

Trading through Technical Analysis in Indian Stock Market

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Abstract— Technical analysis is an art or science of plotting the stock info like price movements, trading volume and market situation within the form of charts for the aim of forecasting the future price trends. It will aid the investors to anticipate what's 'possible' to happen to prices over the short time. And additionally, helps in understanding the intrinsic value of shares and knowing whether or not the scripts are undervalued or over valued by scrutinizing the turning points of the market. This analysis study tries to use technical analysis tools & techniques on selective scripts to help precise investment call in Indian equity/stock market. This analytical study is solely supported secondary knowledge that had been collected from National stock exchange (NSE) web site. For the aim of research Moving Average Convergence Divergence (MACD) technique is employed to spot the scripts are technically strong or not.

Keywords: Indian Stock Market, MACD, NSE

I. INTRODUCTION

Prices of scrips within the stock exchange oscillate daily on the account of continuous commerce (Buying and Selling). Technical analysis applied to the scrips to spot this trends and risks related to the scrip at par with the market. "Technical analysts believe that the historical performance of scripts & markets are indicators of future performance." principally the movement of technical analysis examines the four dimensions, particularly value, volume, time and breadth. Changes in value mirror changes in investor angle. And price, the first dimension, indicates the attitude level of investors. it's useful to look at value indicators like price advances versus declines and price pattern of shares compared to the market index. Volume, the second dimension, reflects the intensity of changes in investor attitudes. The amount of enthusiasm is understood by a price rise on low volumes and vice versa. Time, the third dimension, measures the length of cycles in investor psychology. Change in confidence goes through distinct cycles, some long and a few short, as investors' swing from excessive optimism towards deep pessimism.

The fourth dimension, breath, measures the extent of the feeling. this can be necessary for as long as a large variety of shares are advancing on the value changes, the trend indicates favorable feeling as investors have disbursed their investments in variety of shares and have a wide favorable attitude towards the share market.

A. Objectives of the Study

- To study the relevance of technical analysis in Indian stock exchange market.
- To analyze the recitation of selected scripts in Indian stock exchange and to predict the long run trends within the share prices through technical analysis.
- To suggesting the investors' in making investment selections (whether to buy /sell) in selected scripts.

II. REVIEW OF LITERATURE

Stock charts gained popularity within the late nineteenth Century from the writings of Charles H. Dow within the Wall Street Journal. His comments, later called "Dow Theory", said that markets move in all measurable trends which these trends which these trends may be deciphered and foreseen within the price movement seen on all charts.

- Pring (2002), a leading analyst, provided a lot of specific definition that the trends are determined by ever-changing attitudes of investors towards the various economic, monetary, political, and psychological factors. However, sometimes, the share price of the corporate is subject to be modified by investor sentiments.
- Epps and Epps (1976); Rogalski (1978); Tauchen and Pitts (1983); Karpoff (1987) and Smirlock and Starks and Kennedy (1977), have additionally take a look at the foregone conclusion of price change patterns and conclude that market value is partially explained by the past behavior of costs. French, and Gibbons and Hess have known specific day effects on share costs.
- Moore (1975); Smith (1972); Ayres (1967); and Arnott and Copeland (1985) have investigated into the trade cycle effects on share returns.

III. RESEARCH METHODOLOGY

A. Methods of Data Collection:

The analysis is totally based mostly upon secondary data, and hence, the information has been collected from NSE India and numerous books, magazines and websites.

B. Time Period Analysis:

The information was collected form 2019-04-30 to 2019-08-12.

C. Sample Size:

All the listed corporations within the National stock exchange, five corporations that area unit actively listed in NSE were taken on stratified sampling basis for the study. The selected corporations are: 1.CoaL India LTD. 2. ICICI bank LTD. 3. Asian paint LTD. 4. Reliance Industries LTD. 5. Hero Honda Motors Limited

D. Statistical Tools Used for Study:

The analysis of information is distributed by Moving Average Convergence Divergence (MACD) technique.

