



## STOCK MARKET TECHNICAL ANALYSIS

**Dr.S.Kumaran, Anees Fatima, Mohammad Ikramullah Aman, Shahana Tasneem**  
Department of MBA, Shadan College of Engineering and Technology HYD, T.S, INDIA

**ABSTRACT:** Investors should have enough understanding of the currency markets prior to making any investment decisions. This paper aims to review on Fundamental and Technical analysis of selected IT companies listed at BSE and mainly confined to the currency markets behaviour and it designed to device certain approaches for investors to create reasonable returns from the investment in equities and in addition provides what exactly are the factors to be looked at before buying the currency markets by the investors. The focus in this project is on equity analysis of top two IT companies of S&P BSE SENSEX (i.e., TCS and INFOSYS) includes both technical analysis and fundamental analysis and calculation of Beta value to learn about the volatility of the stock. Correlation between company stocks and Sensex analysed. Finally, Company analysis handles various ratios such as for example, EPS, P/E ratio, EBDTIA ratio, PAT ratio, Return on Equity and Return on Capital Employed are used.

**KEYWORDS:** STOCK MARKET TECHNICAL ANALYSIS

### 1. INTRODUCTION:

Equity as a secured asset class represented growth investments. The returns to the investor are mainly from the appreciation in the worthiness of the asset. The chance to the investor comes from the lack of defined and fixed returns from the investments which may be volatile from period to period. The returns from the equity are from the earnings of the business enterprise. Not all the business enterprise is prosperous and manages to earn returns because of its equity investors. Hence, it is vital that you analyse the business enterprise and its own prospects before buying its equity. Moreover, investors need to continue to measure the business to make sure that it remains rewarding and worth investment. There are two broad methods to the security analysis: Fundamental and technical analysis.

Investment means the sacrifice to the present rupees for future years rupees and it has two different attributes are involved "time" and "risk". There are two types of investments. They are:

- 1) Real Investments: It involves investment in a few sorts of tangible assets such as for example land, machinery, factories.
- 2) Financial Investments: It involves investments in the contracts written on bits of paper such as for example common stocks, bonds, and debentures.

There are four main classes of financial instrument that investors utilize to accomplish either income or capital growth. They are:

- § Equities, also called stocks or shares
- § Debt instruments, also called bonds or bill
- § Derivative

### 2. STATISTICAL TOOLS:

#### BETA:

Beta measures the marketplace risk and shows the way the price of a security responds to the marketplace forces. In place, the more responsiveness the cost of the security is to improve on the market, the higher would be the Beta. Beta is calculated by relating the returns on a share with the return for the marketplace (BSE). It could be positive or negative.

#### CORRELATION:

Correlation can be used to test the partnership between your SENSEX returns and Company returns. It could be positive or negative. If correlation is positive, then if Sensex moves in positive direction the shares of the business also moves in positive direction vice versa.

#### FUNDAMENTAL ANALYSIS:

Fundamental analysis reviews the company's fundamentals viz. financial statements, quality of management, competitive positions in its products or service market etc. This is exactly what mixed up in fundamental analysis,

**Research Paper**

Available online at: [www.ijrrset.com](http://www.ijrrset.com)

UGC Approved Journal No: 45483

possibly the most popular method utilized by the investment professionals. The analyst sets a cost targets, predicated on financial parameters. A few of these financial parameters are the following:

Earnings per Share, Price to Earnings Ratio, Price Earnings to Growth, Book value per share, Price to book and Dividend Yield. Researchers have discovered that the stock prices changes could be attributed to the next factors:

- § Economy-wide factors: 30-35 percent
- § Industry factors : 15-20 percent
- § Company factors : 30-35 percent
- § Otherfactors : 15-25 percent

Predicated on the above evidence, a commonly advocated procedure of fundamental analysis involves a three-step examination, they are

- 1) Knowledge of macro-economic environment and developments.
- 2) Analysing the prospects of the industry to that your firm belongs.
- 3) Assessing the projected performances of the business and the intrinsic value of its shares.

