

**TECHNICAL ANALYSIS IN SELECT STOCKS OF INDIAN COMPANIES****C. Boobalan***Assistant Professor, PG and Research Dept. of Commerce, SVM College.***Abstract**

*“Technical analysts believe that the historical performance of Stocks and markets are indications of future performance”.*

*Technical Analysis is the forecasting of future financial price movements based on an examination of past price movements. Technical analysis does not result in absolute predictions about the future with regard to forecasting. Instead, technical analysis can help investors anticipate what is "possible" to happen to prices over time. Technical analysis is study of predicting prices of securities for future the main aim of technical analysis is to generate returns by charter person decide when to enter and when to exit in the security. Technical Analysis is of the stock market relating to factors affecting the supply and demand of stocks. It helps in understanding the intrinsic value of shares and knowing whether the shares are undervalued or overvalued. The stock market indicators would help the investor to identify major market turning points. This is a significant technical analysis of selected companies which helps to understand the price behavior of the shares, the signals given by them and the major turning points of the market price. This paper is aims at carrying out Technical Analysis of the securities of the selected companies and to assist investment decisions in this Indian Market.*

**Key Words:** *Financial Price, Past Price, Prediction Securities, Chart, Price Behavior.*

**I. Introduction**

Technical Analysis can be defined as an art and science of forecasting future prices based on an examination of the past price movements. Technical analysis is not astrology for predicting prices. Technical analysis is based on analyzing current demand-supply of commodities, stocks, indices, futures or any tradable instrument. Technical analysis involve putting stock information like prices, volumes and open interest on a chart and applying various patterns and indicators to it in order to assess the future price movements. The time frame in which technical analysis is applied may range from intraday (5-minute, 10-minutes, 15-minutes, 30-minutes or hourly), daily, weekly or monthly price data to many years.

There are essentially two methods of analyzing investment opportunities in the security market viz fundamental analysis and technical analysis. Fundamental information like financial and non-financial aspects of the company or technical information which ignores fundamentals and focuses on actual price movements a may be used. The technical analyst assumes that it is 90 percent psychological and 10 percent logical. Technical analysis is a method of evaluating securities by analyzing the statistics generated by market activity, such as past prices and volume. Technical analysts do not attempt to measure a securities intrinsic value, but instead use charts and other tools to identify patterns that can suggest future activity.

The study on technical analysis of selected companies based on Stratified sampling technique is significant as it helps in understanding the intrinsic value of shares and to know whether the shares are undervalued or overvalued or correctly priced. Further it helps in understanding the price behaviour of the shares, the signals given by them and the major turning points of the market price. The concept of analysis comes into picture when decision has to be made on choosing a particular company's shares for investment. Technical analysis is a security analysis technique that claims the ability to forecast the future direction of prices 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 in the price of a security and how well it trades in the market embody all available information about that security from everyone involved with it and therefore represents the fair value of that security. Sudden changes in how a stock trades often precedes major news about the company that issued the stock. Technical analysts don't concern themselves with the price-to-earnings ratio, shareholder equity, return on equity or other factors that fundamental analysts do.

#### **2. Price Movements can often be Charted and Predicted.**

Technical analysts acknowledge that there are periods when prices move randomly, but there are also times when they move in an identifiable trend. Once a trend is identified, it is possible to make money from it, either by buying low and selling high during an upward trend (bull market) or by selling short during a downward trend (bear market). By adjusting the length of time the market is being analyzed, it is possible to spot both short- and long-term trends.

#### **3. History Repeats Itself.**

People don't change their motivations overnight; therefore, traders will react the same way to conditions as they did in the past when those conditions repeat themselves. Because people react the same way, technical analysts can use the knowledge of how other traders reacted in the past to profit each time those conditions repeat them.

## **II. Literature Review**

Several studies have been carried out to apply Technical Analysis in practice in various financial markets. A few of them are quoted below:

**Kavajecz and Odders-White (2004)** show that support and resistance levels coincide with peaks in depth on the limit order book 1 and moving average forecasts reveal information about the relative position of depth on the book. They also show that these relationships stem from technical rules locating depth already in place on the limit order book.

**Practitioners'** reliance on technical analysis is well documented. Frankel and Froot (1990) noted that market professionals tend to include technical analysis in forecasting the market.

