

A STUDY ON COMPARISON OF BUY AND HOLD STRATEGY V/S TECHNICAL ANALYSIS

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Abstract

This research study assess on comparison of returns by buy and hold strategy with technical analysis and suggesting the investor/broking company to follow the best method to earn maximum return. The study provides an input for the broker to suggest the investors to buy or sell the security when there was oversold or overbought condition in the market respectively. The study was conducted for the period of 10 weeks on stock prices of listed companies in the stock exchange focuses on the indicating the buy and sell signals by using indicators like simple moving average and exponential moving average and indicates overbought and oversold signals by using by using oscillators like rate of change (ROC) and relative strength index (RSI). The aims of this study analysis the profile and financial performs of stock market in India and to know the economic status of selected company with the special reference to NSE. The author has highlighted the return by using Buy and Hold strategy and to calculate the return through technical analysis of Buy and Sell signals for sample companies in the study area.

Keywords: *Investor, Rate of Change, Relative Strength Index, Oversold Signals, Stock Exchange and Technical Analysis.*

1. INTRODUCTION

India started permitting outside investments only in the 1990s. Foreign investments are classified into two categories: foreign direct investment (FDI) and foreign portfolio investment (FPI). All investments in which an investor takes part in the day-to-day management and operations of the company are treated as FDI, whereas investments in shares without any control over management and operations are treated as FPI. For making portfolio investment in India, one should be registered either as a foreign institutional investor (FII) or as one of the sub-accounts of one of the registered FIIs. Both registrations are granted by the market regulator, SEBI. Foreign institutional investors mainly consist of mutual funds, pension funds, endowments, sovereign wealth funds, insurance companies, banks, asset management companies.

At present, India does not allow foreign individuals to invest directly into its stock market. However, high-net-worth individuals can be registered as sub-accounts of an FII. Foreign institutional investors and their sub accounts can invest directly into any of the stocks listed on any of the stock exchanges. Most portfolio investments consist of investment in securities in the primary and secondary markets, including shares, debentures and warrants of companies listed or to be listed on a recognized stock exchange in India. FIIs can also invest in unlisted securities outside stock exchanges, subject to approval of the price by the Reserve Bank of India. Finally, they can invest in units of mutual funds and derivatives traded on any stock exchange. An FII registered as a debt-only FII can invest 100% of its investment into debt instruments. Other FIIs must invest a minimum of 70% of their investments in equity. The balance of 30% can be invested in debt. FIIs must use special non-resident rupee bank accounts, in order to move money in and out of India. The balances held in such an account can be fully repatriated.

Mark Twain once divided the world into two kinds of people: those who have seen the famous Indian monument, the Taj Mahal, and those who haven't. The same could be said about investors. There are two kinds of investors: those who know about the investment opportunities in India and those who don't. India may look like a small dot to someone in the U.S., but upon closer inspection, you will find the same things you would expect from any promising market. Here we'll provide an overview of the Indian stock market and how interested investors can

gain exposure. Most of the trading in the Indian stock market takes place on its two stock exchanges: the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). The BSE has been in existence since 1875. The NSE, on the other hand, was founded in 1992 and started trading in 1994. However, both exchanges follow the same trading mechanism, trading hours, settlement process. At the last count, the BSE had about 4,700 listed firms, whereas the rival NSE had about 1,200. Out of all the listed firms on the BSE, only about 500 firms constitute more than 90% of its market capitalization; the rest of the crowd consists of highly illiquid shares. Almost all the significant firms of India are listed on both the exchanges. NSE enjoys a dominant share in spot trading, with about 70% of the market share, as of 2009, and almost a complete monopoly in derivatives trading, with about a 98% share in this market, also as of 2009. Both exchanges compete for the order flow that leads to reduced costs, market efficiency and innovation. The presence of arbitrageurs keeps the prices on the two stock exchanges within a very tight range.

Trading at both the exchanges takes place through an open electronic limit order book, in which order matching is done by the trading computer. There are no market makers or specialists and the entire process is order-driven, which means that market orders placed by investors are automatically matched with the best limit orders. As a result, buyers and sellers remain anonymous. The advantage of an order driven market is that it brings more transparency, by displaying all buy and sell orders in the trading system. However, in the absence of market makers, there is no guarantee that orders will be executed. All orders in the trading system need to be placed through brokers, many of which provide online trading facility to retail customers. Institutional investors can also take advantage of the direct market access (DMA) option, in which they use trading terminals provided by brokers for placing orders directly into the stock market trading system. Equity spot markets follow a T+2 rolling settlement. This means that any trade taking place on Monday gets settled by Wednesday. All trading on stock exchanges takes place between 9:55 am and 3:30 pm, Indian Standard Time (+ 5.5 hours GMT), Monday through Friday. Delivery of shares must be made in dematerialized form, and each exchange has its own clearing house, which assumes all settlement risk, by serving as a central counterparty.

The two prominent Indian market indexes are Sensex and Nifty. Sensex is the oldest market index for equities; it includes shares of 30 firms listed on the BSE, which represent about 45% of the index's free-float market capitalization. It was created in 1986 and provides time series data from April 1979, onward. Another index is the S&P CNX Nifty; it includes 50 shares listed on the NSE, which represent about 62% of its free-float market capitalization. It was created in 1996 and provides time series data from July 1990, onward. The overall responsibility of development, regulation and supervision of the stock market rests with the Securities & Exchange Board of India (SEBI), which was formed in 1992 as an independent authority. Since then, SEBI has consistently tried to lay down market rules in line with the best market practices. It enjoys vast powers of imposing penalties on market participants, in case of a breach.