E. Candlestick Chart

Japanese candlestick charts kind the idea of the oldest form of technical analysis. candlestick charts give the data as particularly open price. High price, low price and close value, however. candlestick charting gives a visible indication of

market psychology, market sentiment and potential weakness. creating it a rather valuable trading tool

F. Moving Averages

One easy technique trader uses to combat this is often to use moving averages. A moving average is that the average worth of a security over a collection amount of your time. They smooth an information series and created it easier to identify trends, one thing that's particularly useful in volatile markets.

1) Simple moving average (SMA)

A simple moving average is made by computing the average (mean) price of a security over a fixed number of periods. For example: a ten – day moving average is calculated by adding the closing prices for the last ten days and dividing the overall by ten.

2) Exponential Moving Average (EMA)

Exponential moving average is that the moving average that's shaped by applying weight to the recent worth changes.

$$\text{EMA (current)} = ((\text{price (current)} - \text{EMA (prev)}) * \text{Multiplier}) + \text{EMA (prev)}$$

G. Moving Average Convergence Divergence (MACD)

In MACD the fluctuation starts above or below from the zero line and as per the Moving Average Convergence Cross and divergence. In Standard MACD the total duration of price movement is taken from previous 12-days to 26-days of Exponential Moving Average (EMA) and MACD is plotted alongside between MACD and 9-day EMA in straight tangent line

1) Calculation

- MACD line = (12-day EMA – 26-day EMA) (Red line)
- Signal line = 9-day EMA of MACD line (Blue line)
- MACD histogram = MACD line – Signal line. (Bar chart)

2) Limitations

- This study is often used just for short run higher cognitive process/decision making.
- Technical analysis just for one year is undertaken.
- For doing this analysis the researcher has taken into think about solely limiter factors.

IV. CHART ANALYSIS AND INTERPRETATION

A. Asian Paints Limited

The chart shows the stock price movement, MACD histogram and Signal Line of Asian Paint Ltd. After examining the chart, we can see the price movement decline initially from period 2019-04-30 to 2019-05-22. On 22nd of May the MACD and Signal line cross over this show the initial change in the trend of stock price. This gives the idea that the stock price will going to change and become the bullish although the MACD line and Signal line is under the Zero but the MACD histogram shows that the trend going to change, with the open price 1360.5 Rupees and closing price 1368.45.Hence the stock price will going to increase 11th June with opening price 1428 rupees and closing price 1425.5 rupees.

On 18th of June the MACD line and signal line cross over again which shows the change in the trend and this time the trend will be bullish and it will continue till 12th of July. On 13th of July the trend going to change because the MACD

line and Signal line will going to cross over and market will be bullish till 21st of August.

The total period of holding the stock will be from 13th of July to 19th of August as the MACD line crosses the Signal line, with opening price of 1332.45 and closing price 1361.95 on 13th July and on 19th of August the opening price 1599 rupee and closing price 1586.45.



Fig. 1: Asian Paint Stock Price

B. Coal India

The following charts represents the price movement of Coal India and below that the MACD line, Signal Line and histogram of the price movement. After analyzing the stock price of Coal India, we can conclude that at the initial period that is on 2019-04-30 the price was on the top and there was highest possibility that the trend going to change from bullish to bearish and so that happens on 6th of May when MACD line cross over Signal line. And that bearish trend continues till date 27th of May, when both line crossover again and the value of both were zero shows the initial change in the trend from bearish to bullish. On 27th of may the opening price of share was 224.9 rupees and closing price was 244.1 rupees. And the trend continues till 11th June when the market of Coal India starts to change from bullish to bearish, the closing price of share on that day was 260.4 rupees and closing price was 258.75. As we go along the time, we can see that trend and the price of share is going down and there will be no chance for the investor to make money.



Fig. 2: Coal India Stock Price

C. Reliance Industry

The following charts represents the price movement of Reliance Industry Limited and below that the MACD line, Signal Line and histogram of the price movement. After analyzing the stock price of Reliance Inc., we can conclude that at the initial period that is on 2019-04-30 the price was

on the top and there was highest possibility that the trend going to change from bullish to bearish and so that happens on 6th of May when MACD line cross over Signal line. And that bearish trend continues till date 21st of May, when both line crossover again and the value of both were below zero, and that shows the initial change in the trend from bearish to bullish with the opening price 1332.2 rupee and closing price 1339.8 rupee.