**EBITDA Margin.**

A company with an increased EBITDA margin indicates that it's in a position to operate with greater efficiency than other peer group companies. The EBITDA margins are of help in identifying profitability trends in virtually any industry, because it is not suffering from the depreciation policies, funding decisions and taxation rates of the firms. .

**EBITDA Margin = EBITDA / Net Sales**

PAT Margin:

Shareholders of a business obtain dues only by the end, i.e. right after paying all stakeholders, like the government. Hence, they wish to know how a lot of the business produced by the business comes their way. That is found by calculating PAT Margin.

$PAT\ Margin = PAT / Net\ Sales$

A company with an increased ratio sometimes appears as better in managing costs and earning profits. A trend of increasing margins means enhancing profitability.

Return on Equity (ROE):

This is the single most significant parameter for an investor to begin looking for more information regarding a company. Return on Equity communicates what sort of business allocates its capital and generates return. A competent allocator of capital could have high ROE and an unhealthy quality of business could have low ROE.

ROE, sometimes also called Return on Net-worth (RoNW), is calculated as

$ROE = PAT / Net\ -worth$

$Net\ -worth = Equity\ Capital + Reserves\ \&\ Surplus$

Higher the ROE, better the firm.

Return on Capital Employed (ROCE):

This ratio uses EBIT and calculates it as a share of the amount of money used in the firm by method of both equity and debt.

**ROCE = EBIT/ Capital Employed**

$Capital\ Employed = Total\ Assets - Current\ Liabilities\ or\ Total\ Equity + Total\ Debt$  Higher the ratio, better the firm because it is producing higher returns for each rupee of capital employed. Investors may use this to analyse the returns of companies with different sizes in the same industry.

**3. TECHNICAL ANALYSIS:**

Technical analysis is radically not the same as fundamental analysis. Technical analyses think that the purchase price behaviour of shares over a time period throws up trend for future years direction of the purchase price. Combined with the past prices, the volumes traded indicate the underlying strength of the trend and so are a reflection of investor's sentiment, which will influence future price of the share. Technical analysts therefore study price-volumes charts (grounds for their commonly used description as "chartists") of the company's shares to choose support levels, use, and other triggers to base their buy/sell/hold suggestions for a share.

**CANDLESTICK CHART**

A candlestick stick chart can be used in the dissertation to review the purchase price movements in the currency markets for an interval of 45 days. It can be used for decision making in stocks, forex, commodity and option trading. The primary use of candle stick chart can be used is to recognize trends and you can identify a secured asset opening and closing prices, highs and lows, and overall range for a particular time frame

**Research Paper**

Available online at: [www.ijrrset.com](http://www.ijrrset.com)

**UGC Approved Journal No: 45483**

**STOCK MARKET'S**

A currency markets or exchange may be the centre of a network of transactions where securities Buyer's meet sellers at a specific price. A currency markets or exchange is not necessary a physical facility and with the advancement of it are increasingly rare those traders that exchange their stocks in the ground of a significant stock exchange. The primary stock markets in INDIA are BOMBAY STOCK MARKET (BSE) or SENSEX and NATIONAL STOCK MARKET (NSE) or NIFTY. The primary stock market in the USA is NY STOCK MARKET and in Europe, types of stock exchanges are the London STOCK MARKET, the Paris Bourse, and the Deutsche Bourse. In Asia, the important stock exchanges are the Tokyo STOCK MARKET, the Hong Kong STOCK MARKET, and the Bombay STOCK MARKET.

