

A STUDY ON FUNDAMENTAL AND TECHNICAL ANALYSIS

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ABSTRACT

The unique nature of capital market instruments forces investors to depend strongly on fundamental factors in their investment decisions. These fundamental factors relate to the overall economy or a specific industry or a company. The performance of the securities that represent the company can be said to depend on the performance of the company itself. However, as companies are a part of industrial and business sector, which in turn are a part of overall economy, so even the economic and industry factors can affect the investment decision. The selection of an investment will start with fundamental analysis. Fundamental analysis examines the economic environment, industry performance and company performance before making an investment decision.

KEYWORDS: Capital market, fundamental factors, investment decisions.

INTRODUCTION

Fundamental analysis is the examination of the underlying forces that affect the well being of the economy, industry groups and companies. As with most analysis, the goal is to develop a forecast of future price movement and profit from it. At the company level, fundamental analysis may involve examination of financial data, management, business concept and competition. At the industry level, there might be an examination of supply and demand forces of the products. For the national economy, fundamental analysis might focus on economic data to assess the present and future growth of the economy.

To forecast future stock prices, fundamental analysis combines economic, industry, and company analysis to derive a stock's fair value called intrinsic value. If fair value is not equal to the current stock price, fundamental analysts believe that the stock is either over or under valued. As the current market price will ultimately gravitate towards fair value, the fair value should be estimated to decide whether to buy the security or not. By believing that prices do not accurately reflect all available information, fundamental analysts look to capitalize on perceived price discrepancies.

Fundamental Analysis is a method of evaluating a security by attempting to measure its intrinsic value by examining related economic, financial and other qualitative and quantitative factors. Fundamental analysts attempt to study everything that can affect the security's value, including macroeconomic factors (like the overall economy and industry conditions) and individual specific factors (like the financial condition and management of companies).

OBJECTIVES OF FUNDAMENTAL ANALYSIS

- ✓ To predict the direction of national economy because economic activity affects the corporate profit, investor attitudes and expectation and ultimately security prices.
- ✓ To estimate the stock price changes by studying the forces operating in the overall economy, as well as influences peculiar to industries and companies.
- ✓ To select the right time and right securities for the investment

THREE PHASES OF FUNDAMENTAL ANALYSIS

- 1) Understanding of the macro-economic environment and developments (Economic Analysis)
- 2) Analyzing the prospects of the industry to which the firm belongs (Industry Analysis)
- 3) Assessing the projected performance of the company (Company Analysis)

The three phase examination of fundamental analysis is also called as an EIC (Economy-Industry-Company analysis) framework or a top-down approach-

Here the financial analyst first makes forecasts for the economy, then for industries and finally for companies. The industry forecasts are based on the forecasts for the economy and in turn, the company forecasts are based on the forecasts for both the industry and the economy. Also in this approach, industry groups are compared against other industry groups and companies against other companies. Usually, companies are compared with others in the same group. For example, a telecom operator (Spice) would be compared to another telecom operator not to an oil company.

Thus, the fundamental analysis is a 3 phase analysis of

- a) The economy
- b) The industry and
- c) The company

Phase	Nature of Analysis	Purpose	Tools and techniques
FIRST	Economic Analysis	To access the general economic situation of the nation.	Economic indicators
SECOND	Industry Analysis	To assess the prospects of various industry groupings.	Industry life cycle analysis, Competitive analysis of industries etc.
THIRD	Company Analysis	To analyse the Financial and Non-financial aspects of a company to determine whether to buy, sell or hold the shares of a company.	Analysis of Financial aspects: Sales, Profitability, EPS etc. Analysis of Non-financial aspects: management, corporate image, product quality etc.

STRENGTHS OF FUNDAMENTAL ANALYSIS

✓ Long-term Trends

Fundamental analysis is good for long term investments based on long-term trends. The ability to identify and predict long-term economic, demographic, technological or consumer trends can benefit investors and helps in picking the right industry groups or companies.

✓ Value Spotting

Sound fundamental analysis will help identify companies that represent a good value. Some of the most legendary investors think for long-term and value. Fundamental analysis can help uncover the companies with valuable assets, a strong balance sheet, stable earnings, and staying power.

