

A STUDY ON STOCK'S VOLATILITY IN BANKING SECTOR USING TECHNICAL ANALYSIS

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Abstract: The study is about analysis of volatility of shares in banking sector by using technical analysis. The technical analysis shows the turning points, which predicts when to buy or sell the stock. This paper helps to know which bank performs better compared to other banks based on the price fluctuation by using technical analysis. The analysis shows that the shares of Canara Bank and Vijaya Bank gives the highest yield when compare to other banks.

KEY WORDS: Technical Analysis, Yield, Bollinger band, Relative Strength Index (RSI).

1. INTRODUCTION

Shares are the one of the best saving instrument to get maximum returns in future compare to any other instrument like Bank deposits, Debenture, Gold etc., but shares have high risk involved. Most of the investors fear about stock market because they don't know the full pledge knowledge in stock market. In share market only our investment make double or triple within a short period when compare to other instrument. ^{1}

1.1 TECHNICAL ANALYSIS

Technical Analysis is the prediction of future stock price movements based on past price movements. It can help investors to anticipate what "possible" can happen to the prices over time. It helps to present trends for buying and selling. It shows the historical movements and key areas of support and resistance. It indicates the probable future action of the market by projection. Technical analysis is to generate returns by chart patterns decide when to enter and when to exit in the security. ^{3}

1.2 FIVE BEST STRATEGIES FOR MAKING MONEY USING TECHNICAL ANALYSIS:

1. Just focus on major trends only
2. Stay far from sideways or adjusting markets
3. Do not bet on Intra trade but for trend continuations
4. Scan many markets to identify right tradable setups out of all securities.
5. Trading is focus on only in highly liquid stock and securities

1.3 VOLATILITY:

Volatility refers to the amount of unpredictably or dispersion (risk) about the changes in a security value or the price of security increases/decreased over a given period of time. A higher volatility implies that a security's price can conceivably be spread out finished a bigger scope of value. This implies the price of the security can change drastically, finished in a brief span period in one direction. A low volatility implies that a security's price does not vary drastically, but rather than changes in security at an unflinching pace over some period of time. Volatility is the measurement of price changes in a specified period of time.

2. REVIEW OF LITERATURE

(Dr. Pallavi, 2000) in her research found that, as far as the Indian banking is concerned it can be categorized in different modes such as government owned, private banking and specialized banking institution. In India Reserve Bank of India is the control body which works above to all Indian banks. Since from 1969 the public sectors banks has cover-up the decades to establish the Indian banking sector due to the demand of customer value and customer base.

(C. Boobalan 2014) ^{6} this is a significant technical analysis of selected companies which helps to understand the price behavior of the shares, the signals given by them and the major turning points of the market price. This paper is aims at carrying out Technical Analysis of the securities of the selected companies and to assist investment decisions in this Indian Market.

(Sangeetha & Jain, 2013) opinion that banking companies in the service sector exhibit the problem of distinct results in terms of efficiency. This problem is a cause of concern for many big organizations in the service sector like hotels, courier companies, hospitals, banks and so on. In particular, the last decade has observed continuous amendment in regulation, technology and competition in the global financial services industry, and Indian banks are no exception.

3. STATEMENT OF PROBLEM:

After demonetization, banking sector play very crucial role in individual as well as group. Now there are

53 banks are available in India. It includes both private and public banks, but most of the people are open their accounts in nationalized bank only. 60% of peoples (rural areas) are don't know the all nationalized bank like Canara bank, Allahabad bank, Vijay bank, Corporation bank, Bank of India, Oriental bank of commerce. For that, take a chance to know volatility of this bank share and prediction of market become easy. So these studies become very instant in order to predict the market and making trading decision in short span.

4. RESEARCH METHODOLOGY

In this study, we will focus on the subject of technical analysis. It is a method of evaluate the securities by analyzing past market data such as share price movement, graph etc. It's a broad topic, so we will just take few banks and analysis their volatility to understand the price movement of the stocks.

