PERFORMANCE OF SELECT IT (INFORMATION TECHNOLOGY) COMPANIES THROUGH LINE CHARTS

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ABSTRACT

The movements in share prices are analyzed predominantly on the basis of Fundamental analysis and Technical analysis. In the present study Technical analysis has been performed on three companies using price charts (line charts) as a tool for analyzing the company's share prices. The study focuses on share prices of three IT (Information Technology) companies i.e. Wipro, TCS (Tata Consultancy Services) and Infosys both for long term period i.e. from 2010 to 2014 for five years and short term period i.e. from April 2014 to December 2014. For the present study the data has been collected from secondary sources i.e. Books, online sources and journals. From the study it was found that TCS performed better than Wipro and Infosys in case of long term period where as Infosys performed better than TCS and Wipro in case of short term period. Therefore, the investors may prefer TCS over long term period and Infosys over short term period to make a good rate of return on their investments.

Key words: Technical Analysis, IT (Information Technology) Companies, Closing share prices, Line charts, Rate of return

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1.0 Objectives of the study

- To understand the concept of Technical Analysis and its tool i.e. price charts
- To analyse the share prices of 3 companies i.e., Wipro, TCS, Infosys from 2010 to 2014 for five years and from April 2014 to December 2014 (Both Long term and short term period) through line charts.
- To find out the rate of return of three companies both for long term and short term period

2.0 Research methodology

The present study is based on Secondary data which has been collected from Books, journals and online sources.

3.0 Scope of the study

The scope of the study is confined to only three companies i.e. Wipro, TCS, Infosys and it does not reflect other IT companies. For the present study only Closing Share Prices have been considered but not Opening share Price, Highest price and lowest price of the shares

4.0 Limitations of the study

- The study is based on Secondary Data.
- Only 5 year share prices are taken for the study but not from the inception.
- Present study considered only line charts and not other charts like bar charts, candle stick charts.

5.0 Introduction

The share price movement is analysed broadly with two approaches, namely, fundamental approach and the technical approach. Fundamental approach analyses the share prices on the basis of economic, industry and company statistics. If the price of the share is lower than its intrinsic value, investor buys it. But, if he finds the price of the share higher than the intrinsic value he sells and gets profit. The technical analysis mainly studies the stock price movement of the security market. If there is an uptrend in the price movement, investor may purchase the scrip. With the onset of fall in the price he may sell it and move for the scrip. Basically, technical analysts and the fundamental analysts aim at good return on investment.

5.1 Technical Analysis

It is a security analysis methodology for forecasting the direction of prices through the study of past market data, primarily price and volume. Technical analysts do not attempt to measure a

security's intrinsic value, but instead use charts and other tools to identify patterns that can suggest future activity. This is a process of identifying trend reversals at an early stage to formulate the buying and selling strategies. Using several indicators, an investor analyses the relationship between price-volume and supply-demand for the overall market, as well as for the individual stock. During an upswing, the number of shares traded is greater than before, and in a downswing, the number of shares traded dwindles. If it is the other way around, trend reversals can be expected.

5.2 Tools and techniques of Technical Analysis

The most common technical tools used are Dow theory, volume of trading, short selling, bar and line charts, candlestick charts, moving averages, indicators and oscillators.

The Theory: According to Dow Theory the trend is divided into primary, intermediate and short term trend. The primary trend may be the broad upward or downward movement that may last for a year or two. The intermediate trends are corrective movements, which may last for three weeks to three months. The short-term trend refers to the day-to-day price movements.

Trend: Trend refers to the direction of movement. The share prices can either increase, fall or remain the flat. The three directions of share price movement are referred to as rising, falling and flat trends. The point to be remembered is that share price do not rise or fall in a straight line. Every rise or fall in price is accompanied by a counter move in a zigzag manner. Trend lines are straight lines drawn connecting either the tops or bottoms of the share price movements. The technical analyst should have at least two tops or bottoms to draw a trend line.

Trend Reversal: The rise or fall in share price cannot go on forever. The share price movement may reverse its direction. Before the change of direction, certain pattern in price movement emerges. The change in the direction of the trend is shown by violation of the line. Violation of the trend line means the penetration of the trend line. If a scrip price cuts the rising trend line from above, it is a violation of trend line and signals the possibility of fall in price. Like-wise if the scrip pierces the trend line from below, this signals the rise in price.

