

## The Comparative Analysis of Fluctuations in Stock Defining Parameters of 11 leading Pharmacy Company's in India

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### **Abstract:**

The profitability of the shares is generally considered affected by the financial indexes and the economic variables of the company. The basic method assumes that the returns of shares are not related to the stock market. Most of the results occur in the conditions of the company, the conditions of the industry and the entire economy. In this study, we investigated the relationship between stock returns and fundamentals using data from 11 pharmaceutical companies on the stock exchange for one year, and results show that 80% of the changes in the performance of the shares are explained by nine basic variables such as debt / capital ratio, working capital for total assets, current index, net profit margin, circulation period, participation of market and inflation rate of pharmaceutical products. The prices of products, total assets and exchange rates have a significant impact on the returns of shares. This factor can be used in the decision making of the pharmaceutical industry.

**Keywords:** Economic variables, Fundamental analysis, Pharmaceutical companies, Stock exchange, Stock return

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### I. INTRODUCTION

One of the essential tools that investors use in capital markets is fundamental analysis. This assumes that the stock market is not totally related to the stock market. Movements in the price of the shares will depend on the conditions of the company, the conditions of the industry and economic conditions(1). This method assumes that the current market value of the shares does not represent an accurate picture of the state of the company and is different from the real value(2). In other words, this method assumes that the market is not efficient and that the market value does not reflect all the existing information about the company, unlike the technological method. Therefore, we anticipate the prices of the shares and analyze the economic data, the industry and the level of the company as a whole and then try to extract the true value of the company(3). The main sources of information for the basic analysis are the balance sheet, the income statement, the statement of cash flow, the financial statement, the plan and the environmental report(4, 5).

In this paper, the researcher investigated the relation between stock return and fundamentals in most renounces and leading pharmaceutical industries. The data used in this study contains the panel data of 11 pharmaceutical companies listed in National Stock exchange (NSE) during financial year 2011-12. The results show that the fundamentals have a significant impact on the stock return.

### II. DISCRPTION OF PARAMETERS USED IN STUDY

#### **Market Cap:**

Market capitalization (market capitalization) is the ratio between the outstanding shares of the company that are publicly traded and the current price of the stock and the number of shares outstanding at that time(6).

#### **Earnings Per Share (EPS):**

Earnings per share (EPS) are a fraction of the company's profits allocated to each issuance of ordinary shares. Profit per share is a measure of the profitability of the company. The benefit of the company divided by the number of common shares. If a company that makes \$ 2 million a year has 2 million common shares, the EPS will be \$ 1 per week. In EPS calculations, companies often use a weighted average of their issued shares during the reporting period(7).

Net income – dividend on preferred stock / Average Outstanding Shares

#### **Price to Earnings (P/E) Ratio:**

The ratio between earnings and profits (P / E ratio) is the proportion of companies that measure the current price of the shares, based on earnings per share. The price-earnings ratio is also known as a price multiplier or multiplier. For example, suppose a company is currently trading at \$ 43 per share and that its earnings for the last 12 months are \$ 1.95 per week. The P / E ratio of the stock can be calculated as  $43 / 1.95$  or 22.05(8). EPS is derived more frequently in the last quarter. The P / E ratio can be calculated as follows.

Market Value per Share / Earnings per Share

**Book Value per Share (□):**

The book value per common share is the measure used by the owner of the common stock of the company to determine the level of security associated with each individual share after all liabilities have been paid accordingly. The book value method is used to calculate the value per share of a company based on the share capital available to ordinary shareholders. The term "book value" is the asset minus the company's liability and is sometimes referred to as the shareholder's equity, the owner's equity, the shareholder's equity or simply equity(9).

Book Value Per Share = Total Share Holder Equity- Preferred Equity/ Total Outstanding Shares

In simple terms it would be the amount of money that a holder of a common share would get if a company were to liquidate.

**Price to Books (P/B) Ratio:**

The ratio of book to price (P / B ratio) is the ratio used to compare the book value and the book value of an action. The current closing price of the shares divided by the value of the most recent quarter per week(10). The ratio of book to price (P / B ratio) is the ratio used to compare the value of the stock market with the book value. The current closing price of the shares has divided by the value of the most recent quarter per week. Also known as "price / capital ratio". Calculated as follows:

P/B Ratio = Market Price per Share / Book Value per Share. where Book Value per Share = (Total Assets - Total Liabilities) / Number of shares outstanding

A lower P/B ratio could mean that the stock is undervalued. However, it could also mean that something is fundamentally wrong with the company. As with most ratios, be aware that this varies by industry. This ratio also gives some idea of whether you're paying too much for what would be left if the company went bankrupt immediately(11).

