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Analytical survey on the trend of the market price of shares and the impact of net profit on share price (case study: Indian automobile industry)

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ABSTRACT

The company's earnings are a main determinant of the stock price, because the earnings indicate the operational result of the firm and its future success. Therefore, companies are required to inform the investors about its performance. Stock price is an indicator about the health of the company. Increased profits will drive the stock price up and excessive debt will drive it down. Net profit is one of the most closely followed numbers in finance, and it plays a large role in ratio analysis and financial statement analysis. Shareholders look at net profit closely because it is the source of compensation to shareholders of the company. The objective of the study is to study and analyze performance of shares of the selected Automobile companies in the Indian stock market**.** The study intends to examine the Net profit over a period of 7 year from 2007-8 to 2013-14. The results of the study show that there exists a strong positive correlation between net profit and share price, and share price fluctuates with change in net profit in the selected companies. Due to Regression Equation, this highlights the fact that the model is fit to the input data and statistically it is significant.

1. Introduction

A share price is the price of a single share of a firm's stock. Share prices in a publicly traded firm are determined by market supply and demand. Share price is volatile because it largely regard to the expectations of buyers and sellers. Share prices can be affected by a wide variety of issues, but the two principal factors are the performance of the company that has issued the shares and the wider environment.

Listed companies publish their financial results twice a year. They provide trading updates twice a year as well. These figures and statements give the investment community an insight into a company's performance. Companies are also obliged to publicly notify any event that could influence their share price, such as a takeover bid or the launch of a new product. These are known as regulatory announcements and they must be made via a regulatory channel known as a proved RIS (Regulatory Information Service) before the information is published anywhere else. If a company is performing well, and is expected to continue to do well, its share price should benefit. Share prices tend to anticipate the future so they can rise if a company has good prospects and fall if the outlook is not promising. Share prices are also affected by the wider environment.

If economic conditions are good and expected to continue that way, investors tend to feel confident. Companies are more likely to perform well and deliver strong profits when the economic climate is benign so they are more likely to pay rising dividends. Under such circumstances, demand for shares tends to rise and prices increase (London stock exchange).

If the economic climate is difficult however, investors may feel nervous. They may worry that a company's profitability will suffer if economic conditions are difficult. Fears about future profits tend to reduce demand for shares so prices may fall (London stock exchange).

The company earnings are a main determinant of the stock price, because the earnings indicate the operational results of the firm and its future success. Therefore, companies are required to inform the investors about its performance. Earnings are presented to the public on a quarterly or yearly basis, often in the month following the end of each quarter.

Stock price is an indicator about the health of the company. Increased profits will drive the stock price up and excessive debt will drive it down.

The stock price has a profound effect on the company overall, a declining share price will make it hard to secure credit, attract further investors, build

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partnerships, etc. Also, employees are often holding options or in a stock purchase plan, so a declining share price can severely dampen morale (money Stack exchange).

Net profit is one of the most closely followed numbers in finance, and it plays a large role in ratio analysis and financial statement analysis. Shareholders look at net profit closely because it is the source of compensation to shareholders of the company, and if a company cannot generate enough profit to compensate owners, the value of shares will plummet. Conversely, if a company is healthy and growing, higher stock prices will reflect the increased availability of profits (investing answers).

2. Review of previous studies

A study by Esmeili, (2002) in Tehran conducted on the relationship between financial ratios and stock prices of listed companies in Tehran Stock Exchange for the years 1996-2002.The study showed a significant relationship between the independent variables (financial ratios) and its affiliated companies existing there. Another study by Suleimen and Pradeep, (2002) performed on "Quality of Information and Volatility around Earnings Announcements". They revealed that that there is an increase in price volatility at the time of earnings release. The study also recommended that the variance of price change around new release is positively related to the amount of accurate information. Therefore, the earning is an indicator of the firm's performance, whereby investors will act positively if the high earning is announced. The higher price happened due to the high demand on that company share. Gallizo and Salvador, (2006) conducted a study on "Share Prices and Accounting Variables: A Hierarchical Bayesian Analysis", they investigated the relationship between stock prices and accounting variables. The results showed that firm size and asset turnover ratio is the most relevant factor affecting stock prices (Quoted by Gallizo and Salvador, 2006).