**INDIA CURRENCY MARKETS (SENSEX)**

India CURRENCY MARKETS (SENSEX) declined 456 points or 2.27 percent over the last 30 days. Previously, from 1979 until 2013, India CURRENCY MARKETS (SENSEX) averaged 5563 Index points reaching an all-time most of 21005 Index points in November of 2010 and an archive low of 113 Index points in December of 1979. The SENSEX is a significant currency markets index which tracks the performance of 30 major companies listed on the Bombay STOCK MARKET. The firms are chosen predicated on the liquidity, trading volume etc.. The SENSEX is a free-float market capitalization- weighted index. The Index includes a base value of 100 by 1978-79 for BSE SENSEX.

**IT INDUSTRY**

IT industry in India has played an integral role in putting India on the global map. IT industry in India has been probably the most significant growth contributors for the Indian economy and its own revenues (excluding hardware) was estimated at all around us \$ 154 billion in FY2016 - 2017 and grew to US \$ 167 billion in FY 2017 - 2018. The industry has played major role in transforming India's image from a slow-moving bureaucratic economy. It really is a land of innovative entrepreneurs and a worldwide player in providing top notch technology solutions and business services and the contribution to India's GDP stood at 7.9% in 2017 - 2018. The industry has helped India transform from a rural and agriculture-based economy to an understanding-based economy recently.

New dimensions provide huge opportunities through adoption of technology and outsourcing is likely to make Asia the next largest IT market. The emergence on new services offerings and business models would assist in tapping market profitability and effectively Government, Healthcare and media together own it spend of around US \$ 190 billion, but account just 8 percent of India's IT revenue.

**TECHNICAL ANALYSIS**

Date	Volume Traded	Open Price	High Price	Low Price	Close Price
15-Apr-19	397080	2071	2115	2041.05	2110.05
16-Apr-19	237128	2116	2153.8	2116	2132.45
18-Apr-19	88311	2141	2150.05	2116.3	2145.5
22-Apr-19	186485	2148	2175.95	2147.25	2164.35
23-Apr-19	74839	2166	2167.6	2135.1	2157.7
24-Apr-19	114028	2157.7	2195	2155.4	2185.45
25-Apr-19	97687	2169	2199	2169	2191.7
26-Apr-19	149597	2200	2244.55	2193.75	2238.3
30-Apr-19	125430	2230	2265	2230	2254.95
02-May-19	67719	2260	2260	2209.45	2214.4
03-May-19	167475	2191	2191	2125.15	2132.5
06-May-19	123793	2113	2165	2104.55	2154.7
07-May-19	107919	2155	2185	2140.1	2150.35
08-May-19	59590	2158	2167.75	2130.2	2152.65
09-May-19	80051	2145	2182	2138	2168.7
10-May-19	105470	2174.35	2193.6	2125	2135.55
13-May-19	154027	2140	2167	2122.85	2131.1
14-May-19	107390	2137.5	2158.2	2074.5	2094.35
15-May-19	122743	2105	2125.55	2084.6	2094.5

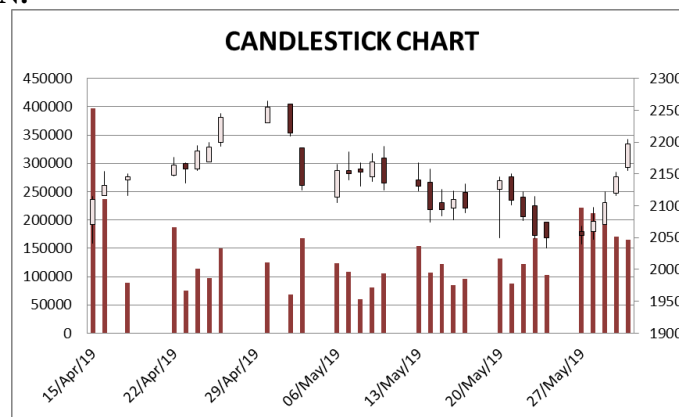
**Research Paper**

Available online at: [www.jrrset.com](http://www.jrrset.com)