2. STATEMENT OF THE PROBLEM

“A study on comparison of buy and hold strategy v/s technical analysis with reference to Shivag trade and business service pvt ltd” primarily focuses on finding the returns of selected companies which are listed on the stock exchange by Buy and Hold strategy and technical analysis. It is a challenging task to a Broker to determine from which method an investor can make maximum return? Either from buy and hold strategy or from technical analysis. Hence, the study emphasises on calculation of returns of selected companies by both the methods to suggest the investor to employ the best method to earn maximum return.

3. SCOPE OF THE STUDY

“A study on comparison of buys and hold strategy v/s technical analysis is done for 10 weeks on Two years closing prices of selected companies have been processed by using Indicators and Oscillators for the calculation of returns. For the study purpose the data collected from the period of 1st of January 2013 to 1st of January 2015.

Companies were selected from three sectors namely Pharma, Banking and Steel Industry randomly. From each sectors two companies were selected randomly to test the hypothesis.

4. METHODS OF DATA COLLECTION

The data have been collected from both primary and secondary sources.

Primary Data: Informal interview with an authorised person of the respected company.

Secondary Data: The Data has been collected from various sources like Technical Analysis Software, Internet, Books, and Magazines.

5. HYPOTHESES

H_1 : Technical analysis rules out the buy and hold strategy.

H_0 : technical analysis does not rule out the buy and hold strategy.

6. DATA AND RESEARCH METHODOLOGY

The Research methodology used for conducting research is "Descriptive research" Descriptive research is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation. Descriptive method is used when the researcher wants to describe specific behaviour as it occurs in the environment. Traditionally, it the descriptive research involves 3 main categories.

1. Observation
2. Case study
3. Surveys

The study is done on the basis of observation method and the sampling is selected from the population based on simple random sampling under probability sampling.

Tools used for the data an analysis:

The historical prices of selected companies downloaded from the official website of www.nifty.com for the period 2013 to 2015. The tools used for analysing the data are indicators and oscillators. Simple moving average and exponential moving average are selected for data analysis under indicators. Rate of change and relative strength index are used as oscillators for analysis and interpreting the data collected for study purpose.

7. REVIEW OF LITERATURE

The study conducted by C.Boobalan (2012) on Technical analysis in selected stocks of Indian companies with the objective of calculating the risk and returns for selected companies and suggesting to buy or sell the security and to suggesting the investors in making investment decision in selected stock. Whereas the study on comparison of buy and hold strategy v/s technical analysis emphasises on suggesting the investor regarding which method to be used to make maximum profit weather a buy and hold strategy or a technical analysis.

8. LIMITATIONS OF THE STUDY

1. The study covers only two years of closing prices of securities which are listed on stock exchange.
2. Hypotheses are tested through limited sampling, which means only three sectors are selected for sampling.
3. From each sector only two companies are selected for sampling.
4. Return is calculated based on only two parameters they are indicators and oscillators.

9. ANALYSIS OF DATA & INTERPRETATION

Table: 01 Generation of buy and sell signals based on 21 days SMA for JSW

Return based on 21 days SMA				
Buy signal date	Buying price	Sell signal date	Selling price	Return
24-01-2013	830	04-02-2013	858.7	28.7
11-04-2013	651	09-05-2013	700	49
23-05-2013	689.1	11-06-2013	705	15.9

18-06-2013	703	19-06-2013	711.15	8.15
22-08-2013	544.95	12-11-2013	833	288.05
13-11-2013	835	17-01-2014	1000	165
21-02-2014	885.95	13-06-2014	1252	366.05
01-07-2014	1268	04-07-2014	1270	2
13-08-2014	1175.1	16-09-2014	1273	97.9
RETURN=				1020.75

Table: 02 Generation of buy and sell signals based on 21 days EMA for JSW

Return based on 21days EMA				
Buy signal date	Buying price	Sell signal date	Selling price	Return
24-01-2013	830	04-02-2013	858	28
02-04-2013	693.95	09-05-2013	700	6.05
16-05-2013	703	11-06-2013	705	2
18-06-2013	703	19-06-2013	711.15	8.15
22-08-2013	544.95	22-01-2013	996.5	451.55
03-03-2014	867.8	15-04-2014	1004.2	136.4
16-04-2014	1021.4	16-06-2014	1238.1	216.7
30-06-2014	1238	07-07-2014	1236	-2
17-07-2014	1223.95	24-07-2014	1227.1	3.15
13-08-2014	1175.1	16-09-2014	1273	97.9
21-10-2014	1175.5	12-11-2014	1222.05	46.55
RETURN=				994.45

Table: 03

Return based on buy and hold strategy for JSW				
Date of buy	buy price	Date of sell	sale price	Return
01-01-2013	810.22	30-01-2015	977.45	167.23

Analysis :

1. In the process of calculation of returns of JSW it s find out that the return from the technacal analysis rule out the return from the buy nd hold strategy.
2. There is a huge differenciation between the returns from oth the methods. The return find out through SMAis RS 1020.75 and from EMA is RS 994.45 but the return from buy and hold strategy is RS 167.23.
3. In the study of trend analysis of JSW it is find out that there is a huge fluctuation in the prices of securities throughout the two years.
4. There is a huge decrease in the stock prices of JSW during the period of 4/2/2013 to 14/2/2013 it decreased from 838.39 to 646.53.
5. During the month of May the company has maintained the constant price movements.
6. During the period of 3/9/2013 to 17/1/2014 the stock prices of JSW is in upper trend. It has been increased from 519.27 to 991.54 during this period there is a high demand for JSW securities.
7. From 13/8/2014 the stock prices starts to decrease continuously and it end up with the closing price of RS 977.45 which is decreased from RS 1176.

