

A Study on Rate of Change on In Technical Analysis

K. Kiran Kumar Reddy¹, G. Lakshmi², T.Sanjeev Kumar³

^{1,2} P.G. Scholars,

³ Assistant Professor

^{1,2,3} Department of Management Studies

^{1,2,3} Gates Institute of Technology, Gooty, Ananthapur, Andhra Pradesh

Email:¹reddykirankumar1994@gmail.com,²glakshmi765@gmail.com,³tsanjeevmba@gmail.com

Abstract:

Investment decision by investors can be based on the both fundamental and technical analysis. It as a part of investment decision making of investors helps predicting the future share prices which can help in the formulating buying and selling decisions. It helps in identifying trend reversals at an earlier stage to formulate buying or selling strategy. It was a price movement of a security and uses this data to predict its futures price movement the paper aims at technical analysis of Dr. Reddys Lab, kotak Mahindra bank with in the closing share prices period 31/12/2018 to 25/01/2019.

Rate of change often used when speaking about momentum, and it can generally be expressed as a ratio between changes in one variable relative to a correspondent change in another; Technical analysis gives as many trading strategy, one of the which is using ROC indicator. The rate of changes indicator is a momentum oscillator, which measures the percentage changes between the current price and the n period past price. The ROC indicator might be used to conform price moves or detect divergences; it might also used as a guide for determining overbought and oversold condition.

Keywords: Technical analysis, Buying strategy, selling strategy, rate of change, share price

Introduction:

Technical analysis involves a study of market generates data like price and volumes to determine the future direction of price movement. This technical analysis approach to investing is essentially a reflection of the idea that prices move in trends which are determine by the changing attitudes of investors towards a variety of economy ,monetary, political and psychological forces.

ROC Stands for “RATE OF CHANGE”. It is a change is a ratio that describes how much one quantity changes with respect to the change in another quantity. For a function the rate of change is the amount by which function values change for each change in domain values. When the rate of change of a function increasing by the same amount for every consecutive domain values, it is said to be constant. Linear function exhibits this trait: however not all function has constraints of ROC. The ROC is most often used to measure the change in security price overtime. It is also known as price rate of change the price rate of change can be derived by taking the price of a security time.

For the securities technical analysis is mainly helpful one of the major influencing is pricing that is only influenced by the forces of supply and demand. It is not only work without the other factors influencing the price security. In order to be successful the technical analysis makes mainly 3

assumptions they are mostly include: high liquidity, no artificial price changes, no extreme news.

Definition:

Suppose that a quality changes steadily from y_1 , y_2 a quality y changes steadily from x_1 to x_2 . Then rate of change of y with respect x is the ratio of the change in y to change in x .

$$\text{Change in } Y / \text{change in } X = \frac{y_2 - y_1}{x_2 - x_1}$$

Review of literature:

Derivative, in mathematics, the rate of change of a function with respect to a variable Derivatives are fundamental to the solution of problems in calculus and differential equations. ... Geometrically, the derivative of a function can be interpreted as the slope of the graph.

Objectives:

- To employ varied technical tools to investigate the value movements.
- To group the overbought and oversold firms supported ROC.
- To counsel the investors on get hold or sell ways based on technical

Methodology:

1. Technical analysis provides us many trading methods, one amongst that is using mythical monster indicator ... the speed of modification indicator (or ROC) could be a momentum generator, that measures the share amendment between the present value and also the n period past value.
2. The ROC indicator measures the share amendment of the current worth share amendment of the current worth as compared to the value a particular Varsity of periods past. The ROC indicator may well be accustomed confirm even value moves or discover

divergences; it would even be used as a guide for deciding over brought and oversold condition.

Concept of technical analysis:

Technical analysis to explain and forecast changes in security prices by studying only the market data. In other words a study of past share prices behavior to predict the future trend is termed as technical analysis

