

Technical Analysis and Analysts Forecast: A Comparison

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ABSTRACT

Technical Analysis is a quantitative tool for analysing historical data which is highly used by researchers on evaluation of trends on times. It is hypothetically difficult to prove the future outcome using the statistical tools yet predictions play a vital role in expecting probable results. This paper enumerates to identify that as to what extent technical tools could be reliable and adaptive for predicting the future outcomes. The sample was defined selectively and framed on the basis of suggested clients by Geojit BNP Paribas Financial Services Ltd. The data has been derived from 20 corporates of different business operations. Technical indicators were used to evaluate the best fit of suggestions provided by the concern on terms of investments in securities. It has been found that the suggestions provided by the concern is satisfactory except 5 corporates. Further, the study reveals that single technical indicator does not suffice to predict the forthcoming trends.

Keywords: Forecast, Technical Indicators, Technical Analysis, Trends.

INTRODUCTION

Investing on financial assets is a lucrative act of individuals from all walks of life. Investment behaviour varies from investor to investor and has a greater impact due to variations in factors like occupation, economic status, education, income, etc. Financially, Savings is the money earned post disposable income. Savings attitude and options play a vital role in Investments and Investors behaviour. At present, there are many investment avenues and those are being chosen by investors with certain effect. Investments are made on the expectation of higher return and benefit for the future which lies as the core theme in Investment management. Monetarily Investments are the moneyed process which in turns dividend, interest and earnings on assets. No point on talking about investment without the Risk and Return are in role. In general assertion, higher the risk higher the return - constitutes the Investment theories. Investment decisions are rational and emotional in nature which tends to differ from individual investors.

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Financial Analysts, Strategists and Portfolio Managers are efficiently evaluating securities and recommend the future trends which would prevail and influence the financial ambience. They use various tools and techniques to analyse and evaluate the securities. In such conceptual framework, Technical Analysis is highly commended and preferred to predict future trends that would exist in the financial market. Thus, this study has been constituted on the concepts of Technical Analysis and its reliability. It is difficult for the investors to work on and analyse their benefit from their investments by using technical tools. For such circumstances, finance person carries out his/her duty to work on behalf and make necessary judgements on post and pre investments. Thus, they use Technical Indicators to predict future price movements using historical data form the financial market. The execution of Profit or confrontation of loss is being assessed in advance and benefits mutually by encompassing the Technical Analysis Indicators.

Technical analysis assumes that the market is efficient, and the price has already been taken into consideration and thus becomes vital for analysing short term investments. Technical analysis plots the price movements of stocks, drawing inferences from the price changes in the market, etc. It is an approach to predict the future prices by the way of using the market forces such as demand and supply. The speculators adopt the technical tools for producing profitable information by taking price fluctuations into account. Basically, Technical analysis is based on the common principle that historic changes would impact as it was and will be.

Industry Profile of Geojit PNB Paribas

Geojit BNP Paribas Financial Services Ltd is a partnership stock broking company originated by C J George and Ranajit Kanjilal in 1994 which is headquartered in Kochi, Kerala. Geojit BNP Paribas is a principal retail financial services company in India and has a progressive operation in the Middle East. The company drives on its rich familiarity in the capital market and offers their clients a wide range of savings and investment solutions. The array of

value-added products and services offered by this company ranges from equities, derivatives, Mutual Funds, Life & General Insurance and third party Fixed Deposits. The needs of over 712,000 clients are met by Geojit BNP Paribas using its multichannel services through country wide network of over 491 offices which have extensive service operation. Geojit BNP Paribas is listed in the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE). Inculcating the vibrant Corporate Social Responsibility, the company has extended education support to 450 unprivileged children of four villages since 2006.

REVIEW OF LITERATURE

Numerous studies have been conducted on the basis of Technical Analysis and was being used in financial research. The review of literature paves the way for identifying the gap to be filled in the research of specific field of specialization. As this research paper concentrates on the performance fit of Technical Analysis indicators on evaluation and prediction of stocks. Fama (1965) investigated the history of common stock price used to make valuable predictions concerning the future prices of stocks. The hypotheses of the study include successive price changes are independent and the price changes conform to some probability distribution. The results suggested that there was strong and voluminous evidence in favours of random walk theory. Sharma and Kennedy (1977) examined the stock price behaviour of Bombay Stock Exchange on the basis of Random Walk Hypothesis. The findings were regarded with the comparison of Indian Stock Market with other countries stock markets on randomness and independence.

