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Profiting from Technical Analysis on Indian Equity Markets

1 INTRODUCTION

The stock market can be analyzed using fundamental and technical analysis; they act as aid to guide the decision of both the long and short term investors.

Fundamental analysis requires, among other things, a close examination of the financial statements for the company to determine its current financial strength, future growth and profitability prospects, and current management skills, good deal of reliance is placed on annual and quarterly earnings reports, the economic, political and competitive environment facing the company, as well as any current news items relating to the company's operations. The fundamental analysis may be the preferred method to use for mid to longer term investors.

Technical analysis does not concern itself with a company's basics or fundamentals. Rather, technical analysis involves the study of a stock's trading patterns through the use of charts, trend lines, support and resistance levels and many other mathematical analysis tools, in order to predict future movements in a stock's price and to help identify trading opportunities. The basic foundations or premises of technical analysis are that a stock's current price discounts all information available in the market, that price movements are not random and that patterns in price movements , in very many cases tend to repeat themselves or trend in some direction. A large number of technical indicators have been developed over the years, including the widely used overbought/oversold indicators such as the Relative Strength Index, and the trend following indicators such as Moving Averages.

While technical analysis can be a great help in trading the market, no technical indicator is infallible. Further, technical analysis is only as good as its interpreter. Finally significant of time must be spent in learning the principles of technical analysis and how to properly interpret the various charts and other technical indicators. There are several schools of technical analysis

Abstract

This paper deals with the introductory basis for technical analysis for guiding the investors. Using Dow Theory Nifty and sensex is examined for the period of two years to identify the market trends and to gain valuable insights from it. Also, basic charting techniques are being used such as semi logarithm and moving averages along with Japanese candlestick, MACD, RSI oscillators as an indicator for studying various patters in a particular stock. Various stocks from national stock exchange are being selected then suitable technical indicator is being applied to give decisions and its likely trend in future. Study tells about and reliability of Technical analysis. The results tell that it's important to know the current trend of markets and the performance of the company as a whole to guide investor's decisions.

Fundamental analysis inform the traders as to "what stocks they can invest in" whereas on the other hand technical analysis inform the traders at 'what time they have to take their buy and sell positions.

like candlesticks charting, Dow Theory and Elliot Wave theory. Technical analysts use judgment gained from experience to decide which pattern a particular instrument reflects at a given time, and what the interpretation of that pattern should be.

2 OBJECTIVE

- To apply the technical analysis to Dow Theory by employing Sensex and Nifty.
- To study the various theories of technical analysis
- To Understand the movement and performance of stocks

3 METHODOLOGY

Step 1: Type of study

The research has been based on secondary data analysis. The study has been exploratory as it aims at examining the secondary data for analyzing the previous researches that have been done in the area of technical and fundamental analysis of stocks. The knowledge thus gained from this preliminary study forms the basis for the further detailed Descriptive research. In the exploratory study, the various technical indicators that are important for analyzing stock were actually identified and important ones short listed.

Step 2: Sample design

The sample of the stocks for the purpose of collecting secondary data has been selected on the Basis of Random Sampling. The stocks are chosen in an unbiased manner and each stock is chosen independent of the other stocks chosen.

Step 3: Sample size

The sample size for the number of stocks & indices has taken as 3 & 1 respectively for the purpose of study.

Step 4: Analysis or Interpretation

With the help of the secondary data so collected and keeping the important announcements made during the past year, prediction are made for the stock prices and indices being chosen for the study . Also, efforts are being made to throw some light on how Fundamental analysis and technical analysis can co-exist in peace and complement each other.

DETAILED PROCESS

PART 1

- Market indices i.e. Sensex and Nifty are taken for the study of technical analysis .Dow theory is considered for the same.
- Overview of stock market and economy is also studied with a view to have a conceptual grip and base for the study of technical analysis.
- Dow analysis is made for the period of 10 years from 1999 to 2009 to observe the trends in the market.

PART 2

- Stocks namely state bank of India, Infosys, Tata steel, Bharti Airtel and Reliance are being studied using indicators by moving averages divergence and convergence and relative strength index and other reversal patterns for the period of one year that is from 1st April, 2009 to 31st-March, 2010.
- Buy and sell decisions are given for the stocks under study for the investors.

4 LITERATURE REVIEW

Steven Nison is credited with popularizing candlestick charting and has become recognized as the leading expert on the interpretation of candlestick charts.

Candlestick charts display the open, high, low and closing prices in a format similar to a modern day bar chart, but in a manner that extenuates the relationship between the opening and closing prices candlestick charts are simply a new way of looking at prices they don't involve any calculations.

There have been two main approaches to analyze the securities market - the fundamental approach and the technical approach. The fundamental approach stresses the influence of a firm's basic earnings and risk on the market price of its shares, whereas the technical approach concentrates on the patterns of stock market prices. The technical approach states that past share prices and volumes tend to follow a pattern and they can be used to predict future price movements. Forces of demand and supply determine the share prices; however, the fundamentalists think that they are a function of rational factors, while technicians attribute it to psychological factors.

Technical analysis involves searching for recurrent and predictable patterns in stock prices. This type of analysis has a long history and dates back to the Japanese rice traders trading on the **Dojima Rice Exchange in Osaka as early as 1600s**. It evolved into Chartism in the early 20th century with mechanical trading rules to generate signals. This development has since been aided by the introduction of electronics which took the tedium out of complex mathematical manipulations. More recently, concepts like chaos theory, fuzzy logic, artificial neural network, genetic algorithms, and so on, have been applied to the financial markets.

The technical analysis approach to capital market evaluation has received little attention and acceptance in the literature as compared to fundamental analysis. However, in recent years the popularity of technical school of thought is increasing amongst academicians and practitioners. There has been some empirical research on technical analysis for developed capital markets; however similar empirical work for developing markets especially India is limited. In this light, an empirical testing of technical indicators for Indian stock market is considered important.

The Indian stock market has given varied returns in the past. NIFTY in particular has lost more than 65% from the peak within a period of ten months, leaving no scope for explanation from fundamental analysis. In this rapidly changing complex business world where the market dynamics are changing minute by minute, hour by hour, all market participants are exposed to the changing dynamics and thereby its inherent price risk.

The present study is an exploratory study on Elliott waves. The primary objective of the study is to find whether there is significant occurrence of defined patterns, particularly Elliott waves, in Indian stock markets.

The Dow Theory was formulated by Robert Rhea, one of the founders of the **Wall street journal**. Rhea's basic premise was that the rise and fall of any economy can be predicted in advanced with the use of comparative analysis of two technical indicators that he developed: economic health of industrial companies and the economic health of transport companies.