**EBIT Margin (%):**

EBIT Margin is the ratio of Earnings before Interest and Taxes to net revenue - earned. It is a measure of a company's profitability on sales over a specific time period. Earnings Before Interests and Taxes-Margin = ((Earnings Before Interests and Taxes (EBIT)) / (Net Revenue - Earned)) \* 100%

This indicator provides information about the import capacity of your company. The growth of EBIT is mainly due to the growth of net income, good control of costs and strong productivity. The decrease in EBIT margins is mainly due to lower sales and higher operating costs. EBIT margins are more useful compared to other companies in the same industry. The greater the EBIT margin, the more profitable or profitable your business will be. If there is no long-term positive EBIT margin, the company must reconsider its business model. This margin can be used as a relative indicator for international and intersectoral comparisons(11). However, the EBIT margin differs from industry to industry due to factors that directly affect the EBIT margin and EBIT. Example: retailers have very low EBIT margins because they rely on small margins with large sales. Other industries are less likely to sell, but higher EBIT margins are expected to offset this.

**PAT Margin (%):**

The after-tax profit rate is the ratio between the financial return calculated by dividing the net profit after sales by sales. The after-tax profit rate is important because it tells the investor the percentage of money the company actually makes for each dollar of income. The after-tax profit rate is the ratio between the financial return calculated by dividing the net profit after sales by sales. The after-tax profit rate is important because it tells the investor the percentage of money the company actually makes for each dollar of income(8). For example, if someone owns a store and has a net profit after taxes or a net profit of \$ 100,000 and a net billing of \$ 200,000, they get a 50% profit after taxes.

After Tax Profit Margin = After Tax Net Income / Net Sales Profit After Tax is the total amount that a business earns after all tax deductions have taken place. It is used as a barometer to determine how much a business really earns and how much it can utilise for its day to day activities. Profit after tax is also seen as a measure of a company's profitability after all its expenses have been deducted and can be fully utilised by the company to conduct its business. Shareholders are also paid dividends from this amount(12).

**ROCE (%):**

Return on equity (ROI) is a profitability relationship that measures the efficiency with which a company can capitalize on capital by comparing its net operating profit with its capital employed. In other words, the return on capital employed shows the amount of dollars the investor generates from the profit per dollar of capital employed. ROCE is a long-term profitability relationship because it shows how effectively an asset is performing, considering long-term financing(13). For this reason, ROCE is a more useful ratio than the return on capital to evaluate the useful life of a company. This relationship is based on two important

calculations: operating profit and capital employed. Net operating profit is often called EBIT or income and income by tax transfer. EBIT is often reported in the income statement because it shows the company's profits in the business. If necessary, EBIT can be calculated by recalculating interest and taxes as net income(14). The capital employed is a fairly complex term because it can be used to represent various financial reasons. In most cases, capital refers to all current liabilities, excluding the company's total assets. This can be seen as having less long-term debt than equity capital. Both look the same. Return on capital employment = Net Operating Profit/ Employed Capital

**Total Debt to Equity (D/E) Ratio:**

The debt / equity ratio is the debt ratio used to measure the financial leverage of a company by dividing the company's total debt by its equity. The D / E ratio represents the amount of debt that the company uses to finance its assets in proportion to the amount represented as equity. The debt ratio (ratio of debt to equity, D / E) is the financial index that represents the relative share of capital and liabilities of the company used to finance the assets of the entity. This relationship is also called financial leverage(15). The indebtedness index is the main financial index and is used as a basis to judge the financial position of the Company. It also measures the ability of the company to pay its obligations. When examining the health status of a company, it is important to pay attention to the debt / equity ratio. The creditors are raising funds, not their own sources of funding, which can be a risky trend as the rate increases. Lenders and investors generally prefer low debt ratios. Because their interests are better protected in the case of commercial declines. Therefore, companies with high debt rates may not be able to secure additional loan capital. The debt ratio is calculated by dividing the total liabilities by equity(16).

Debt-to-equity ratio = Liabilities / Equity

**III. DATA ANALYSIS AND RESULT INTERPRETATION**

The data were fetched by the financial reports of the pharma company released in year 2011-12. The results were interpreted on the basis of significance of beta value and % D which determines the slow momentum rate of the shares, also RSI analysis was taken.

Table 1: Cipla's Key Fundamentals.

<b>Cipla's Key Fundamentals</b>	
Parameter	Values
Market Cap (in ₹ Cr.)	44,925.56
Earning Per Share (EPS TTM) (₹)	11.89
Price To Earnings (P/E) Ratio	46.96
Book Value Per Share (₹)	158.37
Price To Books (P/B) Ratio	3.53
EBIT Margin (%)	11.17
PAT Margin (%)	8.88
ROCE (%)	9.34
PAT Growth (%)	-33.33
Total Debt to Equity (D/E) Ratio	0.03

The beta value is 0.80 which is less than 1, the share's movement will be less volatile than the market. In RSI analysis, the company's price is in consolidation mode which is technically weak. On application of stochastic, it is observed that %D (slow momentum indicator) has already crossed over from the top level of oscillating momentum. In simple moving average the price line is below the moving average, thus it stands in short position.

