

A TECHNICAL STUDY ON THE STOCK PRICE MOVEMENTS OF LEADING COMPANIES IN INFRASTRUCTURE SECTOR WITH SPECIAL REFERANCE TO BSE

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ABSTRACT

Technical analysis is a trading tool employed to evaluate securities and attempt to forecast their future movement by analyzing statistics gathered from trading activity, such as price movement and volume. This technical study has been done on the basis of stock prices during the last five financial years. By this study, we can easily compare between the major infrastructure companies based on its performance in the stock market and also we can analyze the trend of the entire segment as a whole. The scrip selected includes L&T, ABB, SIEMANS, ADANI, BHEL. The technical methods in this study includes Relative strength index, Moving averages and ROC. It is be better to take the advantage of the bullish market in order to attain maximum gain/profit for the investors.

Keywords: Infrastructure Sector, ROC, RSI, Stock price, Technical analysis

1. INTRODUCTION

The stock market is primarily the place where these companies get listed to issue the shares and raise the fund. More than any other sectors, the stock market is always under uncertainty and risk. A technical analyst believes that share prices 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 and emotional factors. The share price movement is analyzed broadly with two approaches, namely, fundamental approach and the technical approach. The basic premise of technical analysis is that prices move in trends or waves which may be upward or downward. Technical analysis is really a study of past or historical price and volume movements so as to predict the future stock price behavior.

1.1 Need Of The Study

The need for studying importance of infrastructure growth and development is to find how infrastructure plays a dynamic role to fulfill their growth targets as well as achieving higher living standards of their mass population. In this paper, the overall growth and performance of infrastructure services has been examined in depth on the basis of the different technical analysis

1.2 Importance of the Study

The Government of India recognize that high level of economic and industrial growth can be achieved only if infrastructure develops at a commensurate pace. Therefore, the right policies and frameworks leading to adequate investments at the decentralized levels are necessary.

1.3 Scope of the Study

This study is based on five companies in infrastructure sector listed in BSE which have more than 20000 crore capitalization. This study has been done on the basis of stock prices during the last five financial years. By this study, we can easily compare between the major infrastructure companies based on its performance in the stock market and also we can analyze the trend of the entire segment as a whole. Companies are selected based on market capitalization of the shares in BSE.

1.4 Objectives Of The Study

To examine the performance of selected Infrastructure companies listed in BSE using technical analysis.

To identify the stock price volatility of the infrastructure sector during the last four years

To find out the best among these five companies.

To have a general awareness about Infrastructure industry.

To understand the share practice movement with the help of technical analysis.

To analyze price movements using Relative Strength Index.

To analyze & understand trends and patterns in stock price movements by Rate of change & Moving Average.

1.5 Limitation Of The Study

Time constraints. Personal constraints, Secondary data is used in this study, Past performance may or may not sustain in the future, The study result cannot generalize because the data is limited to only five Infrastructure companies.

2 Review Of Literature

Arun Prakash And P Shanmugha Priya(2015) The present study has been undertaken to analyze the share price movement of bank industry as the rise in investment values throughout India which leads to revenue generation for banks. **Docking and Koch (2005)** in their study to evaluate investor reaction to dividend increase or decrease shows

that dividend change announcements reveal a greater change in stock price when the nature of the news good or bad goes against the grain of the recent market direction during volatile times.

Ejubekpokpo A. Stephen and Edeiri G Okoro (2014) This study thus examined by a means of robust analysis , factors that determine stock price movement in Nigeria for the period 2001-2011. Data were sourced from the financial statement of 99 listed firms in the Nigerian Stock Exchange. The analysis of the data sourced was done with the Ordinary Least Square(OLS) method. **M. Pushpalatha and Dr K. Balasubramani (2013)** The objective of this paper is to explore the analysis of share price movements in NSE. **Juhi Ahuja (2012)** presents a review of Indian Capital Market & its structure. In last decade or so, it has been observed that there has been a paradigm shift in Indian capital market. The application of many reforms & developments in Indian capital market has made the Indian capital market comparable with the international capital markets. **Hartono (2004)** argues that a significantly positive impact is made on equity prices if positive earnings information occurs after negative dividend information. Also, a significantly negative impact occurs in equity pricing if positive dividend information is followed by negative earning information. **Irfan and Muhammad (2002)** established the joint linear effect of six fundamental variables over a lengthy period of twenty years to estimate a valid relationship between the share price and the fundamental variables using all listed companies at Karachi Stock Exchange from 1981 to 2000 and the significant joint factors are payout ratio, size of the firm, leverage and dividend yields while earning volatility and assets growth are not significantly explaining the share price changes. Together these four fundamental variables explain one-fourth variation in stock price changes in Karachi stock exchange.

