International Journal of Innovative Research in Management Studies (IJIRMS)
ISSN (Online): 2455-7188
Volume 1 | Issue 3 | April 2016

A STUDY TO PREDICT THE BUYING AND SELLING SIGNALS USING OSCILLATORS FOR MULTIPLE INDICES

M.Keerthi* **Dr. Albin D Robert Lawrence****

**II Year MBA student, School of Management, SASTRA University, Thanjavur, Tamil Nadu*

***Assistant Professor, School of Management, SASTRA University, Thanjavur, Tamil Nadu*

ABSTRACT

Prevailing business environment is full of complexities and confusion which leads to investors in a great dilemma while making strategic decision pertaining to buying and selling of securities. Stock market plays a vital role in mobilizing the savings and diverting it into industrial enterprises. Investment in stocks is not well received by all investors. Only those investors who are prepared to take risk can venture into stock market. For stock selection investors will consider number of factors such as economy, industry and performance of company. Investment may be made from short term perspective and from long term point of view. Short term investors will analyze the market movement and they may decide to enter and exit the stock market at the appropriate time to maximize their profit. Though numbers of statistical tools are available 265 days daily moving average, relative strength index and rate of change are considered as reliable tools to help the short term investors. This study focuses on the movement of American and Asian indices such as NASDAQ, NSE, AORD-ASX, Kuala Lumpur Stock Exchange, Straits Times Index. It analyzes and suggests suitable time for buying and selling of securities from such investment. In this empirical and analytical study, ten indices were taken by the authors to make tentative prediction about buying and selling of securities.

Key words: Technical analysis, Moving average, Relative strength index, Rate of change, Indices.

INTRODUCTION:

In the prevailing business environment which is full of complexities and confusion, it becomes very difficult for the investors to take strategic decision for making investment. Various tools and techniques (fundamental and technical) have been available to the investors but no one can fully resolve the problem of making buying and selling signals in the market. As every investor wants to protect himself/herself from the spontaneous and unpredictive market happenings.

The present study explores the effectiveness of RSI, ROC and Moving Average Tool as a technique of Technical analysis for giving tentative predictions about buying and selling signals. These tools compare the relationship of closing price to 3 different tools patterns to generate a signal when to buy and sell stocks. The trading rules were tested over the years 2011-2016, a period of time that exhibited bull and bear markets, to determine if traders could actively trade a stock and beat a passive investment strategy. Researcher tested these tools to 5 indices for 5 years (2011-2016). The 10 indices are NSE, AORD-ASX, Kuala Lumpur Stock Exchange, Straits Times Index, NASDAQ.

Given a series of numbers and a fixed subset size, the first element of the moving average is obtained by taking the average of the initial fixed subset of the number series. Then the subset is modified by "shifting forward"; that is, excluding the first number of the series and including the next number following the original subset in the series. This creates a new subset of numbers, which is averaged. This process is repeated over the entire data series.

STATEMENT OF THE PROBLEM:

Investor may lose money in stock market because of various economic reasons or fluctuation. By using moving average tool, cannot predict stock market exactly. Investing in stock market is riskier. Returns are not guaranteed in stock market.

OBJECTIVES OF THE RESEARCH:

This study aims to check the applicability and effectiveness of Moving Average convergence and divergence, Relative Strength Index and Rate of Change Tool as a decision making tool to take buy and sell decisions in multiple indices.

LIMITATIONS OF THE RESEARCH:

By using all these tools, researcher cannot able to accurately identify the market condition. Buying and selling signals may not be always right, Weekly data for 5 years for 12 indices. Difficult to plot graph, because researcher needs 3 axes to plot.

RESEARCH METHODOLOGY:

The present study has been conducted to find out a solution for the problem to take buy and sell decisions about securities in the American and Asian indices through the moving average convergence divergence, Relative Strength Index and Rate Of Change instruments of technical analysis. Thus, empirical and analytical research design has been used in this study.

LITERATURE REVIEW:

Brock, Lakonishok and LeBaron (1992) analyzed moving average trading rules for 1897-1986 dataset on Dow Jones Industrial average and concluded that on average, the strategies were profitable. Long (short) positions mean returns were higher (lower) than unconditional returns. Commonly used return generating models cannot explain the rules profitability.

Wong, Manzur and Chew (2003) research was for Singapore Index for dataset ranging from 1974 to 1994. They used MA rules with RSI for generating trading signals and concluded that on average, the strategies are profitable or when they are not, they have some predictive power. Nevertheless, they show that the confidence levels of excess returns decrease from between 1% and 5% during the first half of the sample to a level of 10% during the most recent period.

Ram kumar kakani investigated the Simple Moving Average (SMA) and the Displaced Moving Average (DMA) trading rules to test the weak form efficiency of the Indian equity markets. The indicators were applied on the S&P CNX Nifty, BSE Sensex as well as multiple individual stocks for a time period spanning 15 years (1991-2005). Our results provide sufficient evidence that the DMA indicator is a highly successful trading rule that generated profitable signals even after adjusting for transaction and other costs.

S K Mitra analyzed the benefits of moving average based trading rules in India for the period December 2004 to November 2014 covering a period of ten years. She used two stock indices namely Nifty and Junior nifty, jointly they cover top 100 stocks traded in Indian market. It is found that many trading rules offer profit opportunity without trading costs, but the profit vanishes when trading costs are accounted. She therefore estimated breakeven trading cost for each trading rules and found that it is very difficult to trade below breakeven trading cost and accordingly, small investors need to keep an eye on trading cost before selecting trading rule.

