

# A STUDY ON TECHNICAL ANALYSIS OF EQUITY SHARES WITH SPECIAL REFERENCE TO AVENUE SUPER MARTS Ltd (ASL)

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**Abstract:** In the stock industry the investment decision will be taken with the help of two important analyses, i.e. Fundamental Analysis and Technical Analysis. The present study relates to Technical Analysis of equity share of Avenue super marts Ltd with a view to analyse and understand the price movement and trends of equity share. For Technical Analysis, the daily share price movements of the Avenue Super Marts Ltd were absorbed during the period from 1<sup>st</sup> may 2019 to 5<sup>th</sup> July 2019. The closing prices of share were taken and the future price movement was analysed by using various tools like Simple Moving Average (SMA), Exponential Moving Average (EMA), and Relative Strength Index (RSI). The study is fully based on the secondary data which have been collected from the company reports and websites. Recently Avenue super marts Ltd occupies a premier position in the comity of Indian retail sectors and performing well in the stock market. The primary objective of this study is to analyse the trends of Avenue Super Marts Ltd shares with the help of Simple Moving Average, Exponential Moving Average and Relative Strength Index.

**Index Term:-** Technical Analysis, Simple Moving Average, Exponential Moving Average, Relative Strength Index etc

## 1. INTRODUCTION

Technical Analysts believes that the historical performance of stocks and markets are indications of future performance. Security market analysis is one of the most integral parts of investment activity. This facilitates evaluation of different resources in the portfolio and finding out the reasons for impacting the variances in the present market value of the stocks or shares and securities. There are essentially two methods of analysing investment opportunities in the security market viz Fundamental Analysis and Technical Analysis.

Fundamental analysis is the examination of the underlying forces that affect the wellbeing 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 analysis believes 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.

Technical Analysis studies the pattern of stock prices in stock market. The main motive behind using the technical analysis is to predict the future trends of a particular stock or shares. It mainly concentrates on the study of market supply and demand. Technical analysis provides a framework for informing investment management decisions by applying a supply and demand methodology to market prices. Technical analysis focuses on the movement of the prices and the trade volume and tries to forecast the future movement of the prices. Technical analysis concentrates on the change of the prices and therefore you would know the timing of buying and selling, but not on the intrinsic value, and therefore you would not know where you were properly investing.

### 1.1 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.

### 1.2 ADVANTAGES OF TECHNICAL ANALYSIS

- **Trend Analysis:-** The biggest advantage of technical analysis is that it helps investors and traders predict the trend of the market. Up trend, downtrend, and sideways moves of the market are easy to predict, with the help of chart analysis.
- **Entry/Exit Point:-** Timing plays an important role in trading and investing. With the help of technical analysis, traders and investors can predict the right time to enter and exit a trade thereby enabling good returns. Chart patterns, candlesticks, moving averages, Elliot wave analysis, and other indicators are very useful for traders to make entry and exit points.

- **Provides Early Signal:-** Technical Analysis gives early signals and also points a picture about the psychology of investors and traders regarding what they are doing. Price-volume analysis also indicates the movement of market makers and their activities related to a particular market. Another main advantage of technical analysis is that it gives an early signal when it comes to trend reversal.
- **Quick and Less Expensive:-** In currency trading, technical analysis is less expensive as compared to the fundamental analysis and there are so many companies that provide free charting software. Technical Analysis gives a quick result for traders who use 1 minute, 5 minutes, 30 minutes, and 1 hour charts. For instance, the formation of a head and shoulder of 1 minute and 5 minutes chart gives fast results, as compared to the daily chart.
- **Provides lots of information:-** Technical Analysis is helpful for short-term trading, swing trading, and long term investing. Technical charts provide a lot of information that helps the traders and investors build their positions and take trades. Information like support, resistance, chart pattern, momentum of the market, volatility, and trader's psychology are just some examples of types of information provided by technical analysis and used by traders in the Forex Market.

## 2. OBJECTIVES OF THE STUDY

- To analyse the price movements of shares of Avenue super marts Ltd and interpret the corrections and trends by using technical analysis tools.
- To forecast the future trends and provide suitable suggestions to the investors.
- To identify the inherent technical strength and weakness of the equity share.