A study by Daigler and Fielitz (1981) used Multiple Discriminant Analysis to understand the efficiency of daily technical indicators for prediction of future price movements in stock market. The research attempted to use the tools of multivariate approach to predict the future trends. In another study on Economic Forces and Stock Market by Chen, Roll and Ross (1986) used Efficient Market Theory and Rational Expectations Interpersonal Asset Pricing

Theory. Their major findings was innovation had high impact on spread between short and long interest rates, expected and unexpected inflation, industrial production. It was also observed that the spread between high and low grade bonds were significant determinants of stock price movements.

A survey conducted by Brorsen and Irwin (1987) of large public futures funds advisory groups in which more than half of the advisors responded that they relied heavily on computer-guided technical trading systems. The study also suggested that majority of fund advisors rely on technical trading rules. Brown & Jennings and Graundy & McNilchols (1989) used Rational Expectations Model which ensures that single price doesn't reveal accurate information whereas data of continuous price fluctuations would explore future trends. Brown and Jennings (1989) researched on Technical Analysis where two-period dynamic model of equilibrium was used to demonstrate that rational investors used historical prices in forming their demands and it helped to show the sensitivity of the value of technical analysis due to the changes in the values of the exogenous parameters.

Blume Eastey and Ohara (1994) investigated the effectiveness for technical analysis in which conclusions were made by stating information precision and price movements were similar. Also explored that traders who received information in advance did better than who did not. Antoniowet et al. (1997) aimed to examine the extent to which past volume in conjunction with past returns, could predict the returns from seemingly price. The result revealed that the technical analysis on volume could aid the prediction of returns which could not be predicted by the analysis of past returns in isolation. Lo, Mamasky and Wang (2000) came out with a new framework to test the efficiency of Technical Analysis using goodness of fit and Kalmogorov-smirnaov test for analysing the daily returns of NYSE, AMEX and NASDAQ stocks during certain period of time. From the study it was found that certain technical patters when applied to many stocks over time executive incremental information with special reference to NASDAQ Stocks.

Kwon and Kish (2002) conducted an empirical analysis of technical trading rules. The result indicated that the technical trading rules add a value to captive profit opportunities over a buy hold strategy. Sheghal and Garhyan (2002) studied whether the use of technical analysis results in abnormal returns on the basis of recommendations in Indian Capital Market. It was found that Technical analysis was reliable in recommending and also returns were found significant even after adjusting the transaction cost. Wong, Manzar and Chew (2003) found that the technical indicators could be the best fit for evaluating and estimating the significant returns. Lucke (2003) investigated whether technical trading rules are profitable evidence for Head and Shoulder Rules. From the analysis it was found that there was no significance between technical trading rules and Head and Shoulders rules.

Kavajecz and White (2004) conducted a study on 'Technical analysis and liquidity provision'. The analysis resulted with a major findings stating that Technical Analysis support/resistance level as well as moving averages are significantly related to the state of liquidity on the limit order book. Sehgal and Gupta (2005) examined the trading operations and strategies in financial market. The study ended up with description of the performance of prediction tools and its usefulness on understanding the investor's behaviour. Seghal and Gupta (2007) in their study on prominent technical tools in which they found there was statistical significance between technical analysis tools and the returns on investment. Chong and Ng (2008) examined Moving Average Convergence and Divergence (MACD) and Relative Strength Index (RSI) and its relevance in producing profit. From the study it was found that the MACD and RSI rules could produce high returns in most cases. Mitra (2011) conducted a research on the profitability of moving average based trading rules in Indian Stock Market in which the major finding was considered as most technical trading rules could capture the directions of market movements in a reasonable manner and provide significant positive returns in long run and short run.

Reviews suggest that the use of Technical Analysis Indicators would result in appropriate prediction and the factors that differ from one company to another. Thus the research framework is made on that perception.

