

Technical Study of Pharmaceutical Stocks Listed In NSE

ShahanaJabeen¹, AfshanJabeen²

Anwar ululoom college, Address: #11-3-918, Near Badi Masjid, New Mallepally, Hyderabad, Telangana 500001, India

Abstract

Financial Markets specially stock market being core of our day to day activities and having enormous potential to earn, and by applying technical analysis to what extent we can earn the making matters the most hence this study of Technical Analysis. Prices of securities in the stock markets fluctuate daily on account of continuous buying and selling. Stock prices move in trends and cycles and are never stable. The present study manifesting the price behavior of shares, trend and their future movements. The main objective of this paper is to identify the performance of pharmaceutical's stock which is listed in National Stock Exchange (NSE) and risk involvement has been predicted on account of applied technical indicators. The rationale behind technical analysis is that the share price behavior repeats itself over specified time and analysts attempt to derive methods to predict this repetition. The study looks at the past share prices data to see if we can establish any trend or an entry can be made.

This study is purely based on data provided on stocks listed in NSE. For the purpose of analysis, techniques like Beta, Relative Strength Index, Slow Stochastic and Simple Moving average are used and the strength of stock is inferred.

Key words: Technical analysis, Beta, Relative Strength Index, Stochastic (slow stochastic) & Simple Moving average

I. INTRODUCTION

A stock market is similar to a share market. The key difference is that a stock market helps in trading financial instruments like bonds, mutual funds, derivatives as well as shares of companies. A stock may be bought or sold only if it is listed on an exchange. Thus, it is the meeting place of the stock buyers and sellers. There are always ups and downs in the stock market, as such there's no guarantee you'll make money on a stock at any given point in time.

Many methods have been applied for stock market prediction ranging from time series forecasting, statistical analysis, fundamental and technical analysis. Investment analysts and investors examine historical

price and volume data and other market-related indicators to get an in dept view of securities trading on the stock exchange for better results. Technical analysis attempts to forecast future price movements by examining past supply and demand changes as that are reflected in changes in prices over time. Most traders use technical analysis to get a "big picture" on an investment's price history.

Technical Analysis is a method of analyzing/evaluating security or stock using statistics generated by the buyer/seller of the stock on a daily basis. However, data usage depends upon the quantum of period being selected by the investor /trader at large. A technical analyst looks at the past share prices data to see if he can establish any trend or an entry can be made for the stock selected. Technical analysts also study the volume pattern to derive the "Demand & Supply" rationale.

However, this study has been done on a considerate and moderate method to simplify the usage

II. REVIEW OF LITERATURE

- Lo, Mamaysky and Wang (2000) examines the effectiveness of technical analysis on US stocks from 1962 to 1996 and finds that over the 31-year sample period, several technical indicators do provide incremental information and may have some practical value.
- Shankar R.L, Ganesh Sankar&Kiran Kumar K (2005) examines the dynamic relationship among liquidity, volatility, and mispricing in single stock futures.
- Gehrig and Menkhoffe (2006) argue that technical analysis is as important as fundamental analysis to currency managers.
- Franklin N. R. B. (2012) talked about buying and selling decisions of stocks of few selected Indian Banks. The Study is based on secondary data for the year 2010 for five banks, Axis Bank, State Bank of India, ICICI Bank, HDFC Bank and Punjab National Bank. The Author used 2 technical analysis tools, moving average, and support and resistance level for predicting future prices of these banks. The Author analyzed that all these five

banks must perform well in next two coming years in Indian stock market.

- Sakshi Varshney (2014) the study aims at extracting the price movements and analyzing the price movements of selected companies stocks and followed two indicators of technical analysis.
- Nikhil Kaushik & Dr. Madhur Raj Jai (2015) studies that out of the top 6 pharmaceutical companies stock prices (based on market capitalization) taken on a daily basis for the last five years (April 2010 to March 2015). Moving Average Convergence and Divergence (MACD), Rate of Change (ROC) and Relative Strength Index (RSI) were some of the technical tools used for analyzing daily closing price and Sensex (BSE 100). Mix trends were obtained from the study. Results suggest that investing in the current period for long-term purpose requires fundamental analysis along with technical analysis.