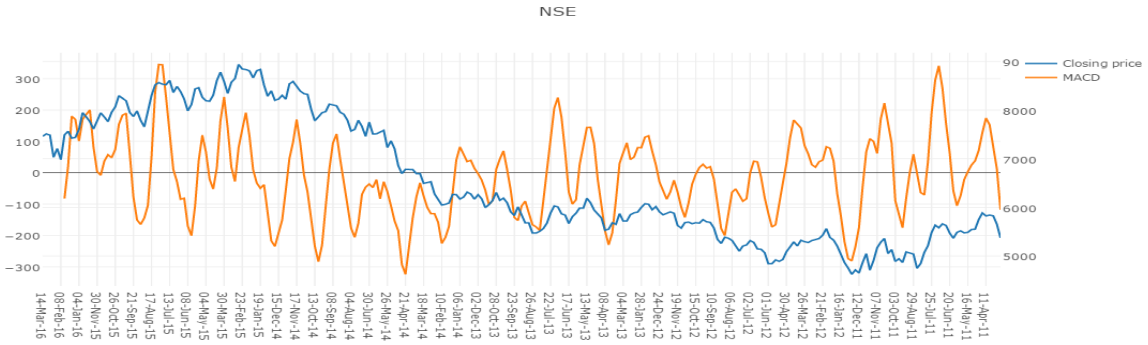
VI DATA ANALYSIS AND DISCUSSION:

1. **NSE:**

MACD:

Chart no: 1

MACD of NSE



Initially, MACD was negative on 15th March 2011 then it increased after one fall on16th May 2011 to 155.97. On 27th June, 2011, it showed a peak point and a bearish trend after that can be predicted. Then there was a fluctuation in MACD, between March 13th, 2013 and 13th May 2013. MACD grew regularly till July 22th 2013 it reached at 205.81, it was a bullish market. After 22nd July, 2013 and it moved again towards down fall this time it came at -173 on 19th August, 2013.There was regular fluctuation in MACD during 23rd September 2013 till 10th February 2014. It showed a peak point on 20th July 2015 that was 240.45 that was a bullish market. Later there was a fall in the MACD on 21st September 2013 and it was bearish market and definitely moves towards bullish market. Again there was a peak on 04th Jan 2016.now the market is declining and at last market was negative on -82 on 1st Feb, 2016.

During the following periods the MACD line forms a peak giving a signal of trend reversal, i.e., conversion of a bullish market into bearish market:

11 July 2011, 24 October 2011, 16 April 2012, 6, May 2013, 8, July 2013, 01 September,2014, 17 November 2014, 30 March 2015, 3, August 2015, 5, October 2015, 14, December 2015.

From the following dates the MACD line forms a trough, i.e., trend reversal takes place and a bearish market starts converting into bullish market:

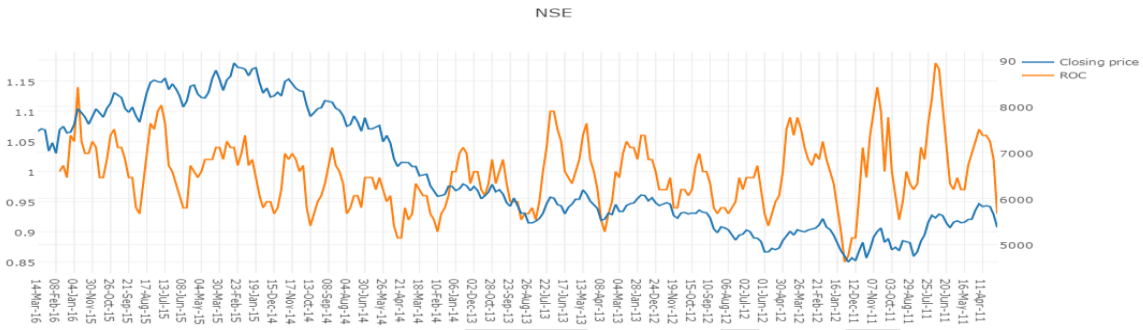
1 August 2011, 8 October 2012, 11 march 2013, 2 March 2015, 13 April 2015.

ROC:

The Below chart shows that ROC moves between 0.85 to 1.14 marks, which is an indication of some bullish and bearish trend for Nifty over the period of 15 March 2011 to 15 March 2016.

Chart no: 2

ROC of NSE



During the following interval ROC line declined from one mark line towards its bottom, which signifies selling pressure in the market for Nifty. (sell signal)

18 April 2011 – 22 may 2011, 28 November 2011 – 3 January 2012, 16 April 2012 – 28 May 2012, 13 December 2013 – 10 February 2014, 1 September 2014 – 13 October 2014, 30 March 2015 – 11 may 2015.

During the following interval ROC line rises towards one- mark line after that reaching its bottom, which signifies conversion of selling pressure into buying pressure (buy signal):

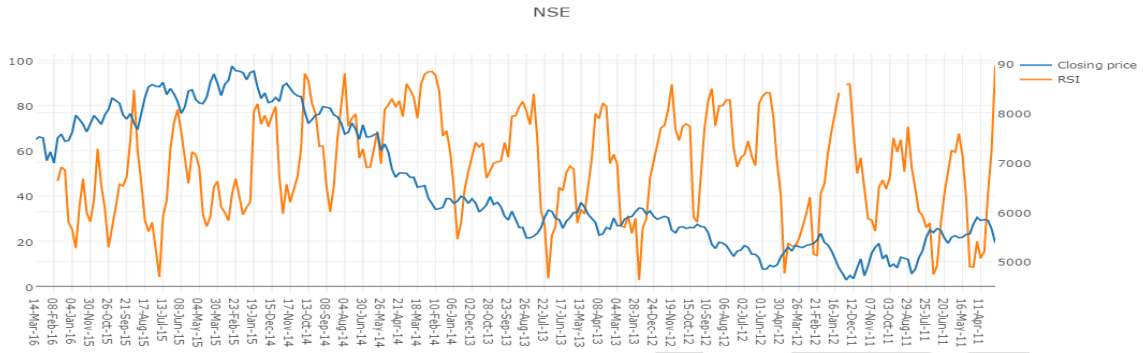
6 June 2011 – 11 July 2011, 3 January 2012 – 13 February 2012, 3 December 2012 – 21 January 2013, 23 December 2013 – 10 February 2014, 1 June 2015 – 20 July 2015.