5.3 Tripod of Technical Analysis

1. Marker prices are determined by a host of fundamental, technical and other factors which are both rational and irrational. It is possible that the market prices may be overvalued or undervalued always.

2. Average market price discounts all developments and is a reflection of the sum total of all forces operating on the market.
3. History or past trends have a role in the shaping of the future and as such an analysis of the past helps the projection for the future.

The above tripod leads to a science of recording in graphic form, the price trends. Based on the past behaviour, the future trends are predicted and investment suggestions are made based on such predictions of trend changes. The timing of an investment when to buy or sell is facilitated by a study of these charts and graphs. As opposed to fundamental factors, which are statistical incorporating the financial and physical variables of corporate units and economy, the market is also influenced by the non-statistical information such as behaviour aspects, emotions, etc., for the latter factors, technical analysis assumes importance in the investment strategy. In particular the decision to buy or sell is a fundamental decision, but the decision when to buy or sell is a decision arising out of technical analysis of the market.

5.4 Charting

Charting is the basic tool in technical analysis which provides visual assistance in defecting changing pattern of price behaviour. The technical analyst is sometimes called the chartist because of importance of this tool. The chartist believes that stock prices move in fairly persistent trends. There is an inbuilt inertia. The price movement continues along a certain path (up, down or sideways) until it meets an opposing force due to demand – supply changes. Chartists also believe that generally volume and trend go hand in hand. When a major 'up' trend begins, the volume of trading increases and also the price and vice-versa. The essence of Chartism is the belief that share prices trace out patterns over time. These are a reflection of investor behaviour and it can be assumed that history tends to repeat itself in the stock market. A certain pattern of activity that in the past produced certain results is likely to give rise to the same outcome should it reappears in the future. Charts are a valuable and easiest tools used in technical analysis. The graphic presentation of data helps the investor to find out the trend of price without any difficulty. The chart does not lie but interpretation differs from analyst to analyst according to one's skills and experience. Leading analyst James Dines has said, "Charts are like fire or electricity. They are brilliant tools if intelligently controlled and handled, but dangerous to a novice".

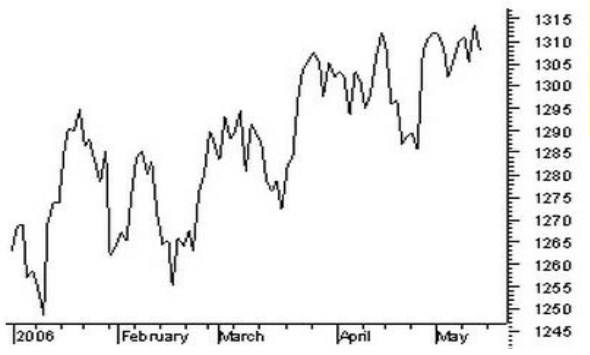
Charts also have the following uses:

- Help to spot current trends for buying and selling.
- Indicate the probable future action of the market by project.
- Show historical movements.
- Indicate the key area of support and resistance.

Price Charts: Charting represents a key activity in technical analysis, because graphical representation is the very basis of the technical analysis. It is the security prices that are charted. A share may be traded in the market at different prices prevailing in the market. Of these different prices prevailing in the market on each trading day, four prices are important. These are the highest price of the day, the lowest price of the day, the opening price (first price of the day) and the closing price (last price of the day). Of these four prices again, the closing price is by far the most important price of the day because it is the closing price that is used in most analysis of share prices. The price chart is the basic tool used by the technical analyst to study the share price movement. The prices are plotted on XY graph where the X axis represents the trading days and the Y axis denotes the prices.

Three types of price charts are currently used by technical analysts are Line Charts or the Closing Price Charts, the Bar Charts and the Japanese Candlestick Charts.

Line Charts: It is the simplest price chart. In this chart, the closing prices of a share are plotted on the XY graph on a day to day basis & these are joined with the help of a line in the chronological order. All these points would be connected by a straight line which would indicate the trend of the market. These are most commonly used charts, various movements like support, resistance, up-trend, down-trend etc, can easily be identified.



