



IMPACT OF SECURITY ANALYSIS ON STOCK PRICE: A CASE BASED APPROACH ON POWER SECTOR SECURITIES LISTED WITH BOMBAY STOCK EXCHANGE

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Abstract

The unique nature of capital market instruments forces investors to depend strongly on fundamental and technical factors in their investment decisions. These 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 not only start with Fundamental analysis but also with Technical analysis. Fundamental analysis examines the economic environment, industry performance and company performance before making an investment decision. Whereas Technical analysis examines the forecast nation of future financial price movements based on an examination of past price movements. This paper envisages on different trends of the stock market and it relates the trends towards the usage of Fundamental and Technical analysis. The results show that when the market is bullish participants rely more upon Technical analysis and when the market is bearish it is the other way round the participants rely upon the Fundamental analysis. This is a significant analysis of selected power sector companies which helps to understand the price behavior of the shares, the signals given by them and the major turning points of the market price. This paper aims at carrying out both Fundamental and Technical analysis of the securities of the selected companies and to assist investment decisions in this Indian Market.

Keywords: Capital Market, Fundamental Factors, Technical Factors, Financial Price, Chart, Price Behavior.

Introduction

An examination and evaluation of the various factors affecting the value of a security is known as Security analysis. Security analysis refers to the analysis of tradable financial instruments. Financial instruments can be classified into debt securities, equities, or some hybrid of the two, futures contracts and tradable credit derivatives are sometimes included. Security analysis is typically divided into fundamental analysis, which relies upon the examination of fundamental business factors such as financial statements, and technical analysis, which focuses upon price trends and momentum. The objective of the analysis is to determine what stock to buy and at what price.

Fundamental analysis maintains that markets may misprice a security in the short run but that the "correct" price will eventually be reached. Profits can be made by trading the mispriced security and then waiting for the market to recognize its "mistake" and re-price the security. **Technical analysis** maintains that all information is reflected already in the stock price, so fundamental analysis is a waste of time. Trends 'are your friend' and sentiment changes predate and predict trend changes. Investors' emotional responses to price movements lead to recognizable price chart patterns. Technical analysis does not care what the 'value' of a stock is. Their price predictions are only extrapolations from historical price patterns.

Investors can use both these different but somewhat complementary methods for stock picking. Many fundamental investors use techniques for deciding entry and exit points. Many technical investors use fundamentals to limit their universe of possible stock to 'good' companies.

The study is done for the purpose of conducting fundamental analysis and technical analysis of leading power sector securities in the stock market. In the stock market share price of companies are determined by the demand and supply forces operating in the market. These demand and supply forces in turn are influenced by a number of fundamental factors as well as certain psychological or emotional factors. The combined impact of all these factors is reflected in the share price movement. The price movements of securities follow systematic and certain consistent patterns. Past movements in the prices of shares help to identify trends and pattern. It is useful for the prediction of future price movements. The companies selected are RELIANCE, TATAPOWER and NTPC.

LITERATURE REVIEW

Edward (1992) extends her test to include a "valuation link" between the predicted future earnings changes and stock returns during the annual report dissemination period. She finds evidence that this valuation link does exist. The non-earnings accounting numbers are therefore useful for predicting both future earnings and returns.



Demark and Thomas R (1994) explained that the history of technical analysis dates back to at least the 18th century when the Japanese developed a form of technical analysis known as candlestick charting techniques. This technique was not introduced to the West until the 1970s.

Hackel and Kenneth S (1996) found that “the task of research is to discover what information projects future earnings and, from a financial statement analysis point of view, what information in the financial statements does this”

Squires (2000) study the value relevance of capital expenditures for explaining returns beyond the use of current earnings. Their findings show that changes in the level of capital expenditure were strongly and positively related to excess returns. This exhibits the fact that current capital expenditure has good news for the future performance of a firm and supports the use of capital expenditures for predicting future earnings or returns.

Thomas Robinson (2002) explained that fundamental analysis involves assessing a firm’s equity value based on the analysis of published financial statements and other information without reference to the prices at which a firm’s securities trade in the capital markets.