✓ Business Acumen

One of the most obvious, but less tangible rewards of fundamental analysis is the development of a thorough understanding of the business. After such painstaking research and analysis, an investor will be familiar with the key revenue and profit drivers behind a company. Earnings and earnings expectations can be potent drivers of equity prices. A good understanding can help investors avoid companies that are prone to shortfalls and identify those that continue to deliver.

✓ **Value Drivers**

In addition to understanding the business, fundamental analysis allows investors to develop an understanding of the key value drivers within the company. A stock's price is heavily influenced by the industry group. By studying these groups, investors can better position themselves to identify opportunities that are high-risk (tech), low-risk (utilities), growth oriented (computer), value driven (oil), non cyclical (consumer staples), cyclical (transportation) etc.

✓ **Knowing Who is Who**

Stocks move as a group. Knowing a company's business, investors can better categorize stocks within their relevant industry group that can make a huge difference in relative valuations. The primary motive of buying a share is to sell it subsequently at a higher price. In many cases, dividends are also to be expected. Thus, dividends and price changes constitute the return from investing in shares. Consequently, an investor would be interested to know the dividend to be paid on the share in the future as also the future price of the share. These values can only be estimated and not predicted with certainty. These values are primarily determined by the performance of the company which in turn is influenced by the performance of the industry to which the company belongs and the general economic and socio-political scenario of the country.

An investor who would like to be rational and scientific in his investment activity has to evaluate a lot of information about the past performance and the expected future performance of companies, industries and the economy as a whole before taking investment decision. Each share is assumed to have an economic worth based on its present and future earning capacity. This is called its intrinsic value or fundamental value. The purpose of fundamental analysis is to evaluate the present and future earning capacity of a share based on the economy, industry and company fundamentals and thereby assess the intrinsic value of the share. The investor can then compare the intrinsic value of the share with the prevailing market price to arrive at an investment decision. If the market price of the share is lower than its intrinsic value, the investor would decide to buy the share as it is underpriced. The price of such a share is expected to move up in future to match with its intrinsic value.

On the contrary, when the market price of a share is higher than its intrinsic value, it is perceived to be overpriced. The market price of such a share is expected to come down in future and hence, the investor would decide to sell such a share. Fundamental analysis thus provides an analytical framework for rational investment decision-making. Fundamental analysis insists that no one should purchase or sell a share on the basis of tips and rumours. The fundamental approach calls upon the investor to make his buy or sell decision on the basis of a detailed analysis of the information about the company, the industry to which the company belongs, and the economy. This results in informed investing.

The fundamental analysis can be valuable, but it should be approached with caution. If you are reading research written by a sell-side analyst, it is important to be familiar with the analyst behind the report. We all have personal biases, and every analyst has some sort of bias. There is nothing wrong with this, and the research can still be of great value. Learn what the ratings mean and track the record of an analyst before jumping to a conclusion. Corporate statements and press

releases of a company offer good information, but they should be read with a healthy degree of scepticism to separate the facts from the spin. Press releases don't happen by accident; they are an important PR tool for companies. Investors should become skilled readers to weed out the important information and ignore the hype.

TECHNICAL ANALYSIS

Fundamental analysis and Technical analysis are the two main approaches to security analysis. Technical analysis is frequently used as a supplement to fundamental analysis rather than as a substitute to it. According to technical analysis, the price of stock depends on demand and supply in the market place. It has little correlation with the intrinsic value. All financial data and market information of a given stock is already reflected in its market price.

Technical analysts have developed tools and techniques to study past patterns and predict future price. Technical analysis is basically the study of the markets only. Technical analysts study the technical characteristics which may be expected at market turning points and their objective assessment. The previous turning points are studied with a view to develop some characteristics that would help in identification of major market tops and bottoms. Human reactions are, by and large consistent in similar though not identical reaction; with his various tools, the technician attempts to correctly catch changes in trend and take advantage of them.

Technical analysis is directed towards predicting the price of a security. The price at which a buyer and seller settle a deal is considered to be the one precise figure which synthesis, weighs and finally expresses all factors, rational and irrational, quantifiable and non-quantifiable and is the only figure that counts.

Thus, the technical analysis provides a simplified and comprehensive picture of what is happening to the price of a security. Like a shadow or reflection it shows the broad outline of the whole situation and it actually works in practice.