The guiding principle of technical analysis is to identify and go along with the trend. When there is a trend, whether started by random or fundamental factors, technical methods will tend to generate signals in the same direction. This reinforces the original trend, especially when many investors rely on the technical indicators. Thus, even if the original trend were a random occurrence, the subsequent prediction made by the technical indicator could be self-fulfilling. This self-fulfilling nature leads to the formation of speculative bubbles (see, for example, Froot et al., 1992). **Conrad and Kaul (1988)** found that weekly returns were positively autocorrelated, particularly for portfolios of small stocks.

**Lui and Mole (1998)** report the results of a questionnaire survey conducted in February 1995 on the use by foreign exchange dealers in Hong Kong of fundamental and technical analyses. They found that over 85% of respondents rely on both methods and, again, technical analysis was more popular at shorter time horizons.

This paper aims at carrying out Technical Analysis of the securities of the selected companies in Indian stock market.

### III. Objectives

1. To study the relevance of technical analysis in Indian capital market
2. To analyze the performance of select companies in Indian stock market and to predict the future trends in the share prices through Technical Analysis
3. To find out risk and return for selected securities
4. Technical analysis on selected stocks and interpret on whether to buy or sell
5. To suggesting the investors in making investment decisions in selected stock

### IV. Research Methodology

The study aims at analyzing the price movements of selected company's scrip. As the study describes the existing facts and figures given in the financial statement and the price movements of the selected companies, the research design followed is descriptive and analytical in nature. For Technical Analysis, Secondary Data the weekly share price movements of the selected companies in NSE were absorbed for the 3 years i.e. FEB-2011 to 03-MAR-2014. The closing prices of share prices were taken and the future price movement was analyzed using various tools. Data were collected from trading of equity market in NSE, various books, journals, magazines and websites. All the listed companies in the National Stock Exchange 5 companies which are actively traded in NSE were taken on Stratified sampling basis for the study. The selected companies are:

1. WIPRO
2. SBIN (State Bank of India )
3. GAIL (Gas Authority of India Limited )
4. ONGC (Oil & Natural Gas Corporation Ltd.)
5. ITC (Imperial Tobacco Company of India Limited)

### Time Period of the Study

The period of three years from Feb, 2011 to 3 MAR, 2014 have been taken to carry out the present study.

The major Tools and Techniques used in this study are:

1. Stock (Candlestick) chart
2. Exponential moving average (EMA)

3. Moving average convergence divergence (MACD)
4. Relative strength index (RSI)

## Tools of Technical Analysis

### Candlestick Chart

Japanese candlestick charts form the basis of the oldest form of technical analysis. Candlestick charts provide the information as namely open price, High price, low price and Close price, however. Candlestick charting provide a visual indication of market psychology, market sentiment and potential weakness making it a rather valuable trading tool.

## V. Technical Indicators

Technical indicators are mathematical formulas that, when applied to security prices clearly flash either buy or sell signals. Price data includes any combination of the open, high, low, or close over a period of time and most of the indicators use only the closing prices. For analysis purposes, technical indicators are usually shown in a graphical form above or below a security's price chart. Once shown in graphical form, an indicator can then be compared with the corresponding price chart of the security.

### Technical indicators offer many uses such as:

- (1) To confirm the trends
- (2) To generate buy/ sell signals
- (3) To predict the direction of future prices.

### Moving Averages

Most chart patterns show a lot of variation in price movement. This can make it difficult for traders to get an idea of a security's overall trend. One simple method traders use to combat this is to apply moving averages. A moving average is the average price of a security over a set amount of time. They smooth a data series and made it easier to spot trends, something that is especially helpful in volatile markets.

The two most popular types of moving averages are:

1. Simple moving average (SMA)
2. Exponential moving average (EMA)

### Simple Moving Average (SMA)

A simple moving average is formed by computing the average (mean) price of a security over a specified number of periods. For example: a 5 – day moving average is calculated by adding the closing prices for the last 5 days and dividing the total by 5.

### Exponential Moving Average (EMA)

Exponential moving average is the moving average that is formed by applying weight to the recent price changes.

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

The formula for the smoothing constant is:

$$K = 2 / (1 + N)$$

Where,

N = number of periods for EMA

**Moving Average Convergence and Divergence (MACD)**

Developed by Gerald Appel in the late seventies, moving average convergence divergence (MACD) is one of the simplest and most effective momentum indicators available. The MACD indicator is one of the most popular technical analysis tools.