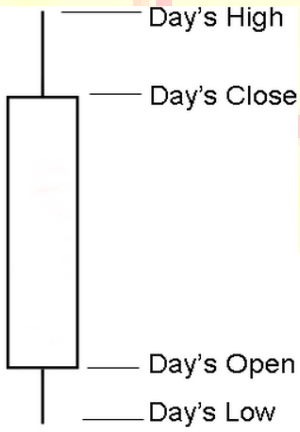
Line Chart

Japanese Candlestick Charts: According to records, the candlestick chart is the oldest of price prediction charts. To create a candlestick chart, one needs 4 elements, namely Opening, High, Low and closing prices of shares on a day-to-day basis. The highest price and the lowest price of the day are joined by a vertical bar. The opening and closing price of the day which would fall between the highest and the lowest prices would be represented by a rectangle so that the price bar chart looks like a candlestick. Thus, each day's activity is represented by a candlestick. There are mainly 3 types of candlesticks, the White, the Black and the Doji or neutral candlestick.

Black Candlestick : A black candlestick is used when the closing price of the day is lower than the opening price & it indicates a bearish trend.

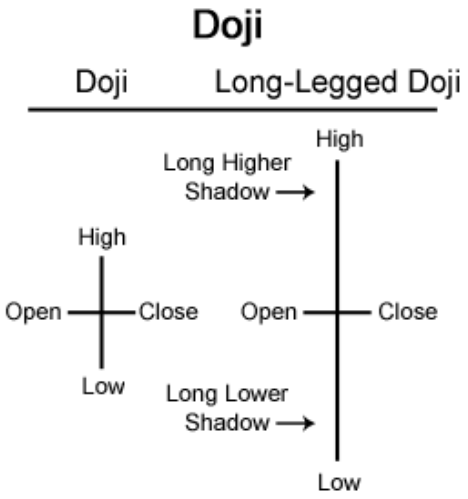
Black Candlestick

White Candlestick: A white candlestick is used to represent a situation where the closing price of the day is higher than the opening price & it indicates a bullish trend.



White Candlestick

Doji Candlestick: A Doji is formed when the opening price and the closing price are equal. A long-legged Doji, often called a "Rickshaw Man" is the same as a Doji, except the upper and lower shadows are much longer than the regular Doji formation.



Doji Candlestick

Bar Charts: A style of chart used by some technical analysts, as illustrated below, the top of the vertical line indicates the highest price a security traded at during the day, and the bottom represents the lowest price. The closing price is displayed on the right side of the bar, and the opening price is shown on the left side of the bar. A single bar like the one below represents one day of trading.

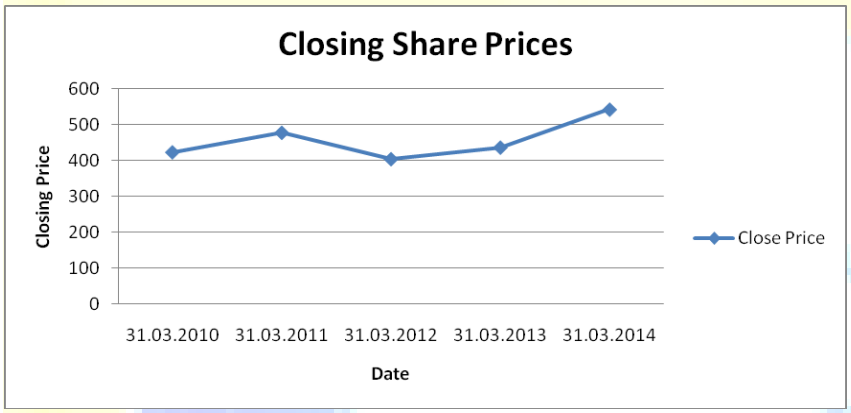
Bar Chart

6.0 Data analysis and inferences

6.1 Closing share prices for Long term period

Wipro (Table - 1)

Year	Closing Share Prices
31.03.2010	424
31.03.2011	478.3
31.03.2012	405.1
31.03.2013	437.15
31.03.2014	542.6



Wipro (Fig-1)

For calculating rate of return for long term period ending price is taken as 31-03-2014 and beginning price is taken as 31-03-2010 for 3 companies

Rate of return = (Ending price – Beginning price/Beginning price)*100

$$= \frac{542.6-424}{424} * 100 = 27.97$$

Inference: From the above graph we can see that the share price has increased from 2010 to 2011, where as in 2012 the share price has decreased and from 2013 the price has increased.

