IOSR Journal of Engineering (IOSRJEN) **www.iosrjen.org**
ISSN (e): 2250-3021, ISSN (p): 2278-8719
Vol. 09, Issue 5 (May. 2019), ||S (XIII) || PP 01-04

A Study on Factors Affecting Stock Returns for Listed Pharmaceutical Companies in India

Ms. ProtushaBera[1], Dr. Sujit G Metre[2]
[1]*(Dr. Ambedkar Institute of Management Studies and Research, Deeksha Bhoomi, Nagpur, India)*
[2]*(Dr. Ambedkar Institute of Management Studies and Research, Deeksha Bhoomi, Nagpur, India)*

Abstract : *This research basically focus on establishing relation between movement of stock price according to macro-economic data and calculating beta, alpha over 10 year data from 2009-2018. Observing the trend of stock price movement and tracking on monthly basis with comparison to market so as to establish some relation between them and to recognize the relation between alpha, beta and P.E of pharmaceutical stock in Indian capital market.This sort of research is expected to take up the financial inclusion agenda from inclusion to financial wellbeing level.*
Keywords:*Alpha, beta, financial wellbeing,macro-economic data, PE, stock returns*

I. Introduction

The risk and return relationship is a concept applicable in real life situations as well as in terms of financial analysis. The amount of risk assumed should be proportionate to the expected returns. Managing risk is very important aspect for an investor.Any investor would analyse the risk associated with the avenue of their concern before investing his investible part of the wealth. The actual return which he receives from a stock may vary from his expected return and depends on the risk he is ready to bear. The risk is measured in terms of variability of return. There are several factors that cause risk. They are either common to all stocks or specific to a particular stock. Every investor would prefer to analyse the risk factors which would help him to plan his portfolio, so that he can minimize his risk and maximize his return by diversifying into right avenues. Pharma companies have delivered decent returns to investor in past. Multiple factors affect the return on investment in stock market. Thus it is necessary for an investor to understand the dynamics of the market and the factors to be focused while making an informed decision. This sort of research is expected to take up the financial inclusion agenda from inclusion to financial wellbeing level.

II. Literature Review

The literature review was carried using the keywords like PE, Beta, alpha etc. The same is summarized in this section. Damodaran (2006) states that other things held equal, higher growth firms would have higher PE ratios than lower growth firms. Other things held equal, higher risk firms will have lower PE ratios than lower risk firms and other things held equal, firms with lower reinvestment needs will have higher PE ratios than firms with higher reinvestment rates. However, he also reminds that other things are difficult to hold equal since high growth firms tend to have risk and high reinvestment rates.

Solanki Ashwin (2014) the investors should invest in those companies, which have low P/E stocks because it gives the possibility to generate better returns. But most importantly here the proportion to keep P/E, as the sole base to invest does not works fully but up to significant extent it proved itself viable. Due to these change volatility increased in market and models don’t able to prove the things.

The capital asset pricing model (CAPM) of William Sharpe (1964) and John Lintner (1965) marks the birth of asset pricing theory (resulting in a Nobel Prize for Sharpe in 1990). Before their breakthrough, there were no asset pricing models built from first principles about the nature of tastes and investment opportunities and with clear testable predictions about risk and return. Four decades later, the CAPM is still widely used in applications, such as estimating the cost of equity capital for firms and evaluating the performance of managed portfolios. And it is the centerpiece, indeed often the only asset pricing model taught in MBA level investment courses.

As per - Dr.Prameela S. Shetty, Dr.Devaraj K (2017) The Indian pharmaceutical industry, which is growing at a very fast rate is expected to grow over 15 per cent per annum between 2017 and 2020. It will outperform the global pharmaceutical industry, which is expected to grow at an annual rate of five per cent between the same period. The investible companies will have to face and overcome various challenges like competition, price wars and government policies and interventions. Challenges will be tougher for companies whose focus is only on Indian market. Increasing competitiveness, patent issues and coping with the Drug Price Control Order (DPCO), which prescribes a cap on prices of several essential medicines, are some issues our pharmaceutical companies will have to face and survive

Gaps Identified in Literature Review

- In above literature review there were relationship established among factors and compared with other companies and ranked among them but are the factors having correlation among them is not checked.
- Simple tools like ratio analysis is done and ratios are even not par with research analyst of industry and no ranking of stocks is done no formal or direct either indirect relation has built between factors.