## 3. RESEARCH METHODOLOGY

- **Research Design:-** The study aims at analysing the price movements of selected companies scrips. As the study describes the existing facts and figures given in the financial statement and the price movements of the selected companies, the research design followed is descriptive and analytical in nature.
- **Type of Data:-** The study is completely based on secondary data. The secondary data are those which have already been collected by someone else and which have already been passed through the statistical process.
- **Sources of Data:-** The main sources of data are collected through website, various publication and reports prepared by research scholars etc.
- **Statistical Tools Applied:-**
  1. Simple Moving Average.
  2. Exponential Moving Average.
  3. Relative Strength Index

## 4. REVIEW OF LITERATURE

- **According to Valarmathi A, Kowsalya P** "Technical analysis of five IT companies using the technical tools RSI and EMA. From the study it is found that after the Recession the IT companies provided short term investment gain to its investors. It also found that the market trend of IT industry tends up with gradual price fluctuation. It is concluded that investors can invest in the IT stocks in future also with the consideration of country's economic scenario and the short".
- **According to C. Boobalan** "On the basis of prediction of five companies (WIPRO, SBIN, GAIL, ONGC, ITC) different pattern of stock prices of these companies give an idea of future trend of these companies could be analysed with the right technical analysis tools. Technical analysis of utmost importance to predict trend of short and medium term price movement and help the investors to select the right plan and decisions to invest in the remunerative stocks. The technician also required a fundamental knowledge, which would clear an idea about the investment decision. A both technical and fundamental analysis helps in investment decision in the stock market and predicts the future trend of the selected companies in which we have invested. Both the analysis gives guidance to the investors".
- **According to Mohd naved** "Technical analysis is a very subjective way of analysis with various variations available for the parameters used in Indicators of Technical Analysis. It is a rule based technique with little scope for personal judgement.
- **According to Rakshith L, Dr Manoj Kumara N V** "The entire market players have possibility to make the investment over the security.so once they understand the market expertise it is going to support full to them to make the sufficient investment which will results in have longer returns company it the exposure to recognizing the securities by using for the reason that the technical analysis.
- **According to Rahul Berry & Dr. Sulochna** "concluded that stock market is very volatile, with small change investor can lose large amount of savings and to minimize impact of risk technical analysis can be used as a tool to predict the direction of share prices with accuracy in future. To gain maximum profits from the stock market one has to be well verse with all the methods used exponential moving average & moving average convergence & Divergence in MACD Line, signal line and long & short exponential moving average. Investor can take buy & sell decisions. Therefore investor can rely on techniques of technical analysis before making investment and should not make any investment decision blindly.

## 5. DATA ANALYSIS AND INTERPRETATION

**5.1 SIMPLE MOVING AVERAGE (SMA):-** This is the most common method used to calculate the moving average of prices. It simply takes the sum of all of the past closing prices over the time period and divides the result by the number of prices used in the calculation. For example, in a 10-day moving average, the last 10 closing prices are added together and then divided by 10.

- **FORMULA TO CALCULATE SMA**  

$$SMA = (\text{Total closing prices} / \text{No. of. days})$$

**Table No.1 Calculation of Simple Moving Average of Avenue Super Marts Ltd from 1<sup>st</sup> may 2019 to 5<sup>th</sup> July 2019**

DATE	CLOSING PRICE	10 DAY'S SMA	DATE	CLOSING PRICE	10 DAY'S SMA
02-May-19	1265.2	-	04-Jun-19	1333.05	1315.12
03-May-19	1262.45	-	06-Jun-19	1317.65	1316.97
06-May-19	1249.65	-	07-Jun-19	1296.65	1316.32
07-May-19	1255.1	-	10-Jun-19	1299.7	1312.185
08-May-19	1245.55	-	11-Jun-19	1296.9	1312.88
09-May-19	1251.6	-	12-Jun-19	1310.5	1312.88
10-May-19	1250.75	-	13-Jun-19	1305	1312.675
13-May-19	1251.9	-	14-Jun-19	1330.6	1315.345
14-May-19	1250.25	-	17-Jun-19	1297.5	1312.785
15-May-19	1237.6	1252.005	18-Jun-19	1342	1312.955
16-May-19	1253.8	1250.865	19-Jun-19	1335.7	1313.22
17-May-19	1234.25	1248.045	20-Jun-19	1336.15	1215.07
20-May-19	1318.1	1254.89	21-Jun-19	1320.45	1317.45
21-May-19	1272.1	1256.59	24-Jun-19	1329.2	1320.4
22-May-19	1299.15	1261.95	25-Jun-19	1330.65	1323.775
23-May-19	1303.15	1267.105	26-Jun-19	1387.45	1331.47
24-May-19	1341.05	1276.135	27-Jun-19	1390.55	1340.025
27-May-19	1289.95	1279.94	28-Jun-19	1397.9	1346.755
28-May-19	1310.5	1285.965	01-Jul-19	1426.05	1359.61
29-May-19	1307.05	1292.91	02-Jul-19	1446.6	1370.07
30-May-19	1303.9	1297.92	03-Jul-19	1460.1	1382.51
31-May-19	1323.1	1306.805	04-Jul-19	1433	1392.195
03-Jun-19	1340.3	1309.025	05-Jul-19	1356.15	1395.765

