

Impact of Accounting Measures on Share Prices of Pharmaceutical Companies

¹Lino C Binoy, ²Drishya Mahesh & ³Kavya Krishna

^{1,2,3}BCom F&A, Department of Professional Studies, Christ University, Bengaluru (India)

ARTICLE DETAILS

Article History

Published Online: 10 December 2018

Keywords

Share price, SPSS, Accounting, EPS, Net profit margin, Pharmaceutical Company.

ABSTRACT

Share price fluctuation is one of the frightening parts of making an investment. Most of the people are reluctant to make investments due to the same reason. It is a common notion that investors make profits in the market based on their luck. There is a need to change this perception. It is therefore necessary for investors to understand the factors that have an impact on the share prices of the company they have invested or planning to invest in the future. The purpose of this research is to analyze the relationship of 2 accounting variables namely Earnings Per Share (EPS) and Net Profit Margin with the share prices of pharmaceutical companies and alternatively determine if these variables possess any influence on the share prices. 9 pharmaceutical companies have been chosen to serve this purpose. After referring to numerous articles and study materials, secondary data has been collected for 5 years starting from 2013 till 2018 from and processed using SPSS to arrive at the conclusion. Comparison between the variables and share prices is carried out using Paired Samples Test. After undertaking the test, the results certified that there exists statistical evidence to prove the impact of variables. Consequently, it was concluded that the accounting variables have an impact on the share prices of the pharmaceutical companies. The results produced will help potential investors decide as to when to make their investments so as to avoid losses in the market.

1. Introduction

India is the biggest supplier of generic drugs worldwide. Indian pharmaceutical industry supplies more than 50% of worldwide demand for different vaccines, 40% of generic request in the US and 25% of all medicine in UK. India appreciates an essential position in the worldwide pharmaceuticals industry. The nation additionally has a huge pool of researchers and architects who can possibly direct the business ahead to a much more elevated amount. Medicine spending anticipated to rise at 9-12% CAGR in the period 2018-22 to US\$ 26-30 billion, due to expanding customer spending, fast urbanization, and increasing health insurance and so on. As such there is scope for rapid growth in pharmaceutical industry.

We have chosen 3 companies in the pharmaceutical industry in an attempt to analyze the share price movements due to 2 accounting measures namely:

- a) Earnings per share (EPS)
- b) Net profit margin

2. Review of Literature

- (Boldeanu & Pugna, 2014) aims to identify various factors that affect the financial performance of pharmaceutical companies across the globe. Return on Equity (ROE) ratio has been taken into consideration for measuring the financial performance. The regression model developed helps in identifying the relationship between the Return on Equity ratio and principal influence factors.
- (Gopalakrishnan & Vijay, 2016) tries to bring out the relationship between risk and return for some selected

pharmaceutical companies in India. Based on the data collected for 5 years and analysis made thereafter, it was concluded that equity shares of Divi's Laboratories Ltd is preferred over the shares of other companies as it gives high return compared to low risks.

- (Balakrishnan, 2016) tries to establish the impact of Earnings per Share, Dividend per Share, and Price Earnings Ratio on the market prices of the shares of selected companies in pharmaceutical industry for 5 years (2010-2015). Simple correlation analysis and multiple regression were applied for analyzing the data and the results revealed that the independent variable do not have a huge impact on the market price of the shares.
- (Sprague & Sprague, 2015) The research paper brings out the importance of announcement effects impacting stock volatility. Throws light on the false market hypothesis surrounded with just 3 types of announcements in the industry. Also comes with an overview of EMH and its validity as an event based analysis tool. A study the financial implications of innovation.
- (Agnihotri, 2017) The author in his paper investigates the factors, which has effect on the stock price of any company with his primary focus being on selected Cement, Pharmaceutical and IT Company. He discusses that, factors such as EPS, DPS and PE determines the future price of a stock to a certain extent. The studies conducted explain that the dividend payout and the Price /Earnings ratio has an impact on the prices but EPS has not been taken as

the factor responsible for stock price. So in this paper, three factors EPS, Dividend and Price earnings Ratio are taken as factors which may influence the price of stock with specific reference to Cement, Pharma and IT sector companies. The research methodology of this paper is exploratory in nature. The statistical tools like correlation and regression have been used to analyze the data. As a result it has been observed that EPS, DPS and PE have an high correlation to the future price of many companies of different sectors, however only few are influenced by the P/ E Ratio.