4.1 RESEARCH DESIGN

This study describes that, existing facts, figures, charts given in the company websites and price movement of selected banks. The research design, we followed secondary data based on the weekly share price movements of the selected banks in NSE for the three years.

4.2 SCOPE OF THE STUDY

This study mainly focuses on investment decisions by predicting futures stock price movements through the use of Technical analysis. This study is based on five selected Bank from those listed in National Stock Exchange

4.3 LIMITATIONS OF THIS STUDY

1. The analysis is focused on six banks.
2. The study has taken only four tools of techniques for analysis.
3. The study is confined to a period of three years from January 2015 to December 2017.
4. The accuracy is limited as the data collection was strictly confined to secondary sources.

4.4 OBJECTIVES:

1. To know the movements (upward or downward) of stock prices of selected banking stocks through Technical analysis.
2. To analyze tools of technical analysis can be used in stock prices movement.
3. To analysis & understand trends and patterns in stock price movements.

4.5 SAMPLING DESIGN

Simple random sampling is the basic sampling technique where we select a group of subjects (a sample) for study from a larger group (a population). The study has selected five banks for analysis. The data have collected and analyzed for three year that is January 2015 to December 2017.

4.6 SAMPLE UNIT

The following banks were taken as sample unit for our research.

1. Allahabad Bank
2. Bank of India
3. Oriental Bank of Commerce
4. Vijaya Bank
5. Corporation Bank
6. Canara Bank

4.7 METHOD OF DATA COLLECTION

The data required for the study have been obtained from NSE's official website.

4.8 TOOLS FOR THE ANALYSIS

The data so collected have been analyzed with the help of following tools.

- i) Bollinger Band
- ii) Relative Strength Index (RSI)
- iii) Chart patterns

4.8.1 BOLLINGER BAND:

With help of this tool only, to know the volatility of securities. It is also called volatility Band .It is work based on standard deviation. It consists of three Bands 1.Upper Band, Middle Band and Lower Band. The Middle band is indicating that average price of stock, upper band is indicating that high price and above of moving average and lower Band is indicating that lower price and below of moving average. It helps to known high and low price movement of securities. Standard deviation is above and below of moving average. Bollinger band which indicates the buying and selling signal which is got by using 20 days simple moving average and 2 periods of standard deviation lead the Bollinger band.^{1}

4.8.2 RELATIVE STRENGTH INDEX:

RSI was developed by Wells Wilder. It is identify the technical strength and weakness of particular scrip or stock market. RSI can be calculated for a scrip by adopting the following formula:

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

RS=average gain per day/average loss per day

It concentrates on recent gains and losses over a specific period of time. It primarily used to attempt to identify **over bought and over sold** conditions in the trading of scrips. RSI indicator follow the 30:70 rule. When it has crossed the 30 line from down to up and it is increasing trend, which indicates that, a buying opportunity to investors. When it has across the 70 line from above to below and it is falling trend which is indicates that, a selling signal to investors. The reading above 70 is used to suggest that security is overbought, while a reading below 30 is indicating that, securities are over sold. {2}

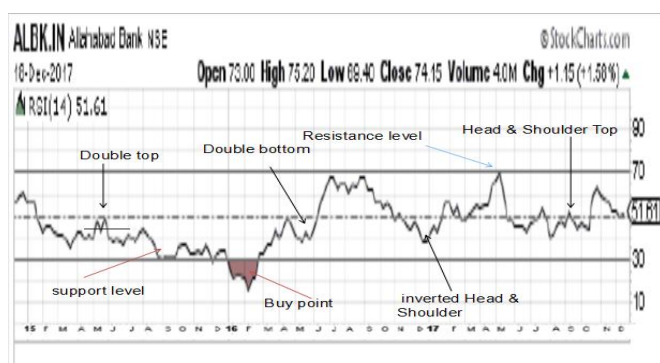
4.8.3 CHART PATTERN

Charts reveals certain pattern that are of predictive value. They are used as a supplement to other information and as conformation of signals provided by trend lines. Charts are a valuable and easiest of tools used in technical analysis. The graphic presentation of data helps the investors to find out the trend of prices without any difficulty. Charts are like fire or electricity. {3}

