IOSR Journal of Economics and Finance (IOSR-JEF)
e-ISSN: 2321-5933, p-ISSN: 2321-5925. Volume 12, Issue 2 Ser. II (Mar. –Apr. 2021), PP 21-27
www.iosrjournals.org

Our Technical Indicators Able To Predict Investment Strategy

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Abstract
Banking sector is the backbone of the economy which also goes through its own phases of ups and down. The State Bank of India, popularly known as SBI is one of the leading bank of public sector in India. ICICI is second largest and leading bank of private sector in India. Even in the share markets, the performance of banks shares is of great importance. Thus, the performance of the share market, the rise and the fall of market is greatly affected by the performance of the banking sector shares and this study revolves around all factors, their understanding and a theoretical and technical analysis.
The stock market is one of the vital components of a free-market economy, as it provides companies with access to capital in exchange for giving investors a slice of ownership in the company. A stock is a general term term used to describe the ownership certificates of any company. A share, on the other hand, refers to the stock certificate of a company. In this research paper researcher tried to compare the public and private banks and did the technical analysis to get more insight.
Data has been considered for 3 months starting from 1st October 2020 to 19 January 2021.The study found that SBI is performing well and financially sound than ICICI Bank but in context of deposits and expenditure ICICI bank has better managing efficiency than SBI.
Keywords: *Banking Sector, Equity Analysis, Fundamental Analysis, Technical Analysis.*

Date of Submission: 10-03-2021 Date of Acceptance: 25-03-2021

I. Introduction

Banking sector:

As per the reserve bank of India, India's banking sector is sufficiently capitalized and well-regulated. An efficient banking system is recognized as basic requirement for the economic development of any economy. Banks mobilize the savings of community into productive channels. The banking system of India is featured by a large network of bank branches, serving many kinds of financial needs of the people.

The banking industry plays an important role in the economic development of a country. It supplies the lifeblood-money that supports and fosters growth in all the industries. Growth of the banking sector is measured by the increase in the number of banks' branches, deposits, credit, etc. in analyzing the banking sector, it indicates the direction in which the country's economy is moving.

Increasing number of branches of the banks, deposits, credit facilities and banking operations are the indicators of the trend towards growing economy. Financial performance need to be assessed so as to know the improvement after the crisis. Today, India has about 27 Public Sector Banks, 20 Private Sector Banks and 43 Foreign Banks. Public Sector Banks holds near 75% of the total assets of the industry where SBI and ICICI are the two major players in the banking sector.

Rising incomes are expected to enhance the need for banking services in rural areas and therefore drive the growth of the sector; programmes like MNREGA have helped in increasing rural income aided by the recent Jan Dhan Yojana. The Reserve Banks of India (RBI) has relaxed its branch licensing policy, thereby allowing banks (which meet certain financial parameters) to set-up new branches in tier-2 to tier-6 centre, without prior approval from RBI. It has emphasized the need to focus on spreading the reach of banking services to the un-banked population in India.

Equity:

Equity shares represent proportionate ownership of a company. This right is expressed in the form of participating in the profits of a going company and sharing the assets of a company after winding-up. Equity shares have a lowest priority claim or earnings and assets of all securities issued. But they have unlimited potential for dividend payments and price appreciation. Equity is the interest of investors in the business firm. The investors can own equity shares in a firm in the form of common stock or preferred stock. On a company's balance sheet equity is represented by common stock, preferred stock, paid in capital and retained earnings. The equity can be calculated by subtracting total liabilities from total assets. Equity or stock analysis is a term that

refers to the evaluation of particular trading instrument in the investment sector or market as a whole. There are two types of equity analyses:
1. Fundamental Analysis
2. Technical Analysis

Technical analysis:

Technical analysis of a security is a logical explanation and projection of possible changes in its market price exclusively on the basis of depth study of the available data in the market. It may also be explained as the study and trend analysis of historical data in respect of a particular security with a view to estimating its future trend with regard to the market price of that specific security.

