A STUDY ON TECHNICAL ANALYSIS FOR SELECTED COMPANIES OF BSE

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Abstract

Technical Analysis is that the prediction of future price movements through the past price movements. Technical analysis does not predict absolutely about the future with regard to forecasting. "A Study on Technical analysis for Selected Companies of BSE" was done based on historical data regarding price of shares of selected companies of BSE SENSEX. The Secondary Data of daily closing price of the shares of three years is collected for selected companies from BSE SENSEX. For this study technical analysis is carried out using major tools and techniques. The important Tools and Techniques of this study are: Candlestick Chart, Moving Average, Moving Average Convergence Divergence (MACD), Relative Strength Index (RSI).

Keywords: : Technical Analysis, BSE SENSEX

1. Introduction

Bombay Stock Exchange

The Bombay Stock Exchange (BSE) is the first and largest exchange in India and was established in 1875. Primarily based in Mumbai city, India, the BSE lists close to 6000 firms and it is the most important exchange in the world. The BSE has helped develop the country's capital markets, including the retail debt market and helped grow the Indian companies.

BSE Sensex, otherwise referred to as the S&P BSE Sensex index, is that the benchmark or index of the Bombay Stock Exchange (BSE). Sensex includes thirty of the most important and most actively-traded stocks on the BSE, providing a correct gauge of India's economy. The index's composition is reviewed in June and December every year. Initially compiled in 1986, the sensex is that the oldest stock index in India. Analysts and investors use the sensex to seem at the growth, development of specific industries and booms and busts of the Indian economy. Stock Exchange Sensitive Index (SENSEX) may be a index or benchmark used to measure the performance of top thirty firms listed in BSE. If the sensex goes up, it implies that the price of the shares of most of the main

firms on the BSE have goes up. If the sensex goes down it mean that the prices have goes down.

Technical Analysis

Technical Analysis can be defined as an art and science of predicting future price movements through the past price movements. Technical analysis isn't divination for predicting prices. Brown and Jennings (1989) showed that technical analysis has value in a model in which prices aren't absolutely revealing and traders have rational conjectures concerning the rational between prices and signals. LeBaron (1999) shows that, once using technical analysis within the interchange market, once removing periods within which the fed is active, rate of change predictability is dramatically reduced. Technical analysis is predicted on analyzing current demand-supply of commodities, stock, indices, futures or tradable instrument. Technical analysis involve putting stock data like prices, volume and open interest on a chart and applying numerous patterns and indicators to it in order to assess the future price movements.

Technical analysts believe that the historical performance is indications of future performance. Technical analysts don't attempt to measure a securities intrinsic value, however instead use charts and tools to spot patterns that will suggest future activity. Additionally it helps in understanding the price behaviour of the shares, the signals given by them and also the major turning points of the market value. Technical analysis may be a security analysis technique that claims the ability to estimate the future direction of price of shares through the study of past market data primarily price and volume.

The Basic Assumptions of Technical Analysis are

1. Market Fluctuations Discount Everything Else

Technical analysts believe that changes within the price of security and the way well it trades within the market embody all available information about that security from everybody attached it and thus represents the honest value of that security. Sudden changes in however a stock trades typically precede major news about the corporate that issued the stock. Technical analysts d not concern themselves with the P/E ratio, investor equity, return on equity or alternative factors that fundamental analysts do.

2. Price Movement will Typically be Charted and Predicted

Technical analysts acknowledge that there is period once prices move at randomly, however there are also times once they move in a recognizable trend. Once a trend is known, it is possible to form cost from it, either by buying low and selling high throughout an upward trend (bull market) or by selling short throughout a downward trend (bear market). By adjusting the length of your time the market is being analyzed, it's attainable to identify each short-term and long-term trend.

3. History Repeat Itself

Individual do not modification their motivations overnight; so, traders can react the same things to condition as they did within the past once those conditions repeat themselves. As a result of individual react the same way, technical analysts will use the knowledge of however alternative traders react in the past to profit every time those conditions repeat them.