TCS (Table - 2)

Year	Closing Share Prices
31.03.2010	780.8
31.03.2011	1182.5
31.03.2012	1143.25
31.03.2013	1571.8
31.03.2014	2128.25

TCS (Fig-2)

Rate of return = (Ending price – Beginning price/Beginning price)*100

$$= \frac{2128.25-780.8}{780.8} * 100 = 172.57$$

Inference: From the above graph we can see that from 2010 to 2011 the company price has increased where as in 2012 the share price has decreased but from 2013 the price started increasing to till 2014.

Infosys (Table - 3)

Year	Closing share prices
31-03-2010	1328
31-03-2011	1618.38
31-03-2012	1395.5
31-03-2013	1444.95
31-03-2014	1639.43

Infosys (Fig-3)

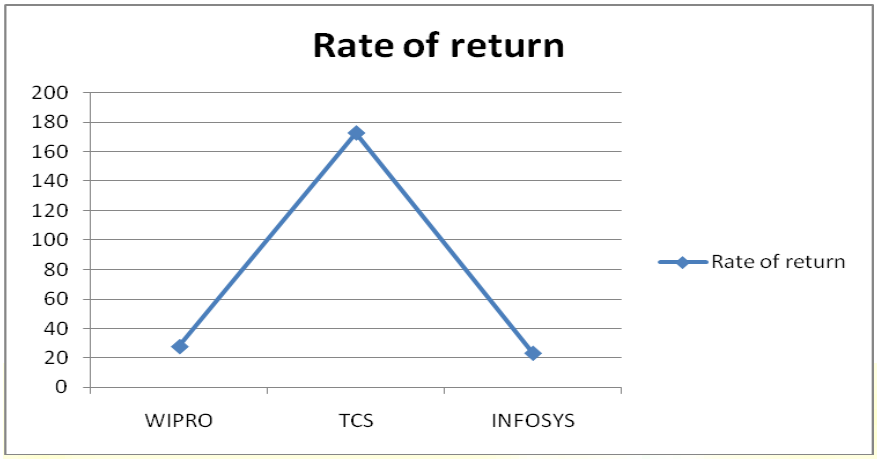
Rate of return = (Ending price – Beginning price/Beginning price)*100

$$= \frac{1639.43-1328}{1328} * 100 = 23.45$$

Inference: From the above graph, we can see that from 2010 to 2011 the company closing share price has increased, where as in 2012 the share price has decreased, in 2013 the price i.e. the trend has started increasing slowly.

Rate of return for Long term period (Table - 4)

Name of the company	Rate of return
Wipro	27.97
TCS	172.57
Infosys	23.45



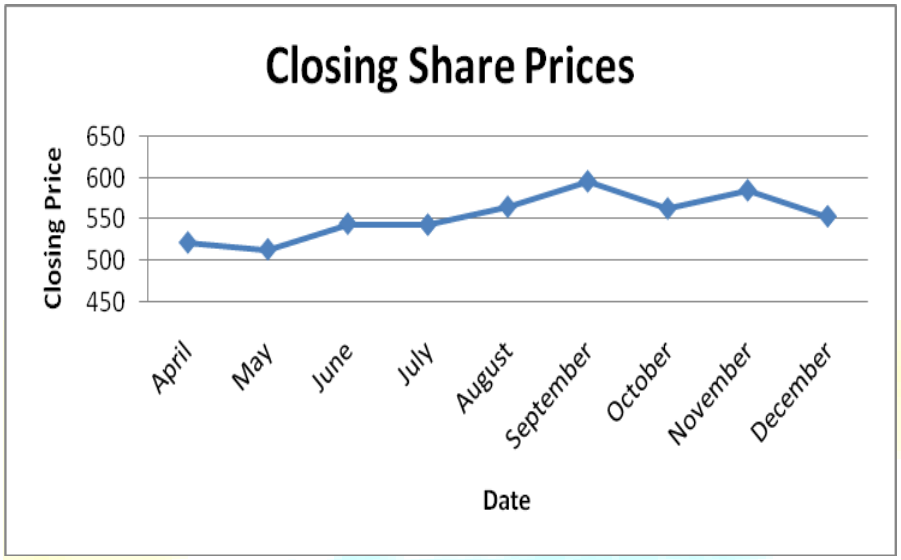
Rate of return for long term period (Fig-4)

Inference: From the above graph and table we can see that TCS yields higher rate of return followed by Wipro and Infosys.

