Ilkogretim Online - Elementary Education Online, Year; Vol 20 (Issue 5): pp. 1378-1386
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2021.05.153

An Empirical Study on Financial Performance Analysis of selected Equity stocks of Indian Pharmaceutical Industry

Dr. Navjyot Raval, Assistant Professor, Faculty of Business Management, Marwadi University, Rajkot – 360003, Gujarat, India, navjyot.raval@marwadieducation.edu.in
Dr. MeetaMandaviya, Associate Professor**,** Faculty of Business Management**,** Marwadi University, Rajkot – 360003**,** Gujarat, India**,** meeta.joshi@marwadieducation.edu.in
Dr. Alpesh Gajera, Assistant Professor, Faculty of Business Management**,** Marwadi University, Rajkot – 360003**,** Gujarat, India**,** alpeshbhai.gajera@marwadieducation.edu.in

Abstract: The Indian pharmaceutical industry currently tops India's science-based industries with wide-ranging capabilities in the complex field of drug manufacture and technology. The pharmaceutical industry in India is the world's third-largest in terms of volume and stands 14th in terms of value. India's pharmaceutical market grew at 11.7 percent during December 2018. The Indian pharmaceutical industry is expected to grow at a rate of 9.9 percent till 2010 and after that 13.5 percent till 2019.

The presentation of the organization can be estimated by its monetary adequacy, i.e., by its size of income Riskiness and productivity are two fundamental variables that mutually direct the estimation of the worry. The drug business in India meets around 70% of the nation's interest in mass medications, drug intermediates, drug definitions, synthetics, tablets, cases, orals, and injectables. There has been a huge conversation about a definitive target of the organization's exhibition, regardless of whether it should be a benefit boost or it should be abundance amplification. It is seen that while seeing the organization's exhibition, the benefit and abundance boost are connected and are influenced by each other. This examination pointed toward inspecting the monetary exhibition of chose value supplies of the Indian drug industry for the investigation time of a long time from 2009 to 2019. The Indian drug market is required to contact US$ 74 billion deals by 2020 from US$ 11 billion.

Keywords: Indian Pharmaceutical Company, Anova, T-Test, Financial Performance, Selected Equity Stocks.

I. INTRODUCTION:

India will be joined among the gathering of top ten worldwide drug markets as far as deals by 2020 with esteem arriving at US$ 50 billion. The Indian pharmaceutical sector is highly uneven with over 20,000 enrolled units. It has depleted amazingly over the most recent twenty years. The drug business in India is a truly inconsistent market with serious value rivalry and government price regulators. The drug business in India meets around 70% of the nation's interest in mass medications, drug intermediates, drug details, synthetics, tablets, cases, orals, and injectables. There are roughly 250 huge units and around 800 small scale units.

The Pharma companies have started facing challenges in the domestic market due to an increase in competition from unlisted MNCs in this segment. They are rapidly expanding their field force to extend their geographical reach and also Pharmaceutical companies entered a difficult period where shareholders, the market, and regulators have created significant pressures for changing within the industry. The Pharma industry also has challenges particularly to improve infrastructure, new product patents, drug price control, and quality management and R&D programs.

The exhibition of the firm can be estimated by its monetary outcomes, i.e., by its size of income Riskiness and productivity are two main considerations that mutually decide the estimation of the worry. Monetary choices that increment dangers will diminish the value of the firm and then again, monetary choices that increment the benefit will expand the estimation of the firm. Danger and productivity are two fundamentals. Elements of a business concern. There has been an impressive discussion about a definitive target of firm execution, regardless of whether it is benefit boost or abundance amplification. It is seen that while thinking about the firm presentation, the benefit and abundance expansion are connected and are influenced by each other.

An organization's monetary presentation, along these lines, is ordinarily decided by a progression of proportions or figures, anyway, there are the three proportion boundaries which can be utilized to assess monetary execution, they are Return on Equity, Earnings per Share, and Price Earnings Ratio.

