

A Study of Technical Analysis in Nifty Auto Stocks

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ABSTRACT

The Nifty Auto Index is designed to reflect the behavior and performance of the automobile sector of the stock market, which includes manufacturers of cars & motorcycles, heavy vehicles, auto ancillaries, tyres, etc. The Nifty Auto Index consist 15 stocks that are listed on the National Stock Exchange. It includes MRF, Bajaj-Auto, Tata Motors, TVS, Motor, M& M, Maruti and so on. Technical analysis is examining and predicting the price movement of stock by using the historical price movement. Technical analysis is an art and not a science. It deals with forces of buyer and seller i.e., demand and supply. It reflected in the price movement and volume of a stock or commodity and helps go with the dominant force of the market. The study of technical analysis with the help of chart pattern and other indicators helps predict future price movement based on earlier price movements that happened in the stock. With the help of technical analysis, we can study many companies without having the fundamental knowledge of the company. The historical trading data can be used for technical analysis. Stock market and prices are driven by sentiments of investors and traders. Hence, a trend cannot stay the same forever. It can move up, down or sideways. Chart Patterns are the tools for technical analysis.

Introduction:

Technical analysis is a means of examining and predicting price movements in the stock markets, by using historical price charts and chart patterns. It is based on the idea that if a trader can identify previous market patterns, they can form an accurate prediction of future price movement.

Technical indicators are tools made out of calculation of historical Price, volume and used to speculate on the future price movement. They are plotted along with charts and used as a supporting tool for analysis, there are various technical indicators that are used in technical analysis such as MACD (Moving Average Convergence Divergence), Stochastic, RSI (Relative Strength Index. Charles Dow, who is known as the father of modern day technical analysis developed a theory known as Dow theory. From the theory things, we learn that the market moves in the trend i.e. uptrend, downtrend, and sideways. A trend remains intact until it did not get a reversal signal. The field of technical analysis is based on three assumptions □ The market discounts everything. □ Price moves in trends. □ History tends to repeat itself.

Research Methodology

The research is based on the stock prices of Nifty **Auto Stocks** listed under NSE i.e. MRF, Bajaj-Auto, Tata Motors, TVS, Motor, M& M, Maruti and so on. Stock prices of the last decade from 1st April 2007 to March 31, 2017 have been taken in this research. The study aims at analysing the price movements of selected Auto scrips. The closing prices of stocks were taken and the future price movement was analysed using various tools. Data have been collected from trading of equity markets in NSE, various books, journals, and websites. The research is based on various technical analysis tools.

Sample Size: The sample for the study of this paper has Nifty Auto sector stocks are considered.

Symbols	Symbols	Symbols
BALKRISIND	TVSMOTOR	BOSCHLTD
MRF	M&M	TIINDIA
EXIDEIND	MARUTI	AMARAJABAT
HEROMOTOCO	BAJAJ-AUTO	ASHOKLEY
TATAMOTORS	BHARATFORG	EICHERMOT

Time series Data: The period of data used for study One to Ten years

Tools and Technical indicators of the study:

1. Chart Pattern
2. MACD (Moving Average Convergence Divergence)
3. Stochastic
4. RSI (Relative Strength Index,

Research objective:

1. To conduct a study on Technical Analysis on Nifty Auto Stocks to determine buy or sell signal different methods.
2. To determine price movements using Relative Strength Index
3. To analysis & understand trends and Chart patterns in stock price movements
4. To identify market trends of Auto sector stocks

Analysis and Interpretation:

1. **Chart Pattern:** Stock prices are never constant. They move in a trend. Stock market and prices are driven by sentiments or expectations of investors and traders hence; a trend cannot say the same forever. It is bound to change with the expectation of investors. Technical charts reflect this changing behavior in the form of patterns or formations. Chart patterns help you identify potential reversal or continuation. They help you identify price target and potential rewards.
2. **MACD:** Moving Average Convergence divergence (MACD) is trading indicator used in technical analysis it is also called a Trend indicator. There are three components in it 1) MACD Line- Blue Line 2) Signal Line-Red Line 3) Histogram-vertical bars
3. **Stochastic:** stochastic help find turning points. They identify emotional extremes of market crowds i.e. overbought or oversold. Buy on Positive Crossover and sell on Negative Crossover.
4. **RSI (Relative Strength Index):** RSI help find turning points. Uptick in RSI get the buy signal and Downtick in RSI give sell signal.