3. COMPANY PROFILES

3.1 Larsen And Toubro

Larsen & Toubro (L&T) is a technology, engineering, construction and manufacturing company. It is one of the largest and most respected companies in India's private sector. Larsen & Toubro Limited is the biggest legacy of two Danish Engineers, who built a world-class organization that is professionally managed and a leader in India's engineering and construction industry.

3.2 Adani Ports

Adani ports were incorporated as Gujarat Adani Port Limited on May 26, 1998, and commenced phased operations at Mundra Port in October 1998 with commercial operations beginning in October 2001. We were initially promoted by Adani Port Limited and Gujarat Port Infrastructure Development Company Limited, an undertaking of the Govt of Gujarat.

3.3. Siemens

Siemens India is a technology powerhouse that has stood for engineering excellence, innovation, quality and reliability. The company focuses on the areas of electrification, automation and digitalization. It is one of the leading producers of energy-efficient, resource-saving technologies; combined cycle turbines for power generation; and power transmission solutions. Siemens is a pioneer in infrastructure solutions and automation and software solutions for industry.

3.4. BHEL

Forging ahead on a sturdy foundation of over five decades of engineering excellence and embracing the glorious next phase of its growth, BHEL is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing company of its kind in India engaged in the design, engineering, manufacture, construction, testing, commissioning and servicing of a wide range of products and services for core sectors of the economy, viz. Power, Transmission, Industry, Transportation (Railways), Renewable Energy, Oil & Gas, Water and Defense with over 180 products offerings to meet the needs of these sectors.

3.5. ABB INDIA

ABB is a pioneering technology leader that is writing the future of industrial digitalization. For more than four decades, we have been at the forefront, innovating digitally connected and enabled industrial equipment and systems.

4 Research Methodology

The study is based on the secondary data which is collected from BSE, various books, journals, magazines. The research is based on tools of technical analysis and involves the calculation of Moving Averages (MA), Rate of Change Indicator (ROC) & Relative Strength Index (RSI). In this project simple moving average has been calculated by taking the difference of long-term moving average and short-term moving average. Short-moving average is the average of 3 quarters and long-term moving average is the average of 5 quarters, RSI has been calculated by taking 3 quarters and quarterly ROC has been calculated. The research is based on the stock prices of 5 listed Infrastructure companies under BSE.

4.1 Tools Of Analysis

4.1.1 Simple Moving Average (SMA)-The market indices do not rise or fall in straight line. The upward and downward movements are interrupted by counter moves. The underlying trend can be studied by smoothening of the data. To smooth the data moving average technique is used. The moving averages are used to study the movement of the market as well as the individual scrip price. The moving average indicates the underlying trend in the scrip.

4.1.2 Relative Strength Index (RSI)-If the share price is falling and RSI is rising, a divergence is said to have occurred. Divergence indicates the turning point of the market. If the RSI is rising in the overbought zone, it would

indicate the downfall of the price. If RSI falls in the overbought zone, it gives a clear signal of when to sell. *Where
 $RS = \text{Average of } n \text{ days' up closes} / \text{Average of } n \text{ days' down closes.}$ **$RSI = 100 - 100 / (1 + RS^*)$**

4.1.3 Rate of Change (ROC)-Rate of change indicator measures the rate of change between the current price and the price 'n' number of days in the past. ROC helps to find out the overbought and oversold positions in scrip. It also used in identifying the trend reversal. ROC is at a high peak and starting to move down is an indication of a sell signal, whereas an ROC at a low peak, but starting to move upwards is a buy signal.