RSI

Below chart shows that RSI line reminded below the 60-mark line, which indicates the bearish trend for the scrip. On 17th February 2014, it formed a peak with 95.11 marks. It shows a sudden increase in price. On 28th April 2014 was the most down bottom. During the year, RSI line showed a downward and upward trend alternatively.

Chart no: 3

RSI of NSE



Over bought situation for Nifty:

On 7th September 2015, RSI crossed 70- mark line from downwards, it indicated over bought market for the scrip. It signified that soon peak would be generated and then market will fall, and on 20th August it came down. Peak was generated on 19th December 2011, 17th February 2014, 4th august 2014, 20th October 2014, 7th September 2015.

Over sold situation for Nifty:

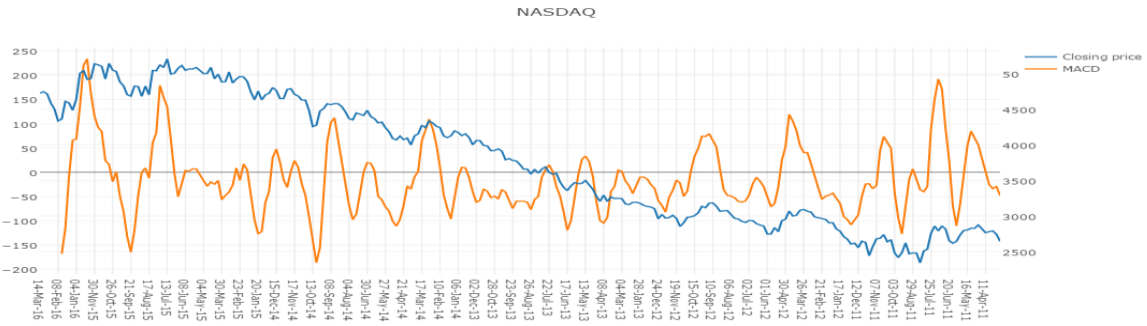
When market comes down to 30 mark line these periods were 4th July 2011,23th April 2012, 1th October 2012, 15th June 2013, 7th July 2014, 22nd December 2014, 17th august 2015.

2. NASDAQ:

MACD:

Chart no: 4

MACD OF NASDAQ



Initially MACD was negative (-48.14 marks), later it increased and touched a biggest peak was 192.08 on the month of 11th July 2011. It falls drastically and reached its low point on 19th September 2011 it ended as a bearish market There was a fluctuation during 01 June 2012, 06

August 2012, 15 October 2012, 28 January 2013, 08 April 2013, 17 June 2013, 06 January 2014, 30 June. Again there was a peak on 14 December 2015, now the market is declining and at last market was negative on -168.26 on 1 Feb, 2016.

During the following periods the MACD line forms a peak giving a signal of trend reversal, i.e., conversion of a bullish market into bearish market:

06 June 2011 – 08 August 2011, 11 December 2012 – 11 February 2013, 17 June 2013 – 26 August 2013, 02 December 2013 – 21 January 2014, 21 January 2014 – 07 April 2014, 5 May 2014 – 28 July 2014, 28 July 2014 – 06 October 2014, 26 October 2015 – 01 February 2016.

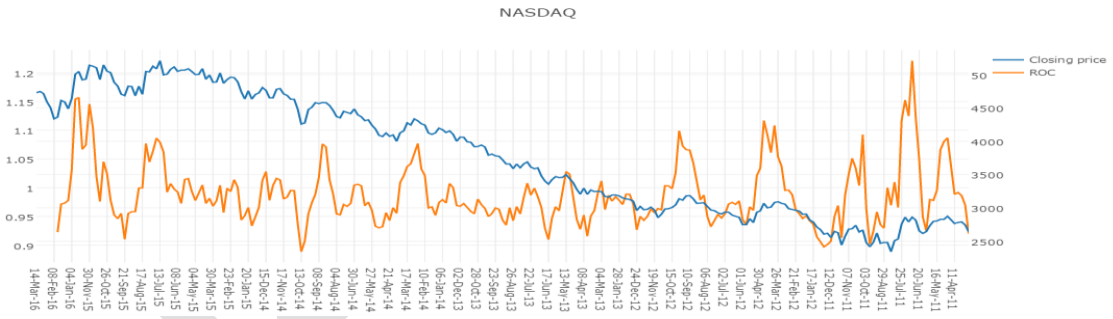
During the following periods the MACD line forms a trough, i.e., trend reversal takes place and a bearish market starts converting into bullish market:

29 August 2011 – 24 October 2011, 21 November 2011 – 30 January 2012, 06 February 2012 – 23 April 2012 19 November 2012 – 28 January 2013, 11 March 2013 – 13 May 2013, 14 April 2014 – 30 June 2014, 22 September 2014 – 17 November 2014, 29 December 2014 – 17 February 2015, 08 September 2015 – 19 October 2015.

ROC

Chart no: 5

ROC OF NASDAQ



The chart shows that ROC moves between 0.88 to 1.22 marks, which is an indication of some bullish and bearish trend for NASDAQ over the period of 15 March 2011 to 15 March 2016.

During the following interval ROC line declined from one-mark line towards its bottom, which signifies selling pressure in the market for NASDAQ (sell signal)

25 April 2011 – 06 June 2011, 23 April 2012 – 29 May 2012, 16 December 2013 -21 January 2014, 24 February 2014 – 07 April 2014, 25 August 2014 – 13 October 2014, 15 December

2014 -12 January 2015, 10 August 2015 – 21 September 2015, 21 December 2015 – 01 February 2016.