Table 2: Dr. Reddys Lab's Key Fundamentals

<b>Dr. Reddys Lab's Key Fundamentals</b>	
Parameter	Values
Market Cap (in ₹ Cr.)	36,422.20
Earning Per Share (EPS TTM) (₹)	-1.76

Price To Earnings (P/E) Ratio	-1247.73
Book Value Per Share (₹)	694.83
Price To Books (P/B) Ratio	3.16
EBIT Margin (%)	16.48
PAT Margin (%)	14.24
ROCE (%)	11
PAT Growth (%)	0.71
Total Debt to Equity (D/E) Ratio	0.2

The beta value of this stock is 0.57 which is less than 1. The share's movement will be less volatile than the market. It is less risky to invest in this stock. On RSI analysis the company's prices is in the oversold region so it is a positive note that the price of stock may increase. On application of stochastic %D (slow momentum indicator) closes in oversold region. In simple moving average the price line is above the moving average, it shows the buy signal.

Table 3: Glaxosmithkline Phar's Key Fundamentals

Glaxosmithkline Phar's Key Fundamentals	
Parameter	Values
Market Cap (in ₹ Cr.)	20,786.96
Earning Per Share (EPS TTM) (₹)	34.4
Price To Earnings (P/E) Ratio	71.34
Book Value Per Share (₹)	239.45
Price To Books (P/B) Ratio	10.25
EBIT Margin (%)	17.08
PAT Margin (%)	11.25
ROCE (%)	24.14
PAT Growth (%)	-10.08
Total Debt to Equity (D/E) Ratio	0

The beta value is 0.29 which is less than 1. The share's movement will be less volatile than the market. It is less risky to invest in this stock. On RSI analysis the company's prices closes in oversold region so it is a positive note that the price of stock may increase. On application of stochastic %D (slow momentum indicator)has crossed over the lower level of oscillating momentum. In simple moving average the price line is above the moving average it shows the buy signal.

Table 4: Glenmark Pharma's Key Fundamentals

Glenmark Pharma's Key Fundamentals	
Parameter	Values
Market Cap (in ₹ Cr.)	16,665.91
Earning Per Share (EPS TTM) (₹)	57.06
Price To Earnings (P/E) Ratio	10.35
Book Value Per Share (₹)	334.38
Price To Books (P/B) Ratio	1.77
EBIT Margin (%)	33.42
PAT Margin (%)	26.44
ROCE (%)	26.57
PAT Growth (%)	44.22
Total Debt to Equity (D/E) Ratio	0.29

The beta is 0.72 which is less than 1. The share's movement will be less volatile than the market. According to RSI analysis the stock is in consolidation mode which is technically weak therefore the price may decrease. As per stochastic %D (slow momentum indicator) shows that stock is showing downward trend. In simple moving average the price line is below the moving average, thus it shows the sell signal.

**Table 5 : Abbott India's Key Fundamentals**

<b>Abbott India's Key Fundamentals</b>	
Parameter	Values
Market Cap (in ₹ Cr.)	8,911.96
Earning Per Share (EPS TTM) (₹)	118.06
Price To Earnings (P/E) Ratio	35.52
Book Value Per Share (₹)	652.7
Price To Books (P/B) Ratio	6.43
EBIT Margin (%)	14.92
PAT Margin (%)	9.41
ROCE (%)	33.96
PAT Growth (%)	8.38
Total Debt to Equity (D/E) Ratio	0

The beta value is 0.51 which is less than 1. The share's movement will be less volatile than the market. It is less risky to invest in this stock. According to RSI analysis, the stock price closes in near to overbought region. As per stochastic %D (slow momentum indicator) shows that stock has the crossover the level of 80 range of scale. In simple moving average, the price line is below the moving average, thus it stands in short position.

**Table 6: Lupin's Key Fundamentals**

<b>Lupin's Key Fundamentals</b>	
Parameter	Values
Market Cap (in ₹ Cr.)	44,626.25
Earning Per Share (EPS TTM) (₹)	53.55
Price To Earnings (P/E) Ratio	18.45
Book Value Per Share (₹)	323.44
Price To Books (P/B) Ratio	3.05
EBIT Margin (%)	33
PAT Margin (%)	24.63
ROCE (%)	30.41
PAT Growth (%)	10.97
Total Debt to Equity (D/E) Ratio	0.04

The beta value is 0.68 which is less than 1. The share's movement will be less volatile than the market. It is less risky to invest in this stock. According to RSI analysis the stock price began to project upwards from consolidation mode. As per stochastic %D (Slow momentum indicator) has not crossover the upper level which is technically strong. In simple moving average the price line is above the moving average it shows the buy signal.