6.2 Closing share prices for Short term period

Wipro (Table - 5)

Months	Closing Share Prices
April 2014	522
May 2014	513.7
June 2014	544.95
July 2014	543.65
August 2014	565.4
September 2014	596.35
October 2014	563.45
November 2014	585.5
December 2014	553.8



Wipro (Fig-5)

For calculating rate of return for short term period beginning price is taken as April 2014 and ending price is taken as December 2014 for 3 companies.

Rate of return = (Ending price – Beginning price/Beginning price)*100

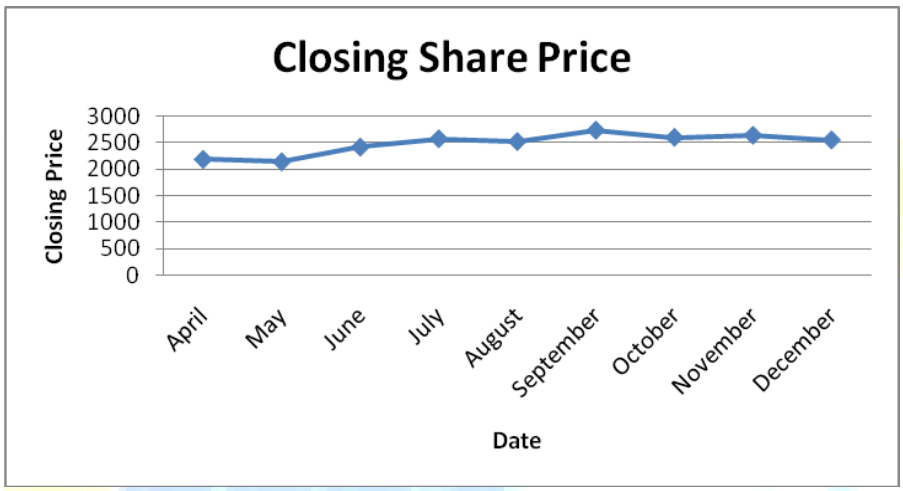
$$= \frac{553.8-513.7}{513.7} * 100 = 6.1$$

Inference: From the graph shown above we can see that from April to May the share price is decreasing, but from the month of May the price i.e. the trend has started increasing to till the month of September. In October there is a fall but in November the price has increased and falls in December.

TCS (Table - 6)

Months	Closing Share Prices
April 2014	2189.4
May 2014	2144.2
June 2014	2419.45
July 2014	2577.3
August 2014	2524.6
September 2014	2738.2

October 2014	2604.55
November 2014	2643.1
December 2014	2554.7



TCS (Fig-6)

Rate of return = (Ending price – Beginning price/Beginning price)*100

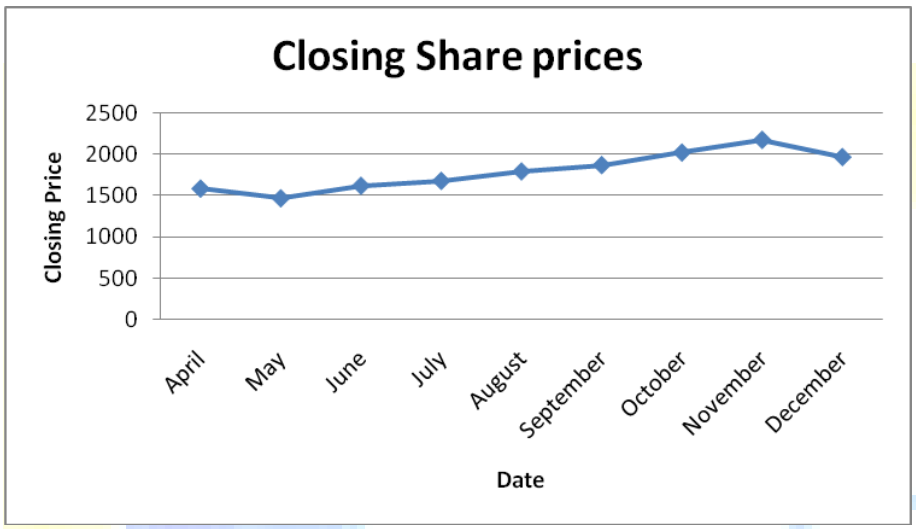
$$= \frac{2554.7-2189.4}{2189.4} * 100 = 16.68$$