MACD fluctuates above and below the zero line (the centre line) as the moving averages converge, cross and diverge. Standard MACD is the 12-day exponential moving average (EMA) less the 26-day EMA. A 9-day EMA of MACD is plotted alongside to act as a signal line to identify turns in the indicator. The MACD histogram represents the difference between MACD and its 9-day EMA, the signal line.

**Relative Strength Index (RSI)**

The relative strength index (RSI) is an extremely useful oscillating momentum indicator that was developed by J. Welles Wilder and is one of the most widely used indicators in technical analysis. RSI oscillates between zero and 100. The most popular is the 14 days RSI where the RSI is calculated based on 14 days values. Traditionally the stock is considered to be over bought when RSI is above 70 and over sold when RSI is below 30. Signals can also be generated by looking for divergences and central line crossovers.

The basic 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.

**Sources of Data****Primary Data**

Primary data are generated through personal investigation on the companies.

**Secondary Data**

The secondary data has to be collected from the records and published annual reports of the company, web sites, Journals etc.

1. Data collected from various books and websites.
2. Secondary data collected from news papers & magazines.
3. Data collected from internet.
4. Publication.
5. Information provided by stock broking centers for various places

**Limitations**

1. For doing this analysis the researcher has taken into consider only limited parameters. These parameters may not be enough to predict the future price movements.
2. Technical analysis only for three year is undertaken; from this data we cannot predict prices accurately.
3. This study can be used only for short term decision making

### Chart Analysis & Interpretations

Candlestick chart have been developed to analyses the five selected companies with regard to their price fluctuations and their connotation to the investors.

#### WIPRO

**Wipro Limited** (formerly Western India Products Limited) is an Indian multinational information technology (IT), consulting and outsourcing service company headquartered in Bangalore, Karnataka, India. As of September 2013, the company has 147,000 employees serving over 900 clients with a presence in 61 countries. Wipro is the third largest IT services company in India.

CHART 1 : STOCK PRICE MOVEMENT OF WIPRO



From the chart1 the price is located above the EMA. The chart WIPRO represents the variation in different price such as open, high, low and close in respect of different weeks which had been taken into consideration 03/02/2011 to 03/03/2014.

The candlestick chart of WIPRO can the stock prices of WIPRO are in short term and medium term is bullish. Already triple top breakout on 26/08/2013 at 483 level next replacement targets 592,660 and 760 and stoploss 540 level expected. The MACD and RSI also indicate the even bought trend. On the basis of the trend investor makes a decision about buy or sell.

#### Recommendation

Short and medium term bullish

#### SBIN (State Bank of India)

State Bank of India provides banking products and services in India and at international. It offers personal banking products and services, which include current accounts, savings accounts, term deposits, and capital gains account schemes; housing, car, property, educational, personal, festival,

career, scholar, and gold loans, as well as loans for pensioners and loans against shares and debentures; and mobile and Internet banking, demat, ATM, foreign inward remittance, safe deposit locker, public provident fund, multi-city cheques, money transfer, and mobile wallet services, as well as debit, business debit, prepaid, and virtual cards. The company operates through 20,325 branches, including 5,509 branches of its 5 associate banks; and 32,752 ATMs. State Bank of India was founded in 1806 and is based in Mumbai, India.

CHART 2: STOCK PRICE VARIATION OF SBIN



From chart 2 it could be concluded that the price is located below making average. The chart SBIN represents the variation in different price. Such as open, high, low and close in respect of different weeks which had been taken into consideration 03/02/2011 to 03/03/2014.

The candlestick chart of SBIN can the stock price of SBIN are in short term bullish and medium and long term bearish trend expected. Double bottom line 1447 breakout next supports at 1250 if buy above 1930 only uptrend generated. MACD and RSI technically indicate weak trend.

**Recommendation**

- Buy SBIN above at 1930
- Sell below 1447 down target 1250

**GAIL (GAIL India Ltd.)**

GAIL (India) Limited operates as a natural gas company in India and abroad. The company operates through Transmission Services, Natural Gas Trading, Petrochemicals, Liquefied Petroleum Gas (LPG) and Other Liquid Hydrocarbons, and Other segments. It is involved in the transmission, distribution, and marketing of natural gas to power and fertilizer sectors, as well as supplies liquefied natural gas to

downstream consumers. The company also markets LPG, propane, pentane, naphtha, MFO, propylene, and hydrogenated C4 mix; and manufactures and markets petrochemicals, such as high density polyethylene and linear low density polyethylene under the brand names of G-Lex, G-Lene, and GAIL.