$$ROC = \frac{(\text{Closing Price Today} - \text{Closing Price "n" days ago})}{\text{Closing Price "n" days ago}} - 1$$

4.2 TECHNICAL ANALYSIS

4.2.1 LARSEN AND TOURBO

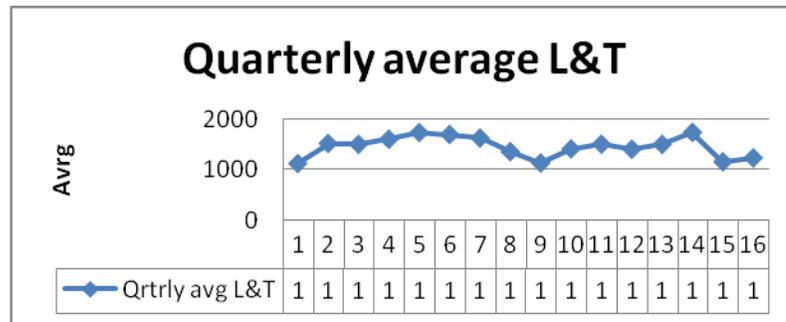


Fig 4.2.1.1 Line graph showing 3MoV of Larsen & Toubro Ltd for the last four financial years

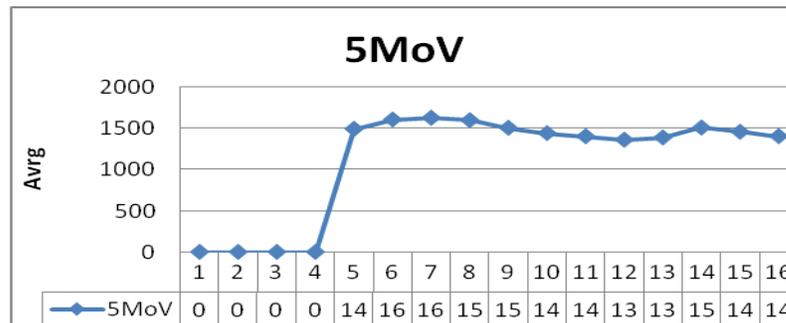


Fig 4.2.1.2 Line graph showing 5MoV of Larsen & Toubro Ltd for the last four financial years

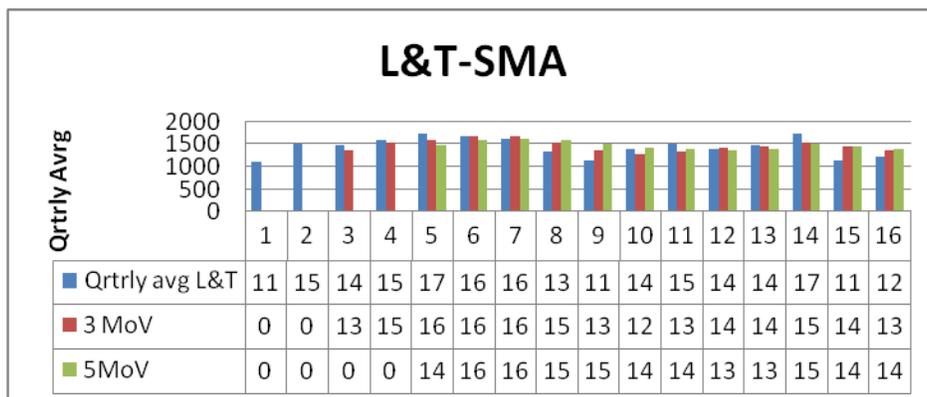


Figure 4.2.1.3 Bar graph showing SMA of Larsen & Toubro Ltd for the last four financial years

Interpretation: As per the above table and graph, Larsen and Toubro Ltd is showing a fluctuating trend in stock price, but it is increasing in the last four financial years.