Palepu and Krishna (2004) found that technical analysis has been extensively used among market participants such as brokers, dealers, fund managers, speculators, and individual investors in the financial industry. Numerous surveys indicate that practitioners attribute a significant role to technical analysis. For example, futures fund managers rely heavily on computer-guided technical trading systems, and about 30% to 40% of foreign exchange traders around the world believe that technical analysis is the major factor determining exchange rates in the short-run up to six months.

Prasanna Chandra (2005) explained that active portfolio management is commonly partitioned into two types of activities: market timing, which requires forecasts of broad-based market movements, and security analysis, which requires the selection of individual stocks that are perceived to be underpriced by the market.

Stephan H Penman (2007) in his study found that technical analysis includes a variety of forecasting techniques such as chart analysis, pattern recognition analysis, seasonality and cycle analysis, and computerized technical trading systems. However, academic research on technical analysis is generally limited to techniques that can be expressed in mathematical forms, namely technical trading systems, although some recent studies attempt to test visual chart patterns using pattern recognition algorithms. A technical trading system consists of a set of trading rules that result from parameterizations, and each trading rule generates trading signals (long, short, or out of market) according to their parameter values. Several popular technical trading systems are moving averages, channels, and momentum oscillators.

Objectives of the Study

- To study fundamental and technical analysis of securities in the power sector.
- To evaluate the performance of the company.
- To analyze the movement of stock.
- To evaluate the risk and return of the selected securities.

Research Methodology

Research Type

The segment identified for conducting the study is power sector in India. The number of companies selected for the study is three. Analytical study is used to conduct the study.

Data collection: Secondary data is collected from websites, books and magazines.

Tools for analysis

- Fundamental Analysis
- Technical Analysis

For fundamental analysis, the following ratios are used:

- EPS
- DPS
- Payout ratio
- ROE
- P/E ratio



- Current ratio
- Debt- Equity ratio
- Interest coverage ratio
- N/P Margin and G/P ratio.

For technical analysis, the following tools are used:

- Relative strength index
- 5 day moving average
- 50 day moving average
- Line chart and candlestick chart

Analysis and Interpretation of Data

Analysis of data is a process of inspecting, cleaning, transforming, and modeling data with the goal of highlighting useful information, suggesting conclusions, and supporting decision making. Data analysis has multiple facts and approaches, encompassing diverse techniques under a variety of names, in different business, science, and social science domains.

Reliance Power

Table No: 1.1, Share Price details of Reliance Power for the year ended 2011-2012

Face value	10
Market capitalization (Cr)	21164
52 week high	111
52 week low	58

Interpretation: The face value of Reliance Power is Rs 10 each. Their market capitalization is Rs 21164 cr. The highest value for 52 week is Rs 111 and the low for the same is Rs 58.

Table No: 1.2, Pay out Ratio of Reliance Power for the year ended 2011-2012

EPS(Earning per share)	0.38
Dividend yield %	0

Interpretation: The Earnings per Share of Reliance Power is .38, their dividend yield ratio is also '0'.

Table No: 1.3, Return on Equity of Reliance Power for the year ended 2011-2012

Share Capital	2805
Reserve And Surplus	13296
Net Worth	16103
Profit After Tax (PAT)	310
Return On Net Worth (%)	0.85

Interpretation: The net worth of Reliance Power is Rs.16103. Their profit after tax is 310 and their return on net worth is 0.85.

Table No: 1.4, Key Ratios of Reliance Power for the year ended 2011-2012

Current Ratio	45.26
Debt Equity Ratio	0.05
Gross Profit Ratio (%)	300.62
Net Profit Ratio (%)	204.80
Interest Coverage Ratio	3.25
Price Earning Ratio	198.55

Interpretation: The current ratio of Reliance Power is 45.26 and their debt equity ratio is 0.05. The gross profit ratio is 300.62% and net profit ratio is 204.80%. Their interest coverage ratio is 3.25.