ASSUMPTIONS OF TECHNICAL ANALYSIS

- ✓ The market value of a security is solely determined by the interaction of demand and supply factors operating in the market.
- ✓ The demand and supply factors of a security are surrounded by numerous factors; these factors are both rational as well as irrational.
- ✓ The security prices move in trends or waves which can be both upward or downward depending upon the sentiments, psychology and emotions of operators or traders.
- ✓ The present trends are influenced by the past trends and the projection of future trends is possible by an analysis of past price trends.
- ✓ Except minor variations, stock prices tend to move in trends which continue to persist for an appreciable length of time.
- ✓ Changes in trends in stock prices are caused whenever there is a shift in the demand and supply factors.

- ✓ Shifts in demand and supply, no matter when and why they occur, can be detected through charts prepared specially to show market action.
- ✓ Some chart trends tend to repeat themselves. Patterns which are projected by charts record price movements and these patterns are used by technical analysis for making forecasts about the future patterns.

TOOLS AND TECHNIQUES OF TECHNICAL ANALYSIS

There are numerous tools and techniques for doing technical analysis. Basically this analysis is done from the following four important points of view:-

- 1) **Prices:** Whenever there is change in prices of securities, it is reflected in the changes in investor attitude and demand and supply of securities.
- 2) **Time:** The degree of movement in price is a function of time. The longer it takes for a reversal in trend, greater will be the price change that follows.
- 3) **Volume:** The intensity of price changes is reflected in the volume of transactions that accompany the change. If an increase in price is accompanied by a small change in transactions, it implies that the change is not strong enough.
- 4) **Width:** The quality of price change is measured by determining whether a change in trend spreads across most sectors and industries or is concentrated in few securities only. Study of the width of the market indicates the extent to which price changes have taken place in the market in accordance with a certain overall trends.

DOW THEORY

The Dow Theory, originally proposed by Charles Dow in 1900 is one of the oldest technical methods still widely followed. The basic principles of technical analysis originate from this theory.

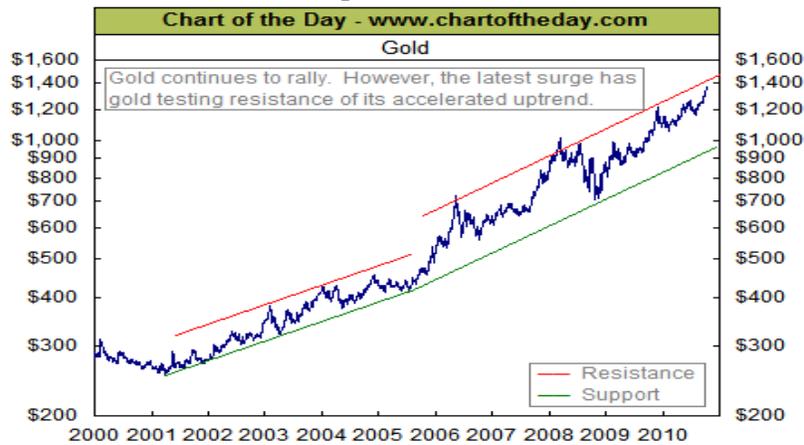
According to **Charles Dow** *“The market is always considered as having three movements, all going at the same time. The first is the narrow movement from day to day. The second is the short swing, running from two weeks to a month or more and the third is the main movement, covering at least four years in its duration”*.

The Theory advocates that stock behaviour is 90% psychological and 10% logical. It is the mood of the Crowd which determines the way in which prices move and the move can be gauged by analysing the price and volume of transactions.

The Dow Theory only describes the direction of market trends and does not attempt to forecast future movements or estimate either the duration or the size of such market trends. The theory uses the behaviour of the stock market as a barometer of business conditions rather than as a basis for forecasting stock prices themselves. It is assumed that most of the stocks follow the underlying market trend, most of the times.