Investor will hold the share till 04th of June and sell it on same day with the opening price of 1357.45 rupee and closing price 1351.65 rupee in which investor won't earn that much of profit.

After that the price of share going steadily declining till 09th of August when MACD line and Signal line crossover again in which market will change from bearish to bullish and investor will earn maximum profit in these three months the opening price on that day was 1161.85 and closing price was 1162.1 rupee and selling date was 26th of August where the opening price was 1270.95 and closing price was 1246.75 rupee.



Fig. 3: Reliance Stock Price

D. ICICI Bank

The following charts represents the price movement of ICICI BANK and below that the MACD line, Signal Line and histogram of the price movement. After analyzing the stock price of ICICI Bank India, we can conclude that at the initial period that is on 2019-04-30 the MACD line and Signal line crossover which denotes that there was possibility that the trend going to change from bullish to bearish and so that happens on 30th of April. And that bearish trend continues till date 20st of May, when both line crossover again and the value of both were below zero, and that shows the initial change in the trend from bearish to bullish with the opening price 405.25 rupee and closing price 407.7 rupee.

As the price of share price increases the trend become bullish from bearish and it will continue till 03rd of June with the opening price of 426 rupee and closing price of 422.9 rupee. At this the investor make more profit by selling the share on 03rd of June because the MACD line and Signal line are closing in this is probability that the trend changes from bullish to bearish and so it happens from 07th of June. The share price starts to degrade steadily till end as shown in the graph



Fig. 4: ICICI Bank Stock Price

E. Hero Honda Motors Limited

The chart shows the stock price movement, MACD histogram and Signal Line of Hero Honda Motors Limited. After examining the chart, we can see the price movement decline initially from period 2019-04-30 to 2019-05-16. On 16th of May the MACD and Signal line cross over this show the initial change in the trend of stock price. This gives the idea that the stock price will going to change and become the bullish although the MACD line and Signal line is under the Zero but the MACD histogram shows that the trend going to change, with the open price 2495 Rupees and closing price 2520.3. Hence the stock price will going to increase 11th June with opening price 2760 rupees and closing price 2776.15 rupees.

From 11th of June the MACD line and signal line cross over again which showss the change in the trend and this time the trend will be bearish and it will continue till 02nd of August. On 02nd of August the trend going to change because the MACD line and Signal line will going to cross over and market will be bullish till 28th of August. On 02nd of August the opening price 2337 rupee and closing price of 2401.95 rupee. The total period of holding the stock will be from 02th of August to 28th of August as the MACD line crosses the Signal line, till 28th of August the opening price 2638 rupee and closing price 2614.65 rupee.



Fig. 5: Hero Moto Corp Stock Price

F. Findings

1) MACD shows that

- Coal India and Reliance are steadily decline and the price of their stock price over the three months was pretty consistent.
- Asian paint shows increase in the price of their shares

- ICICI Bank and Hero Moto Corp. has the most capricious movement of stock price. There was dynamic change in stock prices of both companies.
- 2) *Suggestions*
 - The company ought to orient the investors to primarily watch the business, economic, social& political factors that have an effect on the availability & demand for scripts.
 - The investors ought to analyze market information in real time; arrange their own market temporal arrangement strategy to create cash in spite of upward & downward trending markets.
 - “The trend is Investors friend”. So, investor’s need to monitor the trend of scripts before associate degree of investment, when they are bear or bull.

V. CONCLUSIONS

Trading (Buying /selling) of script isn't a simple task if the investor desires to form cash from doing it. numerous investors have lost the cash within the past by trying/guessing stock price movements. In today's world, if the investors strictly depend on basic analysis, broker's recommendation, newspaper articles or business channels for investing/ trading selections, at that investor get painful expertise within the stock market. So, this analysis study on technical analysis can facilitate the investors' in analyzing the security supported technical oscillators to earn fruitful investments. Technical Analysis is all concerning learning the Art of creating Profits in all market conditions whether or not rising or falling. information of the stock markets is essential ingredient to the success and stress ought to get on managing trading risk whereas technical analysis will facilitate the investors to regulate. And it provides unbiased solutions in a very biased world. “There is simply one aspect to the exchange and it's not the bull aspect or bear aspect however the proper aspect technical analysis will be used, once to buy and once to sell the security/scripts.

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