A study on Share price movements of selected blue-chip companies using technical analysis

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Abstract

Price of securities in the stock market fluctuates daily on account of continuous buying and selling. Stock prices move in trends and cycles and are never stable. An investor in stock market is interested in buying securities at a low price and selling them at a high price so as to get a good return on his investment. Therefore, investors try to analyse the movement of share prices in the market. A technical analysis believes that share prices are determined by the demand and supply forces operating in the market. This research study attempts to apply technical analysis tool s& techniques on selective scripts to assist precise investment decision in indian equity/stock market. This analytical study is purely based on secondary data which had been collected from national stock exchange (nse) website, journals and magazines. For the purpose of analysis relative strength index and bollinger bands technique are used to identify the scripts are technically strong or not and also give information when to buy and when to sell. It facilitates investors to recognize the current trend and risks associated with the scrip at par with the market. This paper aims at carrying out technical analysis of the securities of selected blue-chip companies and to assist investment decisions in the indian stock market. And technical analysis provides unbiased information in a biased world.

Key words: Technical Analysis, RSI, Bollinger Bands, Stock Market, Investors

Introduction:

Price of securities in the stock market fluctuates daily on account of continuous buying and selling. Stock prices move in trends and cycles and are never stable. An investor in stock market is interested in buying securities at a low price and selling them at a high price so as to get a good return on his investment. Therefore, investors try to analyze the movement of share prices in the market. A technical analysis believes that share prices are determined by the demand and supply forces operating in the market. These demand and supply forces in turn are influenced by a number of fundamental factors as well as certain psychological or emotional factors. Many of these factors cannot be quantified. The combined impact of all these factors is reflected in the share price movements. A technical analyst therefore concentrates on the movement of share prices. He claims that by examining past share price movements future share prices can be accurately predicted. Technical analysis is the name given to forecasting techniques that utilize historical share price data. The rationale behind technical analysis is that share price behavior repeats itself over time and analysts attempt to derive methods to predict this repetition. A technical analyst looks at the past share price data to see if he can establish any patterns. He then looks at current price data to see if any of the established patterns are applicable and, if so, extrapolations can be made to predict the future price movements. Although past share prices data used by technical analysts, other statistics such as volume of trading and stock market indices are also utilized to some extent. The basic premise of technical analysis is that prices move in trends or waves which may be upward or downward. There is a believed that the present trends are influenced by the past price behavior it will give some clue for future price ¹trends. A technical analysis, therefore,

analyses the price and volume movements of individual securities as well as the market index. Thus, technical analysis is really a study of past or historical price and volume movements so as to predict the future stock price behavior.

SCOPE OFTHE STUDY:

The Present study is confined to identify the underlying trend of HDFC, ITC, ONGC, Reliance, Sun Pharma and TCS companies listed in NSE using technical analysis. Study covers one-year i.e. 1st July 2018 to 30th June 2019. Present study uses 2 statistical tools i.e Relative Strength Index and Bollinger Bands only.

OBJECTIVES OFTHE STUDY:

- To study the relevance of technical analysis in Indian stock market.
- To analyze potential price movements of selected companies and to predict the future trends in the share prices through technical analysis.
- To suggest the profitable trading strategies to investors in making investment decisions (whether to buy /sell) in selected scripts

METHODOLOGY OF THE STUDY:

The research design was based on analytical research. In this research, the researcher has to use facts or information already available, and analyze these to make a critical evaluation.

Methods of data collection: The research is fully based upon secondary data, and hence, the data has been collected from NSE India and various books, magazines and websites.

Time period analysis: The data was collected for the period of1st July 2018 to 30th June 2019

Sample size: The samples selected are from the blue-chip companies of nifty of different industrial sectors. The sample of companies selected are: HDFC (Indian bank and financial services company) ITC (FMCG Conglomerate Company) Oil and Natural Gas Corporation (Multinational Oil and Gas Company) Reliance (Conglomerate Holding Company Sun Pharma (Pharmaceutical Company) TCS (IT Services, Business Solutions and Consulting Company)

STATISTICAL TOOL:

RELATIVE STRENGTH INDEX:

This is a power full indicator that signals buying and selling opportunities in the market.

