) revealed that Earnings per share is found to be significant determinant of share price by considering share price of eight major cement companies in India for the period 1968 to 1988 and five variables, namely, the share price, dividend per share, earnings per share, retained earnings, and sales proceeds.

Tuli, Nishi and Mittal, R.K. (2001) conducted a cross sectional analysis by taking in to account earnings ratio of 105 companies for the period 1989-93and found earnings per share were found to be significant in determining the share Price

Malhotra (1987) conducted a study on four industries, namely general engineering, cotton textile, food products and paper covering a period of four years from 1982 to 1985 and found that earnings per share had positive and significant influence on market price of equity share

Kumar and Hundal (1986) used the linear regression model and examined the impact of earning per share on market price of share

BalKrishnan (1984) applied correlation and multiple linear regression techniques on 22 firms for the year 1982-83. Out of five variables, earning per share remained insignificant determinant of market price.

Research design and Methodology

Objectives :

The main objective of the study is

- 1.To identify the relationship between market price and earnings Per share of selected Companies.
2. To analyse the impact of Eps on market price of selected Companies.

Hypothesis of the Study:

1. H₀ : Null Hypothesis-“ There is no significant relationship between Market Price and Earnings Per Share of selected Companies.”

Ha: Alternate Hypothesis-“There is a significant relationship between Market Price and Earnings Per Share of selected Companies.”

2. H₀ : Null Hypothesis-“ There is no significant impact of Earnings Per Share on Market Price of selected Companies.”

Ha: Alternate Hypothesis-“There is a significant impact of Earnings Per Share on Market Price of selected Companies.”

Need of the study:

The main purpose of this study is to find relationship between Market Price and Earnings Per Share and impact of EPS on market price of selected Companies. This study helps in identifying the relationship between Market Price and Earnings per Share of selected Companies which helps the analyst to make an appropriate investment decision.

Scope of the study:

The study is undertaken for three sectors namely Primary, Manufacturing and service sectors. The companies that are selected in each sector are Tata Consultancy services, Bharat Heavy electrical Limited and ONGC.

Research Design:

A research design is the specification of methods and procedures for acquiring the needed information. Design to be adopted here is exploratory research. It basically seeks to extract information about the influence and relationship between Market Price and earnings per share of selected companies in three sectors.

Sample size: The sample selected for the study include companies that are selected in each sector namely Tata Consultancy services, Bharat Heavy electrical Limited and ONGC.

Tools used in analysis: The present study attempts to study the relationship between Market Price and earnings per share of selected companies in three sectors by using coefficient of correlation and Analysis of Variance.

Correlation

Correlation Co-efficient Definition:

A measure of the strength of linear association between two variables. Correlation will always between -1.0 and +1.0. If the correlation is positive, we have a positive relationship. If it is negative, the relationship is negative.

Correlation Co-efficient :

$$\text{Correlation}(r) = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

where

- N = Number of values or elements
- X = First Score
- Y = Second Score
- $\sum XY$ = Sum of the product of first and Second Scores
- $\sum X$ = Sum of First Scores
- $\sum Y$ = Sum of Second Scores
- $\sum X^2$ = Sum of square First Scores
- $\sum Y^2$ = Sum of square Second Scores

Regression

Regression analysis is a statistical tool for the investigation of relationships between variables. Usually, the investigator seeks to ascertain the causal effect of one variable upon another. To explore such issues, the investigator assembles data on the underlying variables of interest and employs regression to estimate the quantitative effect of the causal variables upon the variable that they influence. The investigator also typically assesses the “statistical significance” of the estimated relationships, that is, the degree of confidence that the true relationship is close to the estimated relationship.

$Y = a + bX$, where

X is the explanatory variable and Y is the dependent variable.

The slope of the line is b, and a is the intercept (the value of y when x = 0).

Data Analysis

Table 1.1 Correlation- BHEL

		Market Price	EPS
Market Price	EPS	1	.759**
	Sig. (2-tailed)		.004
EPS	N	12	12
	Pearson Correlation	.759**	1
	Sig. (2-tailed)	.004	
	N	12	12
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 1.2 Correlations-ONGC

		Market price	EPS

Market Price	Pearson Correlation	1	.735**
	Sig. (2-tailed)		.007
	N	12	12
EPS	Pearson Correlation	.735**	1
	Sig. (2-tailed)	.007	
	N	12	12

** . Correlation is significant at the 0.01 level (2-tailed).

Table 1.3 Correlations-TCS

Correlations			
		Market price	EPS
Market price	Pearson Correlation	1	.280
	Sig. (2-tailed)		.378
	N	12	12
EPS	Pearson Correlation	.280	1
	Sig. (2-tailed)	.378	
			12

The above table 1.1 explains the relationship between market price and EPS of BHEL(manufacturing sector).The correlation between market price and EPS of BHEL is 0.759 which indicates there is a high positive relation between market price and EPS of BHEL and It is highly significant .