Rhea's basic concept implied that industrial activity is reflected in advance by the economic health of transportation companies since it is the transport companies which physically have to transport the raw materials from their sources to the industrial centers for further processing. Even before the industrial companies can reflect rising profitability, the transport companies will have increasing activities and increasing profitability first. Therefore if one could observe increasing profitability in transportation companies, then one could eventually profit from industrial companies' healthy economics.

Rhea took the major industrial companies and the major transport companies of his time and created two indices: Dow Jones Industrial Averages and the Dow Jones Transportation Averages. The third component of the Dow Jones Indices trio is the Dow Jones Utilities Averages. The third component is currently used in modern Dow Theory Analysis, but it was not an original component of the analysis. The Utilities Averages functions more as an indicator of the interest rate trends. Based on his premise, the Transportation Averages would reflect heightened activity before the Industrials in good economic conditions. He charted both averages and compared the two averages to each other to gauge each other's comparative strength or weakness, with one average always leading other. In bad economic conditions which eventually developed, he would notice that the industrials would go to new highs on bar charts while the Transportations would fail to follow the lead. This divergence in the averages would signal main investment strategy changes. Out of this approach, Rhea developed the Dow Theory which revolved around confirmation or non-confirmation of each index's activities. Out of this Theory developed the school of bar chart analysis, which is the analysis of recurring pattern formations in the indices.

Over the years of technical analysis, many chartists have notice particular recurring patterns in bar charts outside of the averages and have categorized such type of formations.

5 LIMITATIONS

- Technical analysis ignores the nature of company, market, currency or commodity and is based solely on charts that are on price and volume.
- The major limitation of the project is that it is studied in reference to a particular time period (one year) which may not be sufficient to make interpretations for long term investors.

- Dow Theory analysis is a investors tool not an speculator's tool.
- It may not be so fruitful for Short term/intra day investors where main aim is speculation not holding of the stocks.
- As technical analysis is highly subjective in nature as it involves lot of geometric shapes and charting techniques and interpretations may be according to the eyes of the beholder.

6 CONCEPTUAL FRAMEWORK FOR TECHNICAL ANALYSIS

6.1 CHARTING TECHNIQUES

The **two types of scale** may be distinguished at a glance by the fact that on arithmetic paper, equal distances on the vertical scale (i.e., between horizontal lines) represent equal amounts in Rs, whereas on the semi-logarithmic paper, they represent equal percentage changes. Thus, on arithmetic paper the distance between 10 and 20 on the vertical scale is exactly the same as that from 20 to 30 and from 30 to 40. On the logarithmic scale the difference from 10 to 20, representing an increase of 100%, is the same as that from 20 to 40 or from 40 to 80, in each case representing another 100% increase. Percentage relations, it goes without saying, are important in trading in securities. The semi logarithmic scale permits direct comparison of high- and low-priced stocks and makes it easier to choose the one offering the greater (percentage) profit on the funds to be invested.

different types of charts employed here are:

**Arithmetic vs. Semi-logarithmic Charts**
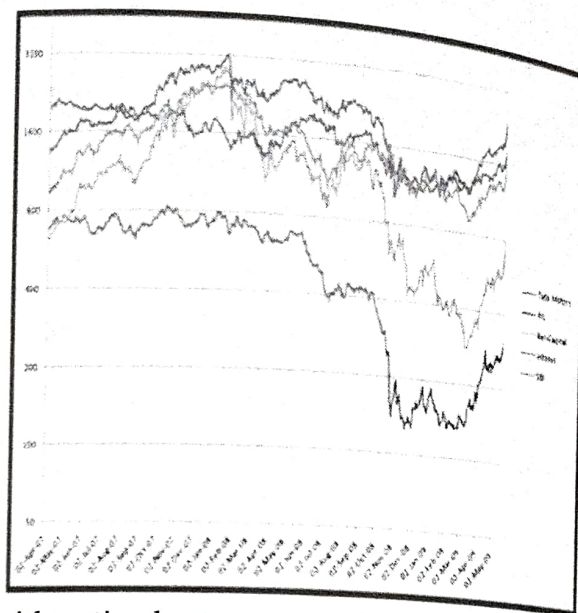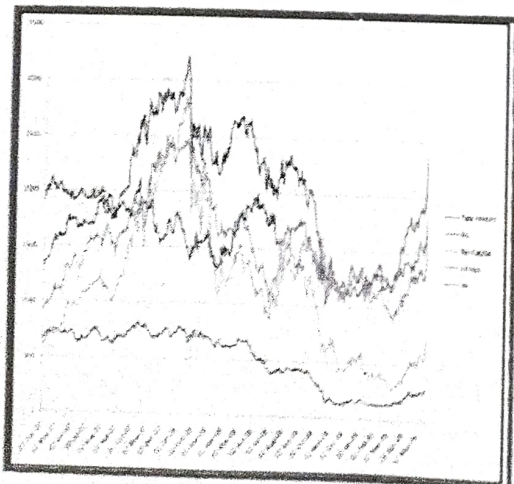
Arithmetic chart suggests that RIL & Reliance Capital are in extreme fall. But semi-logarithmic chart tells that fall in RIL is there but it's not extreme as shown by arithmetic chart & fall in Tata Motors is sharpest.

Arithmetic chart also tells that rise in RIL is highest & Tata Motors remains flat after January 2009. But semi-logarithmic chart again tells a different story. It shows that after January 2009 all stocks are in rising trends and also the rate of change in Tata Motors is extreme and in remaining stocks it is relatively low.

We can conclude that arithmetic charts are concerned with magnitude only but semi-logarithmic (logarithmic) charts tell the rate of change in stocks. The moral of the story is to be aware of the differences between the two types of charts and to be aware of which you are looking at when you make investment judgments.

