

A Roadway of an Automobile Companies – Technical Analysis

(With special reference to the Selected Automobile Companies at NSE)

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Abstract

Investors are the individuals who takes an initiative to pool their money into various investment avenues. Investor in the choice of right avenues becomes the most essential part of their decision making. Suppose, investor choose equities for an investment with respect to automobile sector or any industry they are in need of technical analysis. Technical Analysis is basically conducted to check the performance of the company's stock so that are useful for the investors to invest in the particular company. The Technical analysis is one of the prominent techniques used to analyze the closing stock prices of the company. The investor in the stock market may be interested in analyzing stock price movements. Stock market prices fluctuate due to the ongoing buying and selling in the market. Therefore, in order to succeed in the investment sector, investors seek to predict the future behavior of stocks by using technical analysis approach to analyses stock price movements. The present study has been analyzed the stock performance of the company conducted using Moving Averages Convergence Divergence (MACD), and Relative Strength Index (RSI). The present study focuses on profile of industry, where the stocks selected for the study includes Ashok Leyland, Tata Motors, and Mahindra & Mahindra Limited. The present study also involves the determination of trends and patterns on the above listed companies and drawn interpretation. The study provides vital information to the investor about the value of an automobile security and the company to make better decision on buying or selling of the stock.

Keywords: Technical Analysis, Stock Price Movement, Moving Averages Convergence Divergence, Relative Strength Index, Trends and Patterns

I. Introduction: The present study emphasizes on using technical analysis to help investors with a technique to make a decent profit though stock trading. Today, investing in financial securities such as stocks, debentures, bonds and other financial securities is a more profitable investment compared to other type of investments. An investor who is looking for investment in the stock market is in dilemma of choosing shares.

The random selection of shares may lead to high risk, lower return and even sometimes loss also. As relating to Automobile industry the growth of the company depends on research and development and capturing the market. The market competition is very high. The investor will be in dilemma to choose among the major players includes Toyota, Volkswagen, Hyundai Motors, Ford, Nissan, Honda, PSA, Suzuki, Renault, Fiat, Daimler AG, Chrysler, BMW, Mazda and Tata Motors.

II. Statement of the problem: Market efficiency concept is tested several times but no conclusive evidence is derived out of the previous studies. Forecasting stock performance is done by technical analysis. Inspire of share prices various tools available, investors and analysts face difficulty in coming out with right forecasting of a company's share prices. The investor decisions on their investment on scrip listed in the stock market is made difficult the forecast buy signal and sell signal of respective scrip. Predicting stock movements is difficult especially when the markets are highly volatile. From the extensive literature it is identified that an investor should base his interpretation based on technical analysis but technical indicators play a prominent role in predicting stock movements and also determining entry and exit points. The study encourages investor to adopt buy hold price movement of automobile securities. Hence, this study is taken up in order to use technical indicators and suggest the investors on buy-hold and sell strategies by looking at the price movement in securities.

III. Objective of the study

- To understand the stock prices volatility of selected automobile company at NSE.
- To analyze automobile scrip using Moving Averages Convergence Divergence
- To study the volatility of stock using Relative Strength Index.

IV. Review of Literature

- **Dr Pravin Chaudhary and Prof Apoorva Bhatnagar (2018)** Tried to establish relationship between market indices through technical analysis. There are many views as per analyst and investors on technical analysis and its applicability in commodity market.
- **Ms. Apurva A. Chauhan (2014)** conducted a research on "A Study on Technical Analysis of with Reference to the Selected Companies." In the study a centralized scientific investigation was performed for four automobile division firms in relation to the price development of their shares. The findings articulated

that financial veteran is engaged in forecasting the performance of securities exchange. The unsettled deals of the organization are equally important for the investigation of data.

- **J.G.Agarawal, Dr.V.S.Chourasia and Dr.A.KMitra (2013)** in this research paper “The state of the art in stock forecasting techniques” of stock calculation techniques. There is a gap between the technologies and the users need for the safe and accurate stock forecasting system. There are several political and economic factors that control the stock market that are also taken in to account apart from the technical indicators.
- **GB Sabari Rajang and S.Parimala (2013)**, highlights on usage of technical analysis tools and techniques to selective stock in the sector. The researcher has used technologies like Bollinger Band and Simple Moving Average to decide whether to buy or sell stocks. Script values are influenced by investor’s emotions and therefore, it is necessary to consider all factors that can affect investor or psychology in technical analysis.

V. Research Gap: The present study focuses on analysing exclusively on automobile company’s performance of Ashok Leyland, TATA motors, SML Isuzu limited, Mahindra and Mahindra limited, Hindustan motors limited. There were broad study found from extensive review of literature conducted in India on Automobile companies. Here, the present study tells us the performance of selected Automobile companies of India. Therefore, there are no such combinations of studies made in India so for hence, the study has been conducted to determine year on year stock prices and its consistency.

VI. Operational Definitions and Concepts

i. Moving Average: A Moving Average is an indicator that shows the average value of a security's price over a period of time. When calculating a moving average, a mathematical analysis of the security's average value over a predetermined time period is made. As the securities price changes, its average price moves up or down. A simple moving average is formed by computing the average (mean) price of a security over a specified number of periods.

Formula for MACD: $MACD = \text{Short Period} - \text{Long Period Exponential Moving Average}$

ii. Relative Strength Index: The relative strength index was developed by Wells Wilder. It is one of the most powerful and used indicator to determine overbought and oversold market conditions and as well as buying and selling opportunities in the market. It also shows the strength and weakness of a particular scrip or market.

Formula to calculate Relative Strength Index: $100 - 100 / (1+RS)$

RS= Average Gain / Average Loss

Average gain = Total of gain for the determined time period / Time period

Average Loss = Total of loss for the determined time period / Time period

iii. Line chart: Line chart is one of the essential ways of charting. It is a basic chart shape. Line charts are simpler graphs that represent information as a series of data points connected by straight line segments called markets. It is the fundamental form of chart popular in many fields. A line chart is used to represent a data pattern over time periods so the line is often chronologically drawn.