III. RESEARCH OBJECTIVES

- To identify the performance of pharmaceutical's stock which is listed on NSE by using technical analysis.
- To analyze the stocks future movements in the market with the help of few indicators of technical analysis i.e., RSI, Stochastic (slow stochastic) & Simple moving average.
- To identify the risk involvement and to give a suitable suggestion as to buy which stock.

IV. RESEARCH METHODOLOGY

The primary understanding of technical analysis is being taken into account from information relating to the movement of stock prices and financials of NSE-listed pharmaceutical companies. Data has been collected from secondary sources. All the understanding of the various concepts of Technical Analysis and presentation has been earmarked exclusively with selected data for a period of 3 yrs. I.e. 28th -feb-2014 to 28th -feb-2017. The closing prices of share prices is taken and the future price movements are analyzed using various tools. Technical analysis is carried on two different basis i.e., *Cryptical & Analytical*. *Cryptical* analysis includes technical indicators & analytical analysis shows graphical presentation of stock prices. Data were collected from various websites.

Stocks selected for analysis includes:

1. Aurobindopharma ltd
2. Cadila health care ltd
3. Cipla ltd
4. Divi's laboratories ltd
5. Dr. reddy's laboratories ltd
6. Glaxosmithkline pharmaceuticals

7. Glenmark pharmaceuticals ltd
8. Lupin ltd
9. Piramal enterprises ltd
10. Sun pharmaceutical industries ltd

A. Rsi – (Relative Strength Index)

Developed J. Welles Wilder, the Relative Strength Index (RSI) is a momentum oscillator that measures the speed and change of price movements. RSI oscillates between zero and 100. Traditionally, and according to Wilder, RSI is considered overbought when above 70 and oversold when below 30. This RSI calculation is based on 14 periods, which is the default suggested by Wilder in his book

$$RSI = 100 - \frac{100}{1 + RS}$$

RS = Average Gain / Average Loss

Average Gain = (Total Gains/n)

Average Loss = (Total Losses/n)

n = number of RSI periods

B. Stochastics

George Lane developed stochastic, an indicator that measures the relationship between an issue's closing price and its price range over a predetermined period of time. Fourteen is the mathematical number used in the time model, and it can, depending on the technician's goal, represent days, weeks or months. Stochastic is measured with the %K line and the %D line, and it is the %D line that we follow closely, for it will indicate any major signals in the chart. The K-line is the fastest and the D-line is the slower of the two lines. The investor needs to watch as the D-line and the price of the issue begin to change and move into either the overbought (over the 80 line) or the oversold (under the 20 line) positions.

$$\%K = 100[(C - L5_{close}) / (H5 - L5)]$$

$$\%D = 100 \times (H3/L3)$$

C = the most recent closing price

L5 = the low of the five previous trading sessions

H5 = the highest price traded during the same 5 day period.

C. Simple Moving Average

It is an average price of stock over a period of time. Moving Average depicts the trends of the market. A simple moving average is formed by calculating the average price of a security over a specific number of periods.

D. Beta

It indicates the manner in which a security's returns changes systematically with the changes in the market returns. The volatility of the stock and systematic risk can be judged by calculating beta.

$$\text{Beta} = \text{Cov}(x,y) / \text{Var}(x)$$

Where,

x - Market Value of Nifty ; y - Market Value of the Scrip

The analysis is done based on the following rule:

If the beta is 1 The share's movement will be along with the market.

If the beta is >1 The share's movement will be more volatile than the market.

If the beta is <1 The share's movement will be less volatile than the market.