4.2.2 SIEMANS

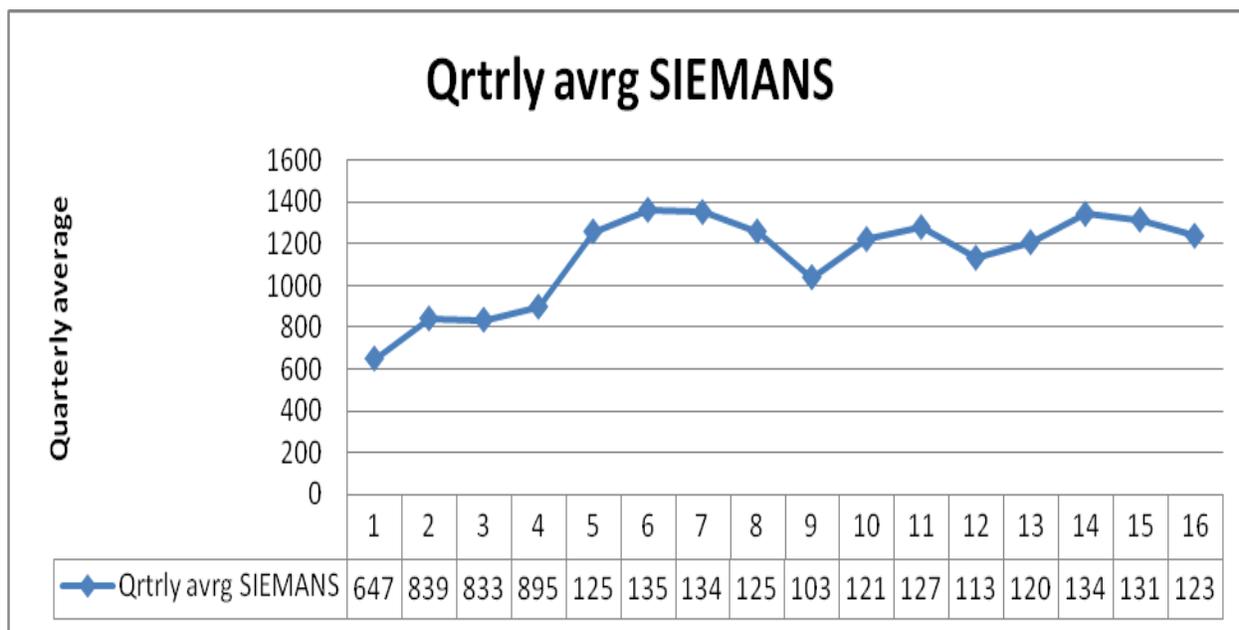


Figure 4.2.2.1- Line graph showing quarterly average of SIEMENS Ltd for the last four financial years