**UGC Approved Journal No: 45483**

16-May-19	85235	2096	2123.4	2078.05	2109.45
17-May-19	96028	2120.6	2134.95	2088.95	2096.35
20-May-19	131596	2126	2145	2050.25	2139.3
21-May-19	87743	2145	2149.95	2101.6	2109.2
22-May-19	122238	2114	2121.6	2076.7	2082.75
23-May-19	167233	2100	2115.1	2049	2053.75
24-May-19	102735	2074	2074	2034	2049.65
27-May-19	222227	2060	2067.75	2040.4	2053.8
28-May-19	212368	2060	2097.45	2047.25	2075
28-May-19	199565	2071	2121.75	2071	2105.25
30-May-19	170973	2120	2153.4	2116.4	2145.4
31-May-19	165501	2159.95	2205	2155	2196.85

**4. RESULT & DISCUSSION:**



**Figure no.4.1.1 (a)**

From the above chart it obviously shows the volumes traded and candlestick chart are visual aid for decision making in stocks. When the bar is white and high in accordance with other schedules, this means buyers are extremely bullish so when the bar is black this means bearish market shows strong selling pressure.

$$\text{Rate of Return} = (p1-p0)/p0 * 100$$

WHERE

P1= Closing Price

P0= Opening Price

**CALCULATION OF BETA AND COEFFICIENT OF CORRELATION OF TCS**

$$\text{Calculation of } \beta = (n\sum XY - \sum X \sum Y) / (n\sum x^2 - (\sum x)^2)$$

$$\text{Beta} = 1.0571$$

$$\text{Correlation}(r) = \frac{[N\sum XY - (\sum X)(\sum Y)]}{\sqrt{([N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2])}}$$

Where

N = No of Trading Days

X = Returns of Sensex

Y = Returns of Stock

$\sum x$  = Sum of the Sensex return

$\sum x^2$  = Sum of square of Sensex return

$\sum y^2$  = Sum of square of Stock return

$\sum xy$  = Sum of the Sensex and Stock return

Correlation coefficient = 0.1651045

**5. CONCLUSION:**

Technical analysis involves studying the purchase price and volume patterns to comprehend how buyers and sellers are valuing a stock and functioning on such valuation. There are three essential components in understanding price behaviour:



**Research Paper**

Available online at: [www.ijsrset.com](http://www.ijsrset.com)

UGC Approved Journal No: 45483

- a. The annals of past prices provides indications of the underlying trend and its own direction.
- b. The quantity of trading that accompanies price movements provides important inputs on the underlying strength of the trend.
- c. Enough time span over which price and volume are found factors in the impact of long-term factors that influence prices over a period. The price of which an investor is ready to buy or sell depends mainly on his predictions. For this function technical analysis also form a solid tool in analysing a company where in fact the price movements are recorded in charts are analysed.

**REFERENCE:**

**BOOKS**

1. Security Analysis and Portfolio Management
2. The following websites are used for secondary data collection
3. [www.about.stocks.com](http://www.about.stocks.com)
4. [www.nseindia.com](http://www.nseindia.com)
5. [www.buzzingstocks.com](http://www.buzzingstocks.com)
6. [www.moneycontrol.com](http://www.moneycontrol.com)

**REPORTS**

7. <https://www.tcs.com/content/dam/tcs/investor-relations/financial-statements/2018-19/ar/annual-report-2018-2019.pdf>.
8. <https://www.infosys.com/investors/reports-filings/annual-report/annual/Documents/infosys-ar-19.pdf>.

**ARTICLES**

9. C K Venkatesh and Tyagi Madhu, "Fundamental analysis as a method of share valuation in comparison with technical analysis", Bangladesh research publications journal, Vol 5, Issue 3, May to June 2011 pp 167-174.
  10. Kahn, Michael N. (2006). Technical Analysis Plain and Simple: Charting the Markets in Your Language, Financial Times Press, Upper Saddle River, New Jersey.
- Kerstein, J., and Kim, S. (1995). The Incremental Information Content of Capital Expenditures