Graph: 01 Trend analysis of JSW based on 21 days SMA



- 21 days EMA

- 21 closing price

Graph: 02 Trend analysis of JSW based on 21 days EMA



- 21 days EMA

- 21 closing price

Table :04 Generation of overbought and oversold signals based on 21 days ROC for JSW

Oversold signal date	Closing price	21 days ROC	Overbought signal date	Closing price	21 days ROC	Return
21-03-2013	608.17	-182.09	25-04-2013	713.85	128.22	105.68
13-05-2013	660.08	-3.39	14-05-2013	660.43	11.73	0.35
22-05-2013	667.59	-40.34	28-05-2013	700.98	18.16	33.39
31-05-2013	666.81	-17.72	10-06-2013	708.15	30.05	41.34
13-06-2013	654.14	-22.2	19-06-2013	695.38	20.55	41.24
18-07-2013	564.32	-132.26	02-10-2013	743.51	223.24	179.19
04-02-2014	836	-190.35	09-06-2014	1289.59	166.04	453.59
23-06-2014	1229.81	-26.13	01-07-2014	1258.51	41.78	28.7
11-07-2014	1137.65	-156.41	17-07-2014	1225.7	2.03	88.05
01-08-2014	1169.4	-109.29	10-09-2014	1338.45	166.55	169.05
16-09-2014	1275.55	-1.3	18-09-2014	1330.3	44.25	54.75
10-10-2014	1093.25	-218.55	24-10-2014	1200.9	16.5	107.65
28-10-2014	1210.05	-0.25	29-10-2014	1247.9	90.85	37.85
07-11-2014	1210.75	-3.65	11-11-2014	1246.7	105.2	35.95
21-11-2014	1189.55	-12.35	24-11-2014	1222.65	20.75	33.1

					Return =	1409.88
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Table: 05 Generation of overbought and oversold signals based on 21 days RSI for JSW

Oversold signal date	Closing price	21 days RSI	Overbought signal date	Closing price	21 days RSI	Return
26-03-2013	584.63	25.36	29-10-2013	855.03	75.21	270.4
					Return =	270.4

Analysis:

1. Based on the above table we can know the returns based on 21 days rate of change and relative strength index. The return by 21 days ROC is Rs 1409.88 and the return by 21 days RSI is Rs 270.4. From the time period of 05-02-2013 to 15-04-2013 we can observe an oversold signal in the market .these signals suggest the investors to buy the security. In this time duration 21-03-2013 ROC has been considered for calculating the return since it has the highest negative value in the period of oversold condition where the investor bought the security at Rs 608.17. There is a overbought condition in the market for the period 16-04-2013 to 10-05-2013.in this time duration 25-04-2013 ROC has been considered for determining the return where the investor sold the security at Rs 713.85 and makes profit of Rs 105.68.
2. The market experienced with oversold signals and from 15-05-2013 to 27-05-2013 and overbought condition from 27-05-2013 to 30-05-2013 where 27-05-2013 ROC value of overbought and 28-05-2013 oversold values are considered for the purpose of determining the return, in this time duration an inventor makes profit of Rs33.39 .
3. We can observe long term oversold condition in the market for 21-06-2013 to 27-08-2013 and overbought condition from 04-09-2013 to 23-01-2014 where the investor buy the security at Rs 564.32 and sell the security at Rs 743.51 and there by earn profit of Rs 223.24. In the overall study of overbought and oversold in the market an investor earned maximum amount of Rs 453.59 where investor bought the security at Rs 336and sold the security at Rs 1289.59. The return based on 21 days RSI is Rs 270.4 on 26-03-2013 the market evidence with oversold and an investor bought the security at Rs 584.63 and on the dated 29-10-2013 he sold the security at Rs 855.03 and makes profit of Rs 270.4

Graph :03 Trend analysis of JSW based on 21 days ROC

Graph: 04 Trend analysis of JSW based on 21 days RSI



Table: 06 Generation of buy and sell signals based on 21 days SMA for TATA STEEL

Return based on 21 days SMA				
Buy signal date	Buying price	Sell signal date	Selling price	Return
02-05-2013	304.65	13-05-2013	305.6	0.95
15-05-2013	308.3	29-05-2013	313	4.7
01-07-2013	280.3	02-07-2013	281.75	1.45

08-12-2013	235.6	27-09-2013	286.35	50.75
04-10-2013	289.15	02-01-2014	418	128.85
06-02-2014	361.5	12-02-2014	373.8	12.3
14-02-2014	371.95	29-04-2014	405	33.05
09-05-2014	415.09	26-06-2014	527.15	112.06
15-07-2014	529.35	07-08-2014	556.6	27.25
28-10-2014	451.1	19-11-2014	471.1	20
RETURN=				391.36

Table: 07 Generation of buy and sell signals based on 21 days EMA for TATA STEEL

Return based on 21days EMA				
Buy signal date	Buying price	Sell signal date	Selling price	Return
03-05-2013	311.35	10-05-2013	318.25	6.9
24-05-2013	313.85	29-05-2013	313	-0.85
08-08-2013	219.85	27-09-2013	286.35	66.5
04-10-2013	289.15	03-01-2014	413.25	124.1
06-02-2014	361.5	12-02-2014	373.8	12.3
14-02-2014	371.95	19-02-2014	374	2.05
06-03-2014	365.1	29-04-2014	405	39.9
08-05-2014	401.5	07-07-2014	535.6	134.1
15-07-2014	529.35	08-08-2014	537.8	8.45
29-10-2014	472.5	19-11-2014	471.1	-1.4
RETURN=				392.05

