

## Technical analysis to predict the future prices of ICICI bank

Dr. Meenu Baliyan, Punjika Rathi

Assistant Professors (MBA Dept)

Assistant Professors (MBA Dept) IMS Engineering College, Ghaziabad

Corresponding Author: Dr. Meenu Baliyan

**ABSTRACT :** So many studies have been done to evaluate the benefits of conducting the technical analysis for study the changes of stock markets. Technical analysis is basically a study of future direction of movement of share prices .It mainly predict the short term price travel so that company can be selected for invested on the bases of fluctuation in the price level of stocks. This paper will study about the usage of technical analysis of stock of ICICI Bank and how it is helpful for predicting the future prices of shares. For the research data has been taken for 3 months. Prices have been compared by using ROC and RSI.

**Keywords:** Technical analysis, RSI, ROC

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### I. INTRODUCTION:

Technical analysis of share prices and traded volume to predict the near future price movement .somewhere it is a mix of psychological and logical, which means market is driven by the psychology of the investor in 90% of the times and for 10% of the times logical factors affect the market. Technological analysis is based on the belief that history repeats itself, means that price patterns and traded volume occur again and again over a period of time. This repetition of price and volume pattern helps in predicting the near future price movements.

Technical analysis is being used for different purposes like predicting overall market trend and making a prediction about individual shares. In this research paper researcher has tried to predict the individual shares trends

Technical analysis indicators are price, value, volume and so on to decide the entry, hold and exit time and levels. Charts form few activities to predict the changes in the shares of a company. It is a technique that claims the ability to forecast the future direction of prices through the study of past market data. The strength of analysis depends on the how accurately the price movements are predicted.

### II. LITERATURE REVIEW:

AUTHOR	FINDINGS
S. P. Kothari, Jai Shanken and Sollen (1995)	Shows that beta significantly explains cross sectional variation in average returns, but that size also has incremental explanatory power. The findings shown that statistically significant, the incremental benefit of size given beta is surprisingly small economically
Preethi Singh (1986)	Studied the basic rule for selecting the company to invest in the stocks. The opinion and understanding that measures the return and risk is fundamental to the investment process. Most of the investors are risk aware and to get more returns the investors has to face greater risk. She concludes that the risk is fundamental to the process of investment. The investor should evaluate the financial statements with special references to solvency, profitability, EPS and efficiency of the company.
Grewal S.S & Navjot Grewal (1984)	Revealed some basic investment rules they warned the investors not to buy unlisted shares, as stock exchanges do not permit trading in unlisted shares. Another rule that they specify is not to buy inactive shares and the third rule according to them is not buy shares in closely held companies because these shares tend to do less active than the widely held ones since they have few number of share holders.
Jelena Stankovic, Ivana Markovic, Milos Staoanovic (2015)	The study revealed the efficiency of technical analysis and predictive modeling in defining the optimal strategy for investing in stock markets. The paper covers emerging market economies and uses technical indicators such as moving averages, MACD, RSI etc. it is based on least squares support vector machines model. The paper concludes that machine learning techniques capture nonlinear models adequately and this model outperforms buy and hold strategy in maximization of profitability on investment.

**Objectives of the study:-**

- To study technical analysis of selected stocks out buy or sell signal different.
- To analyze price movements using relative strength index.

**III. DATA COLLECTION AND ANALYSIS**

**SAMPLE:** - For studying the objectives sample which consists of the daily closing values of the selected indices i.e. ICICI, SBI, HDFC, PNB been taken from 1<sup>st</sup> August 2018 to 31<sup>st</sup> Oct 2018

**SAMPLE PERIOD:-**We have taken the closing values of selected stock indices under study from the 1<sup>st</sup> November 2018 to 31<sup>st</sup> January 2019.

**SAMPLE SIZE**

Following table shows the details of sample size of each selected stock. The data are synchronized. The sample includes observations of daily closing values of individual stock of selected banks for 3 months .The study has considered the selected stocks as they are the mostly considered in many researches.