VII. Type of research: The present study is descriptive and analytical in nature.

i. Scope of the study: The present study attempts the support the investor to choose the scrip of selected automobile company. The study provides support to the investor and his or her decision on the selected stock on movement of stock price signaling buying or selling or to hold.

Sources of data collection: The study secondary data has been adopted for six years from 2014-2020 collection from NSE website. The data is tabulated and analyzed moving average, Relative strength index tools of technical analysis.

Population and Sampling unit: There are 50 listed companies of automobile sector at NSE. The present studies sampling unit is Automobile companies listed at NSE.

Sampling method: Probability sampling technique adopted in the study the systematic sampling technique adopted to choose 5 companies from NSE.

Sample size: The top performer of automobile sector out of 50, in which three companies were chosen for the study. The companies selected are Ashok Leyland, TATA Motors Limited, and M&M Motors Limited.

Statistical Tools and Techniques: The study has been tested the data Moving Average, Relative strength Index (RSI), Rate of Change (ROC)

VIII. Data Analysis and Interpretation: Moving Average Convergence Divergence

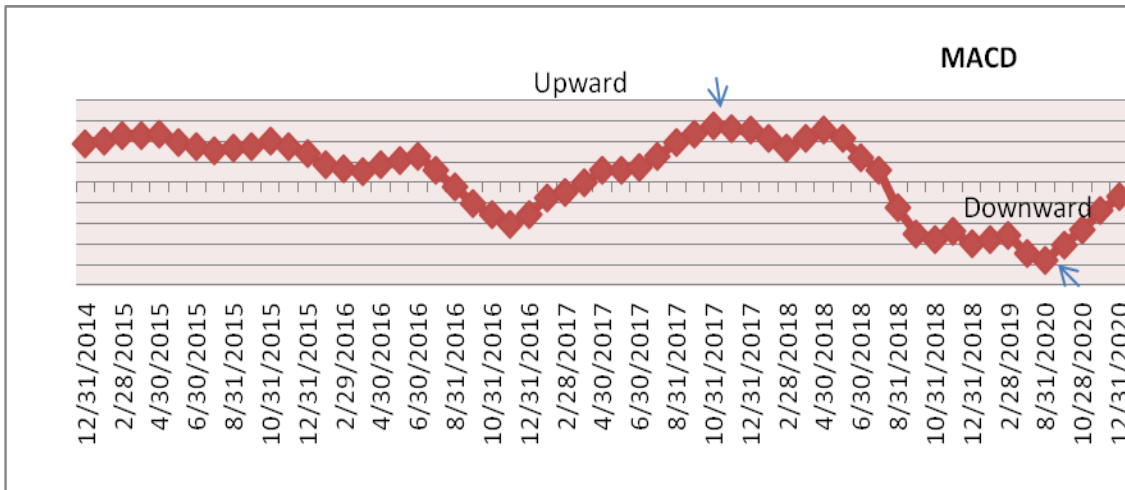
Technical analysis on Ashok Leyland using moving Average

i. Table 1: Table showing MACD calculation on Ashok Leyland from 31st March 2014 to 31st December 2020:

Date	Closing Price	5 Months EMA	10 Months EMA	MACD
3/31/2014	22.25	-	-	-
4/30/2014	32.35	-	-	-
5/31/2014	36.50	-	-	-
6/30/2014	34.15	-	-	-
7/31/2014	36.45	32.34	-	-
8/31/2014	41.15	36.12	-	-
9/30/2014	46.45	38.94	-	-
10/31/2014	52.40	42.12	-	-
11/30/2014	51.40	45.57	-	-
12/31/2014	65.70	51.42	41.88	9.54
1/31/2015	66.90	56.57	46.35	10.23
2/28/2015	73.30	61.94	50.44	11.50
3/31/2015	69.60	65.38	53.75	11.63
4/30/2015	71.45	69.39	57.48	11.91
5/31/2015	72.55	70.76	61.09	9.67
6/30/2015	84.45	74.27	65.42	8.85
7/31/2015	90.30	77.67	69.81	7.86
8/31/2015	92.25	82.20	73.79	8.41
9/30/2015	93.70	86.65	78.02	8.63
10/31/2015	94.40	91.02	80.89	10.13
11/30/2015	87.90	91.71	82.99	8.72
12/31/2015	89.60	91.57	84.62	6.95
1/31/2016	87.65	90.65	86.43	4.23
2/29/2016	108.60	93.63	90.14	3.49
3/31/2016	106.80	96.11	93.57	2.55
4/30/2016	108.95	100.32	96.02	4.30
5/31/2016	98.35	102.07	96.82	5.25
6/30/2016	95.25	103.59	97.12	6.47
7/31/2016	87.55	99.38	96.51	2.87
8/31/2016	79.60	93.94	95.02	-1.09
9/30/2016	90.25	90.20	95.26	-5.06
10/31/2016	79.50	86.43	94.25	-7.82
11/30/2016	80.10	83.40	93.49	-10.09
12/31/2016	90.75	84.04	91.71	-7.67
1/31/2017	90.65	86.25	90.09	-3.84
2/28/2017	84.55	85.11	87.66	-2.54
3/31/2017	85.40	86.29	86.36	-0.07
4/30/2017	94.50	89.17	86.29	2.89
5/31/2017	93.85	89.79	86.92	2.88
6/30/2017	109.50	93.56	89.91	3.66