OBJECTIVES OF THE STUDY

- To study as to what extent the suggestions provided by Geojit BNP Paribas Financial Services Ltd. are best fit.
- To understand whether technical analysis indicators are reliable to predict the future price movements.
- To understand whether there is significant difference between the estimated situation and the actual prevailing situation in the market.

RESEARCH METHODOLOGY

This paper basically contributes to the advancement and adds the updated information to existing literature in Stock Market Research. Thus, Observational research approach was found suitable for the study and historical data was considered to predict the future trend. Further, data was also collected from the companies which were recommended by Geojit BNP Paribas Financial Services Limited. The recommendations between 19/05/2015 and 22/05/2015 were considered for the study which consist of twenty companies. Primary data was gathered from Geojit BNP Paribas Financial Services Limited's Calicut Branch, Kerala. Secondary data which consist of company's information was obtained through web source. These selected companies were analysed using technical analysis tools viz., MACD Chart (Moving Average Convergence and Divergence), RSI (Relative Strength Index), and Aroon Oscillator. Other Statistical tools such as Averages, Moving Averages and EMA (Exponential Moving Average) were also employed for the study. Tables and charts were used for exhibiting the analysed data.

Analysis and Results

The technical indicators can predict future, but

sometimes it may signal differently. It is solely because of the data that have taken for the study. In this study, Relative Strength Index (RSI), Moving Average Convergence and Divergence (MACD) and Aroon Oscillator were used. The analysis and respective findings are as follows:

1. Relative Strength Index (RSI)

According to J. Welles Wilder, the developer of RSI, "RSI is a Momentum Oscillator which is used to measure the speed and change of price movements". RSI analysis for two companies have been shown as the figures below. Figure 1.1 shows the values of RSI of Ceat.

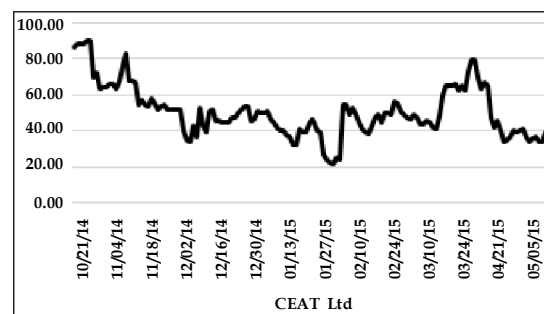


Figure 1.1: Value of RSI of Ceat

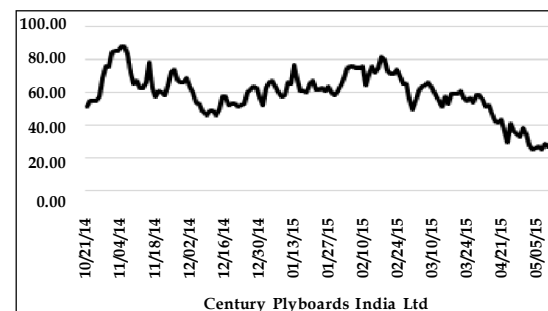


Figure 1.2: Values of RSI of Century Plyboard

Figure 1.2 shows the values of RSI of Century Plyboards India Ltd.

Charts 1 (a) and (b): RSI recommendations about selected companies

Referring to the above figures, the points were plotted on the basis of results of RSI calculations. RSI usually lies in between 0 and 100. Using RSI we could identify the point of overbought and oversold. RSI shows an overbought situation when it crosses 70, and an oversold

situation when it crosses 30 which means buy when RSI crosses above oversold line (30), and sell when it crosses below the overbought line (70). The level of 50 represents neutral market

momentum and corresponds with the centre line in other kind of oscillators such as MACD. RSI recommendations about selected companies are shown in the charts 1(a) and 1(b)