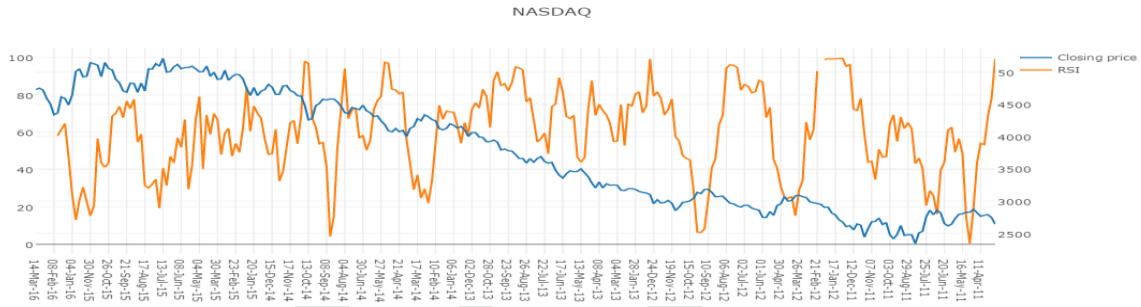
During the following interval ROC line rises towards one- mark line after that reaching its bottom, which signifies conversion of selling pressure into buying pressure (buy signal):

06 June 2011-05 July 2011, 27 December 2011 - 30 January 2012, 06 February 2012 – 02 April 2012, 20 August 2012 – 01 October 2012, 15 April 2013 – 13 May 2013, 21 January 2014 – 24 February 2014, 28 July 2014 – 02 September 2014, 05 October 2015 – 02 November 2015.

RSI:

Chart no: 6

RSI OF NASDAQ



Over bought situation for NASDAQ:

On 8th September 2015, RSI crossed 70- mark line from downwards, it indicated over bought market for NASDAQ. It signified that soon peak would be generated and then market will fall, and on 28th December 2015 it came down. Peak was generated on 15 March 2011, 09 January 2012, 31 December 2012, 09 September 2013, 19 May 2014, and 20 October 2014.

Over sold situation for NASDAQ:

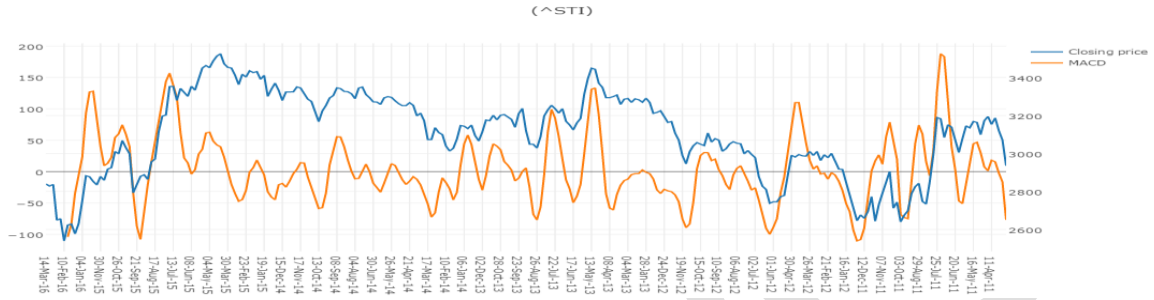
When market comes down to 30 mark line these periods were 09 May 2011, 02 April 2012, 24 September 2012, 04 February 2014, 02 September 2014, 28 December 2015.

3. STRAITS TIMES INDEX:

MACD:

Chart no: 7

MACD OF Straits Times Index



Below chart shows that ROC moves between 0.90 to 1.17 marks, this is an indication of some bullish and bearish trend for the Straits Times Index over the period of 15 March 2011 to 15 March 2016.

During the following periods the MACD line forms a peak giving a signal of trend reversal, i.e., conversion of a bullish market into bearish market:

18 April 2011- 06 June 2011, 6 June 2011 – 08 August 2011, 19 March 2012 – 06 June 2012, 17 June 2013 – 26 August 2013 , 23 September 2013 – 02 December 2013 , 04 August 2014 – 13 October 2014 , 13 October 2014 – 12 December 2014 , 05 January 2015 – 09 March 2015 , 09 March 2015 – 08 June 2015 , 08 June 2015 – 14 September 2015.

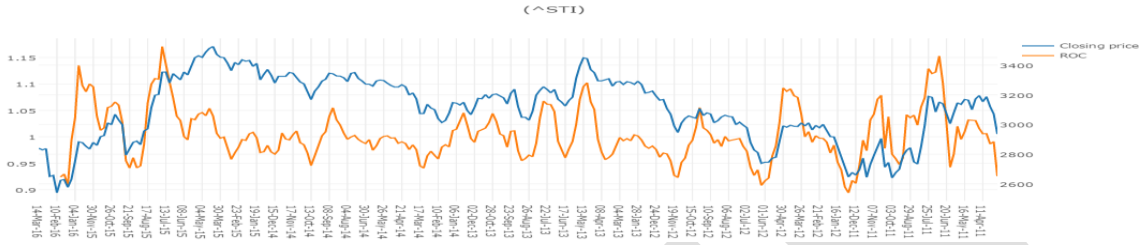
During the following periods the MACD line forms a trough, i.e., trend reversal takes place and a bearish market starts converting into bullish market:

9 May 2011 – 18 July 2011 , 29 August 2011 – 24 October 2011 , 14 November 2011 – 13 February 2012 , 11 February 2013 – 06 may 2013 , 03 June 2013 – 29 July 2013 , 17 February 2014 – 14 April 2014 , 29 September 2014 – 17 November 2014 , 15 December 2015 – 02 February 2015 , 02 February 2015 – 04 May 2014 .