**Table 7: Unichem Lab's Key Fundamentals**

<b>Unichem Lab's Key Fundamentals</b>	
Parameter	Values
Market Cap (in ₹ Cr.)	2,211.66
Earning Per Share (EPS TTM) (₹)	8.64

Price To Earnings (P/E) Ratio	28.15
Book Value Per Share (₹)	124.27
Price To Books (P/B) Ratio	1.96
EBIT Margin (%)	9.45
PAT Margin (%)	7.35
ROCE (%)	12.33
PAT Growth (%)	3.37
Total Debt to Equity (D/E) Ratio	0

The Beta value is 0.65 which is less than 1. The share' movement will be less volatile than the market. According to RSI analysis the stock is in consolidation mode which is technically weak therefore the price may decrease. As per stochastic %D (slow momentum indicator) shows that stock is showing downward trend. In simple moving average the price line is below the moving average, thus it shows the sell signal.

Table 8: Wockhardt's Key Fundamentals

Wockhardt's Key Fundamentals	
Parameter	Values
Market Cap (in ₹ Cr.)	7,047.29
Earning Per Share (EPS TTM) (₹)	-36.76
Price To Earnings (P/E) Ratio	-17.34
Book Value Per Share (₹)	106.96
Price To Books (P/B) Ratio	5.96
EBIT Margin (%)	12.51
PAT Margin (%)	5.97
ROCE (%)	8.87
PAT Growth (%)	1544.12
Total Debt to Equity (D/E) Ratio	1.78

The beta value is 0.29 which is less than 1. The share's movement will be less volatile than the market. It is less risky to invest in this stock. On RSI analysis the company's prices closes in oversold region so it is a positive note that the price of stock may increase. On application of stochastic %D (Slow momentum indicator) has crossed over the lower level of oscillating momentum. In simple moving average the price line is above the moving average it shows the buy signal.

Table 9: Morepen Laboratories' Key Fundamentals

Morepen Laboratories' Key Fundamentals	
Parameter	Values
Market Cap (in ₹ Cr.)	796.19
Earning Per Share (EPS TTM) (₹)	0.34
Price To Earnings (P/E) Ratio	52.06
Book Value Per Share (₹)	5.16
Price To Books (P/B) Ratio	3.43
EBIT Margin (%)	5.47
PAT Margin (%)	4.19
ROCE (%)	7.55
PAT Growth (%)	46.04
Total Debt to Equity (D/E) Ratio	0.14

The beta value is 0.80 which is less than 1, the share's movement will be less volatile than the market. In RSI analysis, the company's price is in consolidation mode which is technically weak. On application of stochastic, it is observed that %D (slow momentum indicator) has already crossed over from the top level of oscillating momentum. In simple moving average the price line is below the moving average, thus it stands in short position.

**Table 10: Thyrocare Technologies's Key Fundamentals**

<b>Thyrocare Technologies's Key Fundamentals</b>	
Parameter	Values
Market Cap (in ₹ Cr.)	3,674.69
Earning Per Share (EPS TTM) (₹)	15.04
Price To Earnings (P/E) Ratio	45.48
Book Value Per Share (₹)	77.32
Price To Books (P/B) Ratio	8.85
EBIT Margin (%)	37.86
PAT Margin (%)	24.94
ROCE (%)	28.55
PAT Growth (%)	27.39
Total Debt to Equity (D/E) Ratio	0

The beta is 0.69 which is less than 1. The share's movement will be less volatile than the market. According to RSI analysis the stock is in consolidation mode which is technically weak therefore the price may decrease. As per stochastic %D (slow momentum indicator) shows that stock is showing downward trend. In simple moving average the price line is below the moving average, thus it shows the sell signal.

**Table 11: Sun Pharma Inds.'s Key Fundamentals**

<b>Sun Pharma Inds.'s Key Fundamentals</b>	
Parameter	Values
Market Cap (in ₹ Cr.)	1,25,076.03
Earning Per Share (EPS TTM) (₹)	-15.8
Price To Earnings (P/E) Ratio	-32.99
Book Value Per Share (₹)	86.98
Price To Books (P/B) Ratio	5.99
EBIT Margin (%)	2.45
PAT Margin (%)	-0.45
ROCE (%)	0.7
PAT Growth (%)	96.79
Total Debt to Equity (D/E) Ratio	0.29

The beta value is 0.59 which is less than 1. The share's movement will be less volatile than the market. It is less risky to invest in this stock. According to RSI analysis, the stock price closes in near to overbought region. As per stochastic %D (slow momentum indicator) shows that stock has the crossover the level of 80 range of scale. In simple moving average, the price line is below the moving average, thus it stands in short position.

**Comparative Analysis Of All The 11 Selected Leading Pharma Company**

All the company parameter of growth and sustainability in share market has been plotted in comparison to each other.