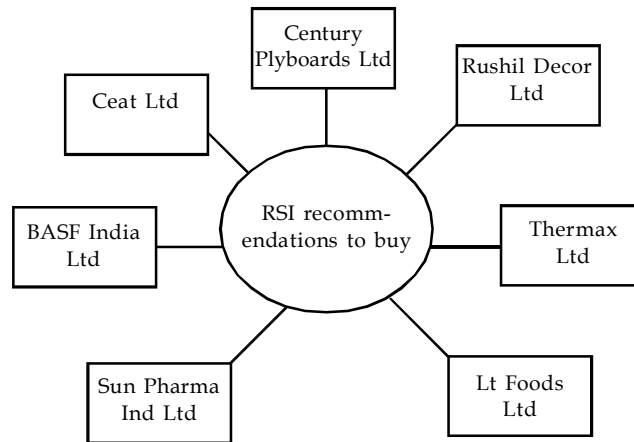


Chart 1 (a): Recommendations of companies to buy decision

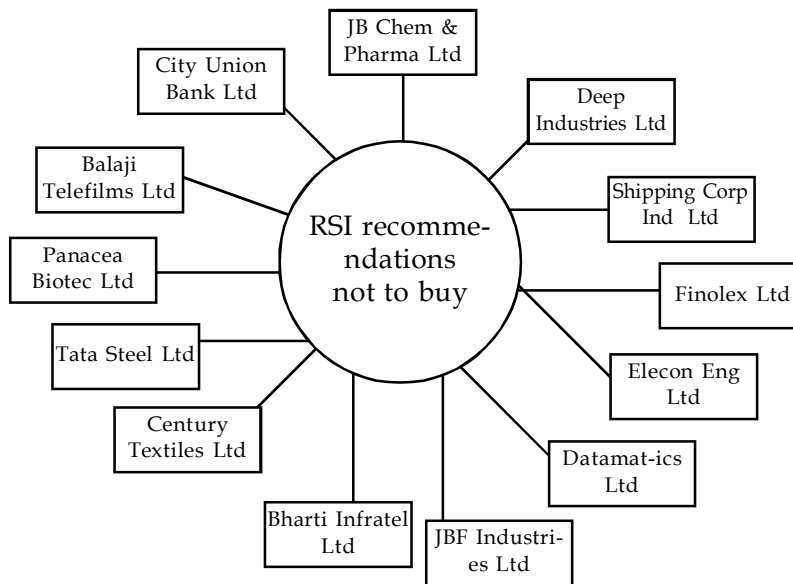


Chart 1 (b): Recommendations of Companies to not to Buy Decision

The 1(a) and 1(b) charts explain the Relative Strength Index’s recommendations about the companies on buy and not to buy decisions. The major reasons for buy recommendations are: Expectation of increase in price in the future, exhibits an oversold situation, which is the high time to purchase the security. The major recommendation for not to buy decisions is overbought situation.

2. Moving Average Convergence and Divergence (MACD)

Moving Average Convergence and Divergence (MACD) is a technical indicator that uses the difference between short term and long term price trends to anticipate future movements. The MACD’s recommendation for two companies to buy and not to buy decisions are shown in the following figures.

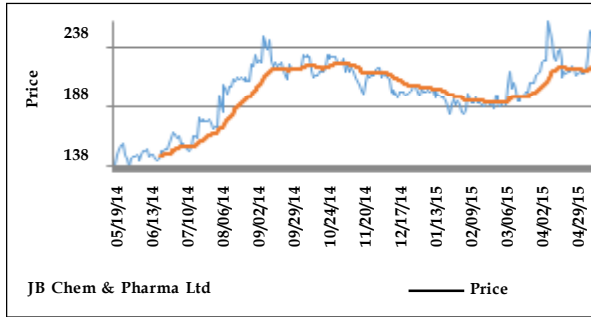


Figure 2.1

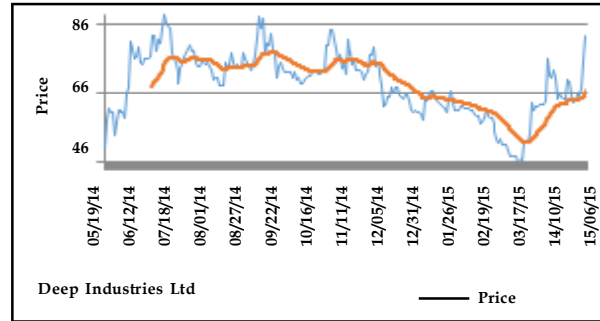


Figure 2.2

Figures 2.1 and 2.2 show the MACD line and price of individual stock of two companies.

and when the security price diverges from the MACD, it signals the end of the current trend.