II. REVIEW OF LITERATURE:

Prof. Jyoti Nair, "Performance analysis and solvency prediction of Indian Pharma Companies.", International Journal of Marketing, Financial services & management Research ISSN 2277-3622 Vol.2, No. 5, May 2013. This paper investigates the presentation of medium-size Indian organizations in the Pharma area and inspects the presence of monetary misery among chose Indian organizations in the Pharma area utilizing Altman's score model. The information is dissected for essentialness utilizing step direct relapse. The investigation is directed for a time of a long time from 2008-2012. Altman's Z score model is utilized to distinguish the presence of monetary pain in chosen organizations. 23 organizations with a turnover going from 500 crores – 1000 crores were chosen for the study. The information needed for the examination was gotten from the DION information base and friends' yearly reports. Utilization of the Z score model could recognize organizations with feeble essentials. EBIT, MPS, and Sales are the huge variables influencing Z score. Study of financial ratios and observing trends will help the management in evaluating the performance of the company and initiate steps to avoid financial distress and bankruptcy. **Sudesh Kumar, Dr. Bimal Anjum, Dr. Suman Nayyar, Financing decision "A study of Pharmaceutical companies of India", International Journal of Marketing, Financial services & management Research Vol.1 No. 1, January 2012, ISSN 2277 3622.** This paper study about the, decide the capital structure example of the drug organizations for the time of 2007-2011 and investigate the effect of progress in capital structure on the speculation example of the organizations. To contemplate the intra company's capital structure assessment and to choose the relationship of progress in the capital structure with the association's theory procedure. This assessment of the capital structure decision of the medication associations has next with no effect on its endeavours plan, which characterizes that the organization is utilizing long haul wellsprings of assets to fund its present resources and its working movements of its business with the item to accomplish the drawn-out dissolvability and amplifying productivity with the smallest expense of capital. This paper incorporates the pattern examination of detail monetary data of the four most rumoured drug organizations, are Dabur India Ltd, Cipla, Aurobindo Pharma Ltd, Cadila Health Care Ltd for the time of long term i.e., 2007-2011. **Dr. K. Kumutha Devi Ms. C. V. Uma Maheswari. "A Study on Financial Performance of Cipla ltd& Aurobindo Pharma ltd a Comparative Analysis", Journal of Progressive Research in Social Sciences, ISSN: 2395-6283 Volume 2, Issue 1 June 11, 2015.** This paper study about the measure to performance of the companies according to short term solvency, long term solvency, and their profitability and measure the performance of the companies according to their consistency. They can use a sample design convenient sampling technique and, in the study, data have been collected from Cipla ltd and Aurobindo Pharma ltd for the five financial years. (2010-2014). The study is based on Secondary. The method for the study is Mean, Standard deviation, Coefficient of Variation. The study has been highlighted the profitability of the companies in the pharmaceutical sector. **Frederick Nsiah * Prince Aidoo, "Financial Performance of Listed Pharmaceutical Companies on Ghana Stock Exchange", Research Journal of Finance and Accounting, ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online), Vol.6, No.2, 2015.**