5 DATA ANALYSIS

5.1 Relative Strength Index-- ALLAHABAD BANK

Chart 1: RSI --- Allahabad Bank



Source from stockcharts.com

Under RSI, the Allahabad Bank concerned, the stocks for the past 3 years shows, that stocks have been shown in over sold region which range below 30, it indicates investors purchased the scripts in Jan, Feb 2016. Similarly there is no overbought region in past 3 years, it indicates that investors hold the shares.

The above graph shows, there are more chart patterns are such as double top, double bottom, head and shoulder and inverted head and shoulder formations have been generated, which indicates the upward trend and down trend for the past 3 years. The above indicates that, the stocks have been in upward turn in the period of June 2016, Dec 2016 and which implicit the right time to buy the scripts in order to get the more profits.

5.2 RSI -- BANK OF INDIA

As bank of India concerned, the stocks for the past 3 years shows, that stocks have been shown in over sold region, which range below 30, it indicates investors purchased the scripts in Sept 2015, Jan, Feb, March 2016. Where as in the period of March 2017, it crossed the range of 70 which indicates the stocks have been over bought. In this period, the investor has to sell the stocks.

Chart 2: RSI -- Bank of India



Source from stockcharts.com

The above graph shows, only two double top formations have been generated, which indicates the down trend for the past 3 years. As a result the share prices have been fallen down, only twice in the past 3 years. The above indicates that, the stocks have been in downturn in the period of Jan 2015, Oct 2016 and March 2017 which implicit the right time to sell the scripts in order to enjoy profits.

5.3 RSI -- ORIENTAL BANK OF COMMERCE

Chart 3: RSI -- Oriental Bank of Commerce



Source from stockcharts.com

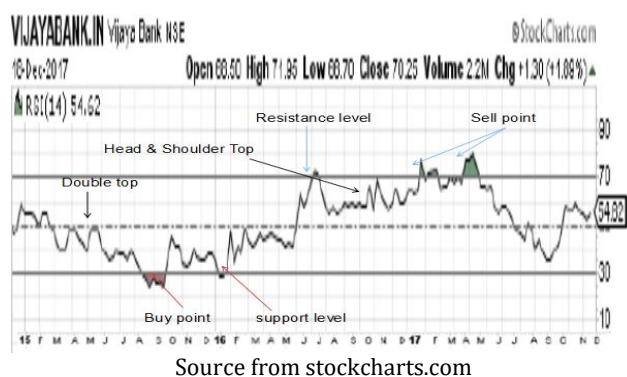
As Oriental Bank of Commerce concerned, the stocks for the past 3 years shows, that stocks have been shown in over sold region, which range below 30, it indicates investors purchased the scripts in Sept 2015, March 2016. Where as in the period of June 2017, it crossed the range of 70 which indicates the stocks have been over bought. In this period, the investor has to sell the stocks.

The above graph shows, only three double bottom formations have been generated, which indicates the little bit upward trend for the past 3 years. As a result the share prices have been raising. Only twice in the past 3 years. Similarly double top formations are generated which indicate down trend for the past 3 years. As a result the share prices have been fallen down.

5.4 RSI -- VIJAYA BANK

As Vijaya Bank concerned, the stocks for the past 3 years shows that, stocks have been shown in over sold region, which range below 30, it indicates investors purchased the scripts in Aug, Sept 2015, and Jan, 2016. Where as in the period of Jan, Feb, April, May 2017, it crossed the range of 70 which indicates the stocks have been over bought. In this period, the investor has to sell the stocks.