ROC:

Chart no: 8

ROC OF Straits Times Index



During the following interval ROC line declined from one mark line towards its bottom, which signifies selling pressure in the market for the Straits Times Index **(sell signal)**

24 October 2011 – 21 November 2011 , 30 April 2012 – 06 June 2012 , 28 January 2013 – 1 April 2013, 15 July 2013 – 06 September 2013 , 28 October 2013 – 02 December 2013 , 23 December 2013 – 10 February 2014 , 01 September 2014 – 13 October 2014 , 26 January 2015 – 9 March 2015 , 03 August 2015 – 07 September 2015.

During the following interval ROC line rises towards one- mark line after that reaching its bottom, which signifies conversion of selling pressure into buying pressure (buy signal):

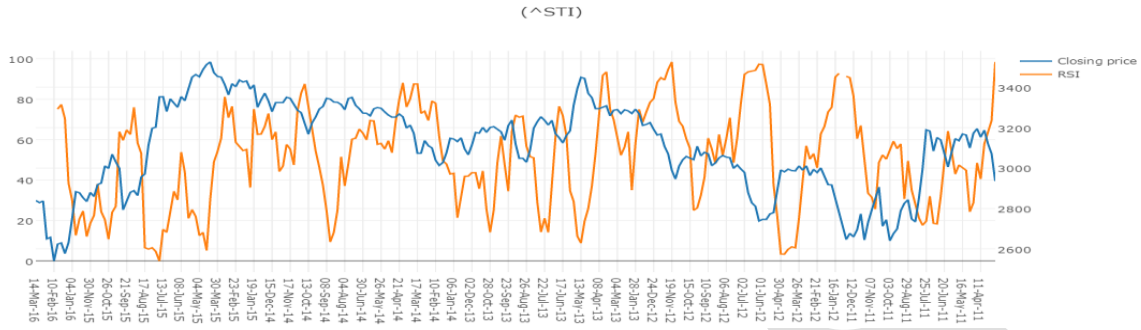
15 March 2011 – 09 May 2011 , 27 December 2011 – 23 January 2012 , 19 March 2012 – 16 April 2012 , 18 June 2012 – 13 August 2012 , 12 November 2012 – 31 December 2012 , 17 June 2013 – 29 July 2013 , 28 April 2014 – 26 May 2014 , 29 July 2014 – 01 September 2014 , 09 March 2015 – 20 April 2015 , 21 September 2015 – 19 October 2015.

9. RSI

The chart shows that RSI line reminded below the 60 mark line, which indicates the bearish trend for Straits Times Index. On 7th September 2015, it formed a peak with 75.94 marks. It shows a sudden increase in price. On 26th October 2015 was the most down bottom. During the year, RSI line showed a downward and upward trend alternatively.

Chart no: 9

RSI OF Straits Times Index



Over bought situation for NASDAQ:

On 8th September 2015, RSI crossed 70- mark line from downwards, it indicated over bought market for NASDAQ. It signified that soon peak would be generated and then market will fall, and on 28th December 2015 it came down. Peak was generated on 15 March 2011, 09 January 2012, 31 December 2012, 09 September 2013, 19 May 2014, and 20 October 2014.

Over sold situation for NASDAQ:

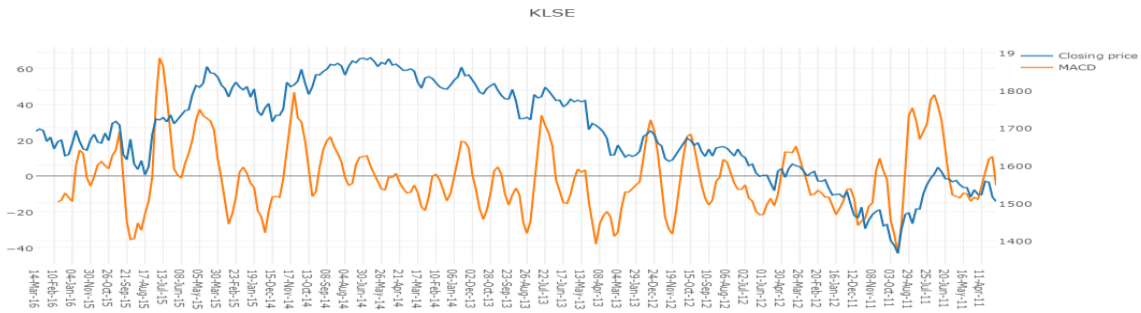
When market comes down to 30 mark line these periods were 09 May 2011 , 02 April 2012, 24 September 2012 , 04 February 2014 , 02 September 2014 , 28 December 2015.

4. KLSE COMPOSITE INDEX:

MACD:

Chart no: 10

MACD OF Kuala Lumpur Stock Exchange



Initially MACD was negative (-5.338 marks), later it increased and touched a biggest peak was 45.41 on the month of 11th July 2011. It falls drastically and reached its low point on 19th September 2011 it ended as a bearish market. There was a fluctuation during 12 December 2011,

30 April 2012, 6th August 2012 and touched a biggest peak was 31.31 on 31st December 2012 and come back towards big down fall on 15th April 2013 and 26th August 2013. Later it showed a peak point on 20th July 2015 that was 66.0 that was a bullish market. Again it falls on 14th September 2015 and 2nd February 2016, it ended as a bearish market.

During the following periods the MACD line forms a peak giving a signal of trend reversal, i.e., conversion of a bullish market into bearish market:

23 May 2011 – 25 July 2011 , 27 February - 14 May 2012 , 09 July 2012 – 10 September 2012 , 12 September 2012 – 19 November 2012 , 10 June 2013 – 26 August 2013 , 19 May 2014 - 30 July 2014 , 7 October 2014 – 29 December 2014.