As micro and macro factors have some relation among them if economy is booming the production is responsive to that but if it's a recession than its surely the other way similarly the other factors react to each other so this relation or simply interrelation among factors play an important role while ranking the companies according to their stock performance. The same is not being done extensively in past studies.

III. Factors Affecting Stock Return

Both macro and micro level factors affect the stock performance. Macro factors include economic growth, interest rate, Stability, Confidence and expectations, Bandwagon effect, GDP data, volatility in fuel price, gold prices, inflation, performance of international markets, Ratings upgrade/ downgrade recession/economic boom, change in budget, RBI repo rates and interest rates structure, industry production index, micro factors are related markets, Price to earnings ratios, quarterly earnings, Beta, Alpha etc. understanding and using these factors in analysis will improve the chances of better returns through informed and calculated investment decision.

IV. Research Methodology

Research objectives

- To study concept of PE ratio, Alpha and Beta and apply in selected stock.
- To study the impact of above ratios in return of listed stock.
- To rank the companies according to correlation and suggest investor.
- To judge the impact of these ratios on stock and reasons behind changes in ratios from year to year.
- To measure soundness of stock should be on the basis of change in ratios or change in reasons behind ratios component

Hypotheses of study

- Macro and Micro economic factor doesn't have any impact on stock return.
- The factors under studydon't have any relation among themselves.

Research Design

Sample frame - Pharmaceutical companies in Indian capital market with equal or more than 70% revenue from outside Indian market were considered for sample. Five NSE and BSE listed sticks based onmarket capital size are included in sample. These stocks are having large markets outside India and have become international brands. Ten years (2009-2018)daily data of stock price movement and corresponding macroeconomic data was collected

Data Collection – Both primary and secondary sources of data are used. Government Statistics, earlier research papers, NSE&BSE data archives are used along with Observations of price movement and economic conditions in the time frame.

Tools of analysis - Regression is a statistical measure used in finance, investing and other disciplines that attempts to determine the strength of the relationship between one dependent variable (usually denoted by Y) and a series of other changing variables (known as independent variables). The same is used along with Correlations because they can indicate a predictive relationship that can in be exploited in practice.

V. Data Analysis

The table below provides the key statistics for 5 companies

Company	Sunpharma	Aurobindo	Biocon	Dr. Reddy	Glenmark
PE	0	18.68	44.88	24.59	11.33
Alpha	0.78%	2.35%	1.71%	0.50%	0.29%
Beta	0.88	1.21	0.94	0.87	1.02
Correlation	weak +	weak +	weak -	weak +	weak +
Rank	3	1	2	4	5

Table 1: Ranking of sample companies as per key indicators.

	Sunpharma	Aurobindo	Biocon	Dr.Reddy	Glenmark	WPI	CPI
Sunpharma	1.00						
Aurobindo	0.27	1.00					
Biocon	0.21	0.31	1.00				
Dr.Reddy	0.43	0.31	0.22	1.00			
Glenmark	0.38	0.26	0.23	0.25	1.00		
WPI	-0.03	0.02	-0.03	0.01	-0.05	1.00	
CPI	0.02	-0.03	0.04	0.07	0.07	-0.18	1.00
Bank Rate	0.13	0.04	-0.11	-0.02	0.04	-0.08	-0.03
Exchange Rate	0.20	-0.02	-0.08	-0.14	-0.07	0.07	-0.23
FDI	0.00	-0.01	0.00	-0.06	0.02	0.05	0.15
FII	0.01	0.06	-0.02	0.05	-0.04	-0.01	-0.10
Gold	0.03	-0.01	-0.02	0.06	-0.01	-0.01	0.07
Silver	-0.07	0.01	-0.01	0.10	0.03	-0.20	0.29
Brent	-0.09	0.12	0.23	0.10	0.00	0.05	0.34