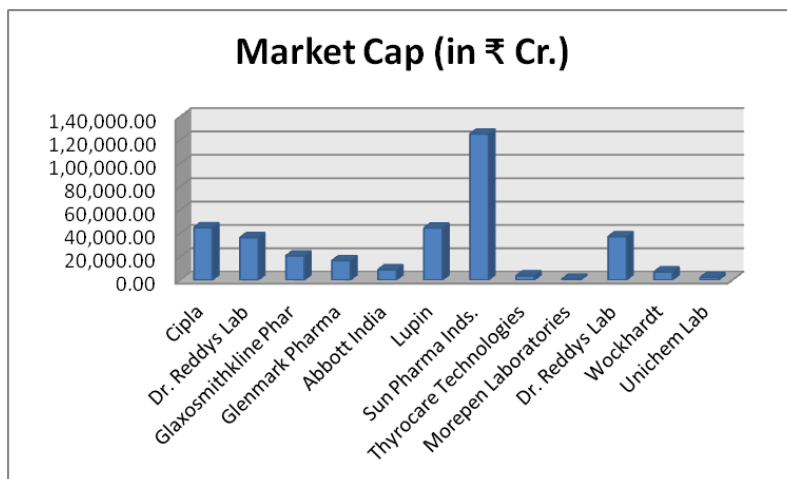


Figure 1: Comparative Analysis On The Basis Of Market Capital.

According to figure 1 the highest market capital in all the 10 selected leading pharma company belongs to Sunpharma after that Cipla and Dr. reddy's lab has good value while the lowest market capital belongs to Morepen laboratorirs.

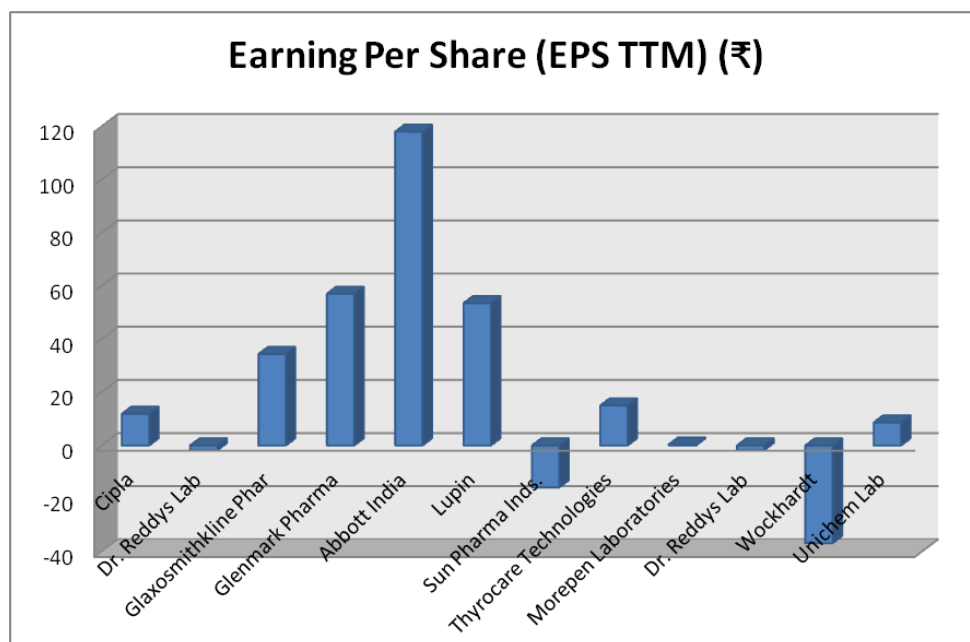


Figure 2: Comparative Analysis On The Basis Of Earning Per Share.

According to figure 2 the highest Earning per share in all the 11 selected leading pharma company belongs to Abbott India after that Lupine and Glenmark pharma has good value while the lowest Earning per share belongs to Morepen laboratorirs.



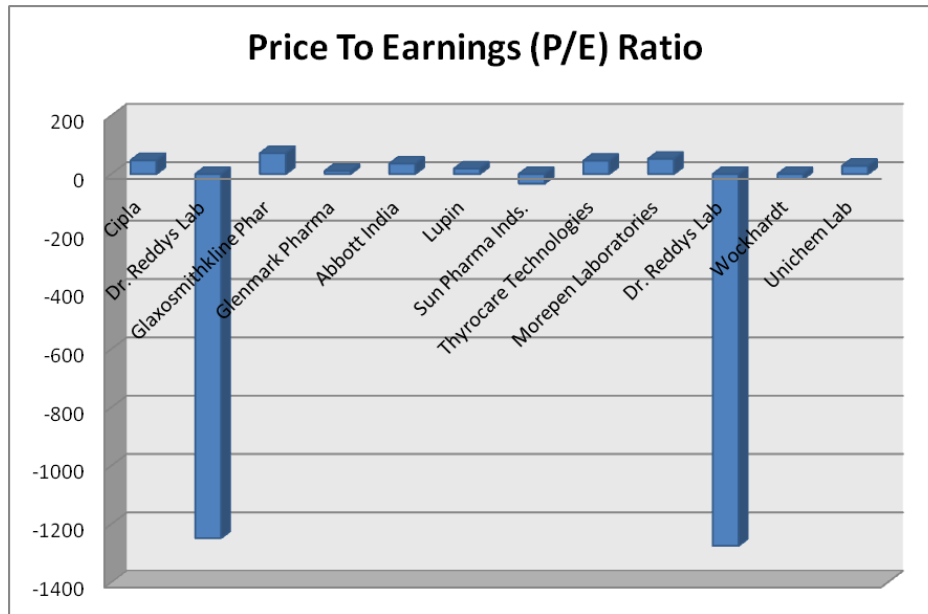


Figure 3: Comparative Analysis On The Basis Of Price to Earnings Ratio.