6.1.1 Line charts vs.bar charts
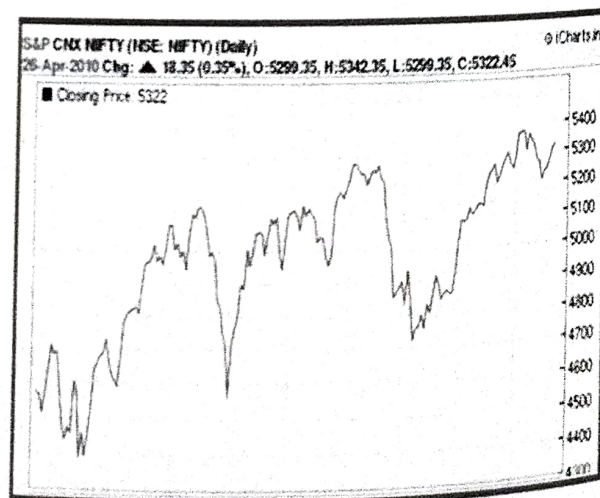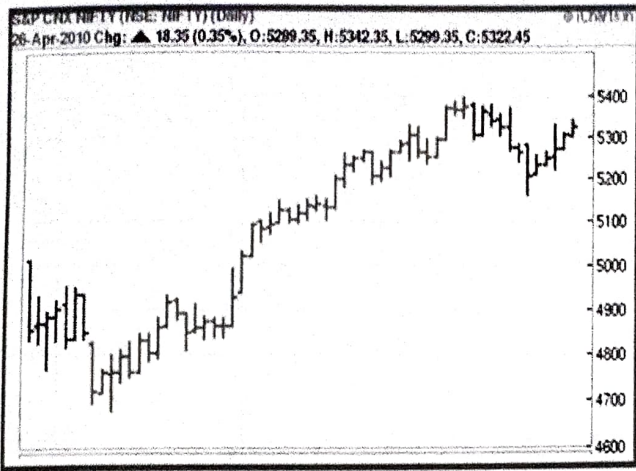
A line chart is the simplest type of the chart. The single line represents the closing of the stock each day. Prices are displayed along the right side of the graph.

A line chart's strength comes from its simplicity. It provides an uncluttered, easy to understand view of the security's price. Line charts are typically displayed using a security's closing prices.

A bar chart displays a security's open, high, low and closing prices. Bar charts are the most popular type of security chart .The top of each vertical bar represents the highest price that the security traded during the period, and the bottom of the bar represents the lowest price that it traded. A closing 'tick' is displayed on the right side of the bar to designate the last price that the security traded. If the opening prices are available, they are signified by a tick on the left side of the bar.

6.2 SUPPORT AND RESISTANCE

Think of prices for financial instruments as a result of a head-to-head battle between a bull (the buyer) and a bear (the seller). Bulls push prices higher, and bears lower them. The direction prices actually move shows who win the battle. [1] **(Footnotes)**

[1] Support and Resistance - Other Tools - Line Studies - Technical Analysis(book pages.mht

Support is a level at which bulls (i.e., buyers) take control over the prices and prevent them from falling lower.

Resistance, on the other hand, is the point at which sellers (bears) take control of prices and prevent them from rising higher. The price at which a trade takes place is the price at which a bull and bear agree to do business. It represents the consensus of their expectations.

Support levels indicate the price where the most of investors believe that prices will move higher. Resistance levels indicate the price at which the most of investors feel prices will move lower. But investor expectations change with the time, and they often do so abruptly. The development of support and resistance levels is probably the most noticeable and reoccurring event on price charts. The breaking through support/resistance levels can be triggered by fundamental changes that are above or below investor's expectations (e.g., changes in earnings, management, competition, etc.) or by self-fulfilling prophecy (investors buy as they see prices rise). The cause is not as significant as the effect: new expectations lead to new price levels. There are support/resistance levels, which are more emotional.

6.3 JAPANESE CANDLESTICK CHARTING
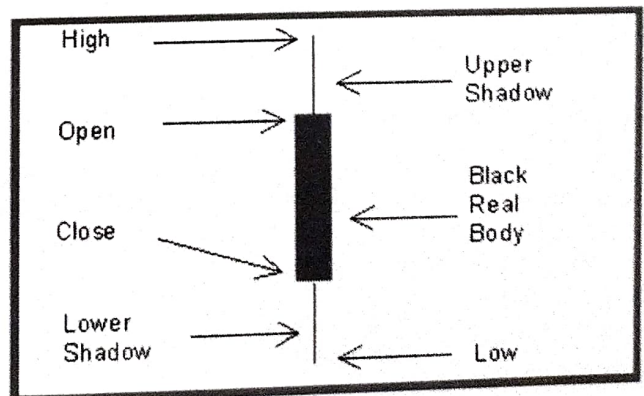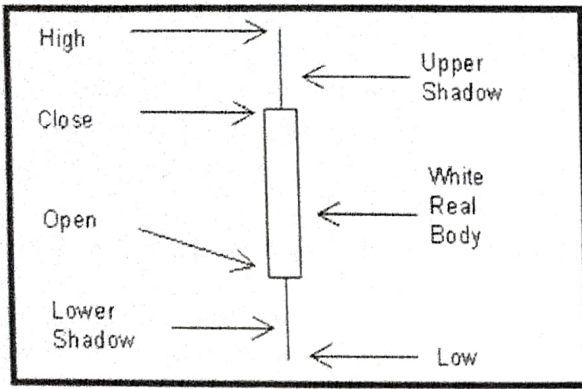
Candlesticks display the relationship between the open, high, low, and closing prices, they cannot be displayed on securities that only closing prices, not were they intended to be displayed on securities that lack opening prices.

There are four elements necessary to construct a candlestick chart, the OPEN, HIGH, LOW and CLOSING price for a given time period. Below are examples of candlesticks and a definition for each candlestick component:

- The body of the candlestick is called the real body, and represents the range between the open and closing prices.
- A black or filled-in body represents that the close during that time period was lower than the open, (normally considered bearish) and when the body is open or white, that means the close was higher than the open (normally bullish).
- The thin vertical line above and/or below the real body is called the upper/lower shadow, representing the high/low price extremes for the period.

The long, dark, filled-in real bodies represent a weak (bearish) close, while a long open, light-coloured real body represents a strong (bullish) close. It is important to note that Japanese candlestick analysts traditionally view the open and closing prices as the most critical of the day. At a glance, notice how much easier it is with candlesticks to determine if the closing price was higher or lower than the opening price.

6.4 MOVING AVERAGES

Moving averages are one of the most popular and the easiest tool available to technical analyst. It smoothen the trend and help us to spot trend for making buying and selling decisions.

The two most popular types of moving averages are simple moving averages and exponentially moving averages.

6.4.1 SIMPLE MOVING AVERAGES
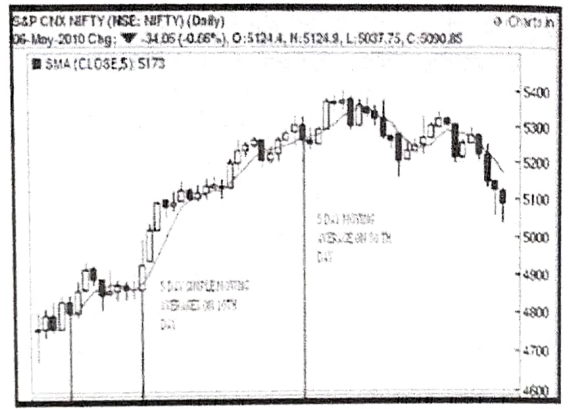
A simple moving average is formed by computing the average (mean) price of a security over a specified number of periods. While it is possible to create moving averages from the Open, the High, and the Low data points, most moving averages are created using the closing price. For example: a 5-day simple moving average is calculated by adding the closing prices for the last 5 days and dividing the total by 5.