Table: 08

Return based on buy and hold strategy for TATA Steel				
Date of buy	buy price	Date of sell	sale price	Return
01-01-2013	416.39	30-01-2015	390.45	-25.94

Analysis:

1. The above table shows the profit calculated by buy and hold strategy and technical analysis. It is find out that the return from the buy and hold strategy is in negative which means the investors who depends on this method incurs loss for the long period of time since they are taking the advantage of favourable price movements.
2. The investors who use technical analysis can earn maximum profit of Rs 391.36 (based on 21 days SMA) or Rs 392.05 (based on 21 days EMA).
3. From the overall calculations it is find that the return for technical analysis is more than the buy and hold strategy. On dated 29/5/2013 Tata steel security closed at Rs 314 and its continuously decreased and closed at Rs 218 on the date 9/8/2013.
4. August forwards we can observe upper trend in the market which increased from Rs 218 to 419 from august to Feb. 2014. Again on Feb. onwards the stock prices starts to decrease and in the month of June it starts to increase constantly up to October then again starts to increase for long period of time where we can see upper trend in the market till 13/8/2014. On September 2014 onwards Tata steel is in downward trend and it continuous till Jan 2015.

Graph:05 Trend analysis of TATA STEEL based on 21 days SMA



Graph: 06 Trend analysis of TATA STEEL based on 21 days EMA



- 21 days SMA - 21 closing price

Table: 09

Generation of overbought and oversold signals based on 21 days ROC for TATA Steel							
Oversold signal date	Closing price	21 days ROC	Overbought signal date	Closing price	21 days ROC	Return	
03-04-2013	318.04	-0.17	05-10-2013	302.65	0.07	-15.39	
08-01-2013	206.01	-0.2	09-04-2013	284.12	0.46	78.11	
02-04-2014	336.12	-0.16	06-06-2014	549.48	0.39	213.36	
07-08-2014	503.32	-0.11	18/7/2014	563	0.11	59.68	
10-07-2014	440.15	-0.15	11-05-2014	478.1	0.09	37.95	
Return =						373.71	

Table: 10

Generation of overbought and oversold signals based on 21 days RSI for TATA Steel							
Oversold signal date	Closing price	21 days RSI	Overbought signal date	Closing price	21 days RSI	Return	
15-4-2013	279.84	-0.17	05-10-2013	302.65	0.07	22.81	
30-07-2013	205.23	-0.23	09-04-2013	284.12	0.46	78.89	
30-01-2014	339.65	-0.19	06-05-2014	545.85	0.39	206.2	
07-08-2014	503.32	-0.11	18-7-2014	563	0.11	59.68	
10-06-2014	448.8	-0.13	31-10-2014	490	0.09	41.2	
Return =							408.78

Analysis:

1. The return calculated for TATA STEEL based on 21 days ROC and RSI reveals that the return from 21days ROC is Rs.373.71 and 21 days RSI is Rs.408.78 respectively.
2. There is an oversold condition in the market for a long period dated from 30-1-2013 to 30-4-2013 for almost three months there was a oversold condition. Where the 21days ROC of 4-3-2013 has been considered for calculating the return.
3. From the date of 7-5-2014 to 28-5-2013 there was a overbought condition in the market in this time duration there were four overbought signals and on the dated 10-5-2013 ROC has taken into consideration to calculate the return. The 21days ROC on the dated 10-5-2013 is 0.07.
4. In the time duration of 4-6-2013 to 13-8-2013 market evidence with oversold condition. And from 20-8-2013 to 30-12-2013 there was a overbought condition. For the purpose of calculating the return 21days ROC on the dated 1-8-2013 and 4-9-2013 has been considered. On 1-8-2013 an investor bought the security at Rs.206.01 and sold for Rs.284.12 on 4-9-2013 and made profit of Rs.78.11

. Graph:07 & 8 Trend analysis of TATA STEEL based on 21 days ROC

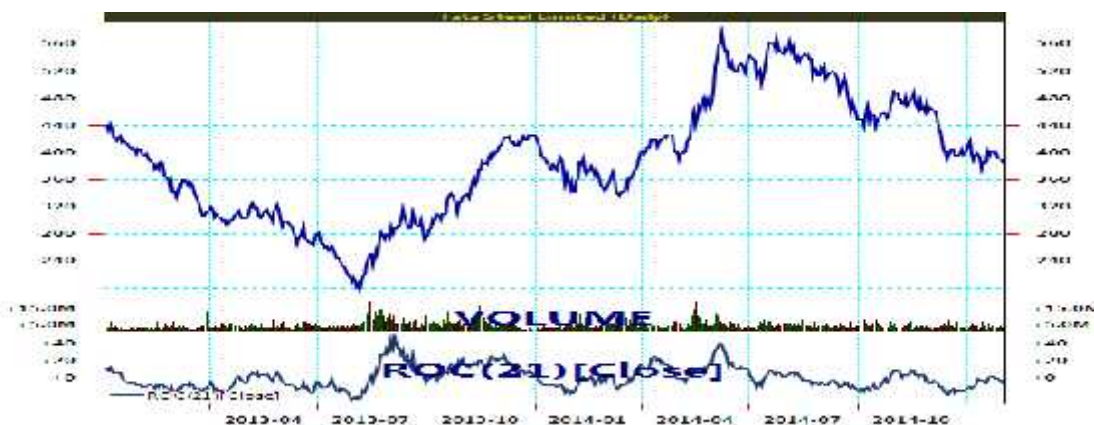


Table: 11 Generation of buy and sell signals based on 21 days SMA for CIPLA

Return based on 21 days SMA				
Buy signal date	Buying price	Sell signal date	Selling price	Return
05-03-2013	382.3	04-04-2013	384	1.7
05-04-2013	386.85	09-05-2013	400.05	13.2
14-05-2013	398.65	24-05-2013	408.5	9.85