The above table 1.2 explains the relationship between market price and EPS of ONGC(primary sector).The correlation between market price and EPS of ONGC is 0.735 which indicates there is a high positive relation between market price and EPS of ONGC and It is highly significant

The above table 1.3 explains the relationship between market price and EPS of TCS(service sector).The correlation between market price and EPS of TCS is 0.280 which indicates there is a positive relation between market price and EPS of TCS and It is not significant

REGRESSION ANALYSIS

Table No. 4.1 ANALYSIS OF BHEL

The regression is analysed by taking in to account in to three components . They are Rsquare , Significance of F, The regression equation

$$Y = a+bx$$

Summary out put of BHEL	
<i>Regression Statistics</i>	
Multiple R	0.758888
R Square	0.575911

Adjusted R Square	0.533502
Standard Error	309.3452
Observations	12

ANOVA								
	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	1299526	1299526	13.57995	0.004210777			
Residual	10	956944.8	95694.48					
Total	11	2256471						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	494.4617	424.6024	1.164529	0.271239	-451.6113294	1440.535	-451.611	1440.535
Eps	20.69429	5.615669	3.685099	0.004211	8.181803946	33.20678	8.181804	33.20678

The above table specify the regression equation $MP = 494.4617 + 20.69429EPS$
 The above table 4.1 show the out put of regression analysis for BHEL(manufacturing sector). Regression analysis tries to find out the impact of EPS on market price with reference to BHEL. In present analysis R^2 is 0.57 which indicates if there is a 100 change in EPS there will be 57% change in market price
 The analysis shows that F is significant at 0.01 level. Hence null hypothesis is rejected . It means that market price is significantly affected by changes in EPS with reference to BHEL.

Table No. 4.2 ANALYSIS OF ONGC

<i>Regression Statistics</i>	
Multiple R	0.734584964
R Square	0.539615069
Adjusted R Square	0.493576576
Standard Error	267.3760043
Observations	12

ANOVA					
	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	837930.169	837930.169	11.72095422	0.006508
Residual	10	714899.2766	71489.92766		
Total	11	1552829.446			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 5.0%</i>
Intercept	105.1964	253.8112	0.41446	0.68728	-460.3301	670.72312	-460.3301	670.723

EPS	12.51116	3.654402	3.42358	0.00650	4.368652	20.653684	4.36865	20.6536
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The above table specify the regression equation $MP = 105.19646 + 12.5111684EPS$
 The above table 4.2 show the output of regression analysis for ONGC(primary sector). Regression analysis tries to find out the impact of EPS on market price with reference to ONGC. In present analysis R^2 is 0.49 which indicates if there is a 100 change in EPS there will be 49% change in market price. The analysis shows that F is significant at 0.01 level. Hence null hypothesis is rejected. It means that market price is significantly affected by changes in EPS with reference to ONGC.

Table No . 4.3 ANALYSIS of TCS

<i>Regression Statistics</i>	
Multiple R	0.280009729
R Square	0.078405448
Adjusted R Square	-0.013754007
Standard Error	233.9974793
Observations	12

ANOVA					
	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	46583.13388	46583.13	0.850759	0.378054643
Residual	10	547548.2034	54754.82		
Total	11	594131.3373			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	458.674	277.2083465	1.654618	0.129004	-158.9846842	1076.332684	-158.9846842	1076.332684
Eps	7.525763131	8.159196134	0.922366	0.378055	-10.6540587	25.70558496	-10.6540587	25.70558496

The above table specify the regression equation $MP = 458.674 + 7.525763131 EPS$
 The above table 4.3 show the output of regression analysis for TCS (service sector). Regression analysis tries to find out the impact of EPS on market price with reference to TCS. In present analysis R^2 is 0.01 which indicates if there is a 100 change in EPS there will be 10% change in market price.
 The analysis shows that F is not Significant and hence null hypothesis is accepted. It means that market price is not significantly affected by changes in EPS with reference to TCS.

CONCLUSION:

There are different factors affecting the market price of a share. Among them one of the important factor taken in the study is Earnings per share Therefore, the present study examines the relationship between market price & EPS.

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