According to figure 3 the highest Price to Earnings Ratio in all the 11 selected leading pharma company belongs to Glaxosmithkline Pharmacy after that Thyrocare technology and Morepen laboratories has good value while the lowest Price to Earnings Ratio belongs to Dr. Reddy's lab.

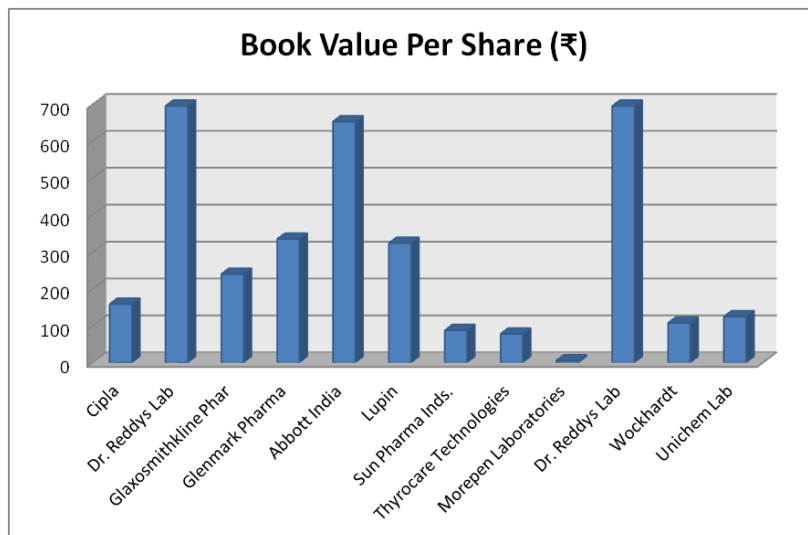


Figure 4: Comparative Analysis On The Basis Of Book Value per Share.

According to figure 4 the highest Book Value Per Share in all the 11 selected leading pharma company belongs to Dr. Reddy's lab and Abbott India after that Glenmark pharma and lupin has good value while the lowest Book Value Per Share belongs to Morepen laboratorirs.

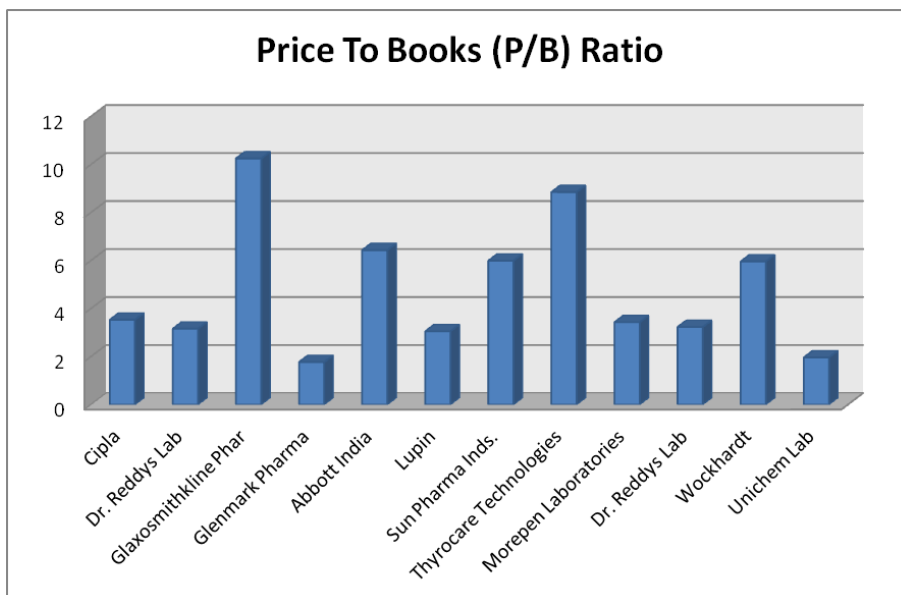


Figure 5: Comparative Analysis On The Basis Of Price to book Ratio.

According to figure 5 the highest Price to book Ratio in all the 11 selected leading pharma company belongs to Glaxosmithkline pharmacy and thyrocare technology after that Abbott india, Sunpharmacy and Wockhardt lab has good value while the lowest Price to book Ratio belongs to Glenmark pharmacy.