This paper learns about the productivity, liquidity, and dissolvability, and likelihood of disappointment of recorded drug organizations on the Ghana Stock trade. The disclosures from the development's extents showed an efficiency of Ayton's organization in utilizing the asset of the associations in ordinary reason is declining recently whiles that of Starwin is improving despite the way that Aryton Drug Ltd is generally more viable than Starwin Ltd. The Average cash talking examples of Aryton and Starwin were found to be 196 and 282 independently which are respectably higher than the seat mark in Germany, the UK, and the US of 145 days, 127 days, and 142days exclusively. The liquidity extent metric demonstrated that Aryton Drug Ltd directs its liquidity and is marvellous circumstance to meet its long stretch responsibility as well, as repudiate to Starwin Ltd which has confined cash to cover its transient commitment and is less dissolvable. Starwin's is more equipped which has introduced the firm to higher interest cost. The assessment also found from the DuPont examination that working compensation to-pay and pay to-amount to assets extents generally sway ROE decidedly. Assessment of efficiency, delegate by ROE and ROA, shows that Aryton makes more benefits for its asset and on incentive than Starwin Ltd, notwithstanding the way that lower than mechanical seat marks in UK and US of 54.9% and 32.5% independently, at any rate, Starwin Ltd is posting adequate returns of late which is almost at standard with Aryton's. Starwin's COGS improvement rate has been generally more noticeable than its pay advancement rate which notes the circumstance for Aryton Ltd. A preliminary of financial ampleness and security with Altman's Z-score revealed that Aryton isn't fiscally inconvenient anyway Starwin is in money-related wretchedness and inclined to be bankrupt soon, presenting speculators to genuine danger. Accordingly, Starwin Ltd ought to consider a takeover offer or consolidation for rearrangement of the firm. **Mr. U. Shaji and Dr. G. Ganesan, "Financial Performance of Indian Pharmaceutical Industry", Namex International Journal of Management Research Vol. 2, Issue No. 1, Jan-June 2012.** This paper learns about the current work is to examine the by and large monetary execution of chose public area drug and drug endeavors in India. The investigation has been embraced for the time of a long time from 1998-99 to 2009-10. To investigate monetary execution as far as liquidity, solvency, profitability, and financial efficiency, various accounting ratios have been used. Various statistical measures have been used i.e., Mean., S.D., C.V., linear multiple regression analysis, and test of hypothesis – t-test. In this context, an attempt has been to analyse the financial performance of pharmaceutical companies to understand how the management of finance plays a crucial role in growth. **Santanu Ghosh and Amitava Mondal, "Indian software and pharmaceutical sector IC and financial performance", Journal of Intellectual Capital Vol. 10 No. 3, 2009 pp. 369-388 Emerald Group Publishing Limited 1469-1930 DOI 10.1108/14691930910977798.** This paper seeks to appraise and break down the connection between scholarly capital and corporate traditional monetary execution proportions of Indian programming and drug Companies for a time of a long time from 2002 to 2006. Yearly reports, particularly the benefit and misfortune records and monetary records of the chose organizations for the applicable years have been utilized to acquire the information. Worldwide writings work on scholarly capital with express reference to assessment mechanical assemblies and techniques have been investigated. Worth Added Intellectual Coefficients (VAIC) system is applied for assessing the value-based execution of the associations. Corporate normal execution financial appraisals used in this assessment are an advantage; proficiency; and market valuation. It is an observational examination using different backslide assessments for the data examination. The scholarly capital (human resources and underlying capital) and actual capital of the self-assertively chose organizations have been investigated and their effect on corporate execution has been estimated utilizing numerous relapse strategies. **Dr. G. Subramanian & K. Venkatachalam, "Financial Performance analysis, with special reference to large scale private sector paper unit in Tamilnadu- Seshasayee Paper and Boards Limited, Subramanian, et.al. / Star Commerce.Vol.2 Issue 7(2), July (2014) ISSN: 2321-676X.** The present study aims at endeavouring to evaluate the financial performance of Seshasayee Paper and Boards Limited for the period from 2005-06 to 2011-12. The main objective of the study is to analyse the financial performance of Seshasayee Paper and Boards Limited. The investigation is essentially founded on the auxiliary information taken from the CMIE, Annual Reports, and other applicable distributions of SPBL. A moderate time of a long time from 2005-06 to 2011-12 is received to draw the important derivations. Information of the most recent seven years is adequate to have a thought regarding the monetary presentation of SPBL. The strategy utilized under this investigation to assess the monetary presentation of SPBL utilized various sorts of proportions like liquidity proportion, benefit proportion, and movement proportions. **V. Vijayalakshmi and M. Srividya, "A Study on Financial Performance of Pharmaceutical Industry in India, "Journal of Management and Science ISSN: 2249-1260 | e-ISSN: 2250-1819 | Vol.4. No.3 | September'2014.**This paper study about the profitability position of selected Pharmaceutical Companies in India and the factors influencing the profitability of selected Pharmaceutical Companies in India. The necessary information for the examination is gathered and incorporated from the "Ability" information base of the Center for Monitoring Indian Economy (CMIE) for the period from 2009-2010 to 2013-2014 which is a dependable and enabled corporate data set. What's more, steady information is gathered from books, diaries, yearly reports, and different news-papers. During the time of the study, there were a couple of good and bad times in the benefit however it didn't influence the tasks of the organization by and large. If the Pharmaceutical Industry needs to perform well, it needs to contribute more capital and needs to accomplish more deals, really at that time, it will improve its presentation level. **A. Ramya & Dr. M. Sekar, "A Study on Financial Analysis of Selected Indian Pharmaceutical Companies", Research journali's Journal of Commerce Vol. 2 | No. 5 July | 2014 ISSN 2348-0955.** This paper study about the growth and development of Indian Pharmaceutical companies. Examine the consistency and growth rate of selected financial parameters of the particular Pharmaceutical Companies and analyze profitability and liquidity status of selected pharmaceutical companies. The financial health and viability of particular pharmaceutical companies. Secondary data are used in this study, which was collected from the Capita line plus corporate database and PROWESS of the Centre for Monitoring Indian Economy. Variables about the behaviour of liquidity, leverage, and profitability were collected from the balance sheet and profit and loss account of the selected pharmaceutical companies for a period of 10 years i.e., from 2002-03 to 2011-12. Besides the corporate database, reports were collected from Bulletin, Libraries of various institutions, and Research Publications. Editing, classifications, and tabulation of financial data collected from the above-mentioned sources have been done as per the requirements of the study. In these twenty-twos, bulk companies and ten formulation companies, and three MNC companies were selected for the study.