Referring to the above figures, When the MACD falls below the signal line, it is a bearish signal, which indicates that it may be time to sell. Conversely, when the MACD rises above the signal line, the indicator gives a bullish signal

The MACD recommendations about the selected companies to buy or not to buy decisions are shown in the following charts.

Charts 2 (a) and 2(b): MACD recommendations about selected companies

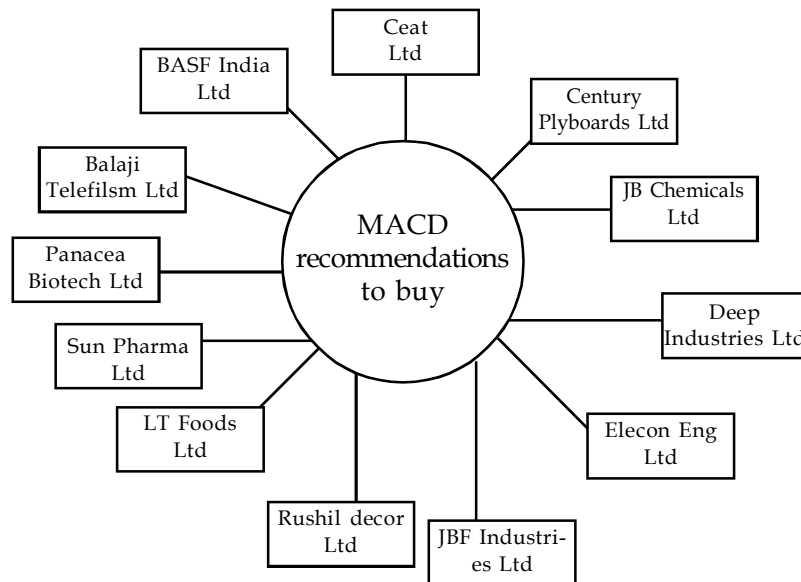


Chart 2 (a) MACD Recommendations to Buy Decision.

From the charts 2(a) and 2(b), it is clear that MACD suggests more companies than the RSI. Those companies which are above the neutral line of MACD graph could be considered for purchase because the price of the security is expected to be increased.

3. AROON OSCILLATOR

Aroon Oscillator is the difference between Aroon- up and Aroon- down. This indicator fluctuates between -100 and +100 with zero as middle point. In this study period is taken

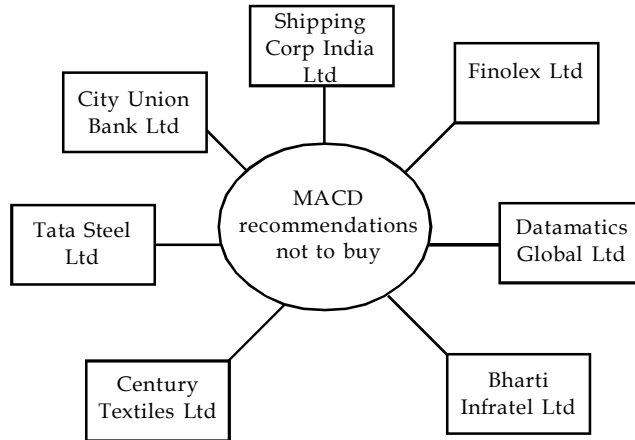


Chart 2 (b) MACD Recommendations to Not to Buy Decision.

25 days. Aroon-up and Aroon-down measures the number of periods since price recorded an X-day high or low. Aroon-up is based on time and price highs, where Aroon-

down is based on time and price lows. The Aroon Oscillators which recommends about two companies to buy or not to buy decisions are shown in the following Figures 3.1 and 3.2