Balkrishna Industries Ltd., India, NSE:BLKI, W

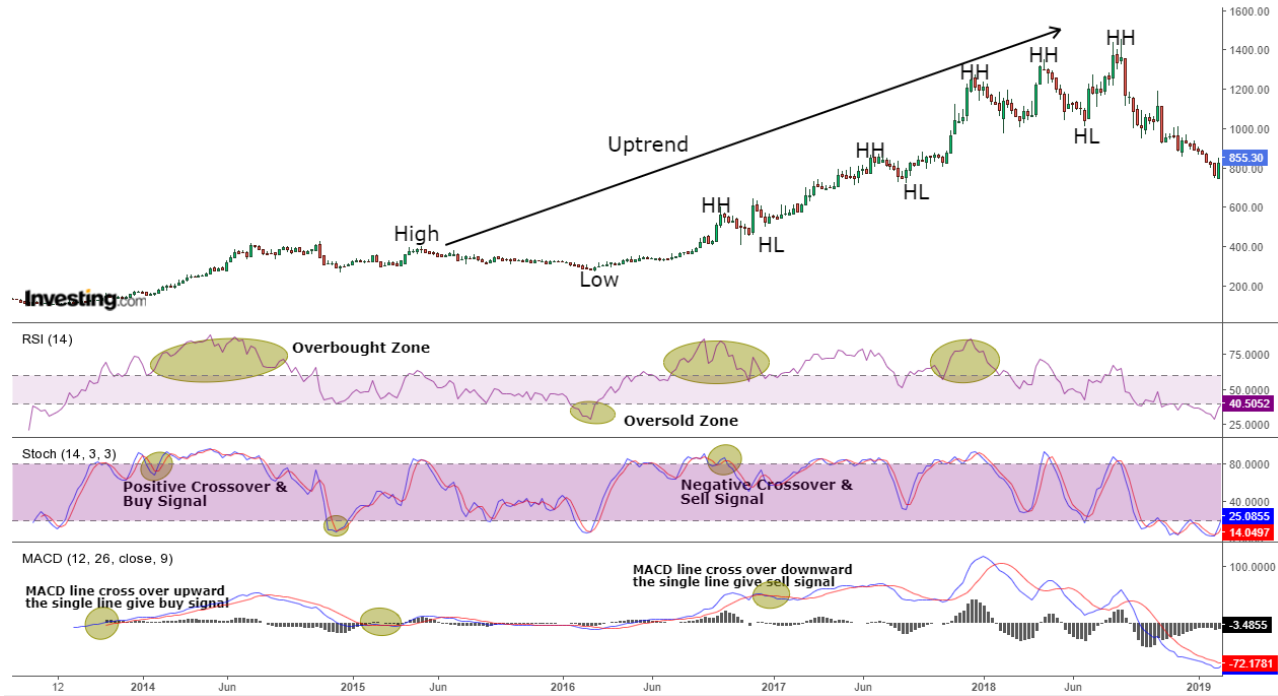


Figure 1:

Showing RSI, Stochastic, MACD of Balkrishna Industries Ltd for the months of December 2014-April 2019

Interpretation:

The Relative Strength Index is an oscillator used to identify the inherent technical strength. The above chart shows the 14 days RSI chart of Balkrishna Industries Ltd for the months of June 2014 - April 2018. During the period of 6-year trend was uptrend. The above figure shows the buy and sell signals given by RSI, Stochastic, MACD.

M.R.F. Ltd., India, NSE:MRF, W



Figure 2:

Showing RSI, Stochastic, MACD of M.R.F Ltd for the months of July 2014 - April 2017

Interpretation:

The Relative Strength Index is an oscillator used to identify the inherent technical strength. The above chart shows the 14-day RSI chart of M.R. F Ltd for the months of July 2014 - April 2017. During the period of 3-year trend was uptrend. The above figure shows the buy and sell signals given by RSI, Stochastic, MACD.