25-06-2013	379	30-07-2013	408.7	29.7
08-08-2013	409.4	16-08-2013	414.7	5.3
29-08-2013	397.65	03-09-2013	406.15	8.5
17-12-2013	387.8	02-01-2014	392.3	4.5
07-01-2014	390.85	10-02-2014	414.55	23.7
12-03-2014	378.7	01-04-2014	381	2.3
02-06-2014	387.2	14-07-2014	432.65	45.45
11-08-2014	437.5	07-10-2014	602.2	164.7
20-10-2014	604.25	11-11-2014	637	32.75
27-11-2014	637.55	01-05-2015	633	-4.55
Return=				337.1

Table:12 Generation of buy and sell signals based on 21 days EMA for CIPLA

Return based on 21days EMA				
Buy signal date	Buying price	Sell signal date	Selling price	Return
05-03-2013	382.3	21-03-2013	382.55	0.25
01-04-2013	384.6	09-05-2013	400.05	15.45
14-05-2013	398.65	24-05-2013	408.5	9.85
26-06-2013	379.6	31-07-2013	400.3	20.7
07-08-2013	390.35	19-08-2013	400.2	9.85
29-08-2013	397.65	10-10-2013	433	35.35
17-12-2013	387.8	02-01-2014	392.3	4.5
07-01-2014	390.85	12-02-2014	412	21.15
02-04-2014	389.25	02-05-2014	402.1	12.85
02-06-2014	387.2	07-10-2014	602.2	215
17-10-2014	595.6	11-11-2014	637	41.4
25-11-2014	624.25	12-12-2014	640.9	16.65
05-01-2015	633	09-01-2015	632.35	-0.65
Return=				402.35

Table: 13

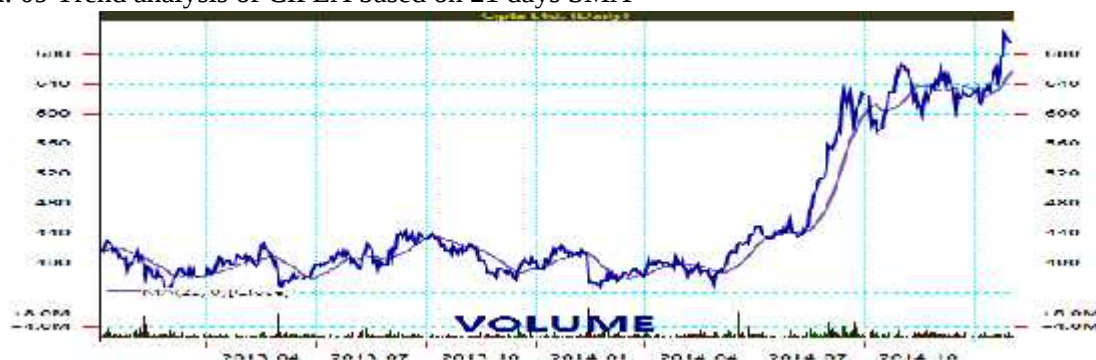
Return based on buy and hold strategy for CIPLA				
Date of buy	buy price	Date of sell	sale price	Return
01-01-2013	413.36	30-01-2015	696.05	282.69
Return=				282.69

Analysis:

1. The calculation of returns from both the methods indicates that the return from buy and hold strategy is less than the return from the technical analysis. From Jan 2013 to May 2013 we can observe downward trend in the market. In the mid of May there was a constant price movements in the market but at the end of May again the price starts to decrease it decreased from RS 421(closing price in the month of may) to RS 379(closing price in the month of June)
2. Due to some favourable changes in the company's performance the stock prices starts to increase during the month of September and October as a result of which the upward trend arise in the market. But again the stock prices starts to decrease and its end up with classing price of RS 387 in the month of December. One of the major fact find during the study is that on December onwards the prices starts to increase but suddenly there is a huge decrease in the stock prices were found during the month of feb2014 in the market place where thee stock prices decreased from Rs 414 to Rs 375.35 within two days.

- These days there is a high demand for the CIPLA securities hence the market is in upper trend where the investors are interested in buying the securities instead of selling the securities as a result of which the price increases from Rs 380.40 (march 2014 closing price) to Rs 632 (Jan 2015 closing price). RSI calculations indicates that there is a overbought condition in the market from the date of 19/8/2014 to 23/9/2014 which means during these period over filter value (>70) is generated in the market.