II. Literature Review

AUTHOR	FINDINGS
Meenu Baliyan, Punjika Rathi (2019)	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.
Renuka N, Prabhakar (2016)	The study refers that the investors should understand the past performance of the companies before investing in the shares of those companies. Both the Fundamental analysis and Technical analysis should be used to study the stocks. Investors should understand the limitations of the techniques used in both Fundamental as well as technical analysis
Jelena Stankovic, Ivana Markovic, Milos Stoanovic (2015)	The study revealed the efficiency of technical analysis and predictive modelling 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.
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 Grewall (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 numbers of shareholders.
Sahil Jain (2012)	The analysis has been made using the risk return relationship and capital asset pricing model (CAPM). The overall analysis found that SBI and ICICI have been the best performance. UTI an average performer and LIC the worst performance which gave below expected returns on the risk return relationship.
Pai (2006)	The study reveals that the performance of banks, as far as deposits and credits are concerned at two point of time, has been largely similar. It was also observed that private scheduled commercial banks had shown superior performance.
Bodla et al (2006)	They found that ICICI Bank has outperformed SBI in terms earning quality, the ratio of operating profit to average working funds, Net Profit to Average assets, and so on.

OBJECTIVE OF THE STUDY
- To study technical analysis of selected stocks out buy or sell signal different.
- To analyse price movements using relative strength index.

DATA COLLECTION AND ANALYSIS

SAMPLE: - For studying the objectives sample which consists of the daily closing values of the selected indicators. i.e., ICICI, SBI been taken from 1st October 2020 to 19th January 2021.

SAMPLE PERIOD: -We have taken the closing values of selected stock indices under study from the 1st October 2020 to 19th January 2021.

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.

RELATIVE STRENGTH INDEX(RSI)

It is an oscillator used to identify the inherent technical strength and weakness of a particular scrip or market. RSI can be calculated for a scrip by adopting the following formula.

FORMULA:

Relative Strength Index (RSI) = 100-{100/(100+RS)}

RS = average gain per day / average loss per day

RSI can be calculated for any number of days depending on the wish of the technical analyst and the time frame of trading adopted in a particular stock market. RSI is calculated for 5, 7, 9 and 14 days. If the period considered is longer, the possibility of getting the wrong signal is reduced. Reactionary or sustained rise or fall in the price of the scrip is foretold by the RSI.

ICICI Bank	SBI Bank
FOR 90 DAYS: - RS = AVERAGE GAIN/AVERAGE LOSS = 805.93/658.54 =1.22 RSI= 100- {100/ (1+RS)} =100-{100/(1+1.22)} = 100-(100/2.22) = 100-45.05 = 54.95	FOR 90 DAYS: - RS = AVERAGE GAIN/AVERAGE LOSS = 186.24/87.54 =2.13 RSI= 100- {100/ (1+RS)} =100-{100/(1+2.13)} = 100-(100/3.13) = 100-31.9 = 68.1