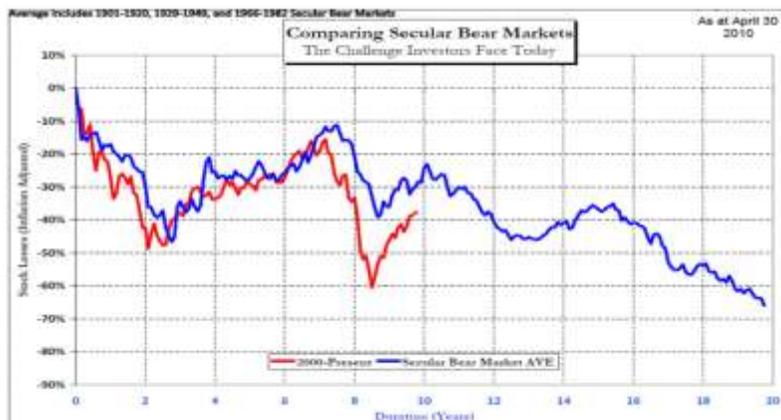
A trend should be assumed to continue in effect until such time as its reversal has been definitely signalled. The end of a bull market is signalled when a secondary reaction of decline carries prices lower than the level recorded during the earlier reaction and the subsequent advance fails to carry prices above the top level of the preceding recovery. The end of a bear market is signalled when an intermediate recovery carries prices to a level higher than the one registered in the previous advance and the subsequent decline halts above the level recorded in the earlier reaction.

Table 1: Example of bull market trend.



The above figure shows that a bull market interrupted by reactions.

Table 2: Bear market trend.



The above figure shows that a bear market interrupted by recoveries.

CHARTING

Charting is the basic tool in technical analysis, which provides visual assistance in detecting changing pattern of price behaviour. The technical analyst is sometimes called the Chartist because of importance of this tool. The Chartists believe 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 reappear in the future. The various types of commonly used charts are:

- a) Line Chart
- b) Bar Chart
- c) Point and figure Chart

Line Charts: The simplest form of chart is a line chart. Line charts are simple graphs drawn by plotting the closing price of the stock on a given day and connecting the points thus plotted over a period of time. Line charts take no notice of the highs and lows of stock prices for each period.

Table 3: The following figure presents a typical line chart



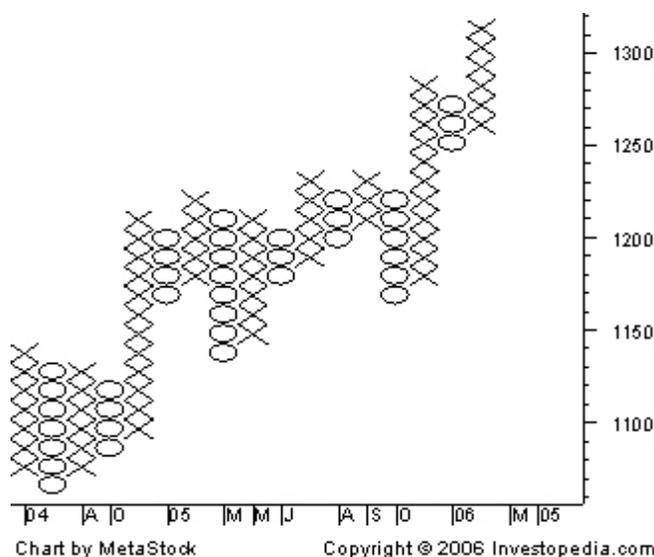
Bar Charts: It is a simple charting technique. In this chart, prices are indicated on the vertical axis and the time on horizontal axis. The market or price movement for a given session (usually a day) is represented on one line. The vertical part of the line shows the high and low prices at which the stock traded or the market moved. A short horizontal tick on the vertical line indicates the price or level at which the stock or market closed:

Table 4: The following figure shows a bar Chart.



Point and Figure Chart (PFC): Though the point and figure chart is not as commonly used as the other two charts, it differs from the others in concept and construction. In PFC there is no time scale and only price movements are plotted. As a share price rises, a vertical column of crosses is plotted. When it falls, a circle is plotted in the next column and this is continued downward while the price continues to fall. When it rises again, a new vertical line of crosses is plotted in the next column and so on. A point and figure chart that changes column on every price reversal is cumbersome and many show a reversal only for price changes of three units or more (a unit of plot may be a price change of say one rupee).

Table 5: The following figure shows a point and figure chart:



TRENDS

A trend can be defined as the direction in which the market is moving. Up trend is the upward movement and downtrend is the downward movement of stock prices or of the market as measured by an average or index over a period of time, usually longer than six months. Trend lines are lines that are drawn to identify such trends and extend them into the future. These lines typically connect the peaks of advances and bottoms of declines. Sometimes, an intermediate trend that extends horizontally is seen.