**INTERPRETATION:** - From the above data it was observed that on 15<sup>th</sup> May 2019 the value of Simple Moving Average was 1252.005 and then it has reduced to 1248.045 on 17<sup>th</sup> May 2019. And from 09<sup>th</sup> May 2019 onwards the value of Simple Moving Average was increased continuously and reached 1395.765.

**5.2 EXPONENTIAL MOVING AVERAGE (EMA):-** Exponential moving average is a weighted moving average. Recent prices are given more weights than older prices. The most important thing to remember about the exponential moving average is that it is more responsive to new information relative to the simple moving average. This responsiveness is one of the key factors of why this is the moving average of choice among many technical traders.

- **FORMULA TO CALCULATE EMA**

$$\text{EMA (current)} = ((\text{price (current)} - \text{EMA (prev)}) * \text{Multiplier}) + \text{EMA (prev)}$$

**Table No.2 Calculation of Exponential Moving Average of Avenue Super Marts Ltd during the period from 1<sup>st</sup> May 2019 to 5<sup>th</sup> July 2019**

DATE	CLOSING PRICE	10 DAY'S EMA	DATE	CLOSING PRICE	10DAY'S EMA
02-May-19	1265.2	-	04-Jun-19	1333.05	1292.34
03-May-19	1262.45	-	06-Jun-19	1317.65	1296.818
06-May-19	1249.65	-	07-Jun-19	1296.65	1300.364
07-May-19	1255.1	-	10-Jun-19	1299.7	1302.512
08-May-19	1245.55	-	11-Jun-19	1296.9	1304.398
09-May-19	1251.6	-	12-Jun-19	1310.5	1305.94
10-May-19	1250.75	-	13-Jun-19	1305	1307.165
13-May-19	1251.9	-	14-Jun-19	1330.6	1308.652
14-May-19	1250.25	-	17-Jun-19	1297.5	1309.404
15-May-19	1237.6	1252.005	18-Jun-19	1342	1310.049
16-May-19	1253.8	1251.798	19-Jun-19	1335.7	1310.626
17-May-19	1234.25	1251.115	20-Jun-19	1336.15	1311.434
20-May-19	1318.1	1251.802	21-Jun-19	1320.45	1312.528
21-May-19	1272.1	1252.672	24-Jun-19	1329.2	1313.959
22-May-19	1299.15	1254.359	25-Jun-19	1330.65	1315.744
23-May-19	1303.15	1256.677	26-Jun-19	1387.45	1318.603
24-May-19	1341.05	1260.214	27-Jun-19	1390.55	1322.498
27-May-19	1289.95	1263.801	28-Jun-19	1397.9	1326.908
28-May-19	1310.5	1267.831	01-Jul-19	1426.05	1332.854
29-May-19	1307.05	1272.391	02-Jul-19	1446.6	1339.621
30-May-19	1303.9	1277.032	03-Jul-19	1460.1	1347.419
31-May-19	1323.1	1282.446	04-Jul-19	1433	1355.56
03-Jun-19	1340.3	1287.278	05-Jul-19	1356.15	1362.87

**INTERPRETATION:-** On 15 May 2019 the Exponential Moving Average was 1252.005 then it has increased 1287.278 on 3 Jun 2019 and further increased on next day all so at 1292.34 then it was increased to 1362.87 on 5<sup>th</sup> July 2019. From the above Exponential Moving Average for the period 15 the May 2019 to 5<sup>th</sup> July 2019 there was fluctuations and grows in price trends.



