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IMPACT OF EARNING PER SHARE AND PRICE EARNINGS RATIO ON MARKET PRICE OF SHARE: A STUDY ON AUTO SECTOR IN INDIA

Dr. Pankaj Kumar [*1]

[*1] Assistant Professor, Department of Management Studies, Deenbandhu Chhotu Ram University of Science & Technology, Murthal, Sonipat, Haryana, India

Abstract

The purpose of this study is to examine the impact of earning per share and price earnings ratio on the market price of share of company, therefore in this study market price of share is dependent variable, while earning per share and price earnings ratio are dependent variables and study is exploratory in nature. The study was carried out for a sample of eight companies of auto sector based on Nifty auto index and for a period of five consecutive financial years from 2011-12 to 2015-16. Multiple regression analysis was employed to predict the impact of earning per share and price earnings ratio on market price of share of select companies of auto sector. The result of the study concludes that earning per share has found to be a very strong forecaster of market price of share, while price earnings ratio impact significantly on the prediction of market price of share of select companies of auto sector as whole. The implications and limitations of study are also discussed.

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1. Introduction

In the context of stock market predictions various factors influence the performance of stock market and the market price of share (MPS) of a company which classified as external factors: economic conditions, political environment, interest rate, inflation rate, flow of institutional investment, impact of changes in international events and company's internal variables: size of company and market share, return on investment earnings of the company, growth rate and many more. An analysis regarding which factors will affect and to what extent they affect the valuation of share of a company helps an investor to make an investment decision in company and it is the most frequent question that most stocks/options investors and traders may have in their minds.

The value of stocks changes due to market forces, i.e. buying and selling of the available stocks in the market. The goal of a smart investor should be to get the best possible deal when investing in share/options of a particular company or sector or index or diversified investment. The better the deal, the higher will be the potential for return from investment. In this regard, review of literature explored that both, a company's earning per share and price earnings ratio can offer massive awareness into whether the time is right to buy a given stock at a given price for return potential?, So the present study aims to find the impact of earning per share (EPS) and price earnings ratio (P/E ratio) on the valuation and potential performance of the stocks of auto sector companies. Share price is simply the amount of money which cost to purchase a share of company. Share price of company can fluctuate based on a number of factors includes external and internal or both, If a company releases a healthy-looking earnings report, then investors will likely feel more safe and optimistic about its potential return on their investment in this company. Demand for the stock will climb, and so will its price. On the other hand, if a company reports negative earnings or is the subject of bad results and image, its stock price can quickly fall. Earning per share represents a company's net income divided by the total numbers of shares outstanding. Let's say a company has net income of rupees 200 crore, it pays rupees 20 crore in preferred dividends, and it has 5 crore shares outstanding, then the EPS would simply be rupees (200 crore -20 crore) **/** 5 crore shares outstanding= rupees 36 per share. The changes in EPS have the major influence on share price over the long run reason being share price of company generally increases when earnings of the company grow and decrease when company earnings decline, but in short run the relationship between EPS and MPS may inverse, while the P/E ratio of a company measures the relationship between a company's stock price and its earnings per share of stock issued. The P/E ratio is calculated by dividing a company's current stock price by its earning per share (EPS). Let's say that a company has EPS rupees 36 and the share of the company is currently traded at rupees 190 per share, then the P/E ratio would simply be rupees 190/rupees 36, and resulted 5.28 times.

2. Review of Literature

Although studies on stock price movements were typically confined to developed countries like USA and UK such as by Durre and Giot (2007) used a cointegration framework to test the presence of a long-term contemporary relationship between earnings, yield on long-term government bond and stock prices by using the data of thirteen countries from the year 1973 to 2004 and found that long-term movements in the share market are mainly driven by the earnings, while changes in the yields on long-term government bond have a short-term impact on stock prices movements and do not appear to have a significant long-term impact on long run market price of stocks. Malakar and Gupta (2002) did a study by using the data of eight major companies of cement industry in India for the period 1968 to 1988 and discovered that earning per share has significant impact on market price of share (MPS). Bhatt and Sumangala (2012) studied the impact of earning per share on market value of an equity share of 50 most valuable companies as per the ranking of Business today survey of 2010 and found that EPS impact significantly and explains on an average about 45 per cent variation in the market value of an equity share. On other side, Basu (1977) found that returns on portfolios of low price earnings ratio stocks are higher on average than returns on higher price earnings ratio stocks, even after adjusting for risk. Fisher and Statman (2000) investigated the relation between price earnings ratio and future returns in stock market and found that P/E ratio are not good indicators of future