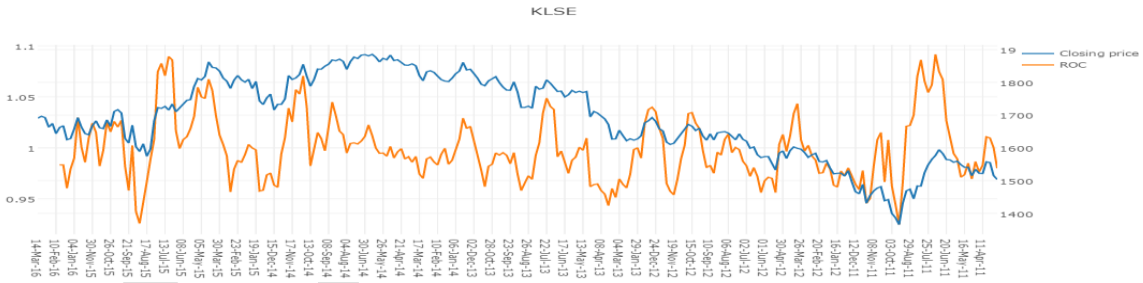
During the following periods the MACD line forms a trough, i.e., trend reversal takes place and a bearish market starts converting into bullish market:

22 August 2012 – 15 October 2012 , 19 November 2012 – 31 December 2012 , 27 may 2013 – 15 July 2013 , 23 June 2014 – 02 September 2014 , 08 December 2014 – 09 January 2015, 1 September 2015 – 05 October 2015.

ROC

Chart no: 11

ROC OF Kuala Lumpur Stock Exchange



The chart shows that ROC moves between 0.92 to 1.09 marks, which is an indication of some bullish and bearish trend for ROC OF Kuala Lumpur Stock Exchange over the period of 15 March 2011 to 15 March 2016.

During the following interval ROC line declined from one mark line towards its bottom, which signifies selling pressure in the market for Kuala Lumpur Stock Exchange (sell signal)

08 August 2011 – 19 September 2011 , 15 October 2012 - 26 November 2012 , 15 July 2013 – 19 August 2013 , 23 June 2014 – 04 August 2014 , 02 February 2015 – 09 March 2015 , 11 May 2015 – 15 June 2015.

During the following interval ROC line rises towards one- mark line after that reaching its bottom, which signifies conversion of selling pressure into buying pressure (buy signal):

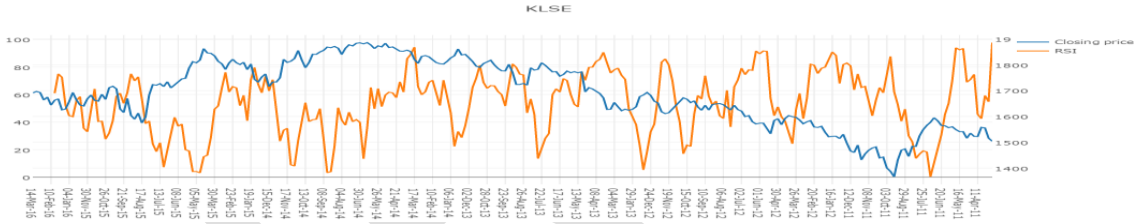
16 May 2011 – 11 July 2011 , 13 February 2012 – 12 march 2012 , 03 September 2012 – 22 October 2012 , 19 November 2012 – 07 January 2013 , 25 March 2013 – 06 May 2013 , 10 June 2013 – 22 July 2013 , 11 November 2013 – 09 December 2013 , 26 may 2013 – 23 June 2013, 09 march 2015 – 20 April 2015 , 21 September 2015 – 19 October 2015.

RSI

Below chart shows that RSI line reminded below the 60 mark line, which indicates the bearish trend for Kuala Lumpur Stock Exchange. On 12th January 2015, it formed a peak with 79.71 marks. It shows a sudden increase in price. On 27th April 2015 was the most down bottom. During the year, RSI line showed a downward and upward trend alternatively.

Chart no:12

RSI OF Kuala Lumpur Stock Exchange



Over bought situation for Kuala Lumpur Stock Exchange:

On 12th January 2015, RSI crossed 70- mark line from downwards, it indicated over bought market for the scrip. It signified that soon peak would be generated and then market will fall, and on 27th April 2015 it came down. Peak was generated on 15th march 2011 , 23rd May 2011, 28th May 2012 , 25th March 2013 , 12th January 2015 , 09th March 2015.

Over sold situation for Kuala Lumpur Stock Exchange:

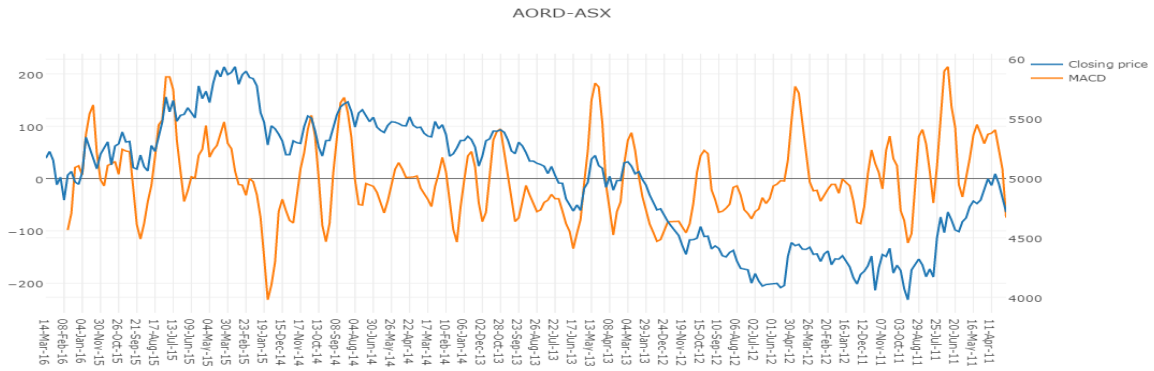
When market comes down to 30 mark line these periods were 04th July 2011 , 08th October 2012 , 07th January 2013 , 29th July 2013 , 30th December 2013 , 23rd June 2014 , 25th August 2014 , 02nd September 2014 , 03rd November 2014 , 11th may 2015 , 06th July 2015 , 26th October 2015.