The Pillars of Technical analysis

a. Price

Price is that the significant of those area. We measure profits and losses in price difference between buys and sells. It deserves most focus by analysts and academics alike, however if all four can be employed together, the odds of making successful decision can be dramatically inflated.

b. Volume

Volume includes such ideas as accumulation and distribution, market breadth, open interest and trade count.

c. Time

Time includes cycles, seasonality and relationships between patterns and trend from a duration purpose of view.

d. Sentiment

Sentiment may a lot of subjective area that seeks to determine solely if the masses i.e. the agreement of investors is tipped too so much one direction. At that time, it pays to consider positioning against the crowd.

2. Objective of the study

- To study and understand the historical data regarding price of shares of selected companies of BSE SENSEX
- To analyze the price movement of the shares
- To identify the trading opportunity of the shares

3. Significant of the study

The role of technical analysis has been mired in controversies since its beginning. Many studies have argued that it's not valid or helpful in the market. Friedman (1953), Cootner (1964) and Fama (1966, 1970) have done some vital studies on the viability of technical analysis and identified that technical analysis is vain. Murray (1964) explains that technical analyst will expect higher amount of cyclical sway in the market than that of capital market analyst. Grossman and Stiglitz (1980) have argued that since the knowledge is expensive, prices cannot perfectly reflect the available information. Brock *et al* (1992) justify that technical trading rule will outplay the market. Rodiguez Martel and Rivero (2000) have opined that easy technical trading rule is usually superior to a buy-and-hold strategy in the absence of trading costs. Wong, Manzur and Chew (2002) observe that member companies of the stock market create substantial profit by applying technical indicators.

The proposed study is important in the contemporary era of economic liberalization which has led to an increase within the number of trading activities within the market and multiplied the use of technical analysis in the monetary field. Moreover, the affordability of pc and interest facilities, increasing variety of technical software and the opportunity of technical analysis in each broking company have multiplied the scope and significance of technical analysis.
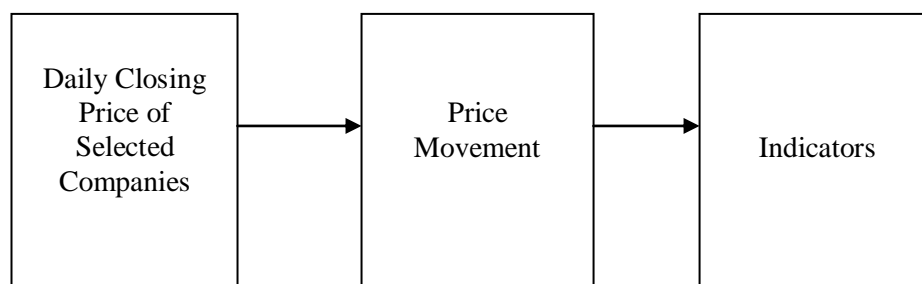
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┌──────────────────┐      ┌──────────────┐      ┌──────────────┐
│  Daily Closing   │      │              │      │              │
│    Price of      │─────▶│    Price     │─────▶│  Indicators  │
│    Selected      │      │   Movement   │      │              │
│    Companies     │      │              │      │              │
└──────────────────┘      └──────────────┘      └──────────────┘
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Figure 1: Model of the Study

4. Work of the Study

The proposed study aims at analyzing the price movements of the shares of selected companies. The research type of this proposed study is analytical in nature. For technical analysis, secondary data the daily share price movements of the selected companies in BSE SENSEX were absorbed for the three years. The closing price of share prices was taken and also the future price movement was analyzed using important tools. Data were collected from BSE website, various books, journals, magazines and company websites and other websites.

Time Period of the Study
       The period of three years from 1- Feb- 2018 to 31- Jan- 2020 have been taken to carry out the present study.
Sample

Sectors	Companies
Banking	Axis Bank
	ICIC Bank
	HDFC Bank
	Kotak Mahindra Bank
Automobile	Bajaj Auto
	Hero Motocap
	Mahindra and Mahindra
	Maruti Suzuki
Information Technology	Infosys
	HCL Technologies
	Tata Consultancy Services
	Tech Mahindra Ltd
Power	Power Grid corporation of India
	NTPC
Oil and Gas	Oil and Natural Gas Corporation

Tools and Techniques of the Study
1. Candlestick Chart
2. Moving Average
3. Moving Average Convergence Divergence (MACD)
4. Relative Strength Index (RSI)

Tools of Technical Analysis
Candlestick Chart
Another name of Candlestick chart is stock chart. Japanese candlestick charts form the basis of the oldest style of technical analysis. Candlestick chart provide the knowledge as namely open price, high price, low price and close price, however. Candlestick charting provide a visible indication of market science, market sentiment and potential weakness creating it a rather valuable trading tool.