V. ANALYSIS AND INTERPRETATION

A. Aurobindo Pharma Ltd

The beta value is 1.06 which is more than 1, the share's movement will be more volatile than the market. It is riskier to invest in this stock. In RSI analysis, the stock is technically weak and may take a further decrease in prices. On application of stochastic it is observed that %D (Slow momentum indicator) has crossed 80 range of scale which indicates overbought condition. In simple moving average the price line is below the moving average, thus it shows the sell signal.

B. Cadila Health Care Ltd

The beta value is 0.608 which is less than 1, the price movement will be less volatile than the market. According to RSI analysis the stock price closes in overbought region, therefore, the price may decrease. As per stochastic %D (Slow momentum indicator) shows that stock has crossed the level of 80 range of oscillating momentum. In simple moving average the price line is below the moving average, thus it stands in short position.

C. Cipla Ltd

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.

D. Divi's Laboratories Ltd

The beta value of this stock is 0.60 which is less than 1, the share's movement will be less volatile than the market and it will be less risky to invest in this stock. On RSI analysis the company's prices close 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 the top level of

scale. In simple moving average the price line is above the moving average it shows the buy signal.

E. Dr. Reddy's Laboratories Ltd

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.

F. Glaxosmithkline Pharmaceuticals Ltd

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.

G. Glenmark Pharmaceuticals Ltd

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.

H. Lupin Ltd.

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.

I. Piramal Enterprises Ltd

The beta 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 overbought region. As per stochastic %D (slow momentum indicator) shows that stock has crossover the 80 range of scale. In simple

moving average, the price line is below the moving average, thus it stands in short position

J. Sun Pharmaceutical Industries Ltd

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

VI. SUGGESTIONS

According to this present study and financial positions of these respective stocks which has gained a tremendous growth during the given period, specially their performance in 2016 and still, there is a room for further uptrend. It is also expected that pharma stocks will give multifold returns in the coming year. Thus, investors are recommended to keep the following stocks in their portfolio: Divi's Laboratories Ltd, Dr. Reddy's Laboratories Ltd, Glaxosmithkline Pharmaceuticals Ltd, and Lupin Ltd.

VII. LIMITATIONS

- This study is basically done on NSE based pharmaceutical industries.
- The study depicts the picture of stock market by applying only few methodologies: RSI, Stochastic, SMA, & Beta.
- All the understanding of all the concepts of technical analysis has been enmarked exclusively with selected data for a period of 3 years.

VIII. CONCLUSION

On application of this theory called as technical analysis, it can be concluded that its presentation changes accordingly with the market. The previous studies on pharma sector were limited with RSI and SMA tools of technical analysis. Though the Methods/theories applied in this paper are commonly used among traders, however, the efficient tools of technical analysis are taken into consideration to analyze and interpret the same.

IX. FUTURE WORK

The present study offers certain tools of technical analysis which is applied on pharmaceutical companies listed in NSE to anticipate the future share's price movements which in turn help the investors and active day traders to decide whether to buy/sell the stock. According to the report on economic times, new FDA policies and approvals of bills will introduce new

incentives and growth for pharmaceutical companies. So the research on this sector can be a keen interest area for an extensive work with good improvement & byutilizing other efficient tools of technical analysis along with graphical presentations.

X. NOMENCLATURE

RSI relative strength index
%D percentile D (the slow momentum indicator)
%K percentile K (the fast momentum indicator)
SMA simple moving average
FDA food and drug administration

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Biographical Notes

1. ShahanaJabeen MBA (silver medalist), M.com (gold medalist) from osmania university, presently working as a BBA lecturer at Anwar ulloom college, Address: #11-3-918, Near Badi Masjid, New Mallepally, Hyderabad, Telangana 500001, India, i have 2 years of experience in academic section. finance and human resource management are my keen interest areas.
2. AfshanJabeen M.com (gold medalist) from osmania university, completed course in technical analysis from Nasrum Financial services. Presently she will appear for phd entrance test. Her keen interest areas are finance, education, and leadership.