7/31/2017	107.10	98.07	91.59	6.48
8/31/2017	123.10	105.61	95.95	9.66
9/30/2017	131.20	112.95	101.06	11.89
10/31/2017	117.85	117.75	103.77	13.98
11/30/2017	119.10	119.67	106.61	13.05
12/31/2017	126.10	123.47	110.77	12.70
1/31/2018	141.50	127.15	116.38	10.77
2/28/2018	145.45	130.00	121.47	8.52
3/31/2018	164.45	139.32	128.53	10.78
4/30/2018	148.05	145.11	132.39	12.72
5/31/2018	125.80	145.05	134.26	10.79
6/30/2018	112.80	139.31	133.23	6.08
7/31/2018	129.05	136.03	133.02	3.02
8/31/2018	119.10	126.96	133.14	-6.18
9/30/2018	114.70	120.29	132.70	-12.41
10/31/2018	112.35	117.60	131.32	-13.73
11/30/2018	102.50	115.54	127.42	-11.89
12/31/2018	81.30	105.99	121.01	-15.02
1/31/2019	86.50	99.47	113.22	-13.75
2/28/2019	91.30	94.79	107.54	-12.75
7/30/2020	48.65	79.56	96.83	-17.27
8/31/2020	67.65	72.63	91.52	-18.89
9/30/2020	74.40	73.21	88.41	-15.2
10/28/2020	80.30	75.55	86.93	-11.38
11/27/2020	92.15	81.03	87.88	-6.85
12/31/2020	95.45	85.79	89.26	-3.47

Graph 1: Graph Showing MACD of Ashok Leyland:



Interpretation: From the above chart it is found that from the calculation of Moving Average of MACD line of Ashok Leyland shows upward trend from 1st December 2016 to 1st March 2018, it was bullish trend. It indicates that the stock price has been increasing. In the mentioned duration it is a good to sell at this level. The MACD line shows on peak on 31 December 2017 as 12.70 points and was

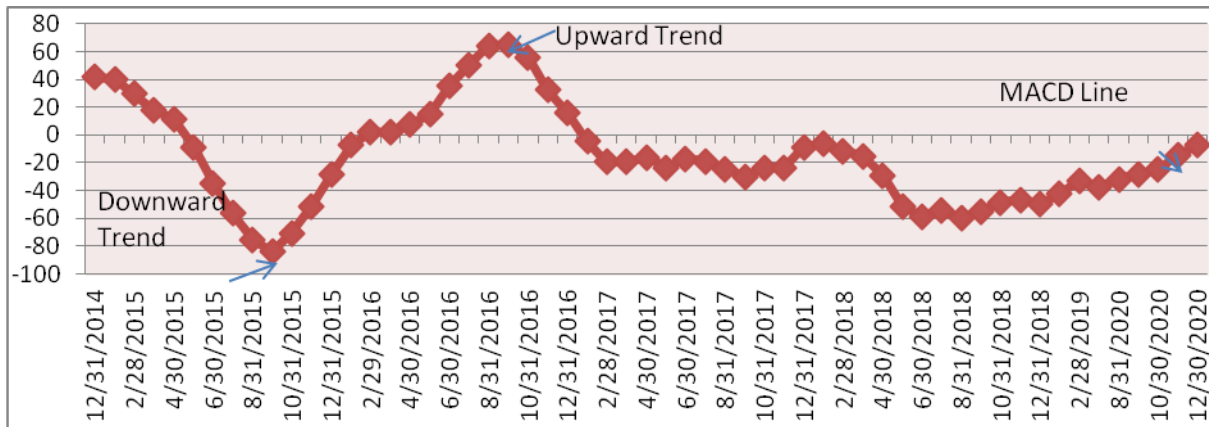
bottom on 31st September 2018 shows -12.42 points respectively. It is a good to buy at this level. December 31st 2020 MACD line is slowly increasing the trend. The study indicates that the stock price of Ashok Leyland has been decreasing from 31st August 2018 onwards till 31 December 2020 it shows highly volatile.

ii. Table 2: Table showing MACD calculation on TATA Motors 31 March 2014 to 31 December 2020:

Date	Close	5 Months EMA	10 Months EMA	MACD
3/31/2014	410.35	-	-	-
4/30/2014	410.64	-	-	-
5/31/2014	426.72	-	-	-
6/30/2014	442.01	-	-	-
7/31/2014	519.48	441.84	-	-
8/31/2014	496.82	459.14	-	-
9/30/2014	530.16	483.04	-	-
10/31/2014	527.84	503.26	-	-
11/30/2014	490.29	512.92	-	-
12/31/2014	578.94	524.81	483.33	41.48
1/31/2015	569.05	539.26	499.20	40.06
2/28/2015	544.36	542.10	512.57	29.53
3/31/2015	508.25	538.18	520.72	17.46
4/30/2015	481.65	536.45	524.68	11.77
5/31/2015	434.15	507.49	516.15	-8.66
6/30/2015	383.85	470.45	504.85	-34.40
7/31/2015	340.15	429.61	485.85	-56.24
8/31/2015	298.60	387.68	462.93	-75.25
9/30/2015	384.95	368.34	452.39	-84.05
10/31/2015	423.50	366.21	436.85	-70.64
11/30/2015	391.30	367.70	419.08	-51.38
12/31/2015	364.60	372.59	401.10	-28.51
1/31/2016	299.70	372.81	380.25	-7.43
2/29/2016	386.60	373.14	370.74	2.40
3/31/2016	408.35	370.11	368.16	1.95
4/30/2016	459.65	383.78	375.74	8.04
5/31/2016	459.25	402.71	387.65	15.06
6/30/2016	503.20	443.41	408.11	35.30
7/31/2016	537.70	473.63	423.39	50.25
8/31/2016	534.85	498.93	434.52	64.41
9/30/2016	537.00	514.40	449.09	65.31
10/31/2016	459.30	514.41	458.56	55.85
11/30/2016	472.00	508.17	475.79	32.38
12/31/2016	523.55	505.34	489.48	15.85
1/31/2017	456.75	489.72	494.32	-4.61
2/28/2017	465.85	475.49	494.94	-19.46
3/31/2017	458.90	475.41	494.91	-19.50