OBJECTIVES:

- To study the financial performance of selected pharmaceutical companies for a period of April 2008-09 to April 2018-19 concerning the following factors
    - Return
    - Risk
    - Growth

  To compare the financial performance of selected companies with a benchmark

  To compare the performance of selected pharmaceuticals companies

The researches study on Financial Performance Analysis of selected Equity stocks of Indian Pharmaceutical Industry of The Scope of the study is limited to the period of 10 years. The data obtained for the purpose of this research study is secondary data. The company or sample for the study is Sun Pharmaceutical, Lupin, Dr. Reddy's Labs, Cipla, Aurobindo Pharma, Cadila Healthcare, GlaxoSmithKline, Glenmark Pharmaceuticals, Divi's Laboratories, Torrent Pharmaceuticals.
The companies are selected for the research are according to the market capitalization as of July 2019.

Table 1: Market Capitalization

Rank	Company	Market Capitalization 2019 (INR crores)
1	Aurobindo Pharma	45,482
2	Cadila Healthcare	48,768
3	Cipla	62,810
4	Divis Laboratories	34,784
5	Dr. Reddy's Laboratories	73,977
6	GlaxoSmithKline Pharmaceuticals Ltd	38,721
7	Glenmark Pharmaceuticals	29,337
8	Lupin Ltd	94,233
9	Sun Pharmaceutical	2,47,535
10	Torrent Pharmaceuticals	32,310

STATEMENT OF HYPOTHESIS:

Null: There is no significant difference between average returns given by selected pharma company and benchmark

Alt: There is a significant difference between average returns given by selected pharma companyand benchmark

Table 2 A: Comparison of Benchmark and Return

Year	Benchmark	Aurobindo Pharma	Cadila Healthcare	Cipla	Divis Laboratories	Dr. Reddy's Laboratories
2009-10	47.852	135.5	43.45	155.7	87.854	90.818
2010-11	-4.051	-1.66	-47.395	-63.63	61.832	-48.715
2011-12	11.721	-56.16	-20.328	-6.987	-54.802	-17.694
2012-13	-24.291	-36.33	7.84	-1.5	-27.025	-17.613
2013-14	84.583	405.48	203.072	54.851	-29.185	157.566
2014-15	12.82	-79.59	-5.401	-5.118	-1.294	27.751
2015-16	10.902	-39.59	-6.016	-5.513	12.987	7.345
2016-17	18.265	25.82	-2.769	24.508	28.581	-99.72
2017-18	27.683	223.73	36.297	-0.248	38.109	44.12
2018-19	67.691	140	70.098	85.679	30.706	35.17

Table 2 B: Comparison of Benchmark and Return

Year	Benchmark	GlaxoSmithKline Pharmaceuticals Ltd	Glenmark Pharmaceuticals	Lupin Ltd	Sun Pharmaceutical	Torrent Pharmaceuticals
2009-10	47.852	100.324	10.583	84.791	80.977	-50.76
2010-11	-4.051	-23.189	91.976	-41.94	21.431	-11.742
2011-12	11.721	-3.88	-17.58	-15.95	19.732	-28.51
2012-13	-24.291	5.043	-68.303	37.047	-10.942	-5.634
2013-14	84.583	61.813	75.523	137.6	62.754	302.398
2014-15	12.82	15.701	4.899	-74.4	-75.348	5.536
2015-16	10.902	13.002	8.714	25.489	28.861	9.356
2016-17	18.265	-4.203	49.806	18.148	44.921	12.005
2017-18	27.683	16.698	19.746	48.355	-29.569	-21.572
2018-19	67.691	33.035	38.054	113.71	78.07	118.521