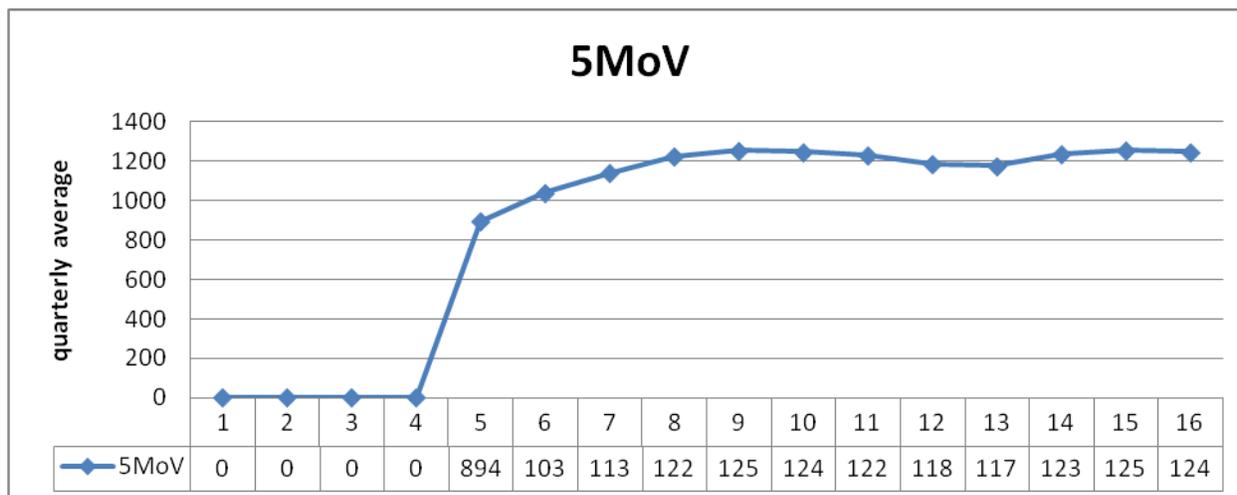


Fig 4.2.2.3- Line graph showing 5MoV of SIEMENS Ltd. Ltd for the last four financial years

4.2.3 ADANI PORTS

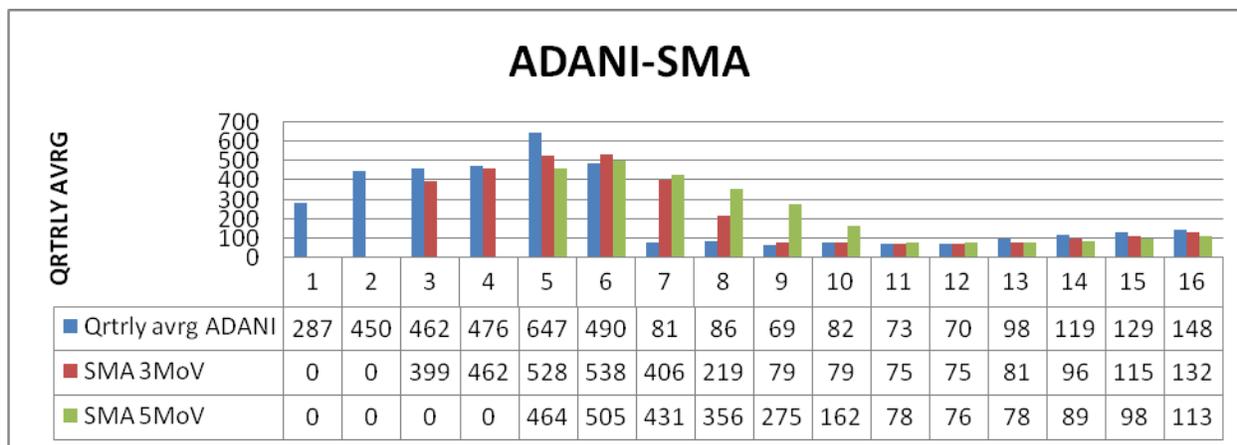
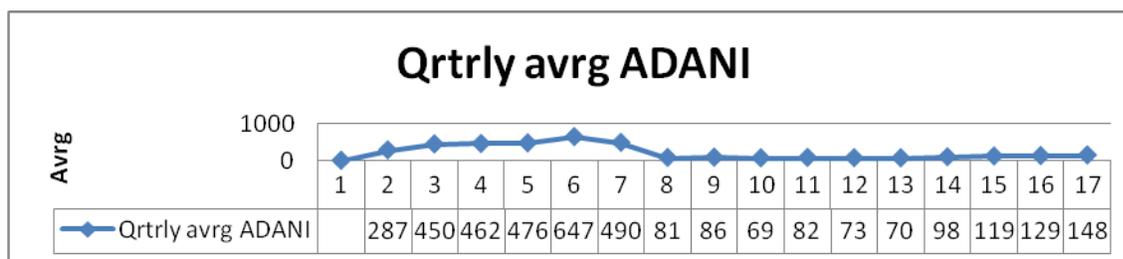


Figure 4.2.3.2- Bar graph showing SMA of ADANI PORTS AND SPECIAL ECONOMIC ZONES. Ltd for the last four financial years

Interpretation: The share price of Adani ports is increased in the beginning, then fell down and raised up