4/30/2017	476.15	476.24	492.20	-15.96
5/31/2017	432.55	458.04	481.69	-23.65
6/30/2017	444.60	455.61	472.66	-17.05
7/31/2017	376.55	437.75	456.62	-18.87
8/31/2017	401.50	426.27	450.84	-24.57
9/30/2017	428.40	416.72	446.48	-29.76
10/31/2017	404.15	411.04	434.54	-23.50
11/30/2017	431.85	408.49	432.05	-23.56
12/31/2017	433.90	419.96	428.85	-8.89
1/31/2018	369.90	413.64	419.95	-6.31
2/28/2018	326.85	393.33	405.02	-11.69
3/31/2018	340.40	380.58	395.81	-15.23
4/30/2018	282.50	350.71	379.60	-28.89
5/31/2018	269.30	317.79	368.87	-51.09
6/30/2018	264.10	296.63	355.13	-58.50
7/31/2018	267.50	284.76	339.04	-54.29
8/31/2018	223.70	261.42	321.00	-59.58
9/30/2018	179.10	240.74	295.72	-54.98
10/31/2018	171.95	221.27	269.53	-48.26
11/30/2018	172.70	202.99	249.81	-46.82
12/31/2018	181.20	185.73	235.24	-49.51
1/31/2019	177.45	176.48	218.95	-42.47
2/28/2019	174.25	175.51	208.12	-32.62
7/31/2020	104.65	152.13	189.31	-37.18
8/31/2020	143.20	149.18	180.93	-31.75
9/30/2020	133.30	143.94	172.27	-28.33
10/30/2020	132.65	140.21	165.07	-24.86
11/27/2020	180.35	153.46	167.85	-14.39
12/30/2020	183.85	163.49	170.76	-7.27

Graph 2: Graph Showing MACD of TATA Motors:



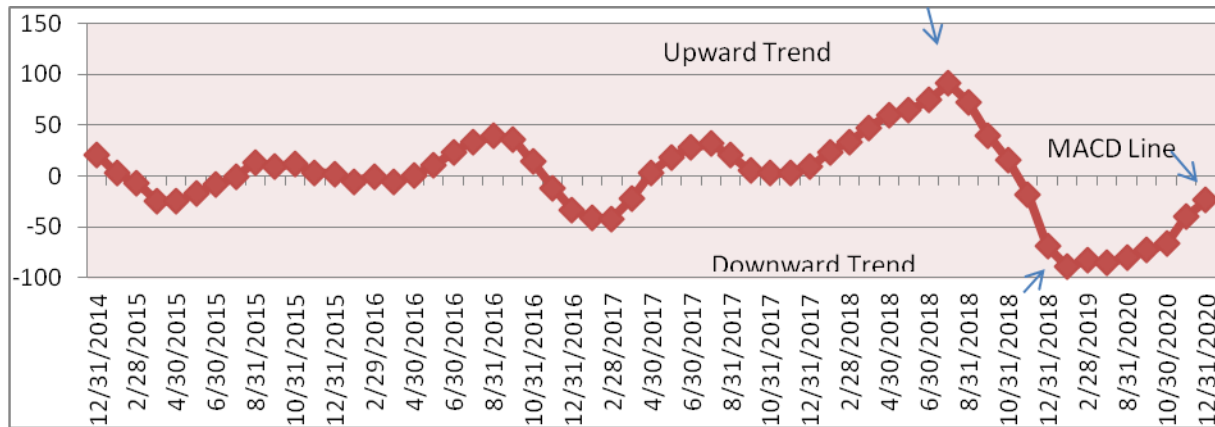
Interpretation: From the above chart it is found that from the calculation of Moving Averages on MACD line of Tata Motors shows upward trend from 31 December 2015 to 30th September 2016, it was bullish trend. It indicates that the stock price has been will be increasing. It is a good to sell at this level. The MACD line shows on peak on 6th March 2016 at 35.30 points and was bottom on 31th March 2018 at -15.23 points respectively. It is a good to buy at this level. 31 December 2018 to 30 December 2020 shows gradual increasing by upward trend. The study indicates that the stock price of Tata Motors has been decreasing from 31 January 2017 onwards till 31 December 2020 it shows highly volatile.

Table 3: Table showing MACD of M&M Motors from 31st March 2014 to 31st December 2020

Date	Close	5 Months EMA	10 Months EMA	MACD
3/31/2014	537.10	-	-	-
4/30/2014	617.75	-	-	-
5/31/2014	573.60	-	-	-
6/30/2014	600.83	-	-	-
7/31/2014	703.60	606.57	-	-
8/31/2014	680.40	635.23	-	-
9/30/2014	653.10	642.30	-	-
10/31/2014	661.88	659.96	-	-
11/30/2014	617.22	663.24	-	-
12/31/2014	632.55	649.03	627.80	21.23
1/31/2015	640.25	641.00	638.12	2.88
2/28/2015	593.90	629.16	635.73	-6.57
3/31/2015	572.50	611.28	635.62	-24.34
4/30/2015	629.05	613.65	638.44	-24.79
5/31/2015	641.17	615.38	632.20	-16.83
6/30/2015	681.80	623.68	632.34	-8.66
7/31/2015	610.45	626.99	628.08	-1.08
8/31/2015	631.90	638.88	625.08	13.80
9/30/2015	591.80	631.43	622.54	8.89
10/31/2015	682.75	639.74	627.56	12.18
11/30/2015	636.17	630.62	627.15	3.47
12/31/2015	616.63	631.85	629.42	2.43
1/31/2016	614.05	628.28	633.58	-5.30
2/29/2016	605.35	630.99	631.21	-0.22
3/31/2016	665.47	627.53	633.64	-6.10
4/30/2016	661.15	632.53	631.57	0.96
5/31/2016	714.97	652.20	642.02	10.17
6/30/2016	733.38	676.06	652.17	23.89
7/31/2016	718.30	698.65	664.82	33.83