**Chart 3 : Stock Price Movement of Gail**



Chart 3 the price of GAIL is located above moving average. It is indicated to buy the stock. The charts and GAIL represents the variation in different price. Such as open, high, low and close in respect of different had been taken into consideration 03/02/2011 to 03/03/2014. Trend line is between 362 to 394. It shows the positive note that the price may increase. In moving average analysis, price line is above the mainly average to it indicates the buy signal. GAIL short term target 396 and medium and long term buy above 401 next targets 443 and 465 long term trend is bullish. According to RSI & MACD analysis is technically strong signal to buy.

**Recommendation**

- Short and medium term buy at 382
- Long term buy above 400 targets 443 and 465

**ONGC (Oil & Natural Gas Corporation Ltd.)**

Oil and Natural Gas Corporation Limited is engaged in the exploration, development, and production of oil and gas in India and internationally. The company’s products include crude oil, natural gas, liquefied petroleum gas, naphtha, ethane/propane, kerosene oil, low sulphur heavy stock, high speed diesel, motor spirit, aviation turbine fuel, mineral turpentine oil, and others. It is also involved in power generation, liquefied natural gas supply, and pipeline transportation activities; and the provision of petrochemicals. Oil and Natural Gas Corporation Limited was incorporated in 1993 and is based in Dehradun, India.

**Chart 4 : Stock Price Behaviour of ONGC**



Chart 4 kindly indicates the price movements of ONGC located above the support level. The chart ONGC represents the variation in prices. Such as open, high, low and close in respect of different weeks which the period 03/02/2011 to 03/03/2014 was taken for the purposes.

The candlestick chart of ONGC can the spot the share price of ONGC are in short term medium term is bullish and long term bearish trend. The ONGC range bound between 262 to 308 if break 308 next upper targets levels at 319.8 and 345 and it break 262 level downtrend targets 244. Short term according to RSI &MACD analysis ONGC is technically strong. On the basis of this trend investor makes a decision buy and sell.

**Recommendation**

- Short and medium term buy at 308 targets 319 and 345 &
- Sell below 262 target 244

**ITC (ITC Ltd.)**

ITC Limited engages in fast moving consumer goods, paperboards and packaging, hotels, and agri businesses in India and internationally. The company offers cigarettes under the Insignia, India Kings, Lucky Strike, Classic, Gold Flake, Navy Cut, Players, Scissors, Capstan, Berkeley, Bristol, Flake, Silk Cut, and Duke & Royal brands; Armenteros hand rolled cigars; ready to eat foods, staples, confectionery products, and snack foods under the Aashirvaad, Sunfeast, Bingo!, Kitchens of India. ITC Limited provides information technology services and solutions to various industries. The company was incorporated in 1910 and is based in Kolkata, India.

**Chart 5 : Stock Price Movement of ITC**



ITC chart 5 signifies the sideways price movement for the last four months the chart ITC represents the variation in different price. Such as open, high, low and close in respect of different weeks which the periods 03/02/2011 to 03/03/2014 was taken for the purposes.

The candlestick chart of ITC can the current share price of ITC are in Head and Shoulder pattern after that sideways trend created the crucial points 305 and 340. It breaks 305 next supports 285 and if breaks 282 heavy falls expected upper stop loss 335 and buy above 340 levels upper targets 365 and 380. RSI and MACD short term bullish signal.

**Recommendation**

- Short and medium term buy at 340 targets 365 and 380 &
- Sell below 282

**Conclusion**

Technical analysis is a technique which gives an idea about future share prices of selected companies in which we invest. On the basis of the knowledge of technical analysis one can predict the perfect investment decision of the stock market. By using the technical indicators the future market of securities would be known in which to invest. The more accurate prediction of stock prices of selected companies the investor to carry out fundamental analysis of stock prices, they can predict of future trend of stock prices. On the basis of prediction of five companies (i.e. WIPRO, SBIN, GAIL, ONGC, ITC) 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. Both Technical and Fundamental analysis helps in

investment decision in the stock market and predict the future trend of the selected companies in which we have invested. Both the analysis gives guidance to the investors.

“There is only one side to the stock market and it is not the bull side or the bear side but the right side. Technical analysis can be used, when to buy and to when to sell the stock”.

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