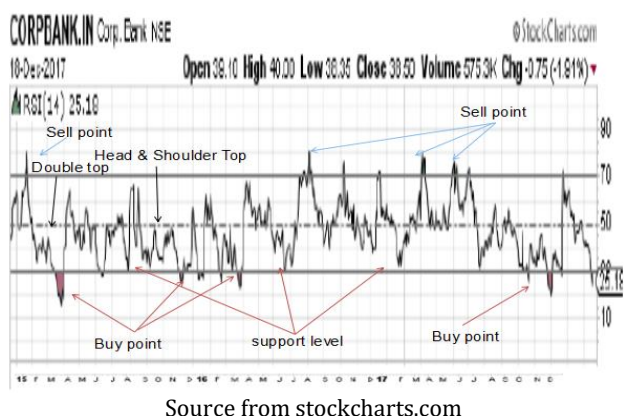
Chart 4: RSI -- Vijaya Bank



The above graph shows, only two double top formations have been generated, which indicates the down trend for the past 3 years. As a result the share prices have been fallen down, only twice in the past 3 years. The above indicates that, the stocks have been in upward trend in the period of March 2016 which implicit the right time to pick l the scripts in order to more profits from changes in price of shares.

5.5 RSI -- CORPORATION BANK

Chart5: RSI -- Corporation BANK



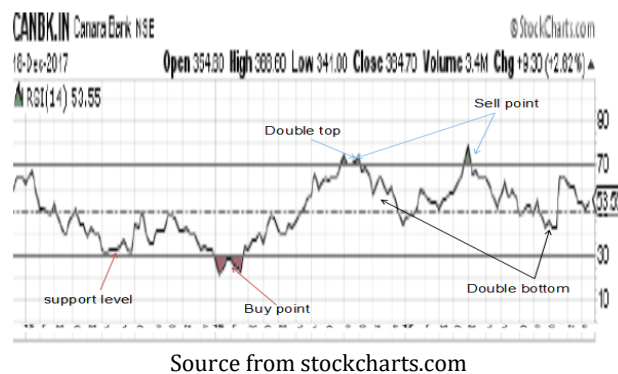
As Corporation bank concerned, the stocks for the past 3 years shows that stocks have been shown in over sold region, which range below 30, it indicates investors purchased the scripts in May, Dec 2015, April 2016, and Dec 2017.

Where as in the period of Aug, Oct 2016 March, June 2017 it crossed the range of 70 which indicates the stocks have been over bought. In this period, the investor has to sell the stocks. The above graph shows, only two double top formations have been generated, which indicates the down trend for the past 3 years. As a result the share prices have been fallen down. There is more fluctuation in past 3 years.

5.6 RSI -- CANARA BANK

As Canara bank concerned, the stocks for the past 3 years shows, that stocks have been shown in over sold region, which range below 30, it indicates investors purchased the scripts in, Jan, Feb, 2016. Where as in the period of Jan, Feb 2016 and March 2017, it crossed the range of 70 which indicates the stocks have been over bought. In this period, the investor has to sell the stocks.

Chart 6: RSI -- Canara Bank



The above graph shows, double top, double bottom formations have been generated, which indicates the upward trend or downward trend for the past 3 years. As a result the share prices have been fallen down or rising in the past 3 years. The above indicates that, the stocks have been in upward turn in the period of Jan 2016, which implicit that right time to buy the scripts in order to enjoy profits at sell at high price in the month of Oct 2016.

5.2. BOLLINGER BAND

5.2.1 Bollinger Band -- ALLAHABAD BANK

Chart 7: Bollinger Band -- Allahabad Bank



Source from stockcharts.com

Under the Bollinger Band, the Allahabad Bank shows a strong down trend which indicates that the price moves close to the lower band in the period of Jan 2015 to March 2016 and it shows a bearish signal and it is advisable to new investor to purchases shares in this period. The above graph shows, only three times of Allahabad Bank share prices reached upper Band in the period of June 2016, June, November 2017, which indicates a good price for the investors to sell the scripts at high price. From the past 3 years 3 times, the shares of Allahabad Bank reached the upper Band which indicates a very high price. The Allahabad Bank, had a very high volatility for past three years which shows prices are not closed to Bollinger Band,

5.2.2. Bollinger Band -- BANK OF INDIA

Under the Bollinger Band, the Bank of India shows a strong down trend which indicates that the price moves close to the lower band in the period of Jan 2015 to Feb 2016 and it shows a bearish signal and it is advisable to new investor to purchases shares in this period.