stock returns over the short period of time (one to two years), but P/E ratio has better forecasting power when used to estimate stock returns over the longer period of time, while in more extensive way Rapach and Wohar (2005) by using a data sample from 1872 to 1997, reported the presence of little evidence of correlation between P/E ratio and future stock price changes in the short term, but high correlation has found over longer time perspective. While a company's share price reflects the value that investors are currently placing on that investment, a stock's P/E ratio indicates how much value an investor supposed to pay for every rupee of earning. The market price of a given share is required to calculate its P/E ratio, but in many ways, the P/E ratio of a company offers better insight into the growth potential of share in the terms of market price. Generally, a high P/E ratio can indicate that the share is being overvalued and if investor invests in an overvalued share, you are at the risk of losing money, but if company's share has a low P/E ratio, it may indicate that the share is undervalued and Investors can often buy undervalued share at a discount and then profit when the price of that stock increases. Moreover Malhotra and Tandon (2013) examined empirically the impact of earning per share and price earnings ratio on market price of share of 95 select companies listed on NSE-100 and found that earning per share and price earnings ratio impact significantly on market price of shares and EPS has found to be the major determinant of share price movements, followed by price earnings ratio. On the basis of review of literature, research hypothesis that there is significant impact of earning per share and price earnings ratio on market price of share has been developed.

3. Research Methodology

The purpose of the study is to examine the impact of earning per share and price earnings ratio on market price of share, therefore in this study market price of share is dependent variable, while earning per share and price earnings ratio are dependent variables and study is exploratory in nature. Non-probability sampling technique is used to select the eight companies of auto sector (Bajaj Auto Ltd., Hero MotoCorp Ltd., TVS Motor Ltd., Eicher Motors Ltd., Ashok Leyland Ltd., Mahindra & Mahindra Ltd., Maruti Suzuki India Ltd., and Tata Motors Ltd.) from Nifty Auto Index. In this study market price of share has been taken as the average price derived from the low and high value of share during the financial year. The period of the study is five consecutive financial years from 2011-12 to 2015-16. Financial data were collected through the secondary sources i.e. equity master and National stock exchange website. Multiple regression analysis was conducted to predict the impact of earning per share and price earnings ratio on market price of share.

A. Selection of Variables

To examine the impact of earning per share (EPS) and price earnings ratio (P/E ratio) on the market price of share (MPS) of select companies, independent variables are EPS and P/E ratio and dependent variable is MPS. The measurement of independent variables chosen for the study has been shown in the table-1.

Table 1: Selection of Variables and their Measurement to Examine the Impact on Earning per Share

Sr. No.	Variables	Measurement
1.	Earning Per Share (EPS)	Profit after tax-Preferred dividend / Number of ordinary share outstanding
2.	Price Earnings Ratio (P/E ratio)	Market value per share / Earning per share

4. Data Analysis and Results

The average market price of share for the eight companies of auto sector have been calculated and displayed in table-2. From the table-2, it is observed that Eicher Motors Ltd. has the highest average market price of share Rs. 7153.60 and increased by 2117.23 per cent during the study period. The lowest average market price of share during the period of study is found to be Rs.41.20 of Ashok Leyland Ltd, while the market price of share of Bajaj Auto Ltd. has only increased by 113.14 per cent among all companies. Likewise again Eicher Motors Ltd. has the highest earning per share in (three digits) Rs. 215.56, followed by Hero MotoCorp Ltd. Rs. 120.76, Bajaj Auto Ltd. Rs. 113.14 and Maruti Suzuki India Ltd. Rs. 103.16. The table-2 also shows that the earning per share of Ashok Leyland Ltd has increased by 733.33 per cent during the period of study, followed by Eicher Motors Ltd. 311.27 per cent, TVS Motor Ltd. 178.50 per cent and Maruti Suzuki India Ltd. 167.18 per cent. But during the study period, the key findings are lowest average price earnings ratio (9.20 times) and highest average earnings yield (11.06 per cent per annum) of Tata Motors Limited and as a result from table-2 also shows that the Tata Motors Limited secured first rank among the select companies of auto sector for investment potential reason being, attractive valuation of shares (as average price earnings ratio is low) and higher average earnings yield.