Exide Industries Ltd., India, NSE:EXID, W



Figure 3:

Showing RSI, Stochastic, MACD of Exide Industries Ltd for the months of December April 2014—April 2016

Interpretation:

The Relative Strength Index is an oscillator used to identify the inherent technical strength and The above chart shows the 14-day RSI chart of Exide Industries Ltd for the months of April 2014 - April 2016. During the period of 3-year trend was uptrend. The above figure shows the buy and sell signals given by RSI, Stochastic, MACD. The above chart shows the Bearish Piercing Candlestick pattern on top and it indicates there was reversal of trend uptrend to downtrend.

Hero MotoCorp Ltd, India, NSE:HROM, W



Figure 4:

Showing RSI, Stochastic, MACD of Hero Motocorp Ltd for the months of May 2014—Oct 2017

Interpretation:

The Relative Strength Index is an oscillator used to identify the inherent technical strength and The above chart shows the 14 days RSI chart of Hero Motocorp Ltd for the months of May 2014—Oct 2017. During the period of 4-year trend was uptrend. The above figure shows the buy and sell signals given by RSI, Stochastic, MACD.

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Tata Motors Ltd, India, NSE:TAMO, W



Figure 5: Showing RSI, Stochastic, MACD of Tata Motors Ltd for the months of March 2013—April 2018

Interpretation:

The Relative Strength Index is an oscillator used to identify the inherent technical strength or The above chart shows the 14-day RSI chart of Tata Motors Ltd for the months of March 2013 - April 2018. During the period of 10-year trend was uptrend. The above figure shows the buy and sell signals given by RSI, Stochastic, MACD. The above chart shows the Double Top chart pattern it indicates there was a reversal of trend uptrend to downtrend and target was also achieved.

TVS Motor Company Ltd., India, NSE:TVSM, W



Figure 6: Showing RSI, Stochastic, MACD of TVS Motor Company Ltd for the months of April 2015 -April 2018

Interpretation:

The Relative Strength Index is an oscillator used to identify the inherent technical strength or The above chart shows the 14-day RSI chart of TVS Motor Company Ltd for the months of April 2015 - April 2018. During the period of 3-year trend was uptrend. The above figure shows the buy and sell signals given by RSI, Stochastic, MACD. The above chart shows Evening Star Candlestick pattern at top afterward trend reverse.

Mahindra & Mahindra Ltd., India, NSE:MAHM, M



Figure 7:

Showing RSI, Stochastic, MACD of Mahindra & Mahindra Ltd for the months of December 2011—April 2019

Interpretation:

The Relative Strength Index is an oscillator used to identify the inherent technical strength. The above chart shows the 14-day RSI chart of Mahindra & Mahindra Ltd for the months of December 2011 - April 2019. During the period of 9-year trend was uptrend. The above figure shows the buy and sell signals given by RSI, Stochastic, MACD. The above chart shows Bullish Engulf Candlestick pattern at top afterward trend reverse.