10+11+12+13+14=60

60/5 =12

The calculation is repeated for each price bar on the chart. The averages are then joined to form a smooth curving line - the moving average line. Continuing our example, if the next closing price in the average is 15, then this new period would be added and the oldest day, which is 10, would be dropped. The new 5-day simple moving average would be calculated as follows:

11+12+13+14+15 =65

65/5= 13

Over the last 2 days, the SMA moved from 12 to 13. As new days are added, the old days will be subtracted and the moving average will continue to move over time

6.4.2 EXPONENTIAL MOVING AVERAGES
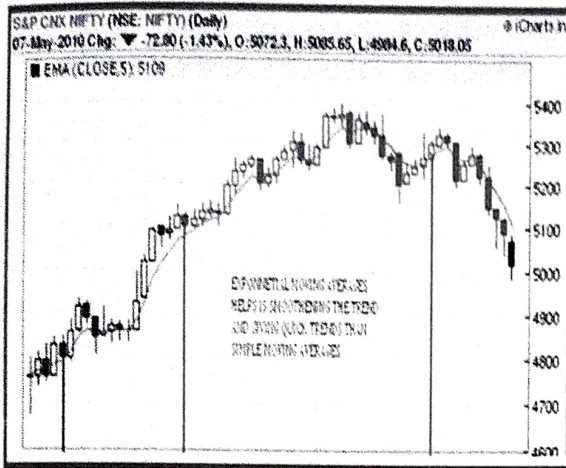
In order to reduce the lag in simple moving averages, technicians often use exponential moving averages (also called exponentially weighted moving averages). EMA's reduce the lag by applying more weight to recent prices relative to older prices. The weighting applied to the most recent price depends on the specified period of the moving averages. The shorter the EMA's period, the more weight will be applied to the most recent price. For example: a 10-period exponential moving average weighs the most recent price 18.18% while a 20-period EMA weighs the most

recent price 9.52%. The calculating and EMA is much harder than calculating an SMA. The important thing to remember is that the exponential moving average puts more weight on recent prices. As such, it will react quicker to recent price changes than a simple moving average. Here's the calculation formula.

6.4.2.1 Exponential moving average Calculation

Exponential moving averages can be specified in two ways - as a percent-based EMA or as a period-based EMA. A percent-based EMA has a percentage as it's single parameter while a period-based EMA has a parameter that represents the duration of the EMA.

The formula for an exponential moving average is:

EMA (Current) =((Price(current)-EMA (previous))*multiplier)+ EMA (previous)

For a percentage-based EMA, "Multiplier" is equal to the EMA's specified percentage. For a period-based EMA, "Multiplier" is equal to 2 / (1 + N) where N is the specified number of periods.

For example, a 20-period EMA's Multiplier is calculated like this:

[2/(1+21)]*100=9.52%

This means that a 20-period EMA is equivalent to an 9.52 % EMA.

| DATE	CLOSING PRICE			EXPONENTIAL MOVING AVERAGE
1-Apr-10	4345.2			
5-Apr-10	4403.9			
6-Apr-10	4410.3			
7-Apr-10	4424.95		-4.10875	
8-Apr-10	4381.7	-4.10875	2.69325	
9-Apr-10	4410.05	2.69325	-1.45825	-1.4155
12-Apr-10	4394.7	-1.45825	-1.07825	1.235
13-Apr-10	4383.35	-1.07825	-2.27525	-2.5365
15-Apr-10	4359.4	-2.27525	-1.62925	-3.3535
16-Apr-10	4342.25	-1.62925	-4.94045	-3.9045
19-Apr-10	4290.2	-4.94475	2.80725	-6.574
20-Apr-10	4319.75	2.80725	2.34175	-2.1375
21-Apr-10	4344.4	2.34175	1.159	5.149
22-Apr-10	4356.6	1.159	1.178	9.50075
23-Apr-10	4369	1.178	1.406	2.337
26-Apr-10	4383.8	1.406	-0.5225	2.584
27-Apr-10	4378.3	-0.5225	-6.004	0.8835
28-Apr-10	4315.1	-6.004	2.19925	-6.5265
29-Apr-10	4338.25	2.19925	2.83575	-3.80475
30-Apr-10	4368.1	2.83575		5.035

6.5 MOVING AVERAGES DIVERGENCE AND CONVERGENCE

6.5.1 MACD Formula

MACD is the difference between a security's 26-day and 12-day Exponential Moving Averages (EMAs). Using shorter moving averages will produce a quicker, more responsive indicator, while using longer moving averages will produce

a slower indicator, less prone to whipsaws. Of the two moving averages that make up MACD, the 12-day EMA is the faster and the 26-day EMA is the slower. Closing prices are used to form the moving averages. Usually, a 9-day EMA of MACD is plotted alongside to act as a trigger line. A bullish crossover occurs when MACD moves above its 9-day EMA, and a bearish crossover occurs when MACD moves below its 9-day EMA.

6.5.2 Positive Divergence
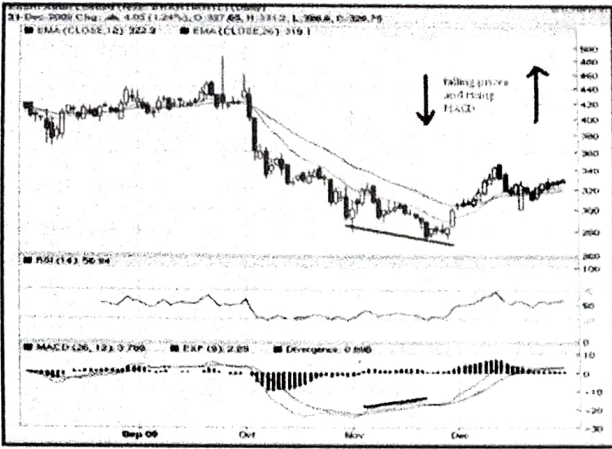
A Positive Divergence occurs when MACD begins to advance and the security is still in a downtrend and makes a lower reaction low. MACD can either form as a series of higher Lows or a second Low that is higher than the previous Low. Positive Divergences are probably the least common of the three signals, but are usually the most reliable, and lead to the biggest moves.