The most commonly used time period for calculation of RSI is 14- day time period. If the resultant RSI values are above 70 are considered as overbought condition so it indicates sell signal. If the resultant RSI values are below 30 are considered as oversold condition so it indicates buy signal.

 $RSI = 100 - \{100 / (1+RS)\}$ where, RS= Average of upward price change / Average of downward price change

BOLLINGER BANDS:

- Middle Band = 20-day simple moving average (SMA)
- Upper Band = 20-day SMA + (20-day standard deviation of prices * 2)
- Lower Band = 20-day SMA (20-day standard deviation of prices * 2

LIMITATIONS OF THE STUDY:

- This study can be used only for short run decision making.
- This technical analysis can't be applicable to newly listed companies' script.
- As the study is depending on the information from the different sources, the reliability of study is depending on the validity of information.

Review of literature:

R. Chitra (March, 2011)¹ conducted a study on "Technical analysis on selected stocks of energy sector". Oil and Natural Gas Corporation (ONGC), TATA Power, National and Thermal Corporation (NTPC), Gas Authority of India Limited (GAIL), Cairn, Bharat Petroleum Corporation Limited (BPCL), Power Grid Corporation of India Limited, Reliance Power, Reliance Industries Limited, Suzlon were selected under this study. The study was

considered share price of selected companies for 3years i.e., 1st April 2007 to 31st March 2010. The tools and techniques used this study are Beta, Relative Strength Index (RSI) and Moving Average. It was found that "If international oil price increases then the price of the share also increases in domestic market and ONGC share price also increases. If the crude price decreases the BPCL price increases". **G.B.Sabari Rajan and Dr. S. parimala** (February 2013)² conducted a study on stock price movement through technical analysis : Empirical evidence from the fast moving consumer goods (FMCG) sector. Hindustan Unilever Limited (HUL), Britannia and Godrej were selected under this study They considered share prices of selected companies for one year i.e., (16th December 2011 to 17th December 2012). The tools and techniques used under this study are Bollinger Bands and Moving Averages. Result of the study revealed that the share price movements will also get affected by the investors sentiments. Hence, the investors are required to consider the various factors which may affect the psychology of the investors while conducting technical analysis.

Hemal Pandya (2013)³ in this research paper titled "Technical Analysis for Selected Companies of Indian It Sector" researcher shows that different technical analysis tools for analysis of the Indian IT sector companies which is listed on NSE and BSE. Foremost tools and techniques used in this study are Line Chart, Column Chart, Candlestick Chart, Exponential Moving Average (EMA), Moving Averages Convergence Divergence (MACD), Relative Strength Index (RSI) and Rate of Change (ROC).

Bhamini Garg (October, 2014)⁴ in this Research article titled "Technical Analysis Indicators: pathway towards Rewording Journey" researcher has endeavored to give an insight into Technical Analysis Indicators as to how investor can attempt to improve the success rate of increasing the profitability by taking right entry and exit positions into the stock market. Technical analysis does not offer us with definite answers but it improves trading capabilities to almost 80% that means 8 out of 10 trades will be successful. Researcher provides an analysis of various indicators namely moving Averages, Relative Strength Index, Average Directional Index, Moving Averages Convergence Divergence, and Money Flow Index along with their application on the stock charts of the selected companies, NSE Nifty and Bank Nifty in order to get clearer image.