Maruti Suzuki India Ltd., India, NSE:MRTI, M

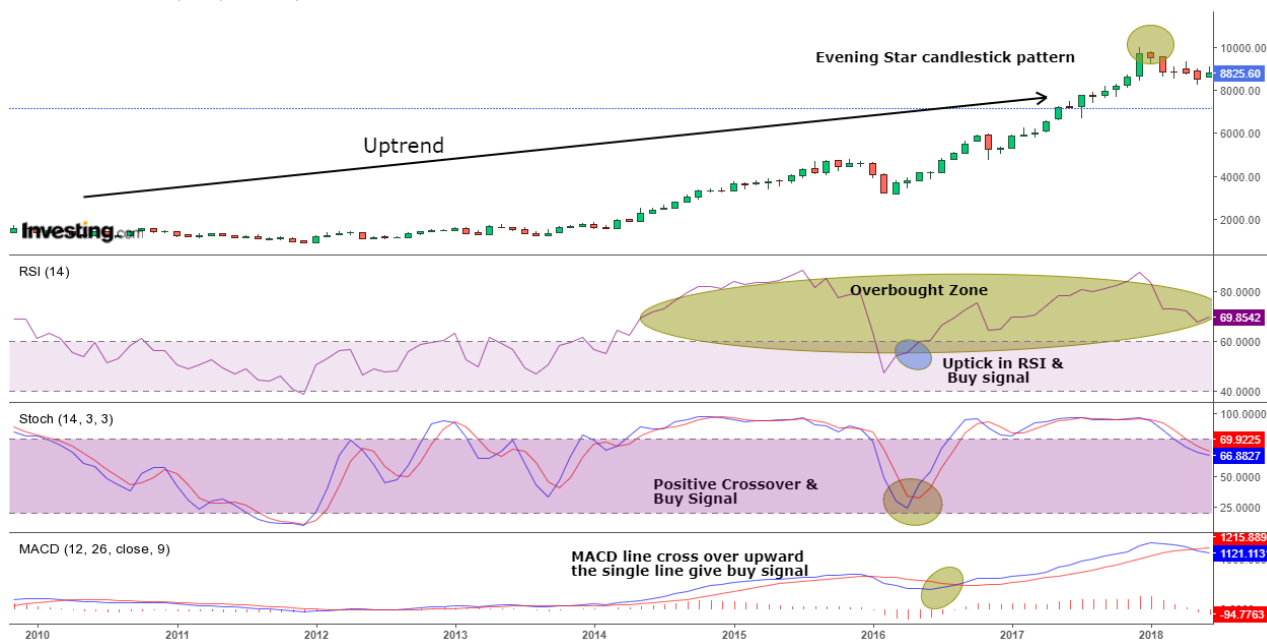


Figure 8:

Showing RSI, Stochastic, MACD of Maruti Suzuki India Ltd for the months of December 2010—April 2018

Interpretation:

The Relative Strength Index is an oscillator used to identify the inherent technical strength or The above chart shows the 14 days RSI chart of Maruti Suzuki India Ltd for the months of December 2010—April 2018. During the period of 8-year trend was uptrend. The above figure shows the buy and sell signals given by RSI, Stochastic, MACD. The above chart shows Evening Star Candlestick pattern at top afterward trend reverse.

Bajaj Auto Ltd, India, NSE:BAJA, W



Figure 9:

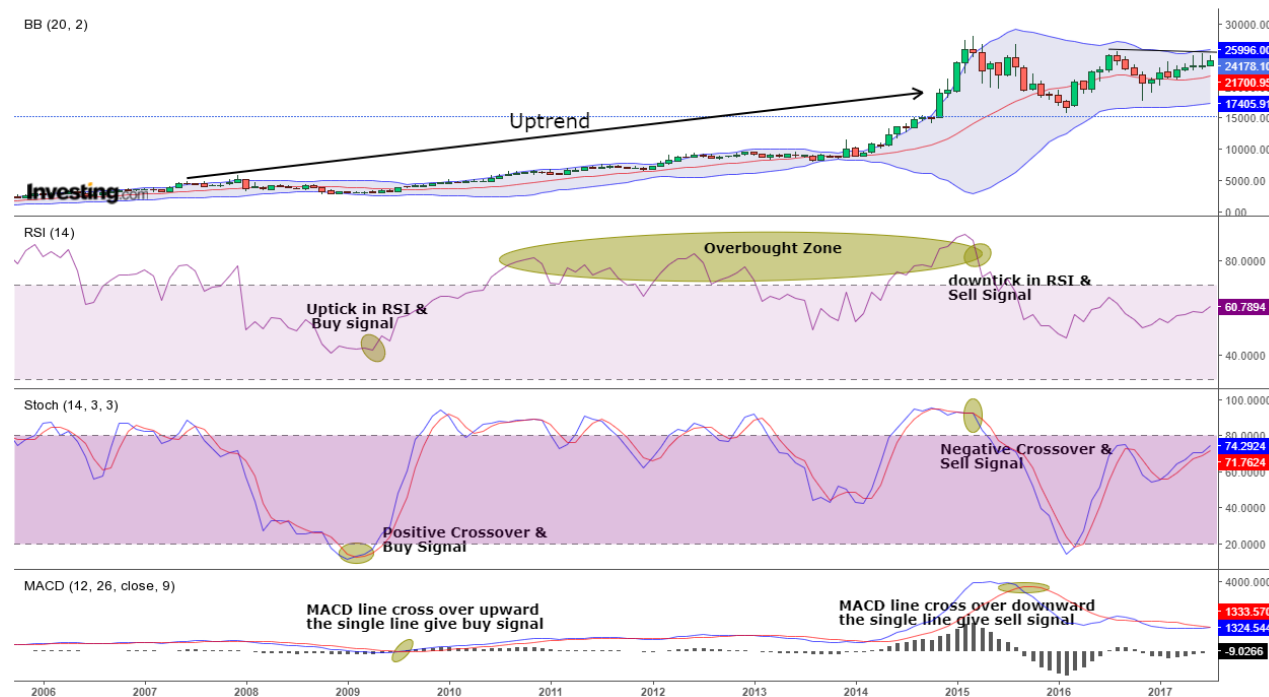
Showing RSI, Stochastic, MACD of Bajaj Auto Ltd for the months of December 2012 -April 2016