Table 2: Correlation result of macro-economic data and pharmaceutical stock

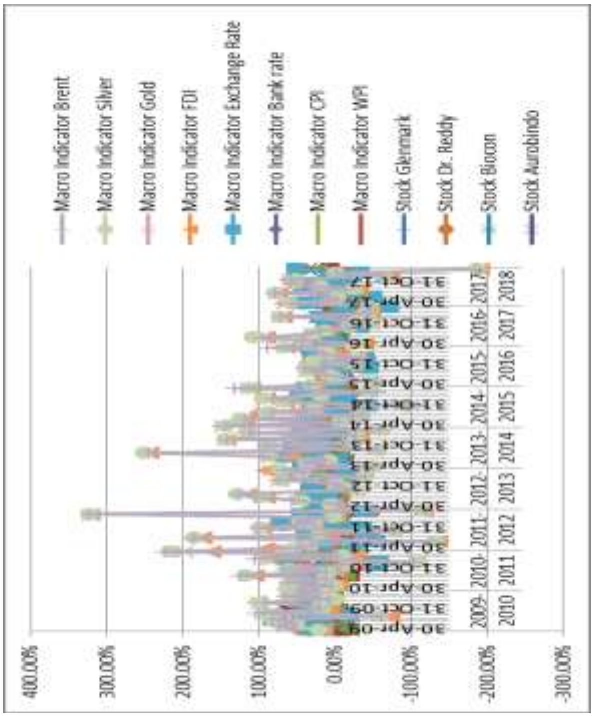

Chart 1: Graphical Presentation of Price movement of macro indicator and stocks

VI. Conclusion

Macro indicators are related to each other but some are positively related and some are negative related same case with stocks. And the result follows the rule of economic indicator any ratio indicators alpha beta and PE are working correctly.In case of PE ratio itsBioconwhich is ruling as investors are ready to pay almost 45 times for its earnings. Aurobindo is giving good returns over market and impressive for investors to invest. Similarly beta of Aurobindois higher than other stock in comparison as it will go up by 1.21 times when market goes up and similar times down when market goes down in terms of correlation other than biocon remaining four stocks are weakly positively related maximum times with macro and other stock movement and vice versa with Bioconstock movement.

On basis of above measures stocks were ranked according to the above relations established and rank 1 goes to Aurobindo; rank 2 goes to Biocon; rank 3 to Sunpharma; rank4 to Dr. Reddy and rank 5 goes to Glenmark.But similar is not true for 2019 data. As market have numerous trend setters but however result is quiet relatable and slight differences are measured out.

Thus a little analysis can provide a better picture to the investor and he can make an informed decision. At the same time he will be careful about the factors that take away the returns or increase risk in investment.

References

Journal Papers:

[1]. AshisMohanty, Pharmaceutical Industry in India: A Brief Report during, 2001-2010, Quest Journals, Journal of Research in Business and Management, Volume 2 ~ Issue 9 (2014) pp: 56-61, ISSN(Online) : 2347-3002, *Corresponding Author: Mr. AshisMohanty 56 | Page, Sr.Lecturer in MbaBhadrak Institute of Engineering & Technology, Barapada, Bhadrak .

[2]. Dr.Prameela S. Shetty, Dr.Devaraj K, Risk and Return Analysis of Pharmaceutical Industry, Volume 1, Issue 1 , September 2017, ISSN 2456 – 9151.

[3]. Dana-Maria BOLDEANU, Irina-BogdanaPUGNA, The analysis of the influence factors affecting the performance of pharmaceutical companies, Theoretical and Applied Economics Volume XXI (2014), No. 7(596), pp. 23-42

[4]. Fama, Eugene F. and French, Kenneth R., The Capital Asset Pricing Model: Theory and Evidence (August 2003). CRSP Working Paper No.550; Tuck Business School Working Paper No. 03-26. Available at SSRN: https://ssrn.com/abstract=440920 or http://dx.doi.org/10.2139/ssrn.

[5]. KolaniPamane1&AnaniEkoueVikpossi2, An Analysis of the Relationship between Risk and Expected Return in the BRVM Stock Exchange: Test of the CAPM, Vol. 5, No. 1; 2014.

[6]. Ramanujam, Leela, Factors Affecting the Movement of Stock Market: Evidence from India, Volume No. 3 (2014), Issue No. 4 (April) ISSN (Online): 2320-0685.

[7]. RejimonA.V., Deepak Ashokkumar andMadhusoodhananC.KFundamental analysis of Pharma sector: An Empirical Analysis. IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668 PP 28-37 International Conference on Emerging Trends in Engineering & Management 28 |Page (ICETEM-2016)

[8]. YakovAmihud, Bent Jesper Christensen, Haim Mendelson, Further Evidence on the Risk-Return, Relationship, November 1992.