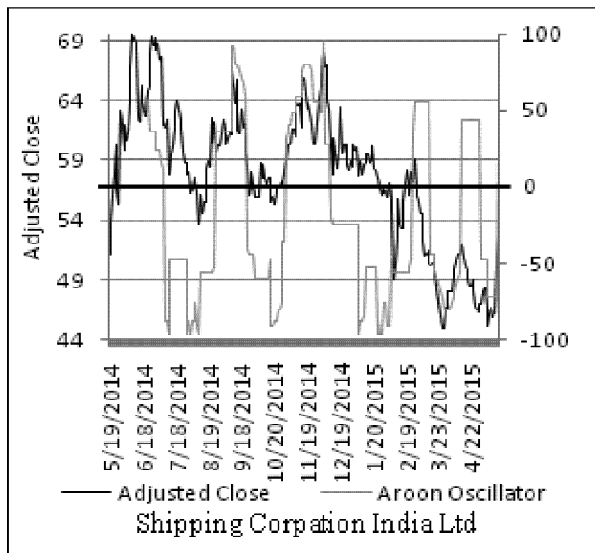


Figure 3.1

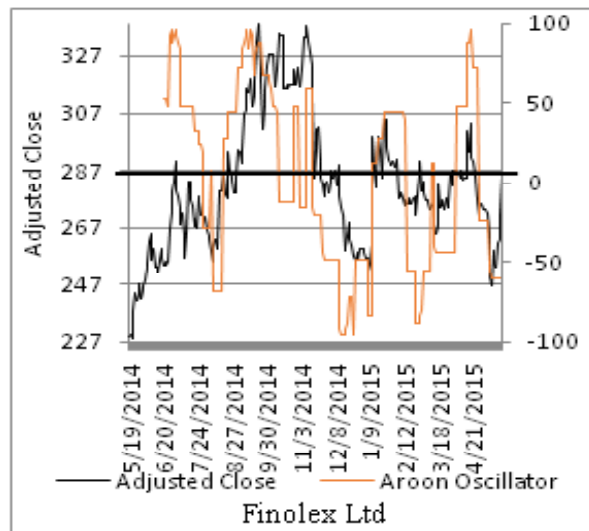


Figure 3.2

Figure 3.1 and 3.2 show Aroon ups and Aroon downs based on time which indicate higher prices and lower prices respectively.

70 line and the Aroon Up indicator is below 30, then the market is trending downwards and vice versa. When the Aroon Up and Aroon Down indicator move towards the centreline (50), then the market is entering into a consolidation period.

Referring to the Figures 3.1 and 3.2, reading above zero means that Aroon-Up is greater than Aroon-Down and readings below zero indicate that Aroon-Down is greater than Aroon-Up. When the Aroon Down indicator is above the

Aroon Oscillator recommendations about the selected companies are shown in the following charts.

Charts 3 (a) and (b): Aroon Oscillator’s Recommendations About Selected Companies