Technical Indicators
Technical indicators are mathematical formulas that, once applied to security prices clearly flash either buy or sell signals. Price data comprise any combination of the open, high, low or close over a period of time and most of the indicators use solely the closing prices. Once shown in graphical form, an indicator will then be compared with the corresponding price chart of the securities. Technical indicators supply several uses such as
   a. To substantiate the trends
   b. To form buy or sell signals
   c. To forecast the direction of future prices

Moving Average
A moving average (MA) may be wide used indicator in technical analysis that helps smooth out price action by filtering out of the noise from random short price variations. It is a trend-following, indicator because it's based on past price movements. Commonly used moving averages are
   a. Simple Moving Average (SMA)
   b. Exponential Moving average (EMA)

a. Simple Moving Average
A simple moving average (SMA) is associate arithmetic moving average calculated by adding recent closing prices and then dividing that by the number of periods among the calculation average. A simple or arithmetic, moving average that calculated by adding the closing price of the securities for number o time periods and then dividing the total by the same number of time periods. Short-term averages respond quickly changes within the value of the underlying, whereas long-term average is slow to react. The formula for SMA is
SMA= A1+A2+....+An/ N
Where,
An= the price of an resource at period n
N= the number of total periods

b. Exponential Moving Average
An exponential moving average (EMA) may be a sort of moving average (MA) that places a greater weight and significance on the foremost recent data points. Another name of exponential moving average is exponentially weighted moving average. An exponentially weighted moving average reacts more significantly to recent price changes than a simple moving average (SMA), which applies an equal weight to all or any observations within the period. The formula for EMA is
K =2/ (1+N)
Where,
N= number of periods for EMA

Moving Average Convergence and Divergence

Developed by Gerald Apple within the late seventies, moving average convergence and divergence (MACD) is one all the best and best momentum indicators available. The MACD indicator is one of the most standard technical analysis tool.

MACD fluctuates above and below the zero line (the centre line) because the moving averages converge, cross and diverge. MACD is that the 12-dayEMAless the 26-day EMA. A 9-day EMA o MACD is plotted alongside to act as a signal line to spot turns within the indicator. The MACD histogram represents the destination between MACD and it's 9-day EMA, the signal lin. The formula is

MACD= twelve day EMA – twenty six EMA

Relative Strength Index (RSI)

The RSI defined as a momentum generator, measuring the speed and magnitude of directional price movements. Momentum is the rate of the increase or fall in price. The RSI computes momentum because the magnitude relation of higher closes to lower closes. Stocks that have had stronger positive changes have a higher RSI than stocks that have had stronger negative changes.

The indicators have an upper line, typically at seventy, a lower line at thirty and a dashed mid-line at fifty. Once price moves up very rapidly, at some point it's thought of overbought (When the RSI crosses 70). Likewise, once price falls very rapidly, at some point it's thought of oversold (When the RSI crosses 30) the level of the RSI is a measure of the stock's recent trading strength. The scope of the RSI is directly proportional to the speed of a change within the trend. The distance carried by the RSI is proportional to the magnitude of the move. The formula is

RSI= 100 – [100/ (1+RS)]

Where,

RS= average of upward price change over a select number of days/ average of downward price change over the same number of days.

Conclusion

Technical analysis is a technique which gives an idea about future price of shares of selected companies of BSE Sensex in which we invest. On the basis of the knowledge of technical analysis one can predict the investment decision of the stock market. Technical analysis of price of shares of different companies gives an idea that after the analysis the market position of share of selected companies can be known and investor get a perfect knowledge of investment decision.

The proposed study will find with the technical analysis of 15 selected companies of 5 different sectors by using the chart and technical indicators the future market of securities would be known in which we invest. Technical analysis helps to predict future share price of a selected companies and also forecast a trading opportunity for the shares of a selected companies by which we make a perfect investment decision in the stock market. The analysis gives guidance to the investors. This proposed study is planned to collect the data of daily closing price of the 15 selected companies of 5 different sectors for three year.

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