6.5.3 Bullish Moving Average Crossover

A Bullish Moving Average Crossover occurs when MACD moves above its 9-day EMA, or trigger line. Bullish Moving Average Crossovers are probably the most common signals and as such are the least reliable. If not used in conjunction with other technical analysis tools, these crossovers can lead to whipsaws and many false signals. Bullish Moving Average Crossovers are used occasionally to confirm a positive divergence. A positive divergence can be considered valid when a Bullish Moving Average Crossover occurs after the MACD Line makes its second "higher Low".

Sometimes it is prudent to apply a price filter to the Bullish Moving Average Crossover to ensure that it will hold. An example of a price filter would be to buy if MACD breaks above the 9-day EMA and remains above for three days. The buy signal would then commence at the end of the third day.

6.5.4 Bullish Centerline Crossover

A Bullish Centerline Crossover occurs when MACD moves above the zero line and into positive territory. This is a clear indication that momentum has changed from negative to positive, or from bearish to bullish. After a Positive Divergence and Bullish Centerline Crossover, the Bullish Centerline Crossover can act as a confirmation signal. Of the three signals, moving average crossover are probably the second most common signals.

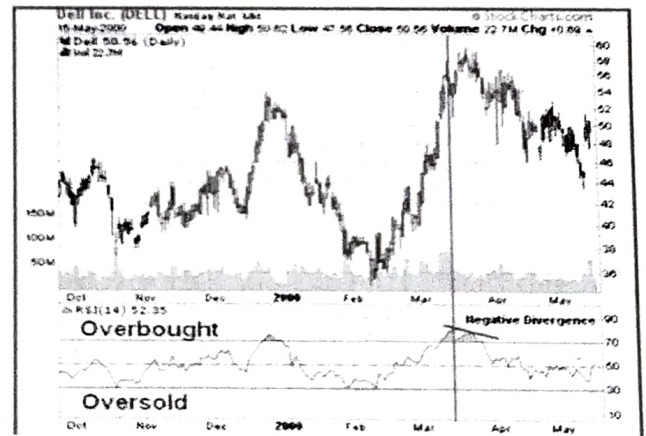## 6.6 RELATIVE STRENGTH INDEX

CALCULATION OF RSI

Rs = average gain/average loss

Average gain = [(preivouse average gain)*13+currnet gain)/14]

First average gain = total of gains during past 14 days/14

Average loss = [[previous average loss *13 +current loaa)/14]

First average loss = total of losses during the past 14 days/14

The losses are taken ignoring the negative values(absolute values are taken)

RSI Signals : Overbought/Oversold ,Divergences (discussed in MACD),Centre line Crossovers (discussed in MACD)

Overbought/Oversold

Wilder recommended using 70 and 30 as overbought and oversold levels respectively. Generally, if the RSI rises above 30 it is considered bullish for the underlying stock. Conversely, if the RSI falls below 70, it is a bearish signal. Some traders identify the long-term trend and then use extreme readings for entry points. If the long-term trend is bullish, then oversold readings could mark potential entry points.
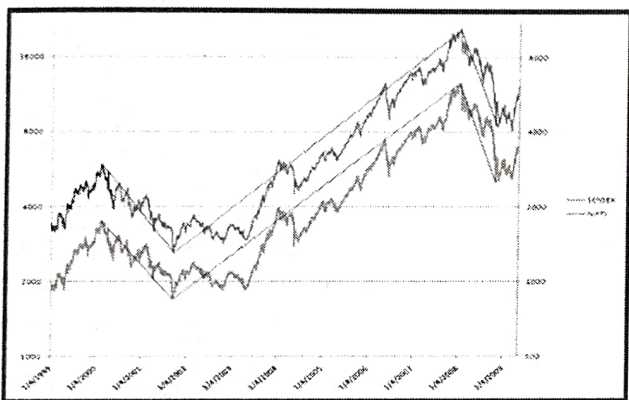
7 DOW THEORY APPLIED ON INDIAN MARKET (SENSEX & NIFTY)

Chart showing major trends of Sensex
I have applied Dow Theory on Indian Market. Figure is showing 10 year semi-logarithmic chart of Sensex and nifty starting from the year 1999. Black lines are showing major trends in Sensex and Nifty. It can be seen that Bear Market started in the second quarter of year 2000 and lasted till third quarter of 2001 and was changed into Bull Market then. Bull Market lasted till the first month of 2008. During this rally, Sensex went to new high of 20873 from previous low of 2600 & Nifty went to record high of 6287 from 854. Sensex & Nifty gained 700 and 640 basis points of its value from beginning to end of this rally.

Indian market started rising after going lowest on 21st Sep. 2001. Market was rising but it was not sure that whether bears have gone or not. Investors had gone frustrated and were thinking that whether these bears would ever come to end. But investors should think that stock market has vicious cycle. Bulls & Bears are just part of it & they come one after the other. Investor should keep this thing always in mind and should try to find out best times to enter and exit in market.

Bull market begins
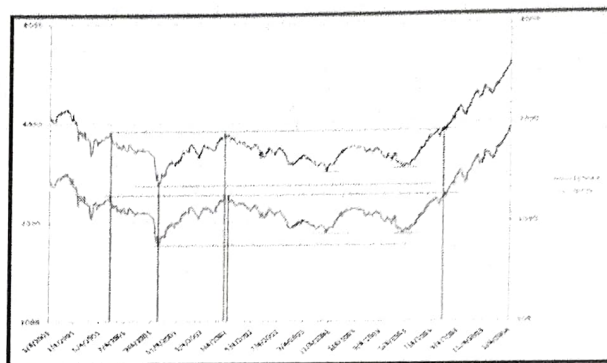
I have broken first figure (showing major trends) in parts and will analyse this chart in parts for better understanding. In next chart you can easily see that previous chart has been magnified and is showing only 3 year data (from 1st April 2001 to 1st April 2004). Sensex and Nifty both started rising after creating support on 21st Sep. 2001. Their new resistance were 3712 & 1189.4 respectively on 26th Feb. 2002 which was just below their previous resistance on 3742.1 and 1198.5. Both Sensex & Nifty got failed to break their previous resistances. They made two supports afterwards but neither one broke previous support too. So it can be analyzed that new buyers were not letting both indices to drop further. It would be the sign of new bull market. Actually the **accumulation** period had got started which is the first phase of bull market. And Sensex broke its previous resistance on 29th July 2003 but still Nifty had yet to done this. But it happened just after one week when on 4th April 2003 also broke its previous resistance and Sensex was still successful to keep itself above from its previous resistance. This was the confirmation to new bull rally. Bulls were again in the race. Second **phase of bull market has started now**.