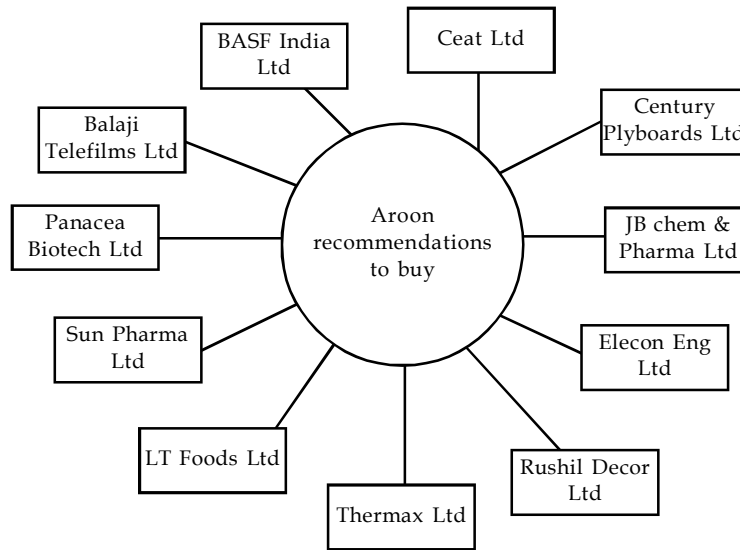


Chart 3 (a): Recommendations of Aroon Oscillators to Buy Decision

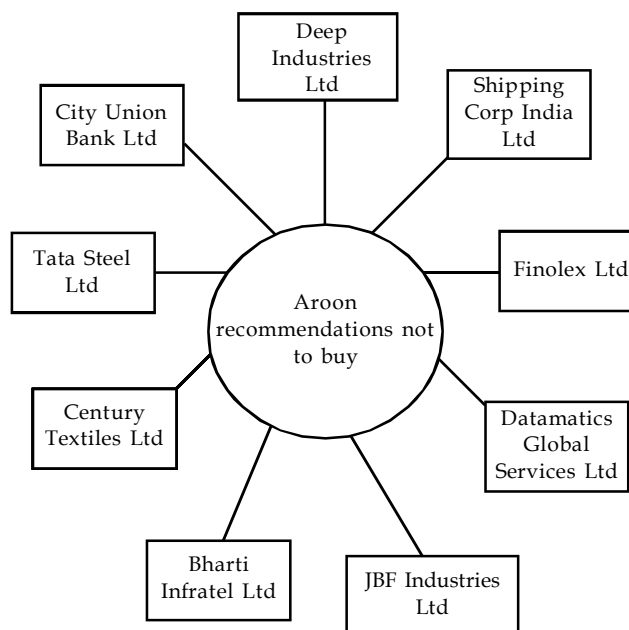


Chart 3(b): Recommendations of Aroon Oscillator to Not to Buy Decision.

Support and Resistance Levels Recommended by Geojit BNP Paribas

The Table 1.1 provides the consolidated data

view of the support and resistance levels recommended by Geojit BNP Paribas on the basis of historical data.

Table 1.1: Support and Resistance Levels Recommendations on the Basis of Historical Data

Company	R1	R2	S1	S2	Stop loss for intraday trade
Ceat Limited.	803	808	788.10	782.30	Below 782.30
Century Plyboards (India) Limited.	195.50	199	190	188.50	Below 188.50
JB Chemicals &Pharmaceuticals Limited.	256	261	248	245	Below 245
Deep Industries Limited.	83.75	86.60	81.10	80	Below 80
Shipping Corporation of India Limited.	53.85	55	52	50.65	Below 50.65
Finolex Industries Limited.	296	301	285	282	Below 282
Elecon Engineering Company Limited.	72.10	73.90	68.50	67.90	Below 67.90
Datamatics Global Services Limited.	71.50	75	67	65	Below 65
JBF Industries Limited.	253.90	259	246	242	Below 242
BharatiInfratel Limited.	438	445	425	420	Below 420
Rushil Decor Limited.	59.75	61	56.80	56.10	Below 56.10
Thermax Limited.	1048	1065	1025	1012	Below 1012
LT Foods Limited.	140.70	143	133.90	132	Below 132
Century Textiles and Industries Limited.	678	687	665	657	Below 657
Tata Steel Limited.	363	366	358	349	Below 349
Sun Pharmaceuticals Industries Limited.	988	994	975	971	Below 971
Panacea Biotec Limited.	159.75	163	155	153.40	Below 153.40
BalajiTelifilms Limited.	76.75	79	73.90	73	Below 73
BASF India Limited.	1148	1175	1108	1101	Below 1108
City Union Bank Limited.	102	106	97.80	97	Below 97

Support and Resistance Levels on the Day of Recommendations

The Table 1.2 provides the consolidated data view of the support and resistance levels recommended by the study on the basis of actual derived data.

Table 1.2 exhibits about the actual support and

resistance levels on the day of recommendation. Here it has been found there are many similarities in the actual and estimated values. In financial market it is not possible to predict the exact price of securities which will prevail in the market, but by using technical indicators the forecasting estimation of future price movements could be significantly viewed.