Mrs. J. Nithya and Dr. G. Thamizhchelvan (July, 2014)⁵ examined "Effectiveness of Technical Analysis in Banking Sector of Equity Market" researcher undertaking CNX Nifty stock for technical analysis. To find out correct stock for investment Candlestick charts and MACD, RSI indicator is used. By using RSI investor enhance their gain if RSI increase and share price also increase this indicates that strong sell indication and if decreasing share price and decreasing RSI which indicates strong buy indication for investor. These indicators can play valuable role in the timing the stock market entry and exit.

C. Boobalan (January-March, 2014)⁶ conducted a study on "Technical analysis in selected stocks of Indian companies such as WIPRO, SBIN (State Bank of India), GAIL (Gas Authority of India Limited), ONGC (Oil & Natural Gas Corporation Ltd), ITC for three years i.e., February 2011 to March 2014. Stock (candle stick chart), exponential moving average, moving average convergence divergence (MACD), Relative Strength Index (RSI) are the tools used for analysis.On the basis of prediction of five companies different pattern of stock prices of these companies give an idea of future trend of these companies could be analyzed with the right technical analysis tools, technical analysis of utmost importance to predict trend of short and medium term price movement and help the investors to select the right plan and decisions to invest in the remunerative stocks. The technician also required a fundamental knowledge, which would clear an idea about the investment decision

Valarmathi A, Kowsalya P (June,2016)⁷ conducted "A Study on the Technical Analysis of NSE towards IT stocks with reference to Indian Stock Market" was done based on historical process of IT stocks (Hexaware, Polaris, HCL, TCS, Tech Mahindra). Analysis is based on the technical tools like Exponential Moving Average and Relative Strength Index (RSI) and inferred based on the chart patterns formed for 5months i.e., December 2014 to April 2015. Result of the study reveals that after the Recession, the IT companies provided shorts term investment again to its investors. It also found that the market trend of IT industry tends up with gradual price fluctuation. It concluded that investors can invest in the IT stocks in future also with the consideration of countries economic scenario and the short-term investors can rely on the technical charts for their investment decisions.

Pushpa BV. Et.al (September, 2017)⁸ conducted "A Study on Select Stocks in Indian Stock Market". This article aims at technical analysis of select companies (Adani Ports, Ambuja Cement, ITC, Aurobindo, BPCL, hero Moto Corp, TCS, HDFC, Zee) under Nifty 50 based on different sectors for a period from January 2011 to December 2016. The tools used for analysis include moving averages, RSI, Bollinger bands and MACD. Result of the study reveals that indicators such as RSI & MACD gives strong signals as to the directions in which the company is heading as well as it helps to identify oversold, overbought and trend reversals. RSI value of 50 and above indicates the company's share are overbought and it is a good signal for sell the stock. At this point buying pressure exhausts which indicate selling option. According to MA indicators investors can take long position when there is bullish divergence. If the MACD lines show maximum movements above zero, it is an indication that the company is technically strong.

Rahul Berry & Dr.Sulochna (2017)⁹, conducted "Study on Use of Technical Analysis in Forecasting Price Moments of Selected Companies of NSE & BSE". The purpose of this article is to make a study on the technical analysis on the randomly selected stocks of eight companies (Canara Bank, Cadila, Abbott India, Andhra Bank, Tata Coffee, Unitech Ltt, Britannia, GMR

Infra) from NSE & BSE for one year i.e., (2nd November 2016 to 2nd November 2017). Exponential Moving Average, MACD, Relative Strength Index and Rate of Change are the tools use for analysis. Result of the study reveals that out of the four methods used Exponential

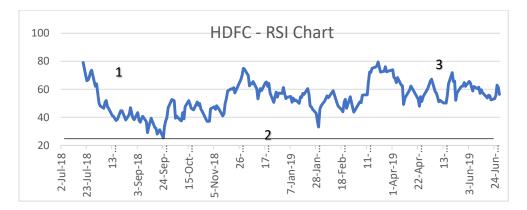
Moving Average and Moving Average Convergence and Divergence is most accurate method and give clear results but sometimes creates confusion due to minor difference in MACD Line, Signal Line and Long and Short Exponential Moving Average. Investors can take buy and sell divergence correctly with the help of technical analysis.