- (Chizari, Mehrjardi, Sadrabadi, & Mehrjardi, 2016)The study revolves around the impact of intellectual capital on pharmaceutical companies and its performance. Companies taken for the purpose of research are listed in Tehran Stock Exchange. The measures adopted to evaluate the intellectual capital are market value measure to book value of the assets and Q Tobin ratio etc. The performance values of 26 companies are evaluated. It was concluded that the performance of these companies are highly affected by intellectual capital.
- (V, Anusha; T, Sudha; A, 2017)The study involves an empirical investigation of the impact of capital structure on the share prices of those companies which are listed on the stock exchanges of India. The data for the study is for the period of 2007–2016 for four industries being Pharma, FMCG, Automobile and IT taking five companies in each industry for the study. They have analyzed the relationship between capital structure of the companies selected for the study and stock price for the same through regression model using AMOS graphical environment. The capital structure involving shareholders' equity and debt are considered as the future factors in the study. Further, the ratios such as Interest rate, Net profit margin, Gross profit margin, operating profit margin, Earnings per share, Price earnings ratio and Dividend payout ratio were estimated for almost 20 companies for a ten year period. A model had been built conceptually to test the hypothesis, which would fit in all the above variables and ratios. The result revealed that the shareholders' equity and debt of the company influences the mediator variables which in turn have impacts on the share price in the stock market.
- (Kumar, 2015) the study conducted by Mr. Kuldeep Kumar, he examines the variation in price movement and volatility to predict short term risk and return on stock for four pharmaceutical companies being LupinPharma, Sun Pharma, Cadila and Cipla Ltd. His investigation states that LupinPharma is providing higher return than Sun Pharma which is followed by Cipla Ltd and Cadila Ltd. respectively. The study is routed through testing the volatility of the stock, resulting in higher volatility in the stock of Cadila Ltd leading it to stand in first position, Sun Pharmaat second position and Cipla at third and LupinPharma at

last with lowest annual volatility. The study concludes that there is higher risk in Cadila Ltd and Sun Pharma Ltd due to higher volatility and higher return is expected on their stock establishing the fact higher the risk higher the profit. At the end he concludes that LupinPharma is expected to give high return on its stock while carried out on cumulated distribution function.

- (Patel R, Parikh M, & Darji N, 2018)This paper focuses on sectorial effect on particular sector by finding the impact of news and automatically gives indication to improve the investment. This paper targets the pharmaceutical sector stock price short term prediction by considering technical as well as fundamental parameters. The study considers the stock market historical prices, volume and other related ratio parameters as the technical evaluators. As fundamental parameters, the news impact calculation related parameters are been considered for predicting the future value. The paper shows that the stock market is affected by many factors and it analysis would requires in-depth knowledge of the market.

3. Research Design

I. STATEMENT OF PROBLEM

One of the major problems faced by an investor is to analyze whether accounting variables like earnings per share, net profit margin etc. have a significant impact on movement of share prices. The purpose of this research is to help investors in identifying the impact that these variables have on the equity share prices of pharmaceutical companies in stock market.

II. SOURCES OF DATA

This research is done on the basis of data obtained from secondary sources. We have primarily relied on financial statements of the 3 pharmaceutical companies which have been published online. We have referred to the annual reports and data from the below mentioned websites:

1. Investing.com
2. NSEindia.com
3. Moneycontrol.com

We have chosen companies from Nifty pharma index and analyzed the share prices on the same.

III. OBJECTIVES

- To test the relationship between earnings per share and share price
- To test the relationship between net profit margin and share price

IV. HYPOTHESIS

The following hypothesis has been formulated, the conclusion for which is believed to be drawn by conducting this research.

Hypothesis 1:

H01: Earnings per share does not have a significant impact on share price

H11: Earnings per share has a significant impact on share price

Hypothesis 2:

H02: Net profit margin does not have a significant impact on share price

H12: Net profit margin has a significant impact on share price

V. METHODOLOGY

We have collected the quarterly financial information for 5 years for the companies and the data has been analyzed using Paired Samples Test.

VI. LIMITATIONS

- The research is limited to pharmaceutical industry and no other has been considered
- The study covers only 2 accounting measures
- We have used the quarter wise financial data of the companies for 5 years.

VII. DATA ANALYSIS AND INTERPRETATION

We have used paired samples test to analyze the impact of EPS and net profit margin on the share prices and arrived at the output as below:

Company name	Paired samples test- EPS	Paired samples test- Net profit margin
Dr. Reddy's laboratories	0.000	0.000
Cipla	0.000	0.000
Aurobindo	0.000	0.000

The Paired samples test results show that the significance value of the relationship between share prices and EPS as well as share prices with net profit margin is less than 0.05.

Thus, the null hypothesis is rejected and the alternate hypothesis is accepted.

The significance level below 0.05 proves that there is a relationship between EPS and share prices as well as net profit margin and share prices.

4. Conclusion

The objective of this study was to analyse the impact of accounting measures, namely EPS and net profit margin on the share prices of pharmaceutical companies. We took 3 companies and analyzed the data for 20 quarters for each company using paired samples test.

Based on the output arrived at using paired samples test, it can be concluded that there is a significant relationship between EPS and share prices and net profit margin and share prices.

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