The above table shows the comparison of returns given by Aurbindo Company and the benchmark. Stock shows the difference between the company's Yearly returns and benchmark's yearly return. During the study period of 10 years in 9 years, stock returns outperformed benchmark returns. The average return given by the stock during the study period is 71.72% and the average returns given by the benchmark during the study period is 25.32%. So, the average returns given by the Aurbindo stock is 64.70 percent more than the average returns given by the benchmark. Sun Pharma stock during the study period of 10 years in 8 years stock returns outperformed benchmark return. The average return given by the stock during the study period is 22.09% and the average returns given by the benchmark during the study period is 25.32%. So, the average returns given by the Sun Pharma stock is -14.62 percentage more than the average returns given by the benchmark. Cipla, during the study period of 10 years in 8 years stock returns outperformed benchmark return. The average return given by the stock during the study period is 23.77% and the average returns given by the benchmark during the study period is 25.32%. So, the average returns given by the Cipla stock is -6.49 percentage more than the average returns given by the benchmark. Torrent, During the study period of 10 years in 6 years stock returns outperformed benchmark return. The average return given by the stock during the study period is 32.96% and the average returns given by the benchmark during the study period is 25.32%. So, the average returns given by the torrent stock is 23.19 percent more than the average returns given by the benchmark. Lupin, During the study period of 10 years in 9 years stock returns outperformed benchmark return. The average return given by the stock during the study period is 33.29% and the average returns given by the benchmark during the study period is 25.32%. So, the average returns given by the Lupin stock is 23.94 percent more than the average returns given by the benchmark. Glenmark, During the study period of 10 years in 4 years stock returns outperformed benchmark return. The average return given by the stock during the study period is 21.34% and the average returns given by the benchmark during the study period is 25.32%. So, the average returns given by the Glenmark stock is -18.63 percentage more than the average returns given by the benchmark. GlaxoSmithKline, During the study period of 10 years in 7 years stock returns outperformed benchmark return. The average return given by the stock during the study period is 21.43% and the average returns given by the benchmark during the study period is 25.32%. So, the average returns given by the GlaxoSmithKline stock is -18.12 percentage more than the average returns given by the benchmark. Divi's lab, During the study period of 10 years in 9 years stock returns outperformed benchmark return. The average return given by the stock during the study period is 14.78% and the average returns given by the benchmark during the study period is 25.32%. So, the average returns given by Divi's lab stock is -71.34 percentage more than the average returns given by the benchmark. Dr. Reddy's Lab, During the study period of 10 years in 7 years stock returns outperformed benchmark return. The average return given by the stock during the study period is 17.90% and the average returns given by the benchmark during the study period is 25.32%. So, the average returns given by Dr. Reddy's Lab stock is -41.42 percentage more than the average returns given by the benchmark. Cadila Healthcare, During the study period of 10 years in 9 years stock returns outperformed benchmark return. The average return given by the stock during the study period is 27.89% and the average returns given by the benchmark during the study period is 25.32%. So, the average returns given by the Cadila Healthcare stock is 9.21 percent more than the average returns given by the benchmark.

III. DATA ANALYSIS

Level 1 Analysis: Comparison of the average return of a selected stock.

H0: There is no significant difference between the average returns given by selected companies during the study period.

H1: There is a significant difference between average returns given by selected companies during the study period.

Table 3: Anova test for Difference between average return of selected company

Source of Variation	*SS*	*df*	*MS*	*F*	*F crit*
Between Groups	23759.18	9	2639.909	0.433366	1.985595
Within Groups	548247.1	90	6091.635		
Total	572006.3	99			

Interpretation:

As the calculated value (0.4333) is less than the tabulated value (1.9855) null hypothesis is accepted. It means that there is no significant difference between the average returns given by selected Pharma companies.