Chart No: 1. 1,Line Chart of Reliance Power



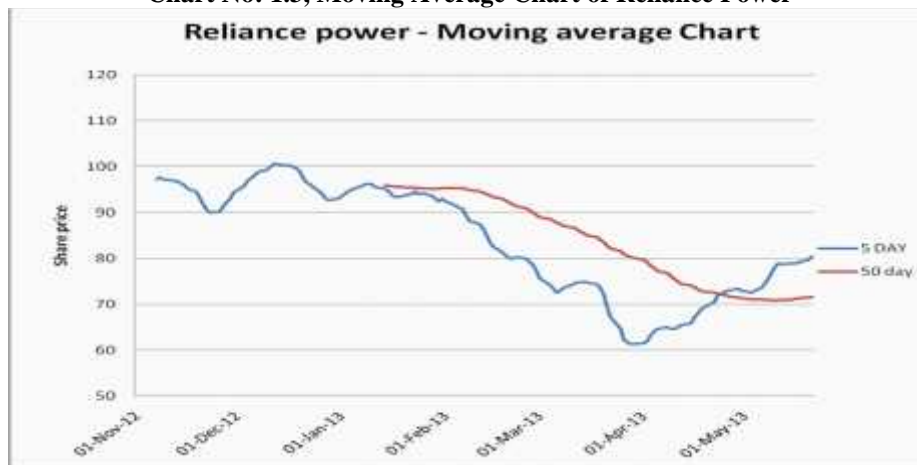
Interpretation: The reliance power stock shows bearish trend in the early stage of study. Now the movement of stock price shows a recovery trend. Share price of Reliance Power is 100 at the beginning of the study. After that price down up to 60 level. Now the stock shows recovery trend from the massive fall.

Chart No: 1.2, Candlestick Chart of Reliance Power



Interpretation: The reliance power stock shows down trend in the early stage of study. The stock price fall from 101 to 60 during the period of study. Now the stock is in recovery trend.

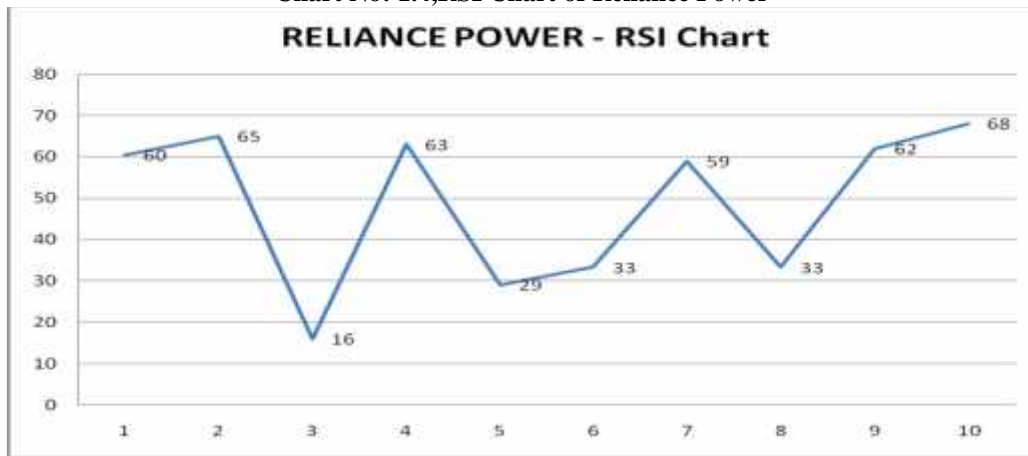
Chart No: 1.3, Moving Average Chart of Reliance Power





Interpretation: Reliance power stock shows negative trend in the early stage. The share price break 50 day moving average only once during the period of study. Now the stock price is above the 50 day moving average. It shows positive trend in the end of study period.

Chart No: 1.4,RSI Chart of Reliance Power



Interpretation: RSI chart of Reliance power shows the bullish buying trend. The stock now moves to the RSI point of 70. It shows the buying trend of the stock. The stock down up to 60 point level twice during the period of study.

TATA Power

Table No: 2.1, Share Price details of Tata Power for the year ended 2011-2012

Face value	1
Marketcapitalization (Cr)	21583
52 week high	113
52 week low	87

Interpretation: The face value of Tata Power is Rs 1 each. Their market capitalization is Rs 21583 cr. The highest value for 52 week is Rs 113and the low for the same is Rs 87.

Table No: 2.2, Pay Out Ratio of Tata Power for the year ended 2011-2012

EPS(Earning per share)	3.97
Dividend yield %	1.37

Interpretation: The Earnings per Share of Tata Power is 3.97, their dividend yield ratio is also 1.37.