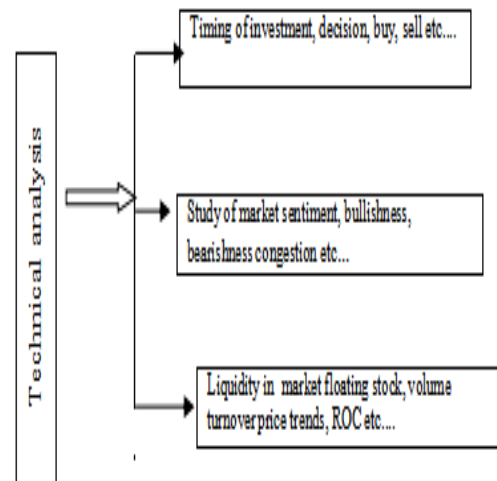


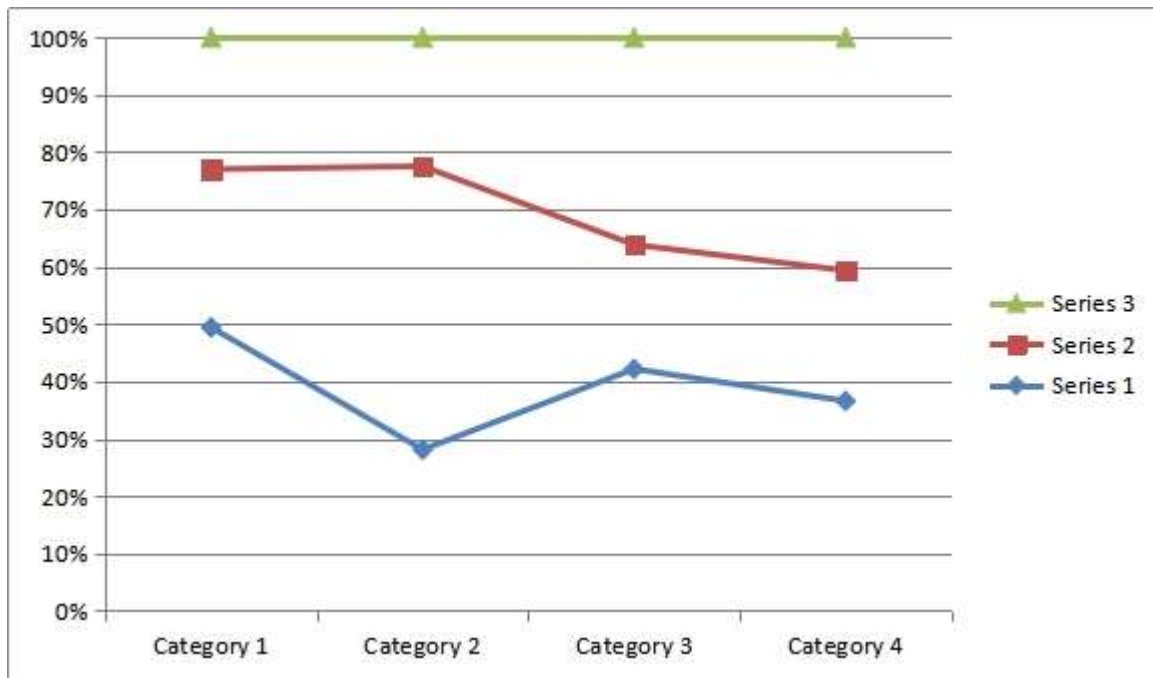
Fig 1: Moving Averages

Technologies of technical analysis:

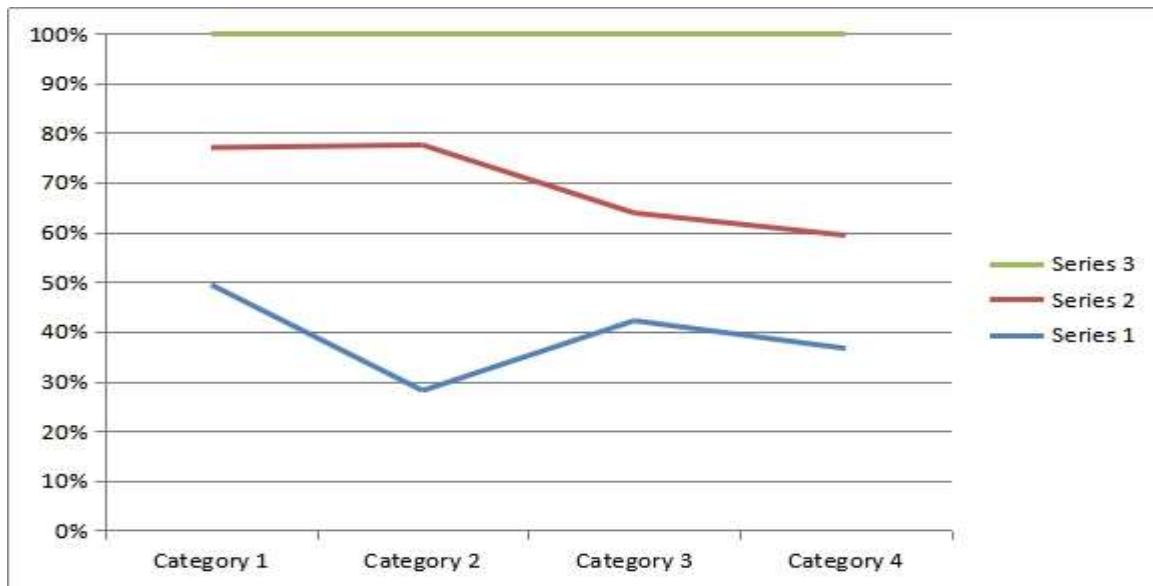
- Daily volume of transaction
- Floating stock
- Rate of change method (ROC)
- Japanese candlestick method
- Dow theory Elliot wave theory
- Elliot wave theory
- Advance & decline lines method
- Relative strength index (RSI)