Change in major trend (from bear to bull market) First correction
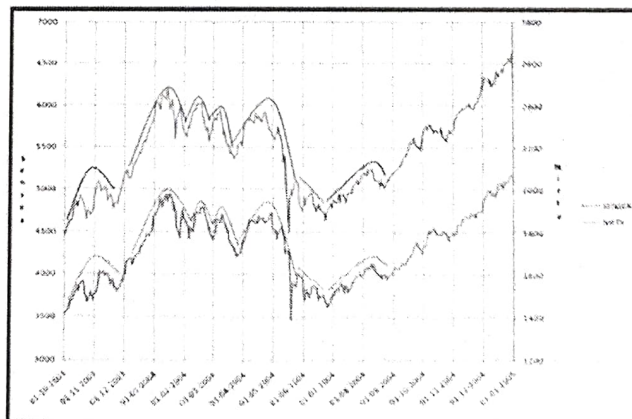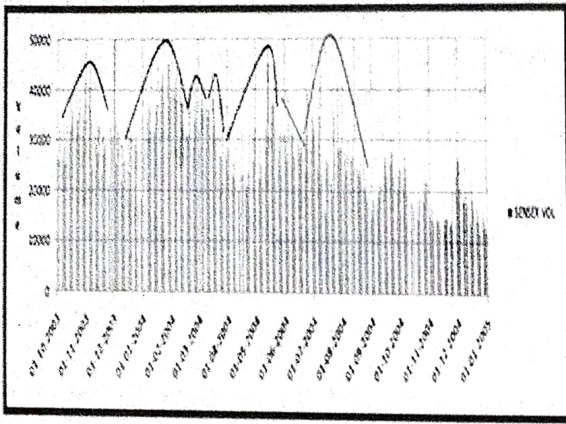
After touching the previous resistance market made big jumps and climbed more than 50% in eight months. Volumes were rising with rising values. But market became volatile for next few months and then tanked 20 % and created a new support. Volume decreased during this fall. Correction had occurred after rapid rise. Volume decreases during correction periods. After making low on 19 May 2004 indices market was again in upswing and broke previous resistance (before making support) on 2 Dec. 2004. Bulls were again in race. Volumes started rising. Market was cheering again. Correction has finished. Good days of investing had come back. The rule of Dow Theory says that be in same position until shift in trend is confirmed. This rule had helped investors once again.

Second Correction
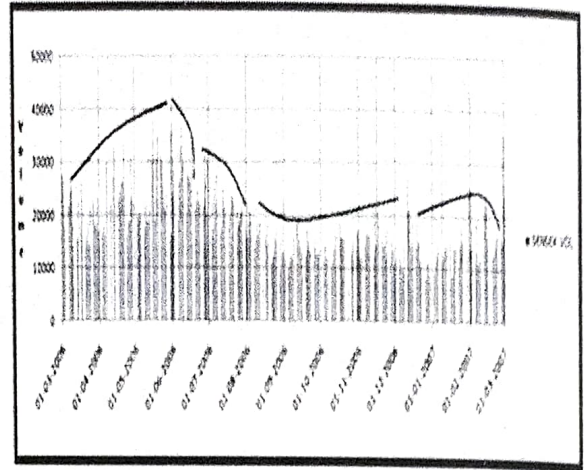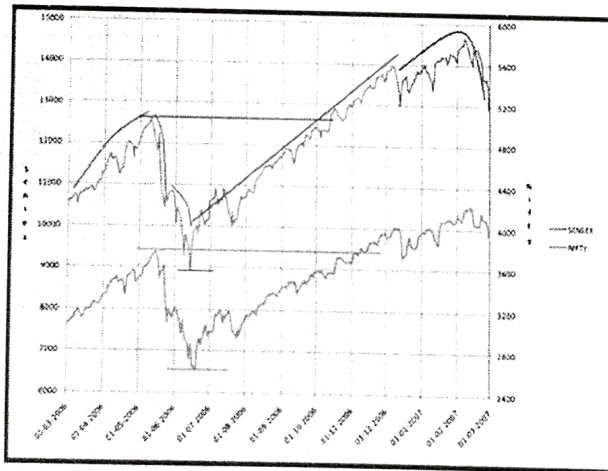
After finishing first correction bulls were again in race and this stage existed for one and half year. Market rose more than 90 % during this period. It was the time of new correction now. Sensex came back to 9000 after touching 12000. Volumes had shattered once again. Some investors might think that trend has changed. But volumes were not telling the same story. Volumes had shattered but correlation of value and volume was still positive. And Dow theory says that volume shows positive correlation with value during Bull market and negative correlation during Bears market. Market started rising. Sensex broke previous resistance on 13 Oct. 2006 but Nifty was still below its previous resistance. Nifty broke it on 3rd Nov. 2006. Second Correction was over.

Change in Trend from Bull to Bear
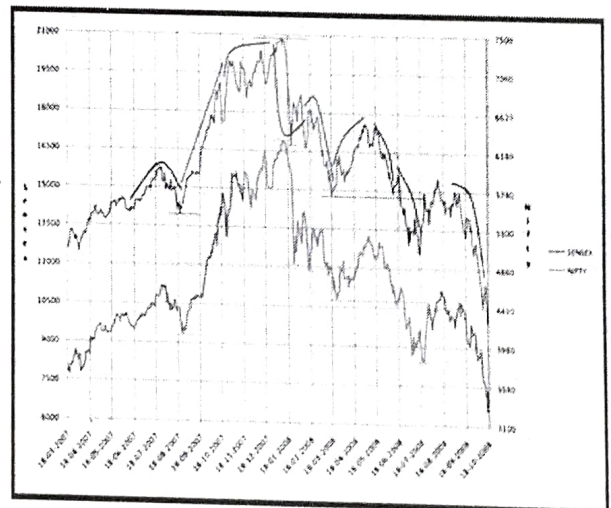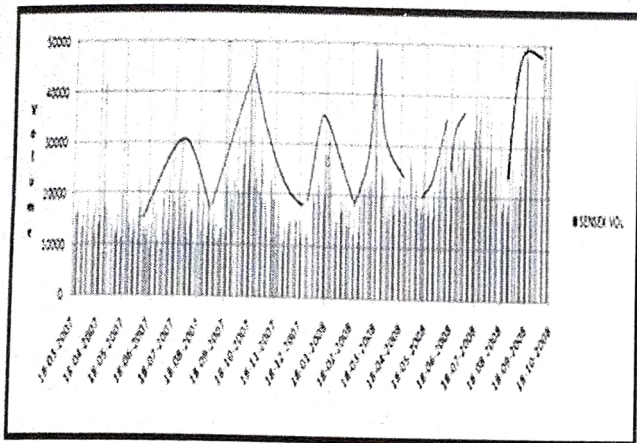
We can see in next figure that from mid October 2007, volume started showing negative correlation. These were the early signs of bear market. Also during this time market was rising like anything. Every penny stock has gained new highs. First page of almost every newspaper was showing news of stock market. Fundamentals of almost every stock were looking marvellous. People were giving advice to their friends and neighbours to purchase different stocks. Market was creating a bubble. All these early signs of bear market were enough for any intelligent investor. **Distribution** phase has started. Sensex touched 20800 and then declined for some days in straight but volume was increasing during this decline. Value made two lower lows in straight. It was the sign of bear market. **Second phase of bear market** has started. Negative correlation of volume with value along with other signs had done its work.