Table No: 2.3, Return on Equity of Tata Power for the year ended 2011-2012

Share Capital	237
Reserve And Surplus	11720
Net Worth	11957
Profit After Tax (PAT)	1169
Return On Net Worth (%)	10.09

Interpretation: The net worth of Tata Power is Rs.11957. Their profit after tax is 1169 and their return on net worth is 10.09 %.

Table No: 2.4, Key Ratios of Tata Power for the year ended 2011-2012

Current Ratio	0.95
Debt Equity Ratio	0.64
Gross Profit Ratio (%)	32.27
Net Profit Ratio (%)	13.64
Interest Coverage Ratio	4.27
Price Earning Ratio	22.90

Interpretation: The current ratio of Tata Power is 0.95 and their debt equity ratio is 0.64. The gross profit ratio is 32.27% and net profit ratio is 13.64%. Their interest coverage ratio is 4.27.



Chart No: 2.1, Line Chart of TATA Power



Interpretation:Tata power stock shows bearish trend in its share price. The stock shows a massive fall in its share price from 112 to 92 during the study period. First half of study period the stock shows a positive trend. After that the stock fall upto 90 level. Now stock trading at the maximum low level.

Chart No: 2.2, Candlestick chart of TATA Power



Interpretation:First half of study period the stock shows a positive trend. After that the stock fall upto 90 level. Now stock trading at the maximum low level.Tata power stock shows bearish trend in its share price. The stock shows a massive fall in its share price from 112 to 92 during the study period.

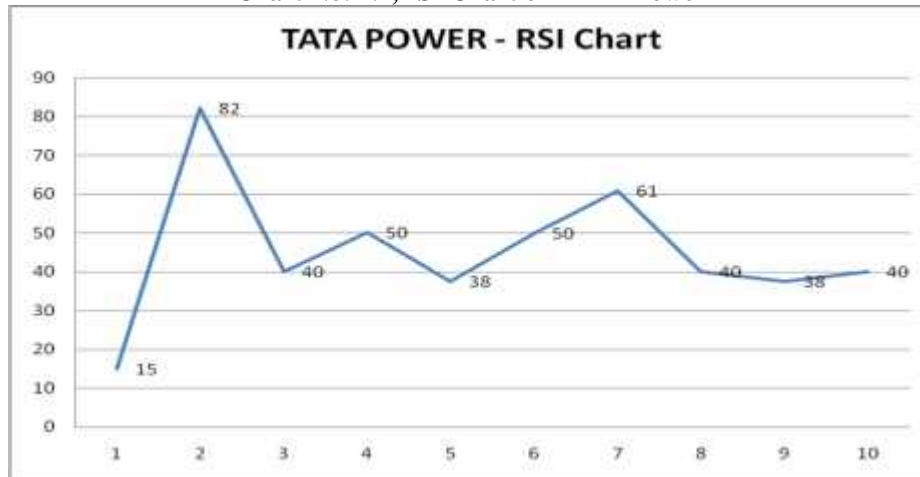
Chart No: 2.3, Moving Average Chart of TATA Power



Interpretation: 5 day moving average of Tata power is below the 50 day moving average line. The price of this stock is below the support price .The stock price will show a good trend only after it resist the 50 day moving average line.



Chart No: 2.4,RSI Chart of TATA Power



Interpretation: RSI of Tata Power is 40 in the last period of study; it shows the bearish selling trend of stock. The chart shows negative trend of stock price during the period of study. The stock only cut 70 point level once during the period of study.

NTPC

Table No: 3.1, Share Price details of NTPC for the year ended 2011-2012

Face value	10
Market capitalization (Cr)	127763
52 week high	175
52 week low	136

Interpretation: The face value of NTPC is Rs 10 each. Their market capitalization is Rs 127763 cr. The highest value for 52 week is Rs 175 and the low for the same is Rs 136.

Table No: 3.2, Pay Out Ratio of NTPC for the year ended 2011-2012

EPS(Earning per share)	13.75
Dividend yield %	2.58

Interpretation: The Earnings per share of NTPC is 13.75, their dividend yield ratio is also 2.58.