8/31/2016	702.85	706.13	666.83	39.30
9/30/2016	655.90	705.08	668.80	36.28
10/31/2016	592.55	680.59	666.40	14.20
11/30/2016	592.35	652.39	664.23	-11.84
12/31/2016	620.05	632.74	665.70	-32.96
1/31/2017	656.08	623.38	664.76	-41.37
2/28/2017	643.45	620.89	662.99	-42.09
3/31/2017	667.78	635.94	658.27	-22.33
4/30/2017	708.47	659.17	655.78	3.39
5/31/2017	674.30	670.02	651.38	18.64
6/30/2017	701.65	679.13	651.26	27.87
7/31/2017	672.40	684.92	652.91	32.01
8/31/2017	627.13	676.79	656.37	20.42
9/30/2017	672.40	669.58	664.37	5.21
10/31/2017	703.28	675.37	672.69	2.68
11/30/2017	751.10	685.26	682.20	3.07
12/31/2017	763.05	703.39	694.16	9.23
1/31/2018	728.35	723.63	700.21	23.42
2/28/2018	738.90	736.93	703.26	33.68
3/31/2018	873.30	770.94	723.16	47.78
4/30/2018	922.95	805.31	745.29	60.02
5/31/2018	897.70	832.24	767.82	64.43
6/30/2018	935.95	873.76	798.70	75.06
7/31/2018	965.30	919.04	827.99	91.05
8/31/2018	860.95	916.57	843.75	72.82
9/30/2018	765.95	885.17	845.24	39.93
10/31/2018	790.90	863.81	848.03	15.79
11/30/2018	803.85	837.39	855.58	-18.19
12/31/2018	680.05	780.34	849.69	-69.35
1/31/2019	645.90	737.33	826.95	-89.62
2/28/2019	673.90	718.92	802.05	-83.13
7/31/2020	606.45	681.80	766.49	-84.69
8/31/2020	606.90	657.08	737.48	-80.4
9/30/2020	607.90	640.85	713.92	-73.07
10/30/2020	594.00	625.39	692.19	-66.8
11/27/2020	722.00	657.27	697.61	-40.34
12/31/2020	720.60	678.17	701.79	-23.62

Graph 5: Graph Showing MACD of M&M Motors:



Interpretation: From the above chart it is found that from the calculation of Moving Averages on MACD line of M&M motors showed upward trend from 31st December 2017 to 30st July 2018, it was bullish trend. It indicates that the prices will be increasing. It is a good to sell at this level. The MACD line shows on peak on 31st July 2018 at 91.05 points and was bottom on 31st December 2018 at -83.13 points respectively. It indicates that prices will be decreasing. It is a good to buy at this level.

IX. Relative Strength Index (RSI)

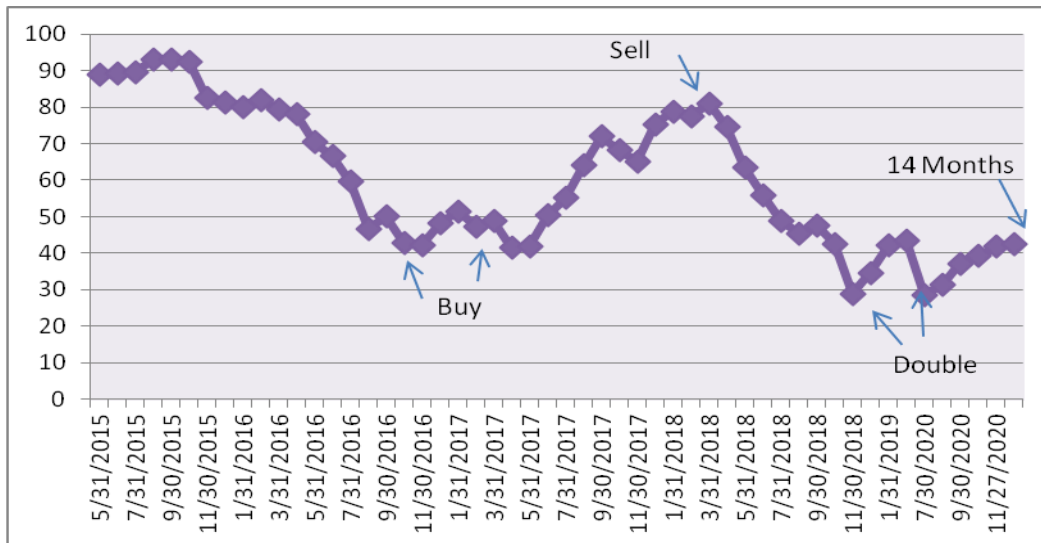
Table 1: Table showing RSI of Ashok Leyland from 31 March 2014 to 31 December 2020:

Date	Close	Gain	Loss	14 Months RSI
3/31/2014	22.25	-	-	-
4/30/2014	32.35	10.10	0.00	-
5/31/2014	36.50	4.15	0.00	-
6/30/2014	34.15	0.00	2.35	-
7/31/2014	36.45	2.30	0.00	-
8/31/2014	41.15	4.70	0.00	-
9/30/2014	46.45	5.30	0.00	-
10/31/2014	52.40	5.95	0.00	-
11/30/2014	51.40	0.00	1.00	-
12/31/2014	65.70	14.30	0.00	-