5. AORD-ASX:

MACD:

Chart no: 13

MACD of AORD ASX



Initially, MACD was negative on 15th march 2011 it increased than after one fall on 30th May, 2011 it increased to 155.97 on 04th July, 2011, that showed a peak point and a bearish trend after that can predict. It falls drastically from 04th July, 2011 to 19th September 2011 it was 213.86 to -123.071. Then there was a fluctuation in MACD during 22nd July 2013, 17th March 2014 , 26th May 2014. After that major fall in MACD on 21st September 2015 and it was bearish market and definitely move towards bullish market. Again it falls on 1st February 2016 it was -98.41, it ended as a bearish market.

During the following periods the MACD line forms a peak giving a signal of trend reversal, i.e., conversion of a bullish market into bearish market:

11 July,2011, 24 October,2011, 16 April 2012, 06 May 2013, 15 July 2013, 1 September 2014, 17 November 2014, 3 August 2015.

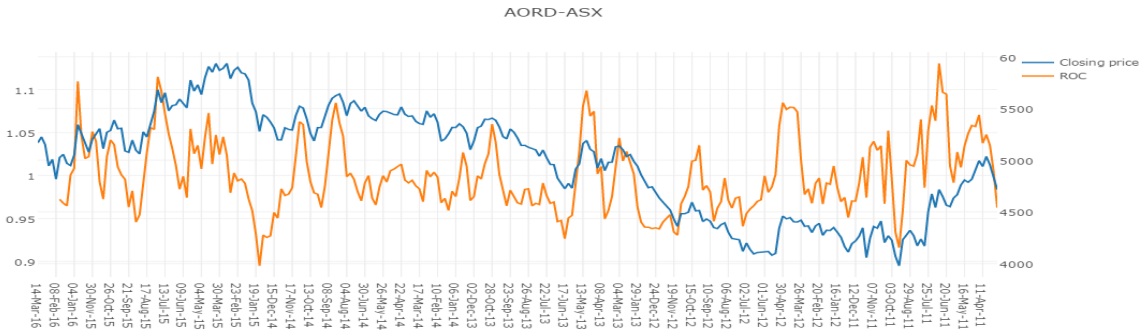
During the following periods the MACD line forms a trough, i.e., trend reversal takes place and a bearish market starts converting into bullish market:

1 august 2011, 07 January 2013, 2 April 2013, 22 September 2014, 14 September 2015.

ROC

Chart no: 14

ROC of AORD-ASX



The chart shows that ROC moves between 0.89 to 1.13 marks, which is an indication of some bullish and bearish trend for AORD-ASX over the period of 15th march 2011 to 15th march 2016.

During the following interval ROC line declined from one mark line towards its bottom, which signifies selling pressure in the market for AORD-ASX (sell signal)

18 April 2011 – 23 may 2011, 1 June 2012 - 9 July 2012, 1 October 2012 – 19 November 2012, 6 may 2013 – 7 June 2013, 10 august 2015 – 07 September 2015.

During the following interval ROC line rises towards one- mark line after that reaching its bottom, which signifies conversion of selling pressure into buying pressure (buy signal):

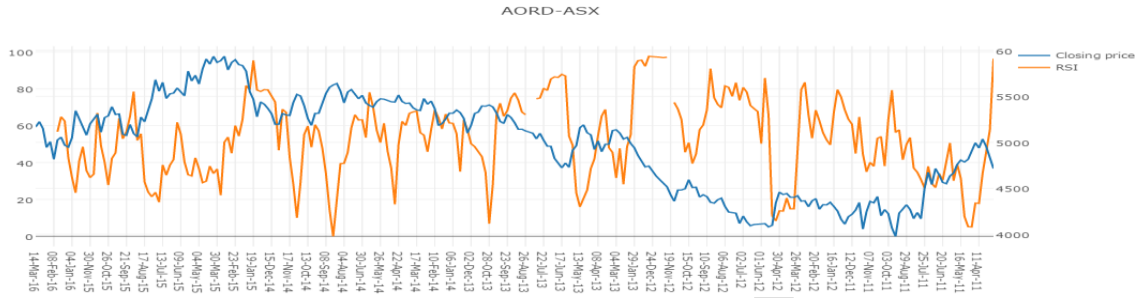
. 26 March 2012 – 30 April 2012, 3 September 2012 – 1 October 2012 , 17 December 2012 – 18 February 2013 , 17 June 2013 - 29 July 2013 , 10 March 2014 – 28 April 2014 , 12 January 2015 – 2 March 2015 , 15 June 2015 – 27 July 2015.

RSI

Below chart shows that RSI line reminded below the 60 mark line, which indicates the bearish trend for AORD-ASX. On 19th January 2015, it formed a peak with 95.39 marks. It shows a sudden increase in price. On 3rd, November 2015 was the most down bottom. During the year, RSI line showed a downward and upward trend alternatively.

Chart no: 15

RSI of AORD-ASX



Over bought situation for AORD-ASX:

On 19th January 2015, RSI crossed 70- mark line from downwards, it indicated over bought market for AORD-ASX. It signified that soon peak would be generated and then market will fall, and on 20th August it came down. Peak was generated on 19th December 2011, 15th March 2011, 31st December 2012, 3rd September 2012, 17th June 2013, and 17th February 2014.

Over sold situation for AORD-ASX:

When market comes down to 30 mark line these periods were 18th August 2014, 1st September 2014, 28th October 2013, 13th may 2013, 2nd April 2012, 27th April 2011.