Miri and Ebrahimi, (2011) examined "The relationship between financial ratios and stock price in the Metal Industry". They studied the relationship between linear and non-linear relationships Mai and non-metallic minerals industry stock prices in Tehran Stock Exchange for the years 2003 to 2009 were reviewed. Their results showed that the linear and non-linear relationships between financial ratios and stock prices there is no model in explaining stock prices have a greater ability to intercept to explain Competent. By considering the stated literature, it is obvious that there are relationships with accounting variables and stock return (Miri and Ebrahimi, 2011).

3. Research gap

There are many studies which analyze the performance of the auto industry from accounting and financial perspective. However, a systematic study that surveys trend and performance of the market share price of the selected automobile companies and relationship with net profit is very limited and hence this study.

4. Objective of the study

Study and analyze performance of shares of the selected Automobile companies in the Indian stock market.

5. Hypothesis of the study

There is a significant relationship between performances of the selected companies and shares price.

6. Research methodology

6.1. Source of data

The study is mainly based on the data collected from secondary sources which is gathered from the Annual reports of selected automobile companies and web site of Bombay Stock Exchange (BSE). The study of automobile industry covers a period of 7 years, commencing from 2007-08 to 2013-14.

6.2. Sampling

The sample units have been selected by considering following factors: (1) The companies, which are engaged in production of automobile industry and data is available at least from 2007-08 to 2013-14, (2) The company should be listed in Stock Exchange of India as A group companies. (3) Based on Maximum Market Capitalization. The companies for this study were selected from CNX auto INDEX of Bombay stock exchange. Ten companies in terms of their maximum market capitalization from among top 35 automobile companies on purposive random sampling basis were selected for analysis. Thus the companies selected for the study are: Tata motors ltd, Mahindra & Mahindra ltd, Maruti Suzuki Ltd, Ashok Leyland ltd, Bharat gears ltd, TVS motor company ltd, Bajaj Auto ltd, Hero Moto Corp ltd, Amara raja batteries ltd and Motherson Sumi Systems Ltd (Mohammed and Yadav 2002).

7. Tools for data analysis

To analyze share price performance of the selected automobile companies' one item was estimated and average, standard deviation; regression and ANOVA test were computed. The item is simply mean of highlighting in arithmetical terms the relationships between the figures drawn from financial statements expressed in terms of Amount, Importance and Percentage.

8. Share price

To assess the relationship between the performance of the selected companies and value of the share price, net profit is considered as an independent variable and share price as dependent variable (Esmaeili, 2002).

The Share prices of selected automobile companies during the period under study (2007-2013) are presented in Table 1.

Table 1: Share price of the selected automobile companies

Company	2007	2008	2009	2010	2011	2012	2013	Average	Variance
Tata Motors Ltd	703.44	302.6	602.53	1,078.54	482.2	267.3	347.9	540.644	81935.4
Mahindra & Mahindra Ltd	736.17	434.27	875.62	692.95	704.83	827.66	930.8	743.186	26557.8
Maruti Suzuki Ltd	905.37	700.1	1,420.24	1,337.21	1,144	1,306.34	1,594.25	1201	95651
Ashok Leyland Ltd	40.8	23.67	44.8	63.6	32.2	24.97	17.9	35.42	245.938
Bharat Gears Ltd	61.203	29.97	41.07	62.73	55.89	59.31	37.83	49.7147	172.902
TVS Motor company Ltd	61.24	27.38	61.12	87.38	53.02	37.87	56.86	54.98	364.8
Bajaj Auto Ltd	499.5	509.87	1,488.67	1,866.81	1,581.35	1,796.80	1,920.07	1380.44	381190
Hero Moto Corp Ltd	705.8	840	1,677.90	1,769.20	1,937.90	1,834.00	1,970.10	1533.56	281149
Amara raja batteries Ltd	317.45	89.6	138	184	230.94	287	313.9	222.984	7980.7
Motherson Sumi Systems Ltd	98.6	71.3	111	181	186.8	188.9	223	151.444	3256.81

Table 1 presents mean value and variance of share price of selected companies during the period under study (2007-2013). The mean value of Hero Moto Corp Ltd ($1533.57 , \pm 281179.1$) was the highest among the selected companies, whereas the mean value of Ashok Leyland Ltd recorded the lowest value, which is $35.42 , \pm 245.93$. The performance of the shares of Bharat gears Ltd, in terms of share price variation, indicates a stable position, whereas the share price of Bajaj Auto Ltd indicated wide fluctuation. The Weighted Average Growth Rate of Share price of selected companies is presented in Table 2.