Graph: 09 Trend analysis of CIPLA based on 21 days SMA



Graph: 10 Trend analysis of CIPLA based on 21 days EMA



- Closing price & - 21 days SMA

Table: 14

Generation of overbought and oversold signals based on 21 days ROC for CIPLA							
Oversold date	Oversold signal	Closing price	21 days ROC	Overbought date	Overbought signal	Closing price	21 days ROC
28-02-2013		357.3	-0.12	26-04-2013		405.73	0.08
17-06-2013		376.51	-0.1	19-09-2013		437.5	0.12
12-09-2013		383.6	-0.09	14-01-2014		409.43	0.09
21-02-2014		367.62	-0.12	24-03-2014		389.42	0.06
27-05-2014		376.48	-0.07	15-09-2014		629.7	0.41
							Return
							48.43
							60.99
							25.83
							21.8
							253.22

14-10-2014	578.25	-0.08	11-06-2014	657.6	0.12	79.35
01-06-2015	614	-0.06	27-01-2015	705.95	0.13	91.95
Return=						581.57

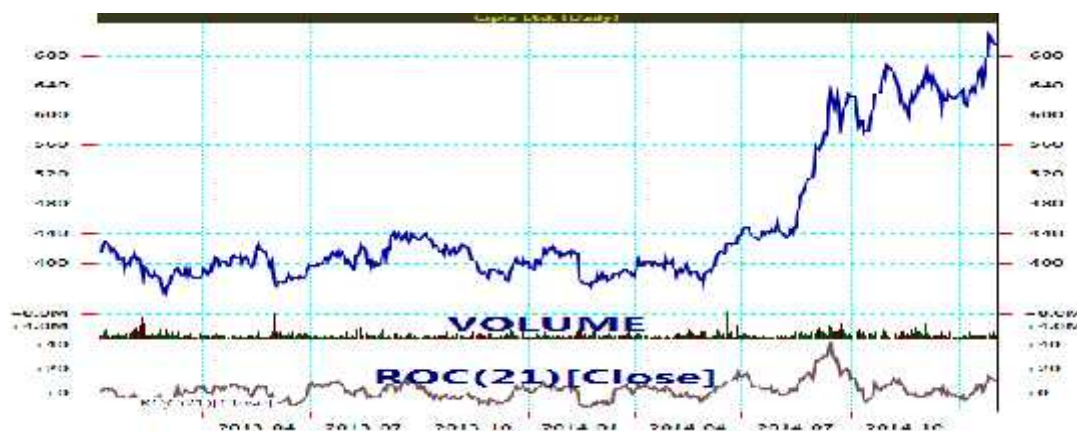
Table: 15

Generation of overbought and oversold signals based on 21 days RSI for CIPLA							
Oversold date	signal	Closing price	21 days RSI	Overbought date	signal	Closing price	21 days RSI
28-11-2013		378.27	29.84	15-9-2014		629.7	89.64
Return=							251.43

Analysis:

1. The return based on 21 days ROC is Rs 581.57 and the return based on 21 days RSI is Rs 251.43
2. There is an oversold signal in the market for the period of 06-02-2013 to 06-03-2013 where in the 21 days ROC on the dated 28-02-2013 and 26-04-2013 has been considered for the purpose of return. On 28-02-2013 the 21 days ROC was -0.12 and closing price of Rs 357.3 at which an investor buy the security and sold it Rs 405.73 where the Roc was 0.08 thereby he made a profit of Rs 48.43. During the period of 30-5-2013 to 25-6-2013 there is an oversold condition and from 1-7-2013 to 2-10-2013 the market evidence with overbought condition. Based on 21days ROC an investor buy the security on 17-5-2013 at Rs.376.51 and sell the security at Rs.437.5 on 19-9-2013 and makes profit of Rs.60.99
3. ROC calculation for 21days suggests the investors to buy the security on the dated 9-12-2013. At Rs.376.51 and to sell the security on 14-1-2014 at Rs.409.43. There by an investor makes profit of Rs.25.83. On 27-5-2014 to 29-05-2014 the market oscillators indicates oversold condition and for calculation purpose 25-7-2014 ROC value has been taken into consideration on this date investor has bought the security at Rs.376.48 and sold the security on 15-9-2014 and made profit Rs.253.22/-. An investor made profit based on ROC of Rs 79.35 by buying the security at Rs 578.25 on 14-10-2014 and sell the security at Rs 657.6 on 6-11-2014 and profit of Rs 91.95 by the selling and buying price difference of Rs 705.95 and 614 respectively. There is an oversold condition in the market on 28-11-2013 where an investor bought the security at Rs 378.27 and sold the security when there was a overbought condition on 15-9-2014 based on 21 days at Rs 629.7 and made profit of Rs 251.4