1/31/2015	66.90	1.20	0.00	-
2/28/2015	73.30	6.40	0.00	-
3/31/2015	69.60	0.00	3.70	-
4/30/2015	71.45	1.85	0.00	-
5/31/2015	72.55	1.10	0.00	89.05
6/30/2015	84.45	11.90	0.00	89.35
7/31/2015	90.30	5.85	0.00	89.62
8/31/2015	92.25	1.95	0.00	93.04
9/30/2015	93.70	1.45	0.00	92.95
10/31/2015	94.40	0.70	0.00	92.50
11/30/2015	87.90	0.00	6.50	82.46
12/31/2015	89.60	1.70	0.00	81.21
1/31/2016	87.65	0.00	1.95	79.93
2/29/2016	108.60	20.95	0.00	81.92
3/31/2016	106.80	0.00	1.80	79.42
4/30/2016	108.95	2.15	0.00	78.05
5/31/2016	98.35	0.00	10.60	70.40
6/30/2016	95.25	0.00	3.10	66.60
7/31/2016	87.55	0.00	7.70	59.58
8/31/2016	79.60	0.00	7.95	46.74
9/30/2016	90.25	10.65	0.00	49.97
10/31/2016	79.50	0.00	10.75	42.75
11/30/2016	80.10	0.60	0.00	42.19
12/31/2016	90.75	10.65	0.00	48.12
1/31/2017	90.65	0.00	0.10	51.52
2/28/2017	84.55	0.00	6.10	47.34
3/31/2017	85.40	0.85	0.00	48.80
4/30/2017	94.50	9.10	0.00	41.41
5/31/2017	93.85	0.00	0.65	42.00
6/30/2017	109.50	15.65	0.00	50.29
7/31/2017	107.10	0.00	2.40	55.07
8/31/2017	123.10	16.00	0.00	64.04
9/30/2017	131.20	8.10	0.00	71.92
10/31/2017	117.85	0.00	13.35	68.22
11/30/2017	119.10	1.25	0.00	65.10
12/31/2017	126.10	7.00	0.00	75.38
1/31/2018	141.50	15.40	0.00	78.80
2/28/2018	145.45	3.95	0.00	77.38
3/31/2018	164.45	19.00	0.00	81.06
4/30/2018	148.05	0.00	16.40	74.59
5/31/2018	125.80	0.00	22.25	63.42
6/30/2018	112.80	0.00	13.00	55.93
7/31/2018	90.20	0.00	22.60	48.97

8/31/2018	94.35	4.15	0.00	45.40
9/30/2018	99.35	5.00	0.00	47.69
10/31/2018	100.50	1.15	0.00	42.60
11/30/2018	48.25	0.00	52.25	28.92
12/31/2018	58.25	10.00	0.00	34.59
1/31/2019	84.65	26.40	0.00	42.12
2/28/2019	97.23	12.58	0.00	43.56
7/30/2020	48.65	0.00	48.58	28.56
8/31/2020	67.65	19.00	0.00	31.24
9/30/2020	74.40	6.75	0.00	37.12
10/28/2020	80.30	5.9	0.00	39.21
11/27/2020	92.15	11.85	0.00	41.84
12/31/2020	95.45	3.3	0.00	42.65

Graph 6: Graph Showing RSI of Ashok Leyland:



Interpretation: From the above graph it is clear that RSI of Mark Ashok Leyland share price reached above 70 from the month of May 2015 to May 2016 and December 2017 to March 2018. It is overbought condition. Shareholders can sell their shares. RSI was declining from April 2018 to December 2018 and 2019 and 2020. Price of the share reached 28.92. It is oversold condition. It shows Buying opportunity.

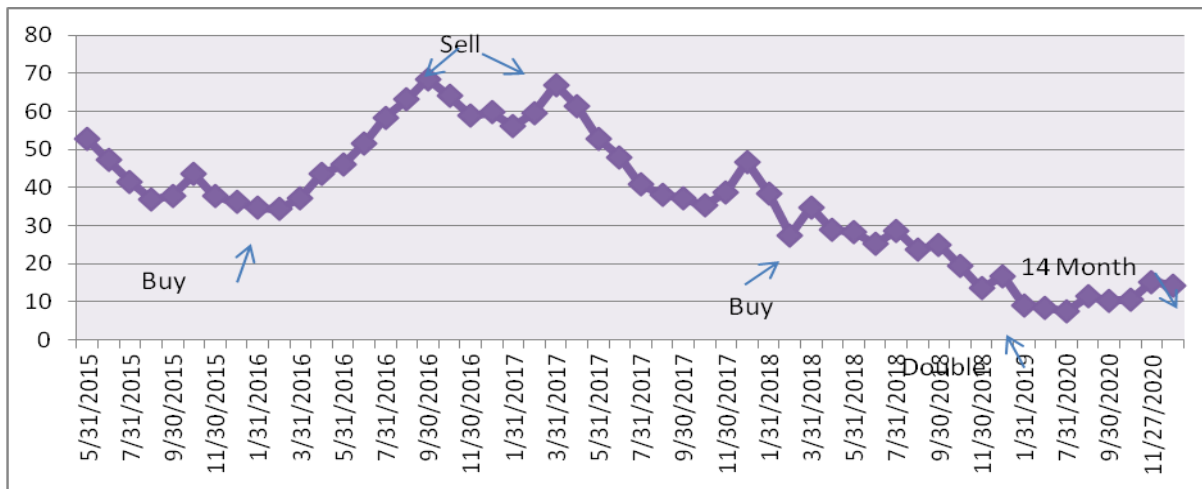
Table 2: Table showing RSI of TATA Motors from 31 March 2014 to 31 December 2020:

Date	Close	Gain	Loss	14 Months RSI
3/31/2014	410.35	-	-	-
4/30/2014	410.64	0.30	0.00	-
5/31/2014	426.72	16.08	0.00	-