Table 2: Weighted average growth rate of share price

Company	2007	2008	2009	2010	2011	2012	2013	Average	Variance
Tata Motors Ltd	1	0.95	0.9	1.16	1	0.82	0.74	0.93857	0.0186
Mahindra & Mahindra Ltd	1	1.06	1.12	1.05	1.02	1.05	1.1	1.05714	0.0017
Maruti Suzuki Ltd	1	1.06	1.12	1.05	1.02	1.05	1.1	1.0571	0.0017
Ashok Leyland Ltd	1	1.05	1.08	1.27	1.11	0.97	0.83	1.0443	0.0183
Bharat Gears Ltd	1	0.99	0.83	0.91	0.91	0.93	0.85	0.9171	0.0040
TVS Motor company Ltd	1	0.96	0.98	1.16	1.06	0.93	0.93	1.0028	0.0068
Bajaj Auto Ltd	1	1.35	2.16	2.79	2.92	3.11	3.29	2.3743	0.8057
Hero Moto Corp Ltd	1	1.46	1.92	2.15	2.35	2.42	2.51	1.9728	0.3123
Amara raja batteries Ltd	1	0.85	0.64	0.62	0.65	0.73	0.79	0.7543	0.0189
Motherson Sumi Systems Ltd	1	1.15	1.14	1.42	1.58	1.67	1.82	1.3971	0.0953

The analysis of the weighted average growth rate of the share prices of selected companies indicates that the mean weighted average Growth rate of Share price of Bajaj Auto Ltd is highest in the group, which is 2.37, ± 0.81. Similarly, among the sample companies considered, Amara Raja Batteries Ltd recorded the lowest mean weighted average Growth rate in Share price, which is $0.75 , \pm 0.02$.

Table 3: Summary of one way ANOVA of WAGR of share price

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	17.07627	9	1.897363	14.7803	0.0000	2.040098
Within Groups	7.702257	60	0.128371			
Total	24.77853	69				

As it is vital to the study of the sample companies, one way ANOVA test was done. Since Computed Value of Test Statistic (CVTS) (ANOVA Test) F-value is 14.78 and P-Value is 0.0000, ($P<0.05$), statistically it is significant. This shows that, the mean values weighted average growth rate of Share price over the period under study for the sample companies are different. The weighted average Growth rate of Share price of Bajaj Auto Ltd is statistically high among different companies selected for analysis.

The 35 months share prices of the selected automobile companies on Bombay Stock Exchange

during the period of the study are presented in Table 4. Index: S & P BSE SENSEX are presented in Table 5.

The Mann- Kendall trend test /Two-tailed test of Tata Motors Ltd are presented in Table 6.

Table 4: 35 months share price of selected automobile companies (2007-2013)