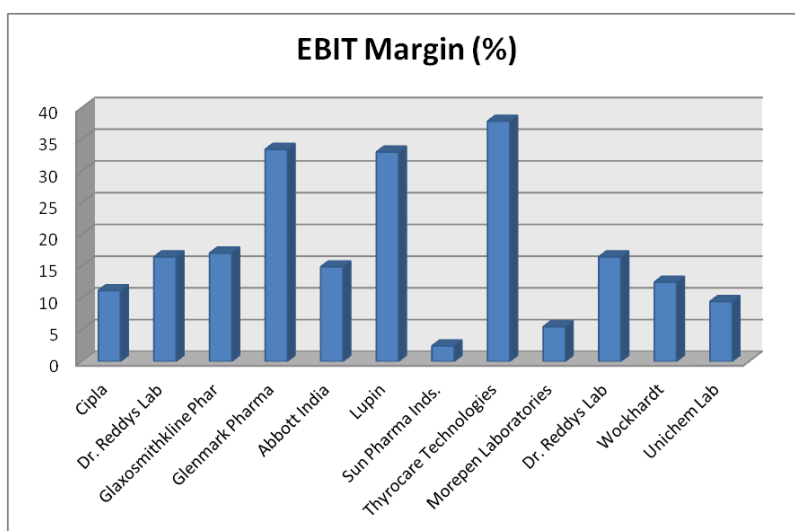


Figure 6: Comparative Analysis On The Basis Of EBIT Margin.

According to figure 6 the highest EBIT Margin in all the 11 selected leading pharma company belongs to thyrocare technology, glenmark pharmacy and Lupin after that Glaxosmithkline pharmacy and Dr. reddy's lab has good value while the lowest EBIT Margin belongs to Sunpharma Industries.

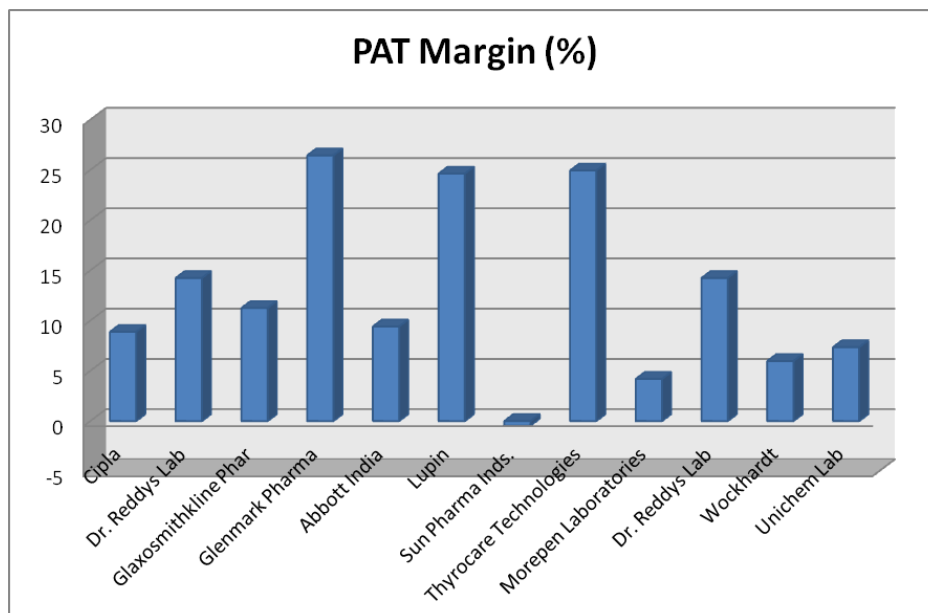


Figure 7: Comparative Analysis On The Basis Of Pat Margin.

According to figure 7 the highest market capital in all the 10 selected leading pharma company belongs to Sunpharma after that Cipla and Dr. reddy's lab has good value while the lowest market capital belongs to Morepen laboratorirs.

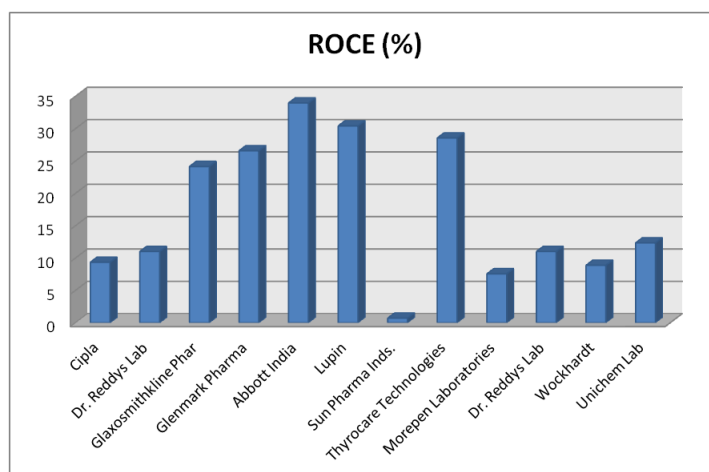


Figure 8: Comparative Analysis On The Basis Of ROCE In Percentage analysis.