8 MACD AND RSI AS INDICATORS — ANALYSIS

8.1 *NIFTY*

PERIOD OF STUDY: 3RD MAY, 2009 TO 3RD MAY, 2010
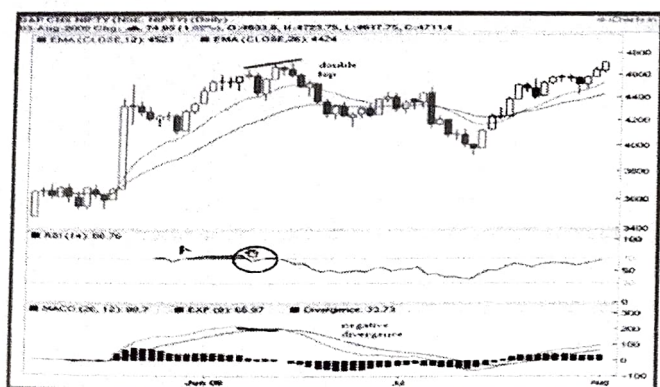
The entire period of study is sub divided into smaller periods to draw meaningful results and decisions.

Time frame of chart: 18th May, 2009 to 31st August, 2010

INTERPRETATIONS

From May 18 to June 8 the market was trading in the bullish zone with nifty showing a rise of 313 points in period of 20 days.

With the NIFTY rising by few more points till June 11 but observing the charts carefully one could clearly make out the breakout using the technical indicators

First sign was the **DOUBLE TOP FORMATION[2] (The same in indicated by the black line in the upper indicator)** and a signal of **NEGATIVE DIVERGENCE (Is indicated by the lower end of the chart)** signaling that, there is going to be s trend reversal it can be further confirmed by the fact that the **RSI** trading in the over bought zone for the second time 'b' giving a clear sign that the trend is going to break and soon after the signal the nifty broke down on June 12 and touched lows till July 13 after falling by 609 points.

**Time frame of the chart: 3rd August 2009 to 3 February, 2010**
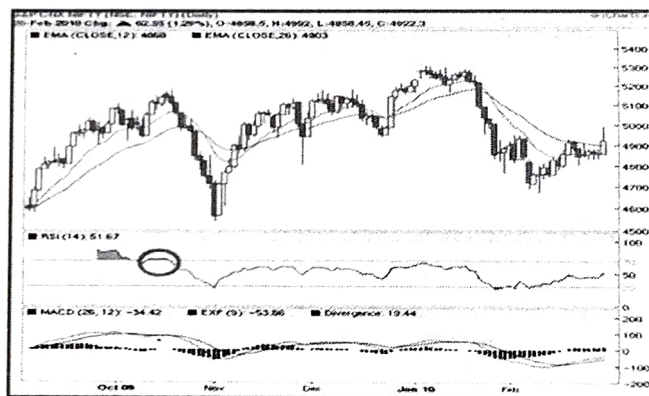
The NIFTY is having a strong bullish trend and it showed a rise of 689 points in a short span of time. After this period also it achieved new heights from closing above its resistance level[3] of 5083 and raising by 31 points.

But, the Technical indicators were indicating loss of momentum as the **MACD** showed a negative divergence[4](as indicated by the yellow lines by the lower part of the chart) as the prices were trying to achieve new heights the **MACD** failed to confirm the same and the breaking of the trend can be further confirmed by the **RSI** being in the over bought area(indicated by green circle) and

achieving a double top and second top giving a clear signal for a trend reversal and the same was confirmed when for the next few days the nifty fell sharply by 403 points indicating a bearish take over.

NIFTY STOCKS - INTERPRETATIONS

8.2 ICICI BANK
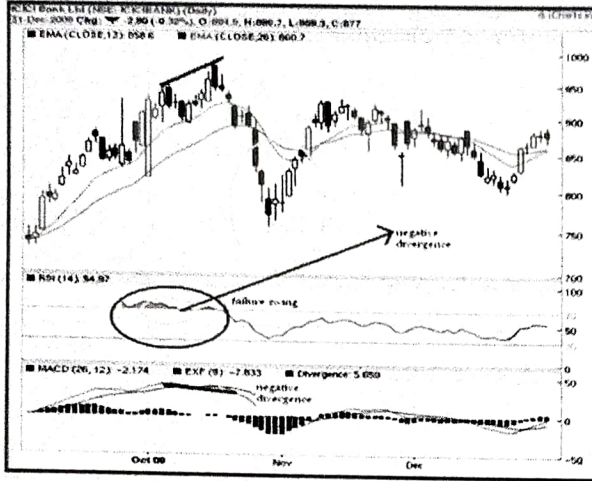
The period of study is 1st September, 2009 to 3rd January, 2010

A strong sign of divergence can be clearly indicated in both MACD AND RSI the indicators that are showing a reversal in trend from bullish to bearish. The trend showed a continuous rise from the period of 12th August to 20th October giving the stock price a boast from of 710.10 to 948.1. A rise of close to 250 rupees in a span of 30 days .Then it indicated a sudden plunge in the price from 948.1 to771.8 in the span of 12 days and the fall being 176.3.The price were signaling that the bullish trend is on but the indicators failed to convey the same indicating that the push of prices is just momentary in nature so a great possibility of change in the trend.

Also the divergence was clearly indicated by the RSI DIVERGENCE which gave a great confirmation to the traders known as the failure swing not only the MACD but also RSI indicated the same as the prices were touching new heights but RIS was making lower lows are was also trading in the over bought[5] situation indicating that the prices will come in the trading range in some time.