Table 6: Upward trend chart



Table 7: Downward trend chart



SIDeways TREND

A sideways trend is characterised by stock prices trading in a range where successive peaks occur at the same level and successive troughs occur at the same level. The two levels create parallel trend lines. During this time the investor should be extra careful and wait for more definite indicators of the future market movement.

Table 8: Sideway trend chart



Trend lines encompass advances and declines by joining successive tops and bottoms. Sometimes, it is useful to trap trends by drawing trend lines on both the sides of an upward or downward trend. These parallel lines drawn to encompass trends from both the sides are called channels.

MOVING AVERAGE ANALYSIS

The statistical method of moving averages is also used by technical analysts for forecasting the prices of shares. While trends in share prices can be studied for possible patterns, sometimes it may so happen that the prices appear to move rather haphazardly and be very volatile. Moving average analysis can help under such circumstances. A moving average is a smoothed presentation of underlying historical data. ***It is a summary measure of price movement which reduces the distortions to a minimum by evening out the fluctuations in share prices.*** The underlying trend in prices is clearly disclosed when moving averages are used.

To construct a moving average the time span of the average has to be determined. A 10 day moving average measures the average over the previous 10 trading days, a 20 day moving average measures the average values over the previous 20 days and so on. Regardless of the time period used, each day a new observation is included in the calculation and the oldest is dropped, so a constant number of points are always being averaged.

The moving averages are worked out in respect of securities studied and depicted on the graph. Whenever the moving average price line cuts the actual price line of the security or of the market index from the bottom it is a signal for the investors to sell the shares. Conversely, when the moving average price line cuts the actual price line from above, it is the right time to buy shares. The moving average analysis is quite a useful method in finding out the trends in security prices when it is based on long-term approach. However, a point of caution is in order. Moving average

analysis always invariably provide signal to buy or sell, after the trend reversal has begun. ***These are neither lead indicators nor juncture points for change in trends.*** The moving averages should therefore, be used only with other indicators, otherwise these may provide true, but mathematically inaccurate information. The technical analysts can use three types of moving averages -simple, weighted or exponential.

RELATIVE STRENGTH

The empirical evidence shows that certain securities perform better than other securities in a given market environment and this behaviour remains constant over time. ***Relative strength is the technical name given to such securities by the technical analysts because these securities have stability and are able to withstand both depression and peak periods.*** Investors should invest in such securities, because these have constant strength in the market. The relative strength analysis may be applied to individual securities or to whole industries or portfolios consisting of stock and bonds. The relative strength can be calculated by:

- i. Measuring the rate of return of securities
- ii. Classifying securities
- iii. Finding out the high average return of securities
- iv. Using the technique of ratio analysis to find out the strength of an individual security.

Technical analysts measure relative strength as an indication for finding out the return of securities. They have observed that those securities displaying greatest relative strength in good markets (bull) also show the greatest weakness in bad markets (bear). These securities will rise and fall faster than the market.

Technical analysts explain relative strength as a relationship between risk and return of a security following the trends in the economy. After preparing charts from different securities over a length of time, the technician would select certain securities which showed relative strength to be the most promising investment opportunities.

RESISTANCE AND SUPPORT LEVELS

The peak price of the stock is called the resistance area. Resistance level is the price level to which the stock or market rises and then falls repeatedly. This occurs during an uptrend or a sideways trend. It is a price level to which the market advances repeatedly but cannot break through. At this level, selling increases which causes the price fall.

Support level shows the previous low price of the stock. It is a price level to which a stock or market price falls or bottom out repeatedly and then bounce up again. Demand for the stock increases as the price approaches a support level. The buying pressure or the demand supports the price of stock preventing it from going lower.

Table 9: Resistance & Support level trend chart

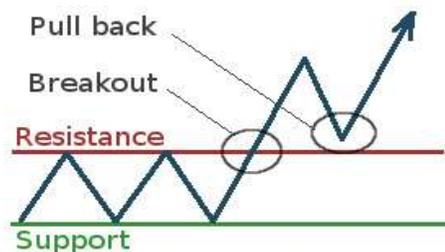


The figure shows that if the share price persistently fails to rise above a certain level, this is known as resistance level. This is perhaps because at this price people who purchased previously, but then saw the share prices fall, took the opportunity to sell at the price they previously paid. Likewise, a support level is a price at which buyers constantly seem to come forward to prevent the share prices dropping any further.