T. Deva Prasad et.al. (January 2018)¹⁰ conducted "a study on stocks volatility in banking sector using technical analysis". This article helps to know which bank performs better compared to other banks based in the price fluctuation by using technical analysis. Allahabad Bank, Bank of India, Oriented Bank of Commerce, Vijaya Bank, Corporation Bank & Canara Bank are selected under this study for three days. Bollinger band, Relative Strength Index (RSI) are the tools used for analysis.Result of the study reveals that technical indicators can play useful role in the timing stock market entry and exit. By applying technical tools brokers or investors enjoy substantial profit. Shares volatility of banking sectors differ from other sectors because banking share volatility depends upon RBI decisions.

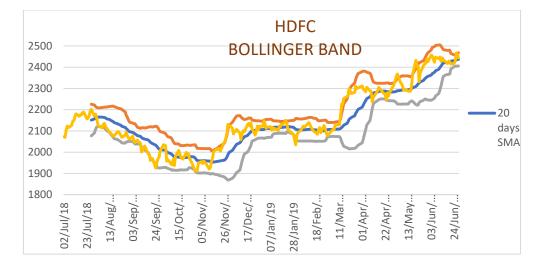
Graphs analysis

Interactive financial charts have been developed to analysis for the selected companies with regard to their price fluctuations and their connotation to the investors.

HDFC: RELATIVE STRENGTH INDEX (RSI)



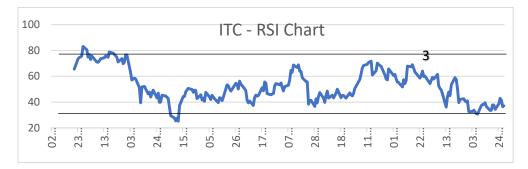
HDFC: BOLLINGER BAND AND MOVING AVERAGE



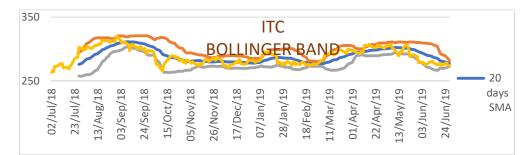
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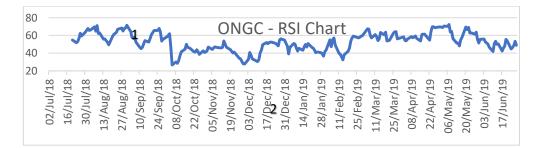
ITC: RELATIVE STRENGTH INDEX (RSI)



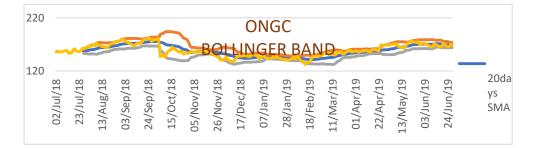
ITC - BOLLINGER BAND AND MOVING AVERAGE



ONGC - RELATIVE STRENGTH INDEX (RSI)



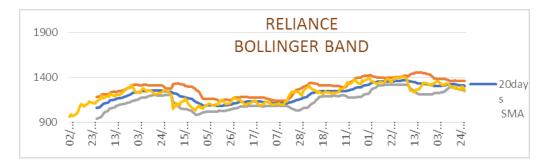
ONGC - BOLLINGER BAND AND MOVING AVERAGE



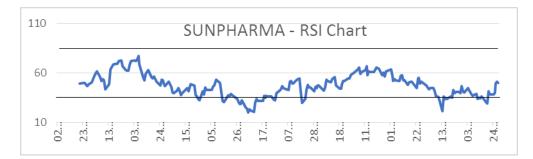
RELIANCE - RELATIVE STRENGTH INDEX (RSI)