6/30/2014	442.01	15.29	0.00	-
7/31/2014	519.48	77.47	0.00	-
8/31/2014	496.82	0.00	22.66	-
9/30/2014	530.16	33.34	0.00	-
10/31/2014	527.84	0.00	2.33	-
11/30/2014	490.29	0.00	37.55	-
12/31/2014	578.94	88.65	0.00	-
1/31/2015	569.05	0.00	9.89	-
2/28/2015	544.36	0.00	24.68	-
3/31/2015	508.25	0.00	36.11	-
4/30/2015	481.65	0.00	26.60	-
5/31/2015	434.15	0.00	47.50	52.71
6/30/2015	383.85	0.00	50.30	47.26
7/31/2015	340.15	0.00	43.70	41.61
8/31/2015	298.60	0.00	41.55	36.78
9/30/2015	384.95	86.35	0.00	37.80
10/31/2015	423.50	38.55	0.00	43.54
11/30/2015	391.30	0.00	32.20	37.73
12/31/2015	364.60	0.00	26.70	36.17
1/31/2016	299.70	0.00	64.90	34.57
2/29/2016	386.60	86.90	0.00	34.39
3/31/2016	408.35	21.75	0.00	37.20
4/30/2016	459.65	51.30	0.00	43.53
5/31/2016	459.25	0.00	0.40	46.04
6/30/2016	503.20	43.95	0.00	51.69
7/31/2016	537.70	34.50	0.00	58.31
8/31/2016	534.85	0.00	2.85	63.12
9/30/2016	537.00	2.15	0.00	68.43
10/31/2016	459.30	0.00	77.70	64.09
11/30/2016	472.00	12.70	0.00	58.77
12/31/2016	523.55	51.55	0.00	59.82
1/31/2017	456.75	0.00	66.80	56.01
2/28/2017	465.85	9.10	0.00	59.61
3/31/2017	458.90	0.00	6.95	66.99
4/30/2017	476.15	17.25	0.00	61.22
5/31/2017	432.55	0.00	43.60	52.88
6/30/2017	444.60	12.05	0.00	48.03
7/31/2017	376.55	0.00	68.05	40.79
8/31/2017	401.50	24.95	0.00	38.18
9/30/2017	428.40	26.90	0.00	37.07
10/31/2017	404.15	0.00	24.25	35.28
11/30/2017	431.85	27.70	0.00	38.80
12/31/2017	433.90	2.05	0.00	46.78
1/31/2018	369.90	0.00	64.00	38.53

2/28/2018	326.85	0.00	43.05	27.48
3/31/2018	340.40	13.55	0.00	34.83
4/30/2018	282.50	0.00	57.90	28.79
5/31/2018	269.30	0.00	13.20	28.38
6/30/2018	264.10	0.00	5.20	25.14
7/31/2018	267.50	3.40	0.00	28.63
8/31/2018	223.70	0.00	43.80	23.58
9/30/2018	179.10	0.00	44.60	24.98
10/31/2018	171.95	0.00	7.15	19.54
11/30/2018	172.70	0.75	0.00	13.53
12/31/2018	181.20	8.50	0.00	16.71
1/31/2019	177.45	0.00	3.75	9.09
2/28/2019	174.25	0.00	3.20	8.40
7/31/2020	104.65	0.00	69.6	7.40
8/31/2020	143.20	38.55	0.00	11.31
9/30/2020	133.30	0.00	9.9	10.25
10/30/2020	132.65	0.00	0.65	10.52
11/27/2020	180.35	47.7	0.00	15.24
12/30/2020	183.85	3.5	0.00	14.21

Graph 7: Graph Showing RSI of TATA Motors:



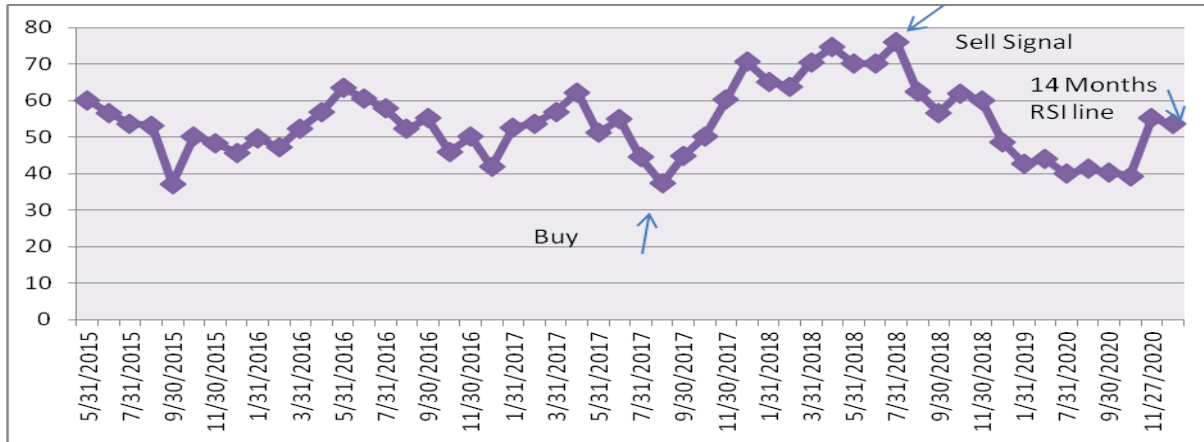
Interpretation: From the above graph it is clear that RSI of Mark TATA motors share price reached above 60 from the month of August 2016 to October 2016 and March 2017 to April 2017. Share price does not reach 70. Shareholders don't have any opportunity to sell their shares. RSI was declining from March 2017 to December 2018. Price of the share reached below 30. It is oversold condition. It shows Buying opportunity. On 2020 it was increasing.