Table No: 3.3, Return on Equity of NTPC for the year ended 2011-2012

Share Capital	8245
Reserve And Surplus	65054
Net Worth	73291
Profit After Tax (PAT)	9223
Return On Net Worth (%)	13.07

Interpretation: The net worth of NTPC is Rs.73291. Their profit after tax is 9223 and their return on net worth is 13.07

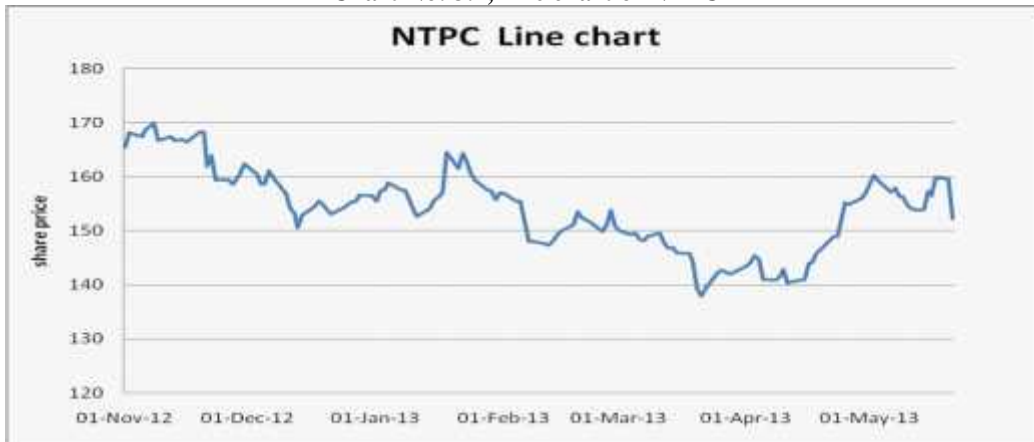
Table No: 3.4, Key Ratios of NTPC for the year ended 2011-2012

Current Ratio	2.10
Debt Equity Ratio	0.66
Gross Profit Ratio (%)	26.94
Net Profit Ratio (%)	14.76
Interest Coverage Ratio	8.19
Price Earning Ratio	11.26

Interpretation:The current ratio of NTPC is 2.10 and their debt equity ratio is 0.66. The gross profit ratio is 29.94% and net profit ratio is 14.76%. Their interest coverage ratio is 8.19.

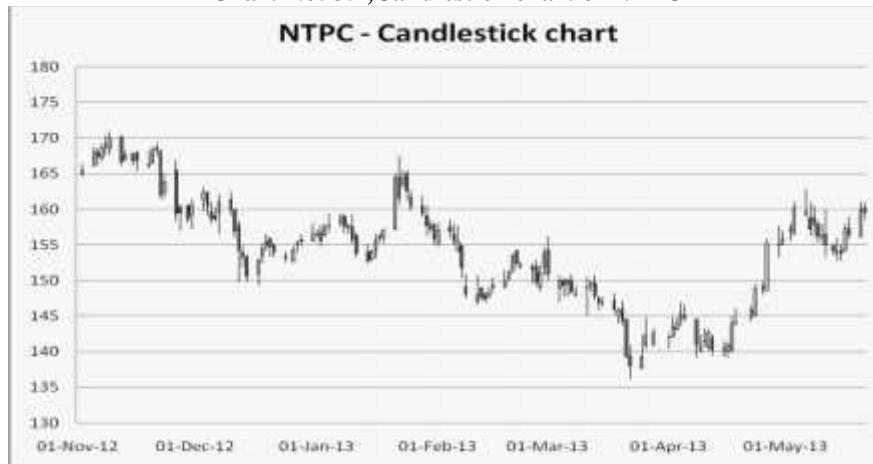


Chart No: 3.1,Line chart of NTPC



Interpretation: The stock price NTPC falls in every rise. The stock shows negative trend in its price in the early stage. The stock price fall from 170 to 140 during the time of study. Now the stock trading at 150 levels.

Chart No: 3.2,Candlestick chart of NTPC



Interpretation: NTPC stock price shows a down trend in the early stage of study. The stock shows a recovery trend in the last stage. The stock price NTPC falls in every rise. Now the stock trading at 150 levels.