Table 2: Mean, Standard Deviation, Minimum, Maximum of MPS, EPS, P/E Ratio with Earning Yield and Ranking of Auto Sector Companies for Investment Perspective

Company	Market Price of Share (MPS)					Earning Per Share (EPS)					Price Earnings Ratio (P/E Ratio)				Earning Yield= (EPS/ MPSx 100)	Ranking to companies (Based on P/E Ratio and Earning Yield)
	Mean	S.D	Minimum	Maximum	Increase in MPS (Per cent)	Mean	S.D	Minimum	Maximum	Increase in EPS (Per cent)	Mean	S.D	Minimum	Maximum		
Bajaj Auto Ltd.	1970.60	310.88	1260	2690	113.49	113.14	11.00	104.60	130.80	25.00	17.42	2.58	14.7	21.7	5.74	3
Hero MotoCorp Ltd.	2221.90	452.41	1434	3272	128.17	120.76	20.17	105.30	154.90	47.10	18.39	2.50	16.1	22.7	5.43	4
TVS Motor Ltd.	125.10	101.35	28	326	1064.28	5.12	2.12	2.80	7.80	178.50	21.78	9.75	9.90	33.90	4.09	6
Eicher Motors Ltd.	7153.60	6975.90	975	21618	2117.23	215.56	149.46	114.40	470.50	311.27	28.24	13.27	12.00	44.40	3.01	8
Ashok Leyland Ltd.	41.20	27.79	12	109	808.33	1.48	1.66	-0.60	3.8	733.33	25.16	48.63	-29.50	104.00	3.59	7
Mahindra & Mahindra Ltd.	974.40	226.62	617	1421	130.30	61.78	11.89	53.10	79.10	49.00	16.46	5.75	11.40	22.80	6.34	2
Maruti Suzuki India Ltd.	2186.40	1202.04	906	4789	428.59	103.16	38.14	58.2	155.50	167.18	20.32	3.86	16.50	25.70	4.71	5
Tata Motors Ltd.	349.10	116.20	140	605	332.14	38.62	6.30	31.00	43.50	40.32	9.20	3.17	5.00	13.00	11.06	1

Source: Author's calculation for the period 2011-12 to 2015-16; MPS and EPS (INR), P/E Ratio (times), Standard Deviation=S.D

Table 3: Regression Analysis of Earning Per Share and Price Earnings Ratio on Market Price of Share

Predictors	Market Price of Share (MPS)		
	Beta Coefficient *(β)*	t	Sig.
Earning Per Share (EPS)	0.838	23.322	**0.002**
Price Earnings Ratio (P/E Ratio)	0.268	7.466	**0.017**
R	0.999		
R^2	0.998		
Adjusted R^2	0.996		
F Value	511.619		**0.002**

The results for regression analysis to test the hypothesized relationship are stated in table-3. The results indicated that earning per share and price earnings ratio have a significant impact on market price of share (R^2=0.998, p<0.01. The result of the study shows that earning per share which affect market price of share, the foremost to price earnings ratio (β=0.838, p<0.01), moreover price earnings ratio also influence significantly (β=0.268, p<0.01) to market price of share. Thus, formulated hypothesis is accepted.

5. Conclusion

The present study has conducted to examine the effect of earning per share and price earnings ratio on market price of share of eight companies of nifty auto index. The results of the study conclude that earning per share has found to be a very strong forecaster of market price of share of select companies, importantly this outcome similar with the findings of (Al-Omar and Al-Mutairi, 2008; Uddin, 2009), and price earnings ratio impact significantly on the prediction of market price of share and this result is verify with the findings of (Mehta and Turan 2005). So overall, earning per share is the main leading reflector in the performance of market price of share. On the basis of changes and directions given by earning per share and price earnings ratio, the implications of this study may help to existing and potential investors to decide about the investigation of share price and investment potential towards auto sector. The present study has several limitations also, as this study is based on five years secondary data taken from equity master and NSE database and as such its findings depend entirely on the accuracy of such data and there is no primary data used in this study. The study covers eight companies auto sector, therefore it implies that the findings of this study may or may not be fit for entire auto sector and moreover the study does not consider external influential factors which may affect the performance of market price of auto sector shares.

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*Corresponding author.
E-mail address: pankaj3950@yahoo.co.in