4.2.4 BHEL Ltd.

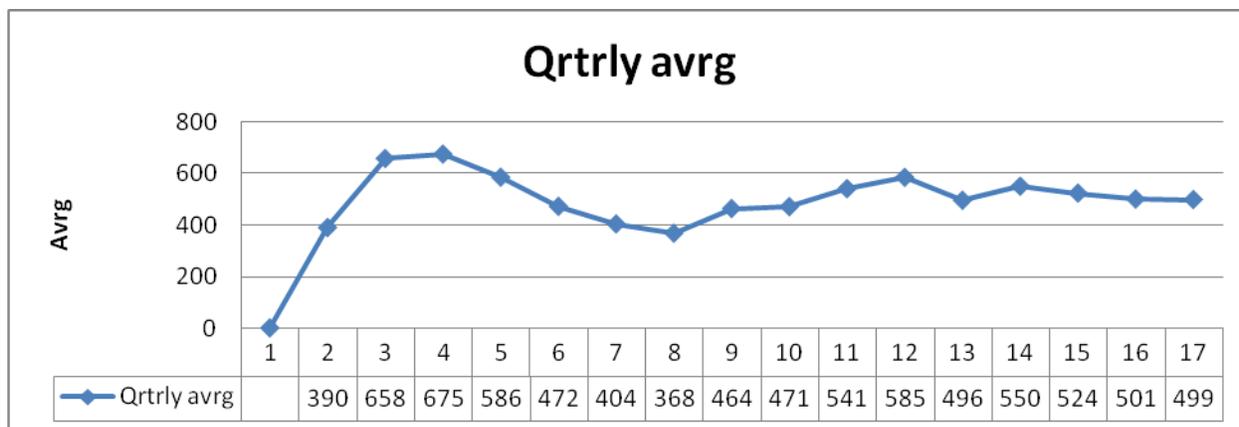


Figure 4.2.4.1- Line graph showing qrtrly avg of BHEL Ltd for the last four financial years

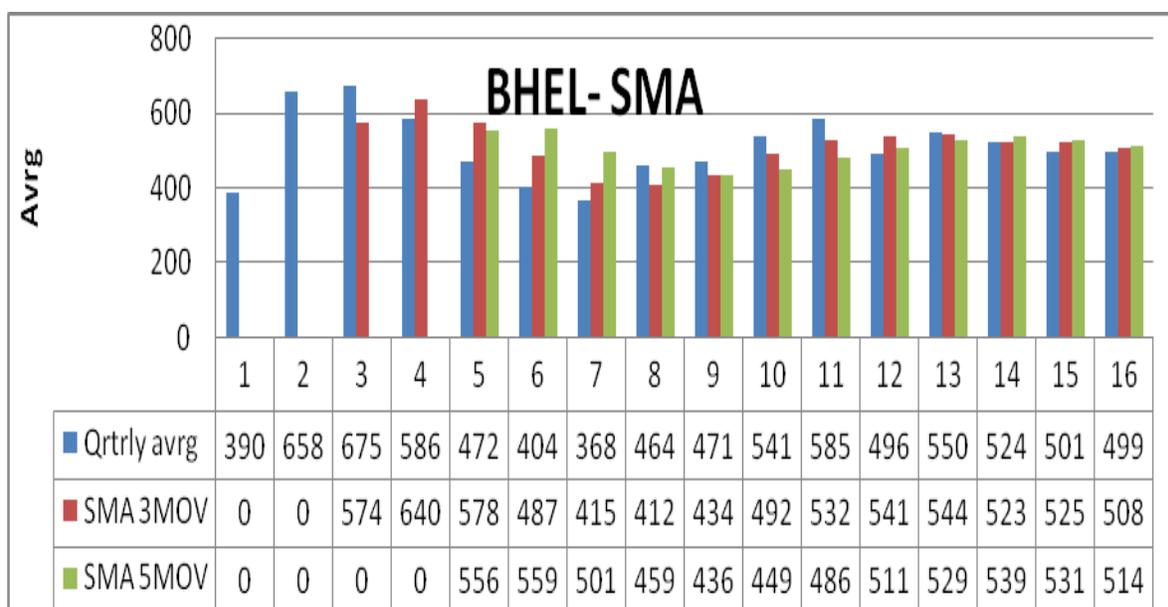


figure4.2.4.3 Bar graph showing SMA of BHEL Ltd for the last four financial years

Interpretation: According to the above table and graph, BHEL Ltd. Is showing a **positive trend** in it's stock price. The stock price was increased, then decreased and again increased year by year.