Graph :11 Trend analysis of CIPLA based on 21 days ROC



Graph: 12 Trend analysis of CIPLA based on 21 days RSI

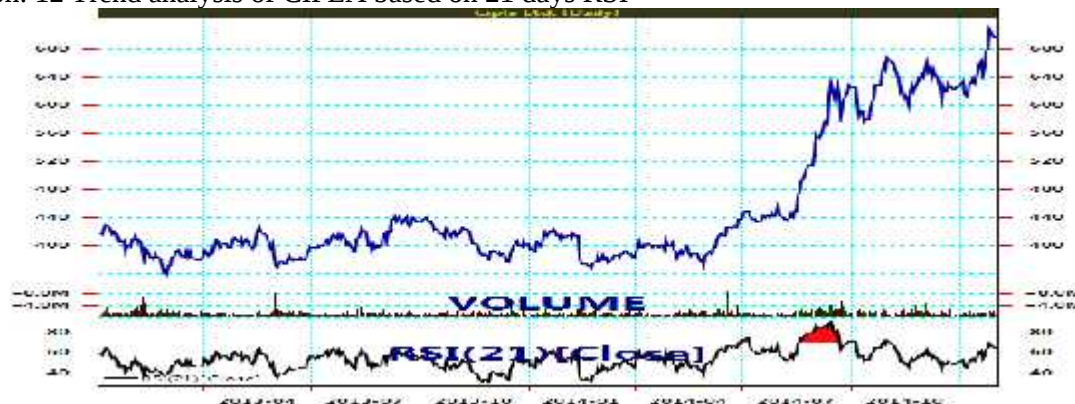


Table: 16 Generation of buy and sell signals based on 21 days SMA for TORRENT

Return based on 21 days SMA				
Buy signal date	Buying price	Sell signal date	Selling price	Return
25-01-2013	743.45	22-07-2013	871.7	128.25
03-09-2013	403.7	09-10-2013	441.65	37.95
30-10-2013	424.9	28-11-2013	469.45	44.55
02-12-2013	470.15	16-12-2013	471.85	1.7
21-01-2014	473.85	07-03-2014	553.95	80.1
20-03-2014	540.55	27-03-2014	544.5	3.95
02-04-2014	549.8	16-05-2014	594.65	44.85
19-05-2014	591.9	26-05-2014	604	12.1
05-06-2014	613.2	08-07-2014	683.35	70.15
15-07-2014	691.15	18-09-2014	839.65	148.5
25-09-2014	850.05	07-10-2014	870.05	20
27-10-2014	853.4	09-12-2014	1034.45	181.05
11-12-2014	1034.95	16-12-2014	1037.6	2.65
24-12-2014	1078.35	15-01-2015	1116.05	37.7
19-01-2015	1111.75	29-01-2015	1138.4	26.65
RETURN=				840.15

Table: 17 Generation of buy and sell signals based on 21 days EMA for TORRENT

Return based on 21days EMA				
Buy signal date	Buying price	Sell signal date	Selling price	Return
24-01-2013	713.75	29-01-2013	727.3	13.55
18-02-2013	695.45	21-02-2013	705.35	9.9
22-03-2013	680.75	01-04-2013	684.25	3.5
26-04-2013	685.8	02-05-2013	687.8	2
08-05-2013	684.6	22-07-2013	871.7	187.1
06-09-2013	433.55	10-10-2013	440.3	6.75
30-10-2013	424.9	13-12-2013	479.65	54.75
21-01-2014	473.85	07-03-2014	553.95	80.1
20-03-2014	540.55	27-03-2014	544.5	3.95
01-04-2014	534.3	16-05-2014	594.65	60.35

19-05-2014	591.9	26-05-2014	604	12.1
05-06-2014	613.2	08-07-2014	683.35	70.15
15-07-2014	691.9	08-10-2014	853.8	161.9
22-10-2014	850.3	09-12-2014	1034.45	184.15
23-12-2014	1043.05	15-01-2015	1116.05	73
RETURN=				923.25

Table: 18

Return based on buy and hold strategy				
Date of buy	buy price	Date of sell	sale price	Return
01-01-2013	729.2	30-01-2015	1099.7	370.5
Return=				370.5

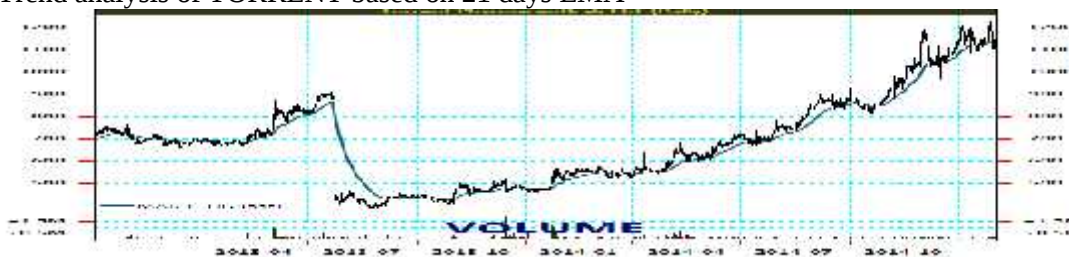
Analysis:

1. The above-mentioned table's shows the return an investor can earn in the market based on 21 days SMA, EMA and buy and hold strategy. From the above calculation we can conclude that once again the hypothesis is proved which means the technical analysis rules out the buy and hold strategy.
2. In the analysis of stock prices of torrent it is observed that in the time duration of Jan to March 2013 there is a downward trend in the market within this time duration the value of security is decreased from Rs 735.85 to Rs 685.
3. We can also observe constant price movements in the market from the end of March till the first week of May 2013.
4. In the mid of May the price of security get going to increase incessantly from Rs 684 to 871.70 in the time interval of May to July. And one of the important facts to be noted in this time interval is that at the end of July market price of torrent unexpectedly decreased to Rs 440 which was trading at Rs 871 on the same date. There on wards the market move with small percentage of changes in the price.

Graph: 13 Trend analysis of TORRENT based on 21 days SMA



Graph: 14 Trend analysis of TORRENT based on 21 days EMA



- Closing price & - 21 days SMA

Table: 19 Generation of overbought and oversold signals based on 21 days ROC for TORRENT