FINDINGS:

- Moving average Convergence and Divergence (MACD) have shown trend on bullish and bearish period on the indices.
- RSI data has provided information about selling share above 70 levels and buying share below 30 levels. In most of the case the investor would have made the profit on the basis of RSI.
- When ROC line has made a peak, it is the identification of overbought market, and market is likely to decline, investor should sell the share. When share are sold on ROC basis and purchase are made with ROC the investors made a profit.
- In NSE, on 1st February 2016 MACD was -82, market ended as a bearish market and definitely moves towards bullish market for a short term. Again it may become bearish because of more fluctuation. In NSE.
- In NSE, on 1st February 2016 ROC shows the market has declined , it will increase and moves towards bullish market.

- Both ROC and MACD shows the same signal.
- In the year 2016, RSI didn't show over bought or oversold signal. So now market is between overbought and oversold condition.
- In AORD-ASX, on 1st February 2016 it was -98.41, market ended as a bearish market and definitely moves towards bullish market.
- In AORD- ASX, on 1st February 2016 ROC shows the market has declined, it will increase and moves towards bullish market.
- Both MACD and ROC shows the same signal.
- In the year 2016, RSI didn't show over bought or oversold signal. So now market is between overbought and oversold condition.
- In KLSE COMPOSITE INDEX, on 2nd February 2016 the MACD was -14.56, market ended as a bearish market and definitely moves towards bullish market.
- In KLSE COMPOSITE, on 1st February 2016 ROC shows the market has declined, it will increase and moves towards bullish market.
- Both MACD and ROC shows the same signal.
- In STRAITS TIMES INDEX, on 01st February 2016 the MACD was -103.996, market ended as bearish market and definitely moves towards bullish market.
- In STRAITS TIMES INDEX, on 1st February 2016 ROC shows the market has declined, it will increase and moves towards bullish market.
- Both MACD and ROC shows the same signal.
- In NASDAQ, on 01st February 2016 the MACD was -168.26, market ended as bearish market and definitely moves towards bullish market.
- In NASDAQ, on 1st February 2016 ROC shows the market has declined, it will increase and moves towards bullish market.
- Both MACD and ROC shows the same signal.
- In the year 2016, RSI didn't show over bought or oversold signal. So now market is between overbought and oversold condition.
- There was a fall in the MACD on 01 February 2016, most of the indices ended in negative value and it was bearish market and definitely all indices moves towards bullish market.
- Stock market impacts each other.

SUGGESTIONS:

On the basis of findings the following suggestions are offered.

- Indian investor should invest in stock market because now NSE is in bearish trend and definitely NSE moves towards bullish market.
- *Australian investor* should invest in stock market because now AORD-ASX is in bearish trend and definitely AORD-ASX moves towards bullish market.
- Malaysian investor should not invest in stock market because now ^KLSE is in bearish market and definitely ^KLSE moves towards bullish market.
- Singaporeans should not invest in stock market because now ^STI is in bearish market and definitely ^STI moves towards bullish market.
- Americans should not invest in stock market because now ^NASDAQ is in bearish market and definitely ^NASDAQ moves towards bullish market.
- Long term investors should prefer fundamental analysis rather than technical analysis.
- Technical analysis can be considered for short term decision making and investors should be alert towards entry and exit from stock market.

CONCLUSION:

On the basis of the findings of the study following conclusions are drawn with the above study it can now be concluded that Rate of Change and Relative Strength Index and Moving average tool is an effective tool for predicting buying and selling signals. This study says that in most of the country indices are in bearish market and definitely it moves towards bullish market. This study also infers that it is more faithful tool to predict signals (buy & sell) about the securities, because MACD is calculated by adding the closing price of a security for a number of time periods and then dividing this total by the number of time periods or in other words it is based on more than one average. But it should not forget that actual share price line is influenced by many factors as such- internal information, economy condition and speeches of the ministers, etc. So, decisions relating to buy and sell of securities should not take only on the basis of Oscillators.

BIBLIOGRAPHY

LeBaron, B., "Technical Trading Rule Profitability and Foreign Exchange Intervention," Joumal of International Economics, pp.125-143, 1999.

Cheung, Y. M. and C. Y. Wong, "A Survey of Market Practitioners' View on Exchange Rate Dynamics," Journal of International Economics , pp.401-419, 2000.

Kakani, Ram Kumar and Sundhar, Shyam, Profiting from Technical Analysis in Indian Equity Markets: Using Moving Averages (March 2006). XLRI Jamshedpur School of Business Working Paper No. 06-02.

DeBondt, W.F.M., & Thaler, R.H. (1985). Does the Stock Market Overreact. Journal of Finance, 40, 557–558. Fama, E. (1965). The Behavior of Stock Market Prices. Journal of Business, 38, 34-105.

Neftci, S.N. (1991). Naive Trading Rules in Financial Markets and Wiener-Kolmogorov Prediction Theory: A Study of Technical Analysis. Journal of Business, 64, 549-571.

Sullivan, R., Timmermann, A., & White, H. (1999). Data-Snooping, Technical Trading Rule Performance, and the Bootstrap. The Journal of Finance, 54, 1647-1691

Sharma, J L and R. E. Kennedy (1977), 'A Comparative Analysis of Stock Price Behaviour on the Bombay, London and New York Stock Exchanges', Journal of Financial & Quantitative Analysis, 12: 319-414.

Kulkarni, S. N. (1978), 'Share Price Behaviour in India: A Spectral Analysis of Random Walk Hypothesis', Sankhya: The Indian Journal of Statistics, 40(D): 135-162.

Massoud Metghalchi, Professor of Finance**,** Validation of Moving Average Trading Rules: Evidence From Hong Kong, Singapore, South Korea, Taiwan.

*****