4.2.5 ABB India Ltd

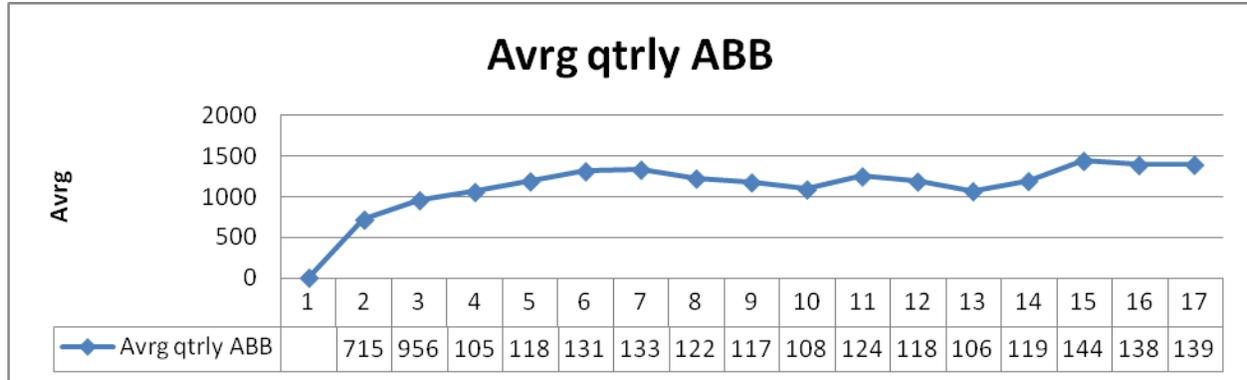


Figure 4.25.1- Line graph showing qtrly avrg of ABB Ltd for the last four financial years

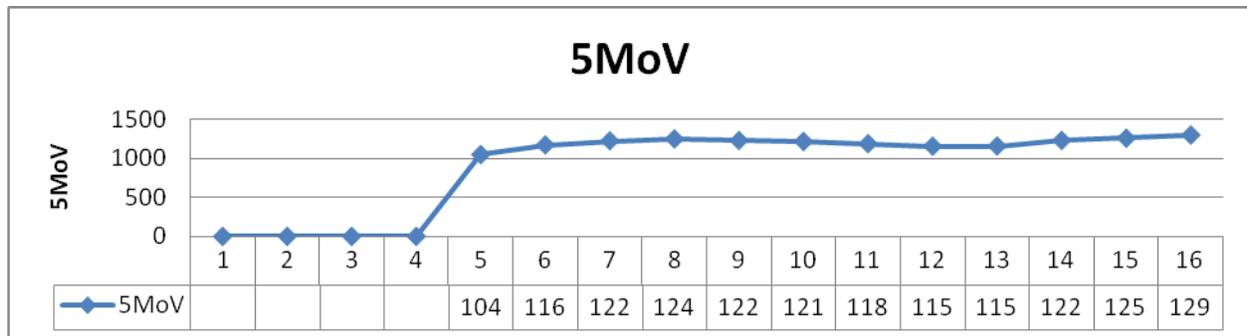


Figure 4.2.5.2- Line graph showing 5 MoV of ABB Ltd for the last four financial years