The period of study is from 3rd February to 3rd May 2010
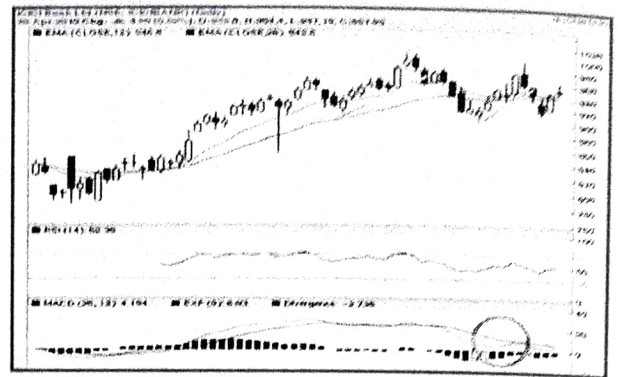
A couple of recent divergence can be identified, though the divergence is not showing strong signals of reversals but can be used in a small framework to book profits .But, we can clearly conclude that as soon as we see the sign of negative divergence there is a break in the previous trend can see the signs of trend reversals. But the RSI alone failed to give any kind of signals for the trend reversal

A same trend can been see near the close of April after a rise in stock for a couple of days a divergence can be identified showing us that the reversal is going to take place.

8.3 Bharti Airtel
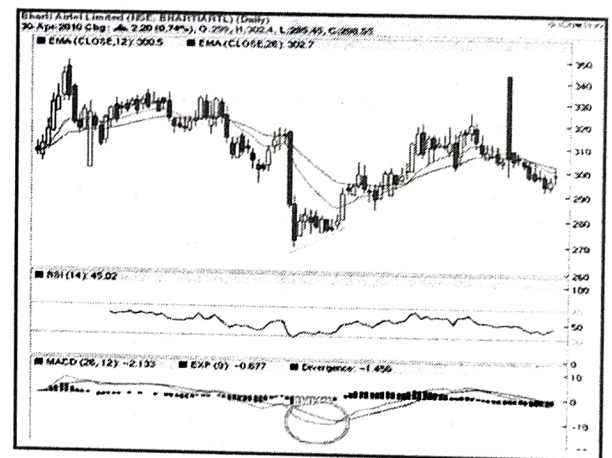
TIME FRAME: 1st August, 2009 to 1st January, 2010

This is the case of positive divergence as the prices of the stocks are continuously falling but the macd on the other hand is rising giving us the singal of trend reversal from bearish to bullish .Bharti is on its continious fall from october 5 to november 27 we are able to capture the change only in the middle of the price fall. But we can safely conclude that the momentum is rising giving signs of uptrend.
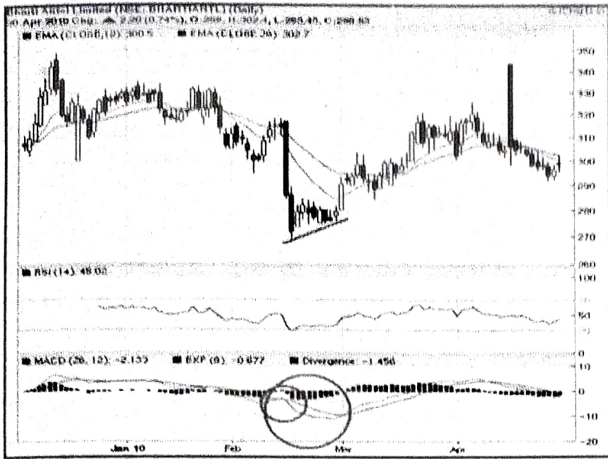
TIME FRAME: 1st December to 3rd May 2010

As the technical are based on the past history and this is the exception to the study of MACD as the momentum is falling but the stock in the coming days failed to signal the same .as instead of falling the stock attained new heights and failed to predict the change in the trend.

It is a clear indication that we have to wait for a confirmation or otherwise false signs can mislead us. So as a rule of thumb we wait for three trading days to get confirmation I this case we dint see any kind of trend reversal even when the crossover was there. So divergence is the best signal to get the confirmation.

For believing that weather there is a bullish/bearish crossover alone with the centerline crossover in any of the positive or the negative side one need to wait for three days to get the confirmation for the same.

8.4 STATE BANK OF INDIA
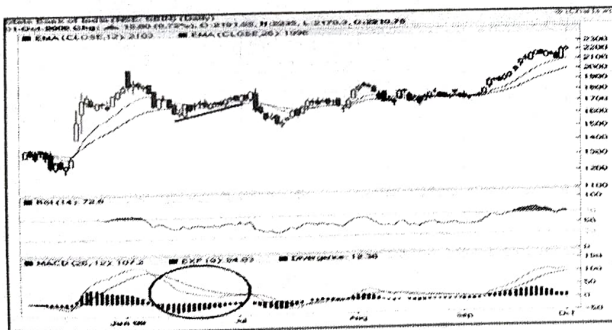
TIME FRAME: 1st May and 1st October

Though the same did not show any big reversal in change in the trend but it's the rite time to book the profits as again a rounded pattern of

divergence can be seen as the prices are attaining new heights in the mid of June after a fall creating a confusion as to that it may be a point to change in the trend from bearish to bullish. But the indicators cleared a doubt that it's just whipsaws and to go with the rising trend and it can be clearly interpreted that after this the stock attained a new low. The coloured line indicated in black and green show the same.

8.5 TATA STEEL LIMITED
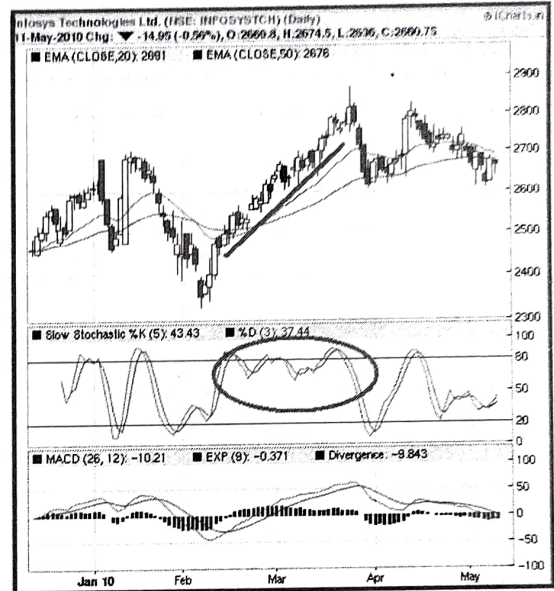
TIME FRAME: 1st December 2009 to 5th May 2010

A new kind of technical indicator is being used know as stochastic similar to the relative strength index working with in the band limit on 80 and 20 indicating over bought and over sold respectively. The same is indicated by the circles in the middle of the charts.

For the same the investor can take their position as soon as it crosses the 80 or the 20 mark and also if the red line is over the above blue line indicated by taking the positions to buy and vice versa to sell.

The second kind of indication in the same stochastic is the known as the divergence similar to the moving average divergence and convergence a negative divergence can be seen in the stochastic as the stochastic is making lows whereas the prices are making new heights indicating an early signal to take positions

The arrows in the price chart clearly indicate the various areas of buy and sell decisions for the investors investing for short time frame.

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