Interpretation:

The Relative Strength Index is an oscillator used to identify the inherent technical strength. The above chart shows the 14-day RSI chart of Mahindra & Mahindra Ltd for the months of December 2012 - April 2016. During the period of 5-year trend was uptrend. The above figure shows the buy and sell signals given by RSI, Stochastic, MACD, the above chart shows Evening Star Candlestick pattern at top afterward trend reverse.

Bosch Ltd, India, NSE:BOSH, M

BB (20, 2)



Figure

10: Showing RSI, Stochastic, MACD of Bosch Ltd for the months of December 2006—April 2017

Interpretation:

The Relative Strength Index is an oscillator used to identify the inherent technical strength or The above chart shows the 14-day RSI chart of Bosch Ltd for the months of December 2006 - April 2017. During the period of 10-year trend was uptrend. The above figure shows the buy and sell signals given by RSI, Stochastic, MACD.

Conclusion:

This study had done with the technical analysis of ten Auto sector companies using the technical tools RSI, Stochastic, MACD. The study it is found that the Auto sector companies provided Short term and long term investment gain to its investors. It was found that the market trend of Auto industry tends up with a gradual price fluctuation. It is concluded that investors can invest in auto stocks in future also with the consideration of new upgradation and innovation in this sector. India-based manufacturers are engaged in global innovation networks and sourcing suitable technologies from worldwide to complement their own R&D efforts. It can be seen that the number of patent grants has increased in the last decade. Among Indian companies, the TVS Group, Tata Motors, and M&M have been among the top Indian applicants for patents. Technical analysis is an art with the help of chart pattern the probability of success will increase. The performance and health of stock exchange is solely dependent on the behavior n pattern of investments by the investor. Every investor wants high return at low risk and they buy and sell on the basis of their perception causing stock market taking random walk. The capital market goes through risk changes; investors should look for right opportunities keeping in tune with the dynamics of market environment. Technical analysis gives hints about the buy and sell of the stocks to the investor. Therefore, the small investors and traders should not blindly make an investment, rather they should analyze using the various tools to check if the stock is technically strong.

Limitation:

1. The sample size of the study is limited. The study is confined to a period of 10 years from April 1, 2007 to March 31,2018.
2. Another limitation to the study is the fact that the time frame selected Weekly/Monthly basis.
3. The area of study is subjective nature, the paper observation and conclusion and finding were based on a researcher knowledge and viewpoint.
4. In the stock market, there will be an element of investor behavior is unpredictable, therefore there is no definitive guarantee that chart pattern and tools and indicators will be 100% accurate.

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