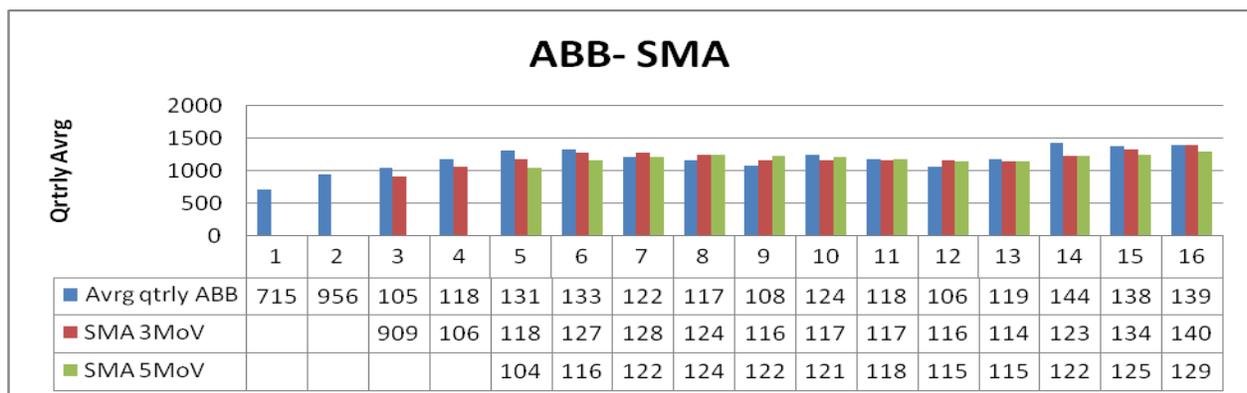


Figure 4.5.4- Bar graph showing of ABB Ltd for the last four financial year

Interpretation: ABB is showing a tremendous increase in its share price from Rs.715 to Rs. 1392 from 2014 to 2018. So, it is a bullish market. The above table and graph describes that ABB India Ltd. Is showing a **positive growth** in the stock price.

Similarly, ROC and RSI was also calculated by collecting the values of stock price movements from the BSE website.

5. Findings

- ❖ The share price of Larsen & Turbo is highest in year 2015-2016 and lowest in 2016-2017
- ❖ From the study shows that the share price of Siemens is highest in 2014-2015 and lowest in 2016-2017
- ❖ It reveals that Adani Ports have a negative trend in share price movement and highest share price achieved in 2015-2016
- ❖ This study shows that BHEL has positive trend in stock price.
- ❖ This study, it is clear that there is generally a positive growth in stock price.
- ❖ This study reveals that the average share price of Adani Ports create a decreasing trend.
- ❖ The highest simple moving average value of L&T is 1680 for 3 quarters and 1627 for 5 quarters.
- ❖ The highest simple moving average value of Adani ports Ltd is 538 for 3 quarters and 505 for 5 quarters.
- ❖ The highest simple moving average value of Siemens is 1321 for 3 quarters and 1253 for 5 quarters.
- ❖ The highest simple moving average value of BHEL is 640 for 3 quarters and 556 for 5 quarters.
- ❖ The highest simple moving average value of ABB is 1407 for 3 quarters and 1296 for 5 quarters.
- ❖ The highest ROC value of L&T is 0.42
- ❖ The highest ROC value of Adani port Ltd is 0.65
- ❖ The highest ROC value of Siemens is 0.63
- ❖ The highest ROC value of BHEL is 0.502
- ❖ The highest ROC value of ABB is 0.66
- ❖ The RSI value is highest for ABB(70) and lowest for ADANI(43)

6. Suggestions

Based on the study conducted, I suggest the investor to invest in the L&T and BHEL because both of them have an increasing trend and the RSI value is less. The investors should not invest in Adani, if they don't want to take risk, because it is showing a decreasing trend in share price. The bearish market condition can be utilized by the investors by buying shares for less prices with long term profit motive. ABB and Siemen is also showing an increasing trend. But the share price is in maximum values. So, it will be better to take the advantage of this bullish market.

7. Conclusion

From this study I got a lot of informations. From the last five financial years , the monthly share price of 4 leading companies in infrastructure was converted to quarterly averages and technical analysis in three methods was done. The stock prices of the company's such as Larsen & Turbo, Adani Ports, Siemens, BHEL, and ABB India in infrastructure sector was analysed. It helps to identify the trend of the entire segment based on stock price movement. And it helps to predict future share price movement. This helps to identify the trend of stock price movement in the infrastructure sector.