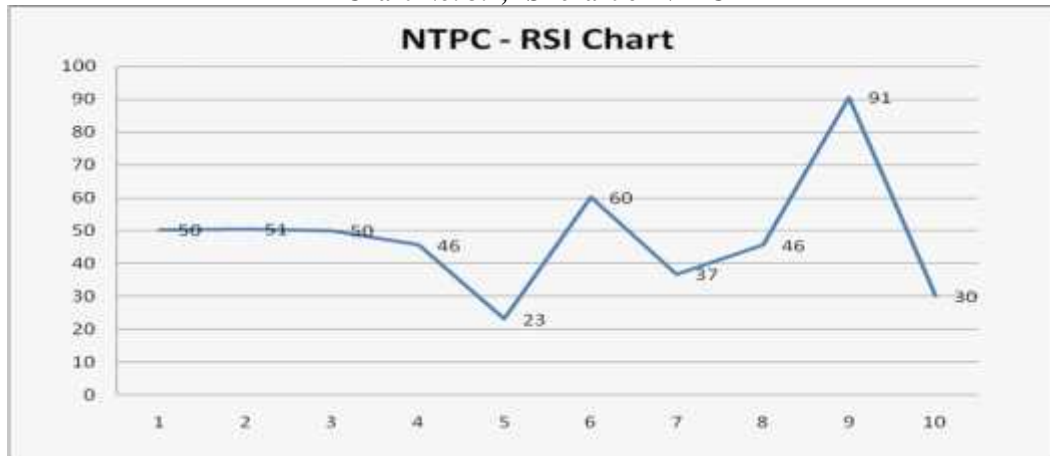
Chart No: 3.3,Moving Average chart of NTPC



Interpretation:5 day moving average of NTPC cut twice the resistance line of 50 day moving average. The stock shows positive trend in its price. The support price of NTPC is 149. If the stock loss its support price it may lead to a fall in its price.



Chart No: 3.4,RSI chart of NTPC



Interpretation: RSI of NTPC stock shows 30 point level in 10th period of study. It shows bearish selling trend of that particular stock. RSI of 9th period is above the 70 point level, so 9th period is idle time to buy that particular stock

Findings

- Table No: 1.3 shows that the Return on Equity is very much negligible in Reliance Power while considering other securities selected for the study.
- Chart No: 1.3 shows five day moving average shows a bullish trend in Reliance Power.
- Table No: 1.4 shows that the profitability ratios are high in Reliance Power while considering other securities selected for the study.
- Table No: 2.1 shows Share price of Tata Power shows negative trend during the study period.
- Table No: 2.1 shows that the share price of Tata Power shows negative trend during the study period.
- Table No: 3.2 show that NTPC has high EPS followed by Tata Power.
- Table No: 3.2 shows the Dividend yield percentage high in NTPC stock.
- Table No: 3.3 show the return on net worth high in NTPC followed by Tata Power.
- Chart No: 3.4 shows that NTPC stock shows a bullish trend as per RSI chart.
- Moving average shows mixed trend in all the stocks selected for the study, so we can't predict the share price trend of power sector as a whole.

Suggestions

- Fundamentals of all power stock are not strong, as per the financial statement year ended 2012.
- Movement of Tata Power shows a weaker trend. The stocks now trading below the critical line so that an investor can move from these stocks.
- Reliance shows bullish trend in its share price and it is advisory to hold these shares.
- It is better to book profit on NTPC stocks even though they trading above the 50 day moving average. (RSI Chart shows bearish trend).
- It is advisory to an investor, should not depend only on one tool, rather one has gone for other chart patterns to get confirmation for buy or sell signal.
- The risk is common for all securities. The scrip that is having low price may also be subject to high risk. The main reason is that market is unpredictable. So the investor must invest carefully. Since the risk is involved in every scrip, greater emphasize is given to return in each investment.
- It is advisory to an investor, should not depend only on one tool, rather one has gone for other chart patterns to get confirmation for buy or sell signal.

Conclusion

The study deals with share and share trading gives a general idea about the analysis of stocks. The analysis carried on two basis, Fundamental analysis and technical analysis. Technical analysis shows a short term trend based on historical data and fundamental analysis helpful for the decision making for long term investment. From the analysis it is found that the charts prepared on the basis of the share price, with the support of technical tools shows all the trends and variations as interpreted



in the theory. In the analysis using moving average it is found that if the price is lying above the moving average, the scrip is in a bullish trend if the price lying below the moving average the scrip is in bearish trend. Technical analysis ignores the actual nature of the company. Technical analysis is based solely on the chart that is to say price and volume information. The investor has to invest wisely on the scrip which gives high return with most possible risk.

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