Chart 8: Bollinger Band -- Bank of India



Source from stockcharts.com

The above graph shows, an upward trend from the month of June 2016 to till date but side down fall is there which indicates a good price for the investors. From the

past 3 years 4 times, the shares of Bank of India reached the upper Band which indicates a very high price. The bank of India, had a very low volatility from the period of November 2017 to March 2018, which shows prices are close to middle band and very low fluctuations. Many times the share prices are not closed to Bollinger Band, it means the volatility of shares is high.

5.2.3. Bollinger Band -- CANARA BANK

Chart: 9: Bollinger Band -- Canara Bank



Source from stockcharts.com

Under the Bollinger Band, the Canara Bank shows a strong down trend which indicates that the price moves close to the lower band in the period of Jan 2015 to March 2016 and it shows a bearish signal and it is advisable to new investor to purchases shares in this period.

From above graph shows that, a strong upward trend which indicate that the price moves close to the upper band in the period of May 2016 to till date and shows a bullish signal and it is good price for the investors. From the past 3 years Allahabad share prices is increasing at increasing rate, it means shares are reached the upper Band which indicates a very high price. (Once price is beyond the outsider band, expect a reversal). The Canara Bank had a very high volatility for past three years which shows prices are not closed to Bollinger Band.

5.2.4 Bollinger Band – CORPORATION BANK

Chart 10: Bollinger Band -- Corporation Bank



Source from stockcharts.com

Under the Bollinger Band, the Corporation Bank shows a strong down trend which indicates that the price moves close to the lower band in the period of Jan 2015 to Feb 2016 and it shows a bearish signal and it is advisable to new investor to buy shares in this period. The above graph shows an upward trend from the month of June 2016 to June 2017 and shows a bullish signal which indicates lot of opportunity to investors sell their share at high prices and it is a good price for investors. From the past 3 years Corporation Bank share prices reached high in many times. The Corporation Bank had a very high volatility for past three years which shows prices are not closed to Bollinger Band.

5.2.5 Bollinger Band -- VIJAYA BANK:

Chart 11: Bollinger Band -- Vijaya Bank



Source from stockcharts.com

Under the Bollinger Band, the Vijaya Bank shows a strong upward trend which indicates that the price moves close to the upper Band in the period of June 2016 to Dec 2017 and it shows a bullish signal and which is indicates good price for the investors and they have lot of opportunity to sell their shares after November 2016. The above graph shows, Vijaya bank shares are increasing at increasing rate. The price of Vijaya Bank shares was winding close to central moving average in the period of Jan 2015 to Feb 2016 and it shows a lack of clear directions and low volatility.

5.2.6. Bollinger Band -ORIENTAL BANK OF COMMERCE:

Chart 12: Bollinger Band -- Oriental Bank of Commerce



Source from stockcharts.com

Under the Bollinger Band, The Oriental Bank of Commerce shows a strong down trend which indicates that the price moves close to the lower band in the period of Jan 2015 to march 2016 and it shows a bearish signal and it is advisable to new investor to purchases shares in this period. The above graph shows, an upward trend from the month of June 2016 to till date which indicates a good price for the investors but it is right time to sell the shares. From the past 3 years 2 times, the shares of Oriental Bank of Commerce reached the upper Band which indicates a very high price. The Oriental Bank of Commerce had a very low volatility which shows low fluctuation because of share prices are close to Bollinger Band.

6. FINDINGS:

6.1 RELATIVELY STRENGTH INDEX (RSI):

In Allahabad Bank concerned, there is no overbought region in past 3 years; it indicates that investors hold the shares.