Table 1.2: Support and Resistance Levels on the Day of Recommendations

Company	R1	R2	PP	S1	S2
CEAT Ltd	822.73	851.82	781.62	752.53	711.42
Century Plyboards (India) Ltd	201.98	210.87	188.27	179.38	165.67
JB Chemicals & Pharmaceuticals Ltd	259.22	267.58	245.58	237.22	215.22
DEEP Industries Ltd	87.47	92.18	79.28	74.57	66.38
Shipping Corporation Of India Ltd	54.57	56.43	51.98	50.12	47.53

Finolex Industries Ltd	300.22	311.08	288.13	277.27	265.18
Elecon Engineering Company Ltd	71.7	73.95	68.5	66.25	63.05
Datamatics Global Services Ltd	71.33	73.82	67.52	65.03	61.22
JBF Industries Ltd	260.25	270.45	245.80	235.60	221.15
BharatiInfratel Ltd	442.72	455.23	429.23	416.72	403.23
Rushil Decor Ltd	61.93	66.42	57.52	53.03	48.62
Thermax Ltd	1068.5	1101.7	1021.7	988.53	941.77
LT Foods Ltd	144.47	151.23	136.23	129.47	121.23
Century Textiles And Industries Ltd	688.08	704.27	661.62	645.43	618.97
Tata Steel Ltd	367.28	373.27	361.42	355.43	349.57
Sun Pharmaceuticals & Industries Ltd	990.63	100.47	976.57	966.73	952.67
Panacea Biotec Ltd	165.68	171.32	155.17	146.53	136.02
Balaji Telefilms Ltd	76.95	78.85	74.8	72.9	70.75
BASF India Ltd	1156.5	1189.6	1106.7	1073.7	1023.9
City Union Bank Ltd	100.23	100.67	99.52	99.08	98.37

[PP- Pivot point, R1/ R2/ R3- Resistance levels, S1, S2, S3- Support levels, H- high price, L- Low price, C- closing price]

4. THE COMPARISON BETWEEN RSI, MACD AND AROON OSCILLATOR

The following Table 2.1 summarizes the

effectiveness of the tools used to estimate the future trends by taking into consideration of actual changes in price and show the companies which earned profit during 1 day, 30 days and 90 days holdings.

Table 2.1: List of Companies Earned Profit During 1 day, 30 Days and 90 days of Holdings

List of Companies		
1 day holding	30 days holding	90 days holdings
Ceat Ltd	Elecon Engineering Ltd	Ceat Ltd
Century Plyboards Ltd	JBF Industries Ltd	Century Plyboards Ltd
Deep Industries Ltd	Bharti Infratel Ltd	J B Chem and Pharma Ltd
Bharti Infratel Ltd	Rushil Décor Ltd	Deep Industries Ltd
Rushil Décor Ltd	Thermax Ltd	Elecon Engineering Ltd
L T Foods Ltd	L T Foods Ltd	JBF Industries Ltd
Sun Pharmaceuticals Ltd	Century Tex and Ind Ltd	Rushil Décor Ltd
Panacea Biotec Ltd	Sun Pharmaceuticals Ltd	Thermax Ltd
Not Applicable	Panacea Biotec Ltd	LT Foods Ltd
Not Applicable	Basf India Ltd	Century Tex and Ind Ltd
Not Applicable	Not Applicable	Sun Pharmaceuticals Ltd
Not Applicable	Not Applicable	Panacea Biotec Ltd
Not Applicable	Not Applicable	Basf India Ltd
Not Applicable	Not Applicable	Balaji Tele Films Ltd

From Table 2.1, the companies mentioned indicate their profit earned during 1 day, 30 days and 90 days of holdings. The fore said companies list is prepared on the basis of evidence from investigation using the actual price returns of selected stocks. The companies such as Finolex Ltd, Datamatics Global Services Ltd, Tata Steel Ltd, City Union Bank Ltd and Shipping Corporation India Ltd did not earn profit during the day of comparison with actual market data.

CONCLUSION

Investment decisions are highly correlated with the assurance factors where markets have to work on higher end tools to predict the future trends. The study supports to the common

objective as to what extend the suggestions provided by Geojit BNP Paribas Financial Services Ltd are best fit and the findings from the study reveals that predictions may not work out for some companies due to interruption of market factors. To support the statement, the findings show that 5 corporates did not earn profit by accepting the recommendations. Thus, the adaption of technical tools are reliable to predict the future price movements. RSI, MACD and Aroon Oscillator are technically fit to predict the 1 day, 30 days and 90 days holdings accordingly. RSI supports best for the intraday trading whereas, MACD and Aroon are suitable for predicting long term holdings. From the core depth of study, it was found that the estimated situation and the actual situation in the market was similar on the basis of price movements.

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