According to figure 8 the highest ROCE In Percentage analysis in all the 11 selected leading pharma company belongs to Abbott India and Lupin after that Glaxosmithkline pharmacy, Glenmark Pharmacy and Thyrocare technology has good value while the lowest ROCE In Percentage analysis belongs to Sunpharma industries.

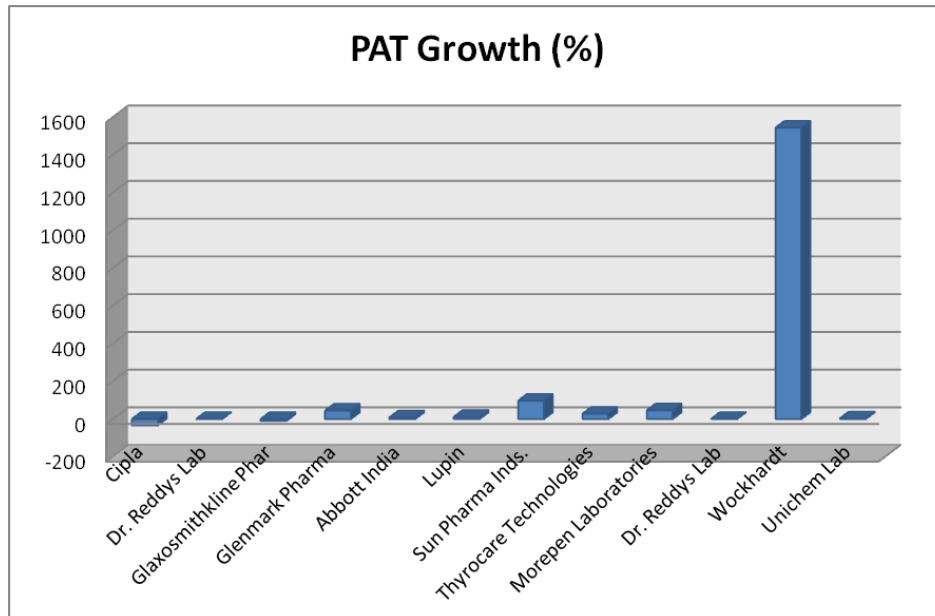


Figure 9: Comparative Analysis On The Basis Of PAT Growth.

According to figure 9 the highest PAT Growth in all the 11 selected leading pharma company belongs to Wockhardt Lab after that Sunpharma and Glenmark Pharma has good value while the lowest PAT Growth belongs to Dr. reddy's lab and unichem lab.

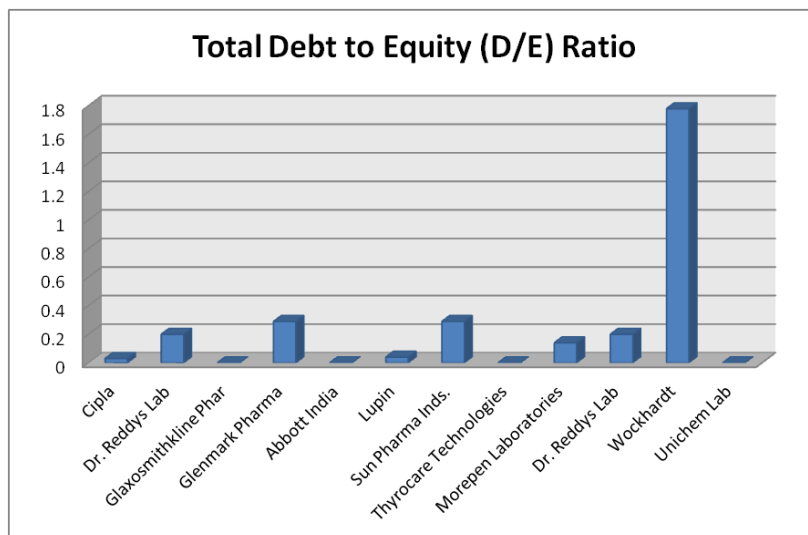


Figure 10: Comparative Analysis On The Basis Of Total Debt to Equity.

According to figure 10 the highest Total Debt to Equity in all the 11 selected leading pharma company belongs to Wockhardt Lab after that Glenmark pharmacy and Sunpharma has good value while the lowest Total Debt to Equity belongs to Unichem lab.

#### IV. CONCLUSION

The value of the pharmacy shares depend upon the many of the stability factor in which market capital and moving average values are the best sign to involve with it. The results show that 80 percent of change in stock return can be explained with 9 fundamental variables factors including debt-equity ratio, working capital to total asset, current ratio, net profit margin, operating cycle, market share, inflation rate of medicinal products prices, total asset, and exchange rate have significant effect on stock return. These factors can be used in decision making in pharmaceutical industry.

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