Table 3: Table showing RSI of M&M Motors from 312 March 2014 to 31 December 2020:

Date	Close	Gain	Loss	14 Months RSI
3/31/2014	537.10	-	-	-
4/30/2014	617.75	80.65	0.00	-
5/31/2014	573.60	0.00	44.15	-
6/30/2014	600.83	27.23	0.00	-
7/31/2014	703.60	102.77	0.00	-
8/31/2014	680.40	0.00	23.20	-
9/30/2014	653.10	0.00	27.30	-
10/31/2014	661.88	8.78	0.00	-
11/30/2014	617.22	0.00	44.65	-
12/31/2014	632.55	15.33	0.00	-
1/31/2015	640.25	7.70	0.00	-
2/28/2015	593.90	0.00	46.35	-
3/31/2015	572.50	0.00	21.40	
4/30/2015	629.05	56.55	0.00	-
5/31/2015	641.17	12.13	0.00	60.04
6/30/2015	681.80	40.63	0.00	56.70
7/31/2015	610.45	0.00	71.35	53.65
8/31/2015	631.90	21.45	0.00	53.11
9/30/2015	591.80	0.00	40.10	37.21
10/31/2015	682.75	90.95	0.00	50.23
11/30/2015	636.17	0.00	46.58	48.38
12/31/2015	616.63	0.00	19.55	45.77
1/31/2016	614.05	0.00	2.58	49.68
2/29/2016	605.35	0.00	8.70	47.20
3/31/2016	665.47	60.13	0.00	52.34
4/30/2016	661.15	0.00	4.32	56.77
5/31/2016	714.97	53.82	0.00	63.47
6/30/2016	733.38	18.40	0.00	60.63
7/31/2016	718.30	0.00	15.08	57.81
8/31/2016	702.85	0.00	15.45	52.25

9/30/2016	655.90	0.00	46.95	55.12
10/31/2016	592.55	0.00	63.35	45.95
11/30/2016	592.35	0.00	0.20	50.06
12/31/2016	620.05	27.70	0.00	41.81
1/31/2017	656.08	36.03	0.00	52.67
2/28/2017	643.45	0.00	12.63	53.67
3/31/2017	667.78	24.33	0.00	56.94
4/30/2017	708.47	40.70	0.00	62.30
5/31/2017	674.30	0.00	34.17	51.12
6/30/2017	701.65	27.35	0.00	54.87
7/31/2017	672.40	0.00	29.25	44.56
8/31/2017	627.13	0.00	45.28	37.30
9/30/2017	672.40	45.28	0.00	44.88
10/31/2017	703.28	30.88	0.00	50.05
11/30/2017	751.10	47.82	0.00	60.24
12/31/2017	763.05	11.95	0.00	70.61
1/31/2018	728.35	0.00	34.70	65.18
2/28/2018	738.90	10.55	0.00	63.79
3/31/2018	873.30	134.40	0.00	70.52
4/30/2018	922.95	49.65	0.00	74.68
5/31/2018	897.70	0.00	25.25	70.27
6/30/2018	935.95	38.25	0.00	70.14
7/31/2018	965.30	29.35	0.00	75.98
8/31/2018	860.95	0.00	104.35	62.50
9/30/2018	765.95	0.00	95.00	56.66
10/31/2018	790.90	24.95	0.00	62.00
11/30/2018	803.85	12.95	0.00	60.11
12/31/2018	680.05	0.00	123.80	48.44
1/31/2019	645.90	0.00	34.15	42.79
2/28/2019	673.90	28.00	0.00	44.02
7/31/2020	606.45	0.00	67.45	40.02
8/31/2020	606.90	0.45	0.00	41.32
9/30/2020	607.90	1.00	0.00	40.36
10/30/2020	594.00	0.00	13.9	39.25
11/27/2020	722.00	128	0.00	55.21
12/31/2020	720.60	0.00	1.4	53.63

Graph 10: Graph Showing RSI of M&M Motors:



Interpretation: From the above graph it is clear that RSI of Mark M &M motors share price reached above 70 from the month of March 2018 to July 2018. It is overbought condition. Shareholders can sell their shares. RSI was declining from March 2017 to November 2018. Price of the share does not reached below 30. Share holder doesn't have any opportunity to buy the shares price decreasing on 31 January 2019 to 28 October 2020. It was again increasing on 27 November 2020.

X. Findings

- From the calculation of Moving Average line of Ashok Leyland shows upward trend from 1st December 2016 to 1st March 2018, it was bullish trend. It indicates that the stock price has been increasing. In the mentioned duration it is a good to sell at this level. The study indicates that the stock price of Ashok Leyland has been decreasing from 31st August 2018 onwards till 31st December 2020 it shows highly volatile.
- From the calculation of Moving Averages line of Tata Motors shows upward trend from 31 December 2015 to 30th September 2016, it was bullish trend. It indicates that the stock price has been will be increasing. It is a good to sell at this level. The study indicates that the stock price of Tata Motors has been decreasing from 31 January 2017 onwards till 31st December 2020 it shows highly volatile.

- In March RSI line of M&M motors reached the peak and is Above 70 which indicates overbought market so one should sell at this level. In March RSI line reached bottom and is near 30 which indicates oversold market so one can buy at this level.

XI. Suggestions

- The investor will go to Ashok Leyland scrip selling decision as price move upwards.
- The investor can go to Tata Motors Limited scrip buying decisions as price moves downwards.
- The Mahindra &Mahindra Limited, SML Isuzu Limited and Hindustan Motors Limited scrip are selling decisions as price move upwards.
- Investor should be trained to use the methods of Technical analysis to get more returns in their day to day investment.
- Investor may also use more charts to show a true picture on stock Exchange.

XII. Conclusion

According to the Technical analysis the Ashok Leyland is considered as the top performer out of the selected top three companies moving Average of the Ashok Leyland is at upward trend that means the company is making more profits. Mahindra and Mahindra is considered to be weaker selected top five companies as it is riskier and more dangerous for investor their to make his own investment decisions .The Ashok Leyland is considered as most suitable for investor for investment decisions for another One or Two years as the company is promising for investments. The Relative Strength Index of every selected company is showing that the stocks are hold. The present study likes to conclude that from the point of investor, Ashok Leyland would be the better choice for time being investment. Hence, the Technical Analysis would be the effective tool to perform on stock performance.

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