In bank of India concerned, the stocks for the past 3 years shows, that stocks have been shown in over sold region, which range below 30, it indicates investors purchased the scripts in Sept 2015, Jan, Feb, and March 2016.

In Oriental Bank of Commerce concerned, the stock price in the period of June 2017, it crossed the range of 70 which indicates the stocks have been over bought, in this period; the investor has to sell the stocks.

In Vijay Bank concerned, the stocks for the past 3 years shows that, stocks have been shown in over sold region, which range below 30, it indicates investors purchased the scripts in Aug, Sept 2015, Jan, 2016.

In Corporation bank concerned, the stock's price in the period of Aug, Oct 2016 March, June 2017 it crossed the range of 70 which indicates the stocks have been over bought. In this period, the investor has to sell the stocks.

In Canara bank concerned, the stocks for the past 3 years shows that stocks have been shown in over sold region, which range below 30, it indicates investors purchased the scripts in, Jan, Feb, 2016.

6.2 CHART PATRREN:

In Allahabad Bank There are more chart patterns are such as double top, double bottom, head and shoulder and inverted head and shoulder formations have been generated, which indicates an upward trend and down trend for the past 3 years.

In Bank of India, only two double top formations have been generated, which indicates the down trend for

the past 3 years. As a result the share prices have been fallen down, only twice in the past 3 years.

In Oriental Bank of Commerce, only three double bottom formations have been generated, which indicates the little bit upward trend for the past 3 years. As a result the share prices have been rising.

In Vijaya Bank, only two double top formations have been generated, which indicates the down trend for the past 3 years. As a result the share prices have been fallen down, only twice in the past 3 years.

In Corporation bank, only two double top formations have been generated, which indicates the down trend for the past 3 years. As a result the share prices have been fallen down. There is more fluctuation in past 3 years.

In Canara Bank double top, double bottom formations have been generated, which indicates an upward trend or down trend for the past 3 years. As a result the share prices have been fallen down or rising in the past 3 years.

6.3 BOLLINGER BAND

In Allahabad Bank, only three times of Allahabad Bank share prices reached upper Band in the period of June 2016, June, November 2017, which indicates a good price for the investors to sell the scripts at high price.

In Bank of India, a strong down trend which indicates that the price moves close to the lower band in the period of Jan 2015 to Feb 2016 and it shows a bearish signal. It is advisable to new investor to purchase shares in this period.

In Canara Bank, had a very high volatility for past three years which shows prices are not closed to Bollinger Band.

In Corporation Bank, an upward trend from the month of June 2016 to June 2017 and shows a bullish signal which indicates lot of opportunity to investors sell their share at high prices and it is a good price for investors.

In Vijaya Bank shows a strong upward trend which indicates that the price moves close to the upper Band in the period of June 2016 to Dec 2017 and it shows a bullish signal and which indicates good price for the investors and they have lot of opportunity to sell their shares after November 2016

Oriental Bank of an upward trend from the month of June 2016 to till date which indicates a good price for the investors but it is right time to sell the shares.

Finally, All banks stock had a bear phase in initial stage that is from January 2015 to January 2016 all most one year. It was continuously decreased over a period of

time and it shows that buying signal to the investors. All banks are shares are continuously fluctuation and more volatility as per Bollinger band.

7. SUGGESTION

As per my study, all banks are getting normal profit but Canara bank and Vijaya Bank get more profit than other banks. So it prefers to invest in these banks as per Bollinger band tool.

The investors should be known to use the technical analysis tools will help investors in their day to day investment to get more returns. The investors have to watch the trend of stock before investment. Technical analysis is one can predict the perfect investment decision of stock market.

8. CONCLUSION

Technical analysis is tool to predict the future direction of individual stock or securities. There are more number of tools to analysis the securities, but technical analysis is one of the best tools to provide practical exposure to investors. We can conclude from the result that technical indicators can play useful role in the timing stock market entry and exit. By applying technical tools brokers or investors enjoy substantial profit. Shares volatility of banking sectors differ from other sectors because banking share volatility depends upon RBI decision.

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