Inference: From the graph shown above we can see a fall in the share price in the month of May but a continuous rise to till the month of July, a slight fall in August then a slight rise in September and finally the trend falls to till the month of December.

Infosys (Table -7)

Months	Closing share prices
April 2014	1588.6
May 2014	1470.75
June 2014	1623.23
July 2014	1682.85
August 2014	1797
September 2014	1873.83

October 2014	2025.73
November 2014	2179.63
December 2014	1971.2



Infosys (Fig-7)

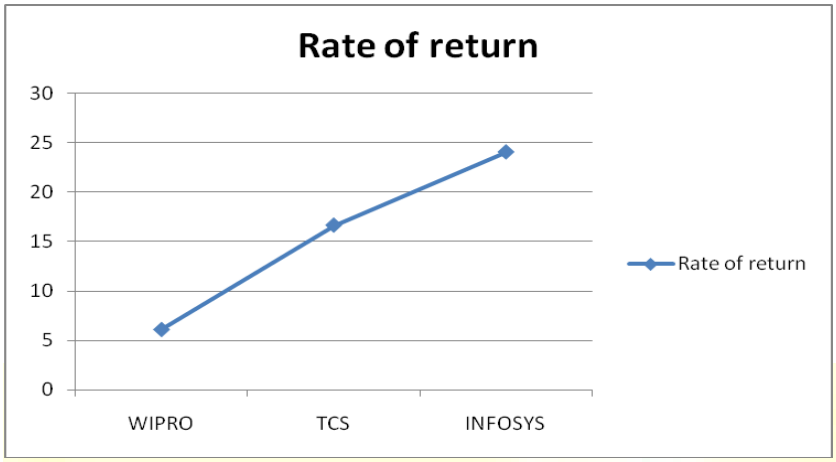
Rate of return = (Ending price – Beginning price/Beginning price)*100

$$= \frac{1971.2-1588.6}{1588.6} * 100 = 24.1$$

Inference: From the above graph we can see a fall in the share price in the month of May and continuous rise to till the month of November and a slight fall in the month of December.

Rate of return for Short term period (Table-8)

Name of the Company	Rate of return
Wipro	6.1
TCS	16.68
Infosys	24.1



Rate of return for short term period (Fig-8)

Inference: From the above graph and table we can see that Infosys yields higher rate of return followed by TCS and Wipro.

7.0 Results and Recommendations

1. Though the share prices of all the three companies are increasing from 2010 to 2014 but as per rate of return is considered, TCS is having highest rate of return i.e. 172.57% compared to other two companies. So it has been suggested that as per long term investment to be made TCS is performing best to invest in it by the investor.

2. Though there are slight fluctuations in short term period as per rate of return, Infosys yields higher rate of return i.e. 24.1% compared to other two companies. So, it has been suggested that as per short term investment Infosys yields good return to investors to invest in it.

3. If both short term and long term rate of return is considered, Wipro is not yielding a good rate of return when compared to Infosys and TCS. Therefore it has been suggested that an investor can prefer Infosys for short term investment where as TCS for long term investment.

8.0 Conclusion

The present study will provide the investors the basic knowledge about the share prices and enable them to choose a good company to invest. Investing in a good company gives a good rate of return on the investment. Out of the three companies, the company which performed well in

long run as per rate of return is TCS compared to other two companies, the company which performed well in short run as per rate of return is Infosys compared to other two companies. Therefore from long term perspective the investors can choose TCS whereas from short term perspective they can choose Infosys to yield good returns on the investment. There are many more companies and which perform even better. Today, IT companies in India such as Tata Consultancy Services (TCS), Wipro, Infosys, HCL are well known in the global market for their IT competency.

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