The support and resistance levels are important tools in confirming a reversal, in forecasting the course of prices, and in making appropriate price moves.

BREAK-OUT THEORY

Break out is also called as ‘confirmation’. This is indicated by drawing a line, which is a period of consolidation, when the share prices move sideways within a range of about 5% of the share price. Eventually a break out will occur and it is often suggested that the longer the period of consolidation, the greater will be the extent of ultimate rise or fall.



Breakout is a signal for the investors who wish to buy or sell their stocks.

HEAD AND SHOULDERS PATTERN

The Head and Shoulders pattern is by far the most reliable and widely used of all reversal patterns. This pattern indicates a reversal of an uptrend. This pattern occurs at the end of a bull market and is characterised by two smaller advances flanking a higher advance just as the head lies in between two shoulders.

Table 10: A typical head and shoulder formation chart:



In reality, the shoulders are not always symmetrical. This does not in any way alter the signals provided by the pattern. The important requirement is that the shoulders should be at lower levels than the head. The left shoulder is seen during the time when there is a lull in the trading market followed by heavy purchases. The quiet time in trading called lull is such to raise the price by pushing to a new peak. The head faces with the time when there are heavy purchases in the market that it raises it and then it falls back to indicate that it is far below the top of the left shoulder. The right shoulder indicates that the price rises moderately by the activity in the market but it does not rise in such a manner that it reaches higher than the top of the head while it is reaching top, it begins to fall again and such a decline is indicated. The formation is easily discernible once the right shoulder is formed. The line that joins the points from where the final advance begins and ends is called the neckline. A trend reversal almost always occurs when the neckline is penetrated by the price line.

The head and shoulders pattern may be formed over short period of a few weeks or taken even years to emerge. This pattern is the most reliable indicator of the onset of a bear market. The method also provides scope for measuring the extent of fall in prices. The prices are expected to decline after the penetration of the neckline by the price line, at least as much as the distance between the head and the neckline.

DOUBLE TOP FORMATION

The double top occurs as an uptrend is about to reverse itself. A double top is formed when prices reach the previous high and react immediately, the two highs reached being almost at the same level. Two peaks at comparable heights are seen, with a reaction forming a valley between them. The prices breakout into a bearish phase, once they penetrate the neckline drawn across the bottom of the intervening reaction. The measuring implication is similar as for the head and shoulder formation. If the price line falls below the neckline by a distance equal to the distance between the peak and the trough the indication is to sell. Volume is found to be distinctly low at the second top.

Table 11: Double top formation chart



DOUBLE BOTTOM FORMATION

A double bottom pattern is just the reverse of a double top and occurs at the end of a downtrend in prices. In double bottom, the second decline is supported by substantially more volume, indicating the price about to rise. The following figure shows the double bottom formation: Sometimes, the tops and bottoms are not found exactly at equal levels, but still these provide valid reversal signals. Sometimes the patterns extend to triple tops or triple bottoms. It must be remembered that longer it takes for the second top (bottom) to appear and deeper the intervening valley (peak) more reliable will be the reversal.

CONCLUSION

Investment is a financial activity that involves risk. It is the commitment of funds for a return expected to be realised in the future. Investments may be made in financial assets or physical assets. In either case there is the possibility that the actual return may vary from the expected return. That possibility is the risk involved in the investment.

Risk and Return are the two most important characteristics of any investment. Safety and liquidity are also important for an investor. The objective of an investor is specified as maximisation of return and minimisation of risk.

Investment is generally distinguished from speculation in terms of three factors, namely risk, capital gains and time period. Gambling is the extreme form of speculation. Investors may be individuals or institutions. Both types of investors combine to make investment activity dynamic and profitable. The investors in the financial market have different attitudes towards risk and varying levels of risk bearing capacity. Some investors are risk averse, while some may have an affinity to risk. The risk bearing capacity of an investor, on the other hand, is a function of his income. A person with higher income is assumed to have a higher risk bearing capacity. Each investor tries to maximise his welfare by choosing the optimum combination of risk and return in accordance with his preference and capacity. It is highly essential for the investor to do both fundamental and technical analysis for deciding the suitable stock. In stock market, trend is considered to be a man's best friend.

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