**5.3 RELATIVE STRENGTH INDEX (RSI):-** The relative strength index (RSI) is another one of the most used and well-known momentum indicators in technical analysis. RSI helps to signal overbought and oversold conditions in a security. The indicator is plotted in a range between zero and 100. The most popular is the 14days RSI where the RSI is calculated based on 14 days values. Traditionally the stock is considered to be over bought when RSI is above 70 and over sold when RSI is below 30. Signals can also be generated by looking for divergences and central line crossovers. This indicator helps traders to identify whether a security's price has been unreasonably pushed to current levels and whether a reversal may be on the way.

- **FORMULA FOR CALCULATING RSI**

$$RSI=100-(100/1+RS)$$

$$RS=\text{Average Gain} / \text{Average Loss}$$

$$\text{Average gain} = \text{Total Gain} / n$$

$$\text{Average loss} = \text{Total Loss} / n$$

**Table No.3 Calculation of Relative Strength Index of Avenue Super Marts Ltd during the period from 1<sup>st</sup> May 2019 to 5<sup>th</sup> July 2019**

DATE	CLOSING PRICE	14 DAY'S RSI	DATE	CLOSING PRICE	14 DAY'S RSI
02-May-19	1265.2	-	04-Jun-19	1333.05	53.23887
03-May-19	1262.45	-	06-Jun-19	1317.65	53.23887
06-May-19	1249.65	-	07-Jun-19	1296.65	53.23887
07-May-19	1255.1	-	10-Jun-19	1299.7	53.14967
08-May-19	1245.55	-	11-Jun-19	1296.9	53.14967
09-May-19	1251.6	-	12-Jun-19	1310.5	52.75698
10-May-19	1250.75	-	13-Jun-19	1305	52.75698
13-May-19	1251.9	-	14-Jun-19	1330.6	52.16714
14-May-19	1250.25	-	17-Jun-19	1297.5	52.16714
15-May-19	1237.6	-	18-Jun-19	1342	51.51409
16-May-19	1253.8	-	19-Jun-19	1335.7	51.51409
17-May-19	1234.25	-	20-Jun-19	1336.15	51.50876
20-May-19	1318.1	-	21-Jun-19	1320.45	51.50876
21-May-19	1272.1	-	24-Jun-19	1329.2	51.39776
22-May-19	1299.15	56.91305	25-Jun-19	1330.65	51.37964
23-May-19	1303.15	56.67872	26-Jun-19	1387.45	50.89198
24-May-19	1341.05	54.96236	27-Jun-19	1390.55	50.87382
27-May-19	1289.95	54.96236	28-Jun-19	1397.9	50.83066
28-May-19	1310.5	54.27198	01-July-19	1426.05	50.69005
29-May-19	1307.05	54.27198	02-July-19	1446.6	50.60901
30-May-19	1303.9	54.27198	03-July-19	1460.1	50.56229
31-May-19	1323.1	53.6753	04-July-19	1433	50.56229
03-Jun-19	1340.3	53.23887	05-July-19	1356.15	50.56229

**INTERPRETATION:-** Relative Strength Index values above 70 are considered to denote overbought condition and values below 30 are considered to denote oversold condition. From the above table Relative Strength Index has 50.56229 on 5<sup>th</sup> July 2019. Sell: The investor can sell their shares only in the Value of 70. So here they can't sell their securities. Hold: the investor can hold their shares from 24<sup>th</sup> May 2019 to 5<sup>th</sup> July 2019.

## 6. CONCLUSION

Stock Market provides great opportunity for both Short-Term and Long-Term Investment. And it has become inevitable for investors to go for security analysis at the time of investment. For security analysis investors can go for either Fundamental Analysis or Technical Analysis. From which Technical Analysis plays vital role in investment activity. With the help of Technical Analysis investors can trace out the movement of share prices in future period. It is an important technique which gives an idea about future trends of share price of selected companies in which investors want to invest their money. In Technical Analysis one can trace out the future trends of share price with the help of different indicators like SMA, EMA, RSI, MACD, BB Model etc. The present study was conducted on Technical Analysis of Avenue Super Market Equity Shares with the help of Simple Moving Average (SMA), Exponential Moving Average (EMA) and Relative Strength Index (RSI). And through which it was found that these indicators plays an important role to predict the future trend of share prices in stock market and also helps for investment related decisions.

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