Level 2 Analysis: Comparison of the average return of selected stock with Benchmark

H0: There is no significant difference between the average returns given by selected companies and Benchmark Index

H1: There is a significant difference between the average returns given by selected companies and Benchmark Index

Table 4: T - test table for the difference in Mean

Sr	Company	Mean	Variance	T - Stat
1	Benchmark	25.31749765	1082.600337	NA
2	AurbindoPharma	71.72	23781.88756	0.9305755
3	Cadila Healthcare	27.8848	4930.636713	0.1046941
4	Cipla	23.7736	3743.986521	-0.0702747
5	Divis Laboratories	14.7763	1925.096629	-0.607817
6	Dr. Reddy's Laboratories	17.9028	5201.99404	-0.2957705
7	GlaxoSmithKline Pharmaceuticals Ltd	21.4344	1297.000658	-0.251725
8	Glenmark Pharmaceuticals	21.3418	2123.724777	-0.222029
9	Lupin Ltd	33.2859	4467.912437	0.3382241
10	Sun Pharmaceutical	22.0887	2453.558294	-0.1717019
11	Torrent Pharmaceuticals	32.9598	10990.55124	0.2199448

Note: n1 & n2 = 10, D.F. = 18, T Critical value for all test at 5% LOS = ± 2.10

All the above T-Test accepted the null hypothesis at a 5% level of significance indicates that There is no significant difference between the average returns given by selected companies and Benchmark Index. Table 4 indicate that selected pharma companies and Benchmark Index are parallel in providing a return.

Level 3 Analysis: Comparison of Variance of return on selected stock.

H_0: There is no significant difference between the variance of returns given by selected companies and Benchmark Index

H_1: There is a significant difference between the varianceof returns given by selected companies and Benchmark Index

Table 5: F test table for the difference in Variances

Sr	Company	Mean	Variance	F - Stat
1	Benchmark	25.3175	1082.602339	NA
2	AurbindoPharma	71.72	23781.88756	21.967334
3	Cadila Healthcare	27.8848	4930.636713	4.5544301
4	Cipla	23.7736	3743.986521	3.4583211
5	Divis Laboratories	14.7763	1925.096629	1.7782121
6	Dr. Reddy's Laboratories	17.9028	5201.99404	4.8050829
7	GlaxoSmithKline Pharmaceuticals Ltd	21.4344	1297.000658	1.1980398
8	Glenmark Pharmaceuticals	21.3418	2123.724777	1.961685
9	Lupin Ltd	33.2859	4467.912437	4.1270116
10	Sun Pharmaceutical	22.0887	2453.558294	2.2663523
11	Torrent Pharmaceuticals	32.9598	10990.55124	10.151974

Note: n1 & n2 = 10, D.F. = 9, F Critical value for all test at 5% LOS LT = 0.319& HT = 3.17

From the above F table, we can conclude that companies like Divis Lab, Glaxo smith, Glenmark, and sun pharma’s null hypothesis is accepted i.e. There is no significant difference between the variance of returns given by selected companies and Benchmark Index. For others like Aurobindo, Cadila, Cipla, Dr. Reddy’s, Lupin, and Torrent pharma's alternative hypothesis is accepted i.e. There is a significant difference between the variance of returns given by selected companies and Benchmark Index.

IV. Finding:

1. In terms of returns, the higher return is given by AurbindoPharma, Lupin Ltd, and Torrent Pharmaceuticals, and the lowest returns are given by Divi's lab, Dr. Reddy's Lab, and Glenmark Pharmaceutical.
2. In terms of return comparison with market Aurbindopharma, Lupin Ltd, Torrent Pharmaceutical and Cadila Healthcare have outperformed the market index and Cipla, Sun Pharmaceutical, Glenmark, Dr. Reddy's lab, Divi's lab, GlaxoSmithKline have underperformed the market index.
3. In terms of a difference in Variances companies like Divis Lab, Glaxo smith, Glenmark, and sun pharma are having no significant difference between the variance of returns and on the other side companies like Aurobindo, Cadila, Cipla, Dr. Reddy's, Lupin, and Torrent pharma are having a significant difference between the variance of returns.