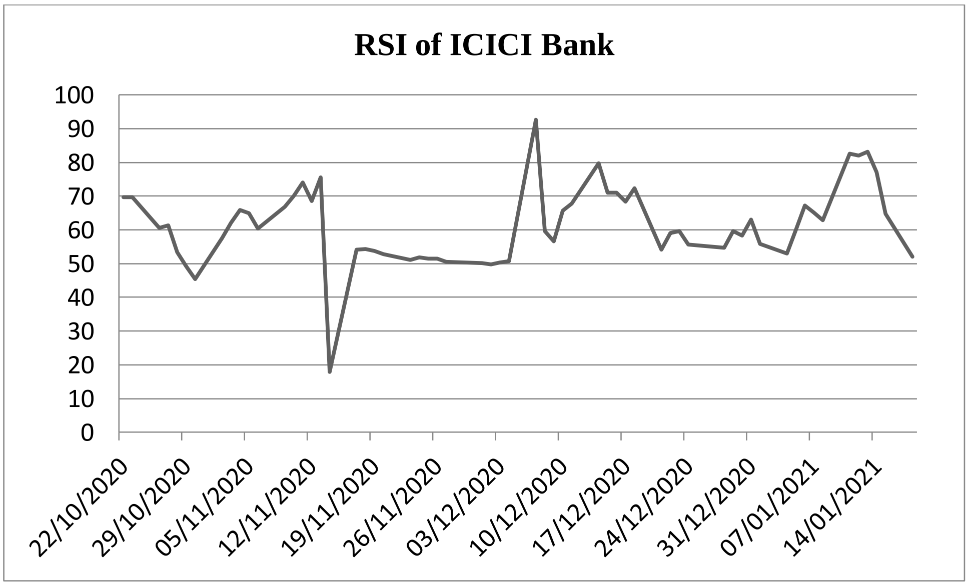

Figure 1. Relative strength Index of ICICI Bank

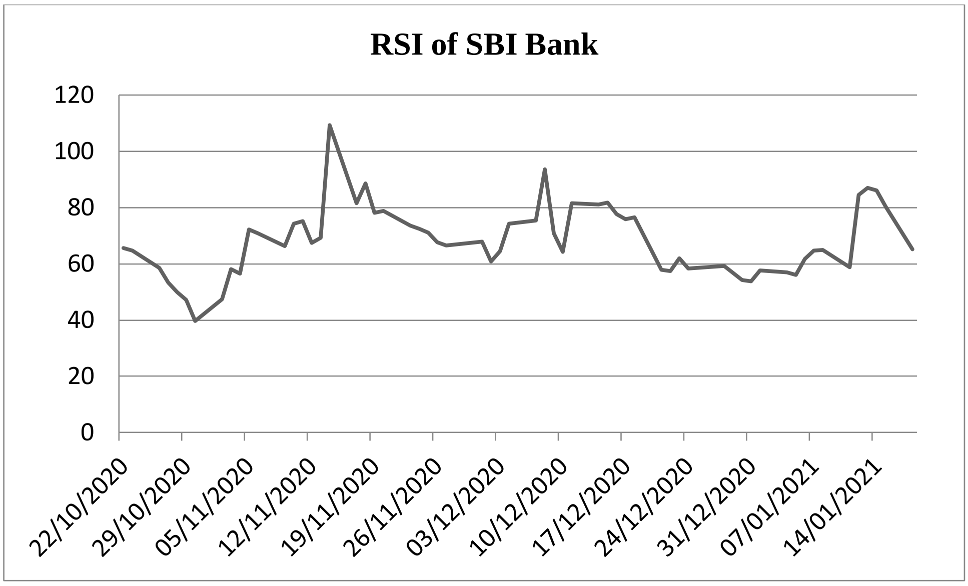

Figure 2. Relative Strength Index of SBI Bank

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 measures 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:

Rate of Change (ROC) = Close Price -Close Price n Period Ago* 100

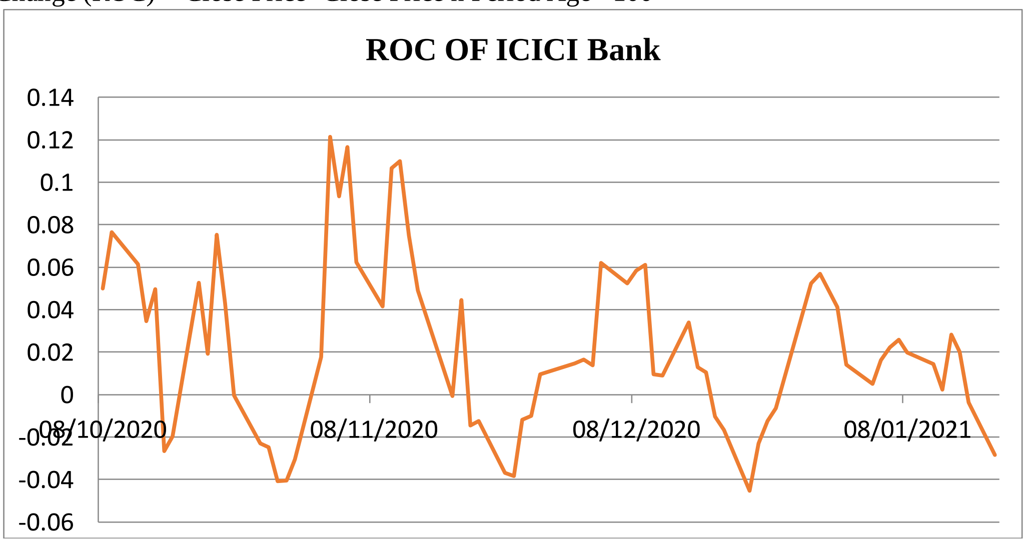

Figure 3. Rate of change of ICICI Bank

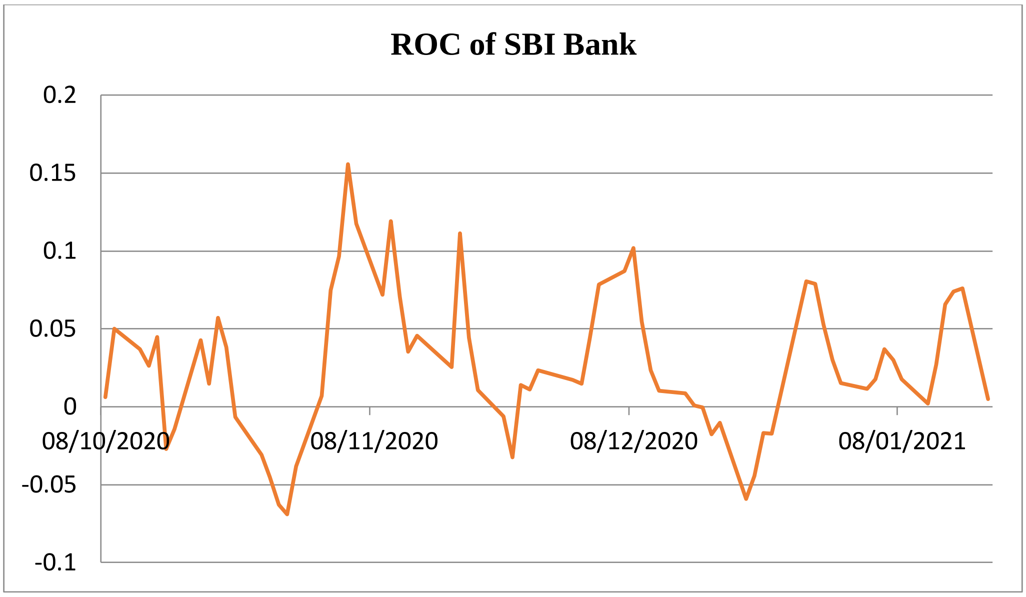

Figure 4. Rate of change of SBI Bank

INTERPRETATION: 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.

MOVING AVERAGE

The market indices do not rise or fall in a straight line. The upward and downward movements are interrupted by counter moves. The Underlying trend can be understood by smoothening of data using moving average technique. The period of average determines the type of trend identified. (E.g., 5day MA – short term trend)

FORMULA:

MA= sum of prices/ no. of days

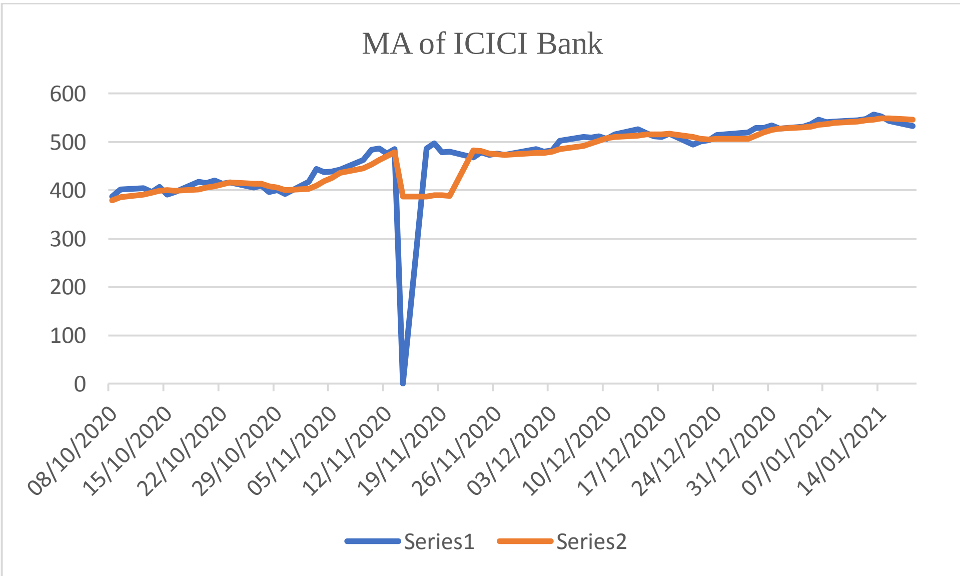

Figure 5. Moving average of ICICI Bank

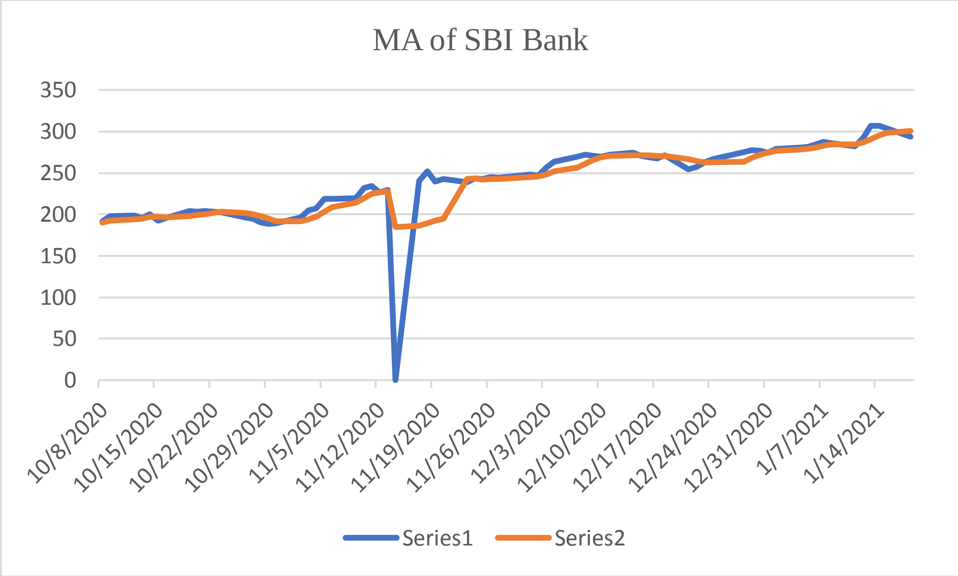

Figure 6. Moving average of SBI Bank

INTERPRETATION: The trend can be upward and downward. If market shows downtrend, means stock price falls above moving average, investor should sell when price closes below moving average. If the market shows uptrend, means stock price falls below moving average, then investor should buy when price closes above moving average.

FINDINGS

Tool Used	Findings for ICICI Bank	Findings for SBI Bank
Chart	Buy	Buy
RSI	Buy	Buy
ROC	Buy	Buy
Moving Average	Buy	Buy

The trend of share prices: The trend of share prices, of SBI Bank and ICICI Bank is in a upward trend. Upward penetration of a falling average is indicating the possibility of the further rise and indicates a buy signal. As the moving average indicates the underlying trend, its violation may signal trend reversals, as shown in **Figure 5** and **Figure 6.**

Relative strength index (RSI): If the RSI is rising in the overbought zone, it indicates a fall in prices. If RSI fall in the overbought zone, it gives a clear sell signal.

III. Conclusion

The analysis has been done mainly by the use of four mathematical indicators called RELATIVE STRENGTH INDEX, RATE OF CHANGE, MOVING AVERAGE and CHARTS, 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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