FOR 90 DAYS:-

$$RS = \text{AVERAGE GAIN} / \text{AVERAGE LOSS}$$

$$= 104.95 / 137.75$$

$$= 0.76$$

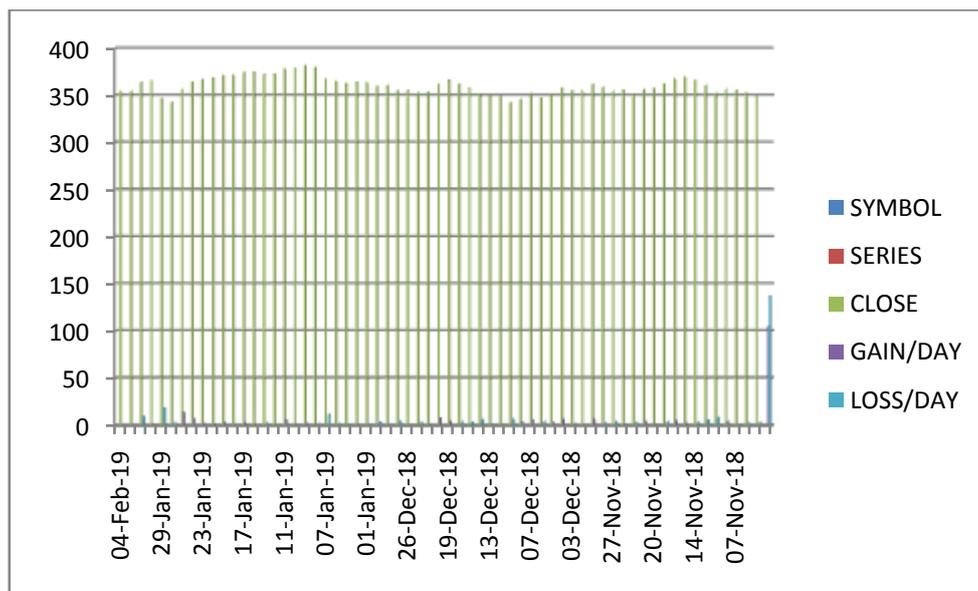
$$RSI = 100 - 100 / 1 + RS$$

$$= 100 - 100 / 1 + 0.76$$

$$= 100 - 100 / 1.76$$

$$= 100 - 56.81$$

$$= 43.17$$



**INTERPRETATION**

This is the RSI for 90 days. In this way the RSI value for the subsequent days can be calculated by taking the closing prices of 14 previous days. The RSI value ranges from 0 to 100. These values are plotted on an XY graph.

RSI value above 70 is considered to denote overbought condition and values below 30 are considered to denote oversold condition. When RSI has crossed the 30 line from below to above and rising, a buy opportunity is indicated. When it has crossed the 70 line from above to below and is falling, a sell signal is indicated.

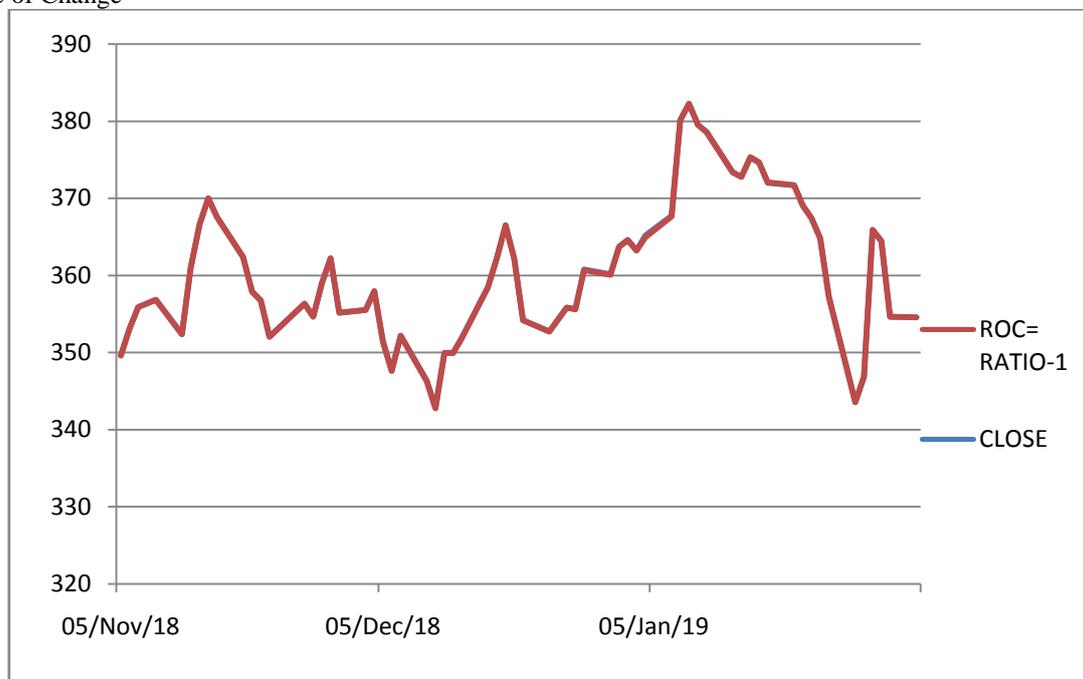
**RATE OF CHANGE**

ROC indicator measure the rate of change between the current price and the price n number of days in the past. ROC helps to determine the overbought and oversold position in scrip. It is also useful in identifying the trend reversal. Closing prices are used to calculate the ROC. Daily closing prices are used for the daily ROC and weekly closing prices for weekly ROC. Calculation of ROC 12 weeks or 12 months is most popular.

FORMULA

$$\text{Rate of Change (ROC)} = \frac{\text{Close Price} - \text{Close Price n Period Ago}}{\text{Close Price n Periods Ago}} * 100$$

Rate of Change



The ROC value may be positive or negative or zero. In ROC the x-axis represents the time and y-axis represents the value of the ROC. Here in the graph 4-11-18 indicate that ROC line is below the zero line that means it is an oversold zone that means one should buy the share.

IV. CONCLUSION

The analysis has been done mainly by the use of two mathematical indicators called RELATIVE STRENGTH INDEX and RATE OF CHANGE, which are leading indicators in technical analysis. An investor can identify oversold, overbought situation and to take right investment decisions at minimum level of risk. In ROC when the roc line is above the zero line the price is rising on the other hand when it below the zero line the price is falling. During the research I found that roc is lie under oversold zone it means one should buy the share of the bank.

In RSI when the value is above 70 i.e. overbought condition and if the value is below 30 i.e. oversold condition while researching on the 3 months data I found that here investor or one who should buy the share do not have to buy the share because the value is above 70.

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