V. Conclusion:

Based on analysis and interpretation and findings it can be concluded that in the case of most of the Pharmaceutical companies the highest return during the study period is given by Aurbindo Pharma Company. Whereas the lowest returns are given by Divi's Laboratories. The volatility of returns (Risk) is highest for Aurbindo Pharma and lowest return given by GlaxoSmithKline. In terms of volatility of returns as measured by the standard deviation (Risk) is highest in the case of Aurbindo Pharma, Torrent Pharmaceuticals, and Dr. Reddy's Lab and lowest in the case of GlaxoSmithKline, Divi's lab, and Glenmark Pharmaceutical. In terms of return comparison with market Aurbindo pharma, Lupin Ltd, Torrent Pharmaceutical and Cadila Healthcare have outperformed the market index and Cipla, Sun Pharmaceutical, Glenmark, Dr. Reddy's lab, Divi's lab, GlaxoSmithKline have underperformed the market index. In terms of systematic risk as measured by beta, the highest degree of systematic risk was in Aurbindo Pharma, Torrent Pharmaceuticals, and Cadila Healthcare and the lowest degree of systematic risk is in Divi's lab, GlaxoSmithKline and Glenmark Pharmaceutical. In terms of the excess returns over the minimum required returns as per CAPM as measured by alpha the highest degree of alpha is in Divi's lab, GlaxoSmithKline and Sun Pharmaceutical and the lowest degree of alpha is in Dr. Reddy's lab, Torrent Pharmaceutical, and Cadila Healthcare.

Reference:

1. Prof. Jyoti Nair, "Performance Analysis and Solvency Prediction of Indian Pharma Companies.", International Journal of Marketing, Financial Services & Management Research ISSN 2277-3622 Vol.2, No. 5, May 2013.
2. Sudesh Kumar, Dr.BimalAnjum, Dr. Suman Nayyar, Financing Decision "A Study Of Pharmaceutical Companies Of India",International Journal Of Marketing, Financial Services & Management Research Vol.1 No. 1, January 2012, ISSN 2277 3622.
3. Dr. K. Kumutha Devi Ms. C. V. Uma Maheswari. "A Study on Financial Performance of Cipla Ltd& Aurobindo Pharma Ltd A Comparative Analysis", Journal of Progressive Research In Social Sciences, ISSN: 2395-6283 Volume 2, Issue 1 June 11, 2015.
4. Frederick Nsiah * Prince Aidoo, "Financial Performance of Listed Pharmaceutical Companies on Ghana Stock Exchange", Research Journal of Finance and Accounting, ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online), Vol.6, No.2, 2015.
5. Mr. U. Shaji And Dr. G. Ganesan, "Financial Performance of Indian Pharmaceutical Industry", Namex International Journal of Management Research Vol. 2, Issue No. 1, Jan-June 2012.
6. Santanu Ghosh And Amitava Mondal, "Indian Software and Pharmaceutical Sector Ic And Financial Performance", Journal of Intellectual Capital Vol. 10 No. 3, 2009 Pp. 369-388 Emerald Group Publishing Limited 1469-1930 Doi 10.1108/14691930910977798.
7. Dr. G. Subramanian & K. Venkatachalam, "Financial Performance Analysis,With Special Reference to Large Scale Private Sector Paper Unit in Tamilnadu- Seshasayee Paper and Boards Limited, Subramanian, et.al. / Star Commerce.Vol.2 Issue 7(2), July (2014) ISSN: 2321-676x.

8. V. Vijayalakshmi And M. Srividya, "A Study on Financial Performance of Pharmaceutical Industry in India, "Journal ff Management and Science ISSN: 2249-1260 | E- ISSN: 2250-1819 | Vol.4. No.3 | September'2014.
9. A. Ramya & Dr. M. Sekar, "A Study on Financial Analysis of Selected Indian Pharmaceutical Companies", Research journali's Journal of Commerce Vol. 2 | No. 5 July | 2014 ISSN 2348-0955.
10. Bauman 2003 Split Information, Stock Returns and Market Efficiency. Journal of Financial Economics, Vol 6, pp 265-296.
11. Vijayalakshmi, V. &Srividya, M. (2014). A Study on Financial Performance of Pharmaceutical Industry in India. Journal of Management and Science.
12. Boldeanu, D. M., &Pugna, I. B. (2014). The analysis of the influence factors affecting the performance of pharmaceutical companies. Theoretical & Applied Economics, 21(7). 23-42.