SNO	DATES	CLOSE PRICE	CLOSEING PRICE OF 7 DAYS AGO	PRICE RATIO	ROC=PRICE RATIO -1
1	1-01-19	2,607.05	-	-	-
2	2-02-19	2,601.05	-	-	-
3	3-01-19	2,577.37	-	-	-
4	4-01-19	2600	-	-	-
5	7-01-19	2558.68	-	-	-
6	8-01-19	2,570.50	-	-	-
7	9-01-19	2603.10	-	-	-
8	10-01-19	2,600.40	2,607.05	0.99	-0.01
9	11-01-19	2,588.15	2,601.05x	0.99	-0.01
10	14-01-19	2,578.80	2,577.35	1.00	0
11	15-01-19	2,594.80	2,600	0.99	-0.01
12	16-01-19	2,616.95	2558.65	1.02	0.02
13	17-01-19	2,619.15	2,570.50	1.01	0.01
14	18-01-19	2,596.80	2,603.10	0.99	-0.50
15	21-01-19	2,599.80	2,600.40	0.99	-0.0
16	22-01-19	2,640.30	2,588.15	1.02	0.0
17	23-01-19	2,646.35	2,518.80	1.02	0.0
18	24-01-19	2,668.45	2,616.95	1.01	0.0
19	25-01-19	2,672.40	2,619.15	1.02	0.0.

Table 1 : Dr. Reddys Labs Share Prices



SNO	DATES	CLOSEING PRICE	CLOSEING PRICE 5 DAYS	PRICE RATIO	ROC=PRIC RATIO-1
1	31-12-18	1257			
2	01-01-19	1250			
3	02-01-19	1241			
4	03-01-19	1235			
5	04-01-19	1248			
6	07-01-19	1247	1257	0.99	-0.01
7	08-01-19	1229	1250	0.98	-0.02
8	09-01-19	1238	1241	0.99	-0.01
9	10-01-19	1220	1235	0.98	-0.02
10	11-01-19	1223	1248	0.97	-0.03
11	14-01-19	1212	1247	0.97	-0.03
12	15-01-19	1213	1229	0.97	-0.02
13	16-01-19	1203	1203	0.98	-0.03
14	17-01-19	1220	1220	0.97	-0.01



Conclusion:

- in the above chart A the close price of 25-01-19 price are showing a positive indicator
- In the above chart B the close price of the selling decision 31-12-18 to 16-01-18 will be fall down with a negative 17-01-18 will be no expected results. 18-01-18 will up word curve to the Positive to the buying decision to the investor.

FINDINGS:

- The chart A :-
Graphical curve will be upward to the curves the buying decision-making to the investor. It positive statement indication.
- The chart B :
curve will be start with down word . In this stage selling decision making to the investor. It is negative Graphic indicator. Rapidly 18-1-18 will be graphical curve will be upward.

Suggestion:

- In both chart curve comparison to the my suggestion will be Dr.Reddy lab to the decision making best choice of investor.

for the investor for buy opportunities in these rate of change method (ROC)

- Kotak Mahindra bank with fall down curve because of share closing price will be reduced to the day to day.

Declaration:

The Rate-of-Change generator measures the speed at which prices square measure dynamical. associate upward surge within the Rate-of-Change reflects a sharp value advance. A downward plunge indicates a steep value decline. even if chartists will seek for optimistic and pessimistic divergences, these formations is deceptive as a result of sharp moves. Sustained advances usually begin with an enormous surge out of the gate. succeeding advances square measure sometimes less sharp and this causes a pessimistic divergence to create within the Rate-of-Change generator. it's necessary to recollect that costs square measure constantly increasing as long because the Rate-of-Change remains positive. Positive readings is also but before, but a positive Rate-of-Change still



reflects a increase, not a worth decline. Like all technical indicator, the Rate-of-Change generator ought to be utilized in conjunction with different aspects of technical analysis.

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