Return based on 21 Days ROC						
Oversold signal date	Closing price	21 days ROC	Overbought signal date	Closing price	21 days ROC	Return
06-02-2013	679.95	-65.35	08-03-2013	692.2	7.75	12.25
22-03-2013	680.75	-25.6	29-03-2013	695.55	22.9	14.8
01-04-2013	684.25	-3.75	03-04-2014	698.25	13.05	14
25-04-2013	678.5	-19.85	30-04-2013	689.75	4.5	11.25
07-05-2013	678.5	-10.55	04-06-2013	832.5	157.45	154
03-09-2013	403.7	-54.35	19-09-2013	444.85	48.95	41.15
30-10-2013	424.9	-16.2	27-11-2013	469.45	51.95	44.55
14-01-2014	469.45	-3.4	15-01-2014	475.05	8.65	5.6
21-01-2014	473.85	-7.75	12-02-2014	561.1	90.65	87.25
20-03-2014	540.55	-15.35	11-04-2014	558.45	28.75	17.9
22-04-2014	548.55	-3.4	06-05-2014	642.35	91.4	93.8
05-06-2014	613.2	-22.05	25-06-2014	642.35	91.4	29.15
14-07-2014	666.1	-10.95	16-07-2014	706.1	33.15	40
25-07-2014	694.6	-8.8	15-09-2014	874.25	133.65	179.65
21-10-2014	828.65	-28.6	03-12-2014	1165.75	252.65	337.1
31-12-2014	1130.35	-22.25	28-01-2015	1211.95	109.2	81.6
Return =						1164.05

Table: 20 Generation of overbought and oversold signals based on 21 days RSI for TORRENT

Return based on 21 Days RSI						
Oversold signal date	Closing price	21 days RSI	Overbought signal date	Closing price	21 days RSI	Return
03-09-2013	403.7	27.65	23-01-2014	545.8	76.83	142.1
Return =						142.1

Analysis:

1. The return based on 21 days ROC is Rs 1164.05 and the return based on 21 days RSI is Rs 142.1 the return by 21 days ROC is more than the return by 21 days RSI because in ROC there are number of overbought and oversold signals generated in the market there by an investor made huge profit.
2. There is an oversold signal generated in the market from 30-01-2013 to 04-03-2013 and the 21 days ROC on the dated 06-02-2013 has considered for calculating the return. On 05-03-2013 to 11-03-2013 there was an overbought condition presented in the market. On 08-03-2013 the investor has sold the security for Rs 692.2 and made profit of Rs 12.25. There is an oversold condition in the market from 12-03-2013 to 26-03-2013 and overbought condition from 27-03-2013 to 29-03-2013. for calculating the return on 22-03-2013 and 29-03-2013 has been considered where an investor has bought the security at Rs 680.75 and sold the security at 695.55 and made the profit of Rs 14.8. There is an oversold signal in the market for a long time, it starts from 23-07-2013 to 05-09-2013 and overbought condition from 06-09-2013 to 10-10-2013 where an investor make profit of Rs.41.15. From 01-01-2014 to 21-01-2014 there was an oversold condition and from 22-01-2014 to 06-03-2014 overbought condition. Again there was an oversold condition generated in the market from 10-03-2014 to 20-03-2014. On 20-03-2014 the investor bought the security at Rs.540.55 and sold the security on 11-04-2014 at Rs.550.45 and made profit of Rs.17.9
3. There were overbought and oversold signals generated in the market often over a period of days where an investor made the maximum profit of Rs.337.1 in the time duration from October 2014 to December 2014. Within two months he earned profit of Rs.337.1 where he bought the security at Rs.828.65 on 21-10-2014 and sold at Rs.1165.75 on 03-12-2014. Based on 21 days RSI an investor made a profit of Rs.142.1 where he bought the security at Rs.403.7 on 03-09-2013 and sold the security at Rs.543.8 on 23-01-2014.

Findings and suggestions

1. The study on comparison of buy and hold strategy v/s technical analysis proves that the investors who follow technical analysis can earn maximum return compared to the investors who follow the buy and hold strategy.
2. Most of the investors would like to take the advantage of favourable price movements in the stock market rather than just buying and holding the securities for a long period without trading. The stock market is subjected to fluctuations in the stock prices which depend on various factors like economic factors, technological factors, natural factors and company's performance.
3. For the study purpose the hypotheses has been developed. In the process of study it is found out that the technical analysis rules out the buy and hold strategy.
4. In the study it is found out that there is a high fluctuation in the prices of JSW securities throughout two years.
5. The return calculation for TATA STEEL based on buy and hold strategy reveals that there is a chance for getting negative return if investors follow buying and holding the securities for long duration. In the process of study it is found out that the investors can earn maximum return by technical analysis compared to buy and hold strategy.
6. Since there is a continuous fluctuations in the in the stock prices we can observe increasing trend and decreasing trend in the market very often.
7. When the company enjoys with favourable changes in the internal environment, we can see an increasing trend in the stock prices.
8. While analysing the data pertaining to CIPLA it is found out that the stock price decreased from Rs 414 to 375.35 within two days on the dated Feb. 2014.
9. There is a continuous increasing trend in the market for CIPLA security from June 2014 to Jan 2015 it indicates that there is a high demand for CIPLA security during this period hence the stock prices also drastically increased from 380.40 to Rs 632
10. Currently the market for TORRENT securities is in the upper trend and we can notice this upper trend for long period from the month of April to till now where the price increased from 473.85 to 1116.05.

11. During the period of Feb 2014 to July 2014 we can see an upward trend in the market where the prices of HDFC securities increased from 800.60 to 1072.
12. Currently the HDFC securities are in increasing trend in the stock market which denotes there is a high demand for the HDFC securities and the investors are interested in buying the securities instead of selling.
13. The return calculated for ICICI securities based on buy and hold strategy notified that the return is in negative because the investors have not taken the advantage of favourable price fluctuations.
14. The important fact find in the trend analysis of HDFC security is that there is a stock split condition in the market where the stock prices decreased from Rs 1793 to Rs 361 within in one day on 03-12-2014 in order to control over pricing of securities.

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