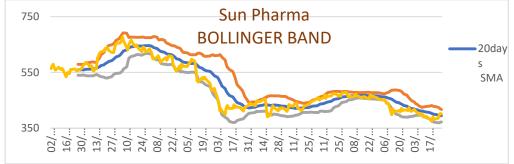
RELIANCE - BOLLINGER BAND AND MOVING AVERAGE



SUNPHARMA - RELATIVE STRENGTH INDEX (RSI)



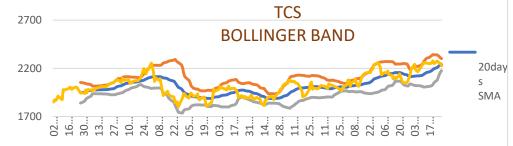
SUNPHARMA - BOLLINGER BAND AND MOVING AVERAGE



TCS - RELATIVE STRENGTH INDEX (RSI)



TCS - BOLLINGER BAND AND MOVING AVERAGE



FINDINGS: HDFC:

The prices of the security of HDFC is high in the month of May 28th 2019 i.e, Rs2302.80.From mid-December 2018 to first week of March 2019 it is observed a low volatility for HDFC stock. In that period the bands volatility is low, where the investors need not to take any step of buy or sell, instead they need to retain the shares. As soon the band got widen there exists an uptrend in the closing price. The situation can repeat again in June 2019.

ITC:

Here in RSI, in the month of June 2019, the closing price is falling and RSI is increasing which shows that future prices may rise soon. It is advisable to buy the shares. In Bollinger Bands whenever the closing price reaches upper band there is high chance as observed that the closing price is falling near to lower band. In month of June 2019, the closing price is near to lower band which indicates the investors to retain the shares as the volatility is low. The prices of the security of ITC is low in the month of June 7th 2019 i.e, Rs275.25.

ONGC:

RSI is falling which shows that future prices may fall soon. So, it is advisable to investors to sell the shares. Whenever Bollinger bands closing price went below the lower band the price raised upto 20days SMA for the security of ONGC. The prices of the security of ONGC is high in the month of May 7th 2019 i.e, Rs171.7.

RELIANCE:

RSI is fluctuating near to overbought zone which shows a sell signal, even Moving average is indicating a sell signal for Reliance security. The Bollinger band of Reliance is trading near to the lower band which shows the buy option to the investors. The prices of the security of Reliance is high in the month of March 20th 2019 i.e, Rs1375.45 and is low in the month of 13th May 2019 i.e, Rs1232.05.

SUN PHARMA:

All the indicators RSI, Bollinger band indicating the sell signal for the security of Sun pharma. Prices of the security of Sun Pharma is high in the month of September 6th 2018 i.e, Rs677.40 and is low in the month of 13th May 2019 i.e, Rs398.10.

TCS:

All the oscillators RSI and Bollinger band indicating the buy signal for the security of TCS. The prices of the security of TCS is high in the month of June 20th 2019 i.e, Rs2277.94. **SUGGESTIONS:**

• The investors should be trained to use the technical analysis tools since it will help them in their day to day investment to get more returns.

- The company should orient the investors to mainly watch the business, economic, social& political factors that affect the supply & demand for scripts.
- The investors should analyse market data in real time; plan their own market timing strategy to make money regardless of upward & downward trending markets.

• "The trend is Investors friend". So, investors' have to monitor the trend of scripts before an investment.

CONCLUSION:

The share prices of a company are subject to be influenced by investor's sentiments. Hence the investors are required to consider the various factors which may affect the psychology of the investors while conducting technical analysis. The present study is an asset for investors who are interested to understand price movements of potential stocks of blue-chip companies and to formulate investment strategies. However further analysis of various technical indicators is desirable for better understanding of movement of stock prices, return and to devise economically feasible trading strategies. The importance of technical analysis is growing now a days due to its accuracy in predicting future trend of the securities. Because of its simplicity in applying and understanding most of the investors are using this tool to analyse share price movements.

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