Apr-07	718.075	742	776.5	37.8	66.25	60.95	91	630.95	360.25	76.35
Jun-07	694.25	731.25	771.75	37.2	68.22	66.15	119	698.02	188.52	82.07
Sep-07	731.75	746.53	940.45	41.5	61.42	69.2	112.5	708.75	196.62	103.75
Dec-07	733.275	800.4	1039	50.1	70.7	71.35	129	707.5	430.55	107.05
Mar-07	654.5	666.5	870.3	34.4	44.47	38.27	139	709	454.12	101.7
Apr-08	637.725	619.5	856	38.67	45.57	37.975	744	779.45	192.65	133.4
Jun-08	498.4	345.9	690	32.5	43.75	33.02	527.05	747	163.55	82.4
Sep-08	391	291.2	750	29.9	38.75	30.95	585.57	837.02	114	87.17
Dec-08	158.25	527	690	14.7	21.8	24.6	369.32	782.5	45.55	54
Mar-08	162.75	573	670.1	17.55	15.6	20.95	557.55	993.5	35.2	61.72
Apr-09	230.525	440.25	807.25	20.67	19.15	27.775	639.475	998	49.7	76.45
Jun-09	340.1	746.525	1065.5	33.15	29.62	48.2	1038.75	1448.05	88	72.5
Sep-09	561.35	859.4	1593.5	41.07	34.95	56.12	1348.42	1625	137.32	106.7
Dec-09	740.225	1051.85	1581.5	51.63	46.75	62.7	1640	1710	164.25	128.67
Mar-09	768.45	844.725	1440.45	53.35	52.97	77.04	1927.5	1928.45	162.45	134.65
Apr-10	823.4	523.35	1354.175	56.72	58	89.7	2059.475	1107.12	162.55	139.77
Jun-10	766.97	601.55	1332	62.32	57.92	107.72	2328.45	1985.6	164.67	142.32
Sep-10	1057.6	685	1380.55	75.32	76.95	110.22	2237.25	1790	207.25	186.65
Dec-10	1306.85	768.05	1400.85	64.47	61.75	75.5	1527.55	1786	182	186.52
Mar-10	1182.72	717.2	1235.45	52.3	55.7	56.07	1374	1515.5	182.07	206.55
Apr-11	1249.17	737.65	1276	56.15	67.35	58.875	1430	1769.62	189	222.5
Jun-11	1004.85	661	1173	50.5	57.02	53.45	1366.57	1798.2	216.5	226.67
Sep-11	464.3	780.4	1103	26.12	49.75	61.12	1590.45	2073.8	221.75	193.5
Dec-11	181.925	697.975	961	23.55	43.55	54.77	1653.37	1939.65	205.15	200.47
Mar-11	277.7	679.95	1339	28.65	73.25	42.75	1715	1939.95	280.35	182.2
Apr-12	297.55	706.5	1338.55	30.69	79.37	41	1667.65	2100.35	305.425	189.35
Jun-12	234.825	674.475	1114	26.65	79.47	34.5	1522	1643.07	303.37	203.32
Sep-12	253.175	806.35	1248.37	22.7	64.45	40	1734.45	1867.5	321.52	162.17
Dec-12	291.85	943.55	1492.98	27.53	52.95	41	2040.05	1846.65	246.67	189.5
Mar-12	289.275	886.275	1370	23.27	40.37	36	1890.7	1978.8	276.45	200.47
Apr-13	277.375	869.85	1481.5	22.4	36.1	36.925	1795.7	1559.02	263.2	187.5
Jun-13	291.65	953.65	1515	21.9	36.55	33.82	1811.35	1652.42	377.57	204.12
Sep-13	323.225	820.2	1368	13.66	30.92	32.82	1940.72	2003.35	343.05	212.87
Dec-13	380.225	952.05	1732	16.53	45.27	66.72	1937.07	2105.35	281.85	237.5
Mar-13	396.5	997.35	1765	19.5	38.57	93.07	1991.17	2119.35	253.15	238.97

Table 5: Index: S & P BSE SENSEX

	Month/Year	Rs		Month/Year	Rs
1	Apr-2007	13,872.37	19	Dec-10	20,509.09
2	Jun-07	14,650.51	20	Mar-10	19,445.22
3	Sep-07	17,291.10	21	Apr-2011	19,135.96
4	Dec-07	20,286.99	22	Jun-11	18,845.87
5	Mar-07	15,644.44	23	Sep-11	16,453.76
6	Apr-2008	17,287.31	24	Dec-11	15,454.92
7	Jun-08	13,461.60	25	Mar-11	17,404.20
8	Sep-08	12,860.43	26	Apr-2012	17,318.81
9	Dec-08	9,647.31	27	Jun-12	17,429.98
10	Mar-08	9,708.50	28	Sep-12	18,762.74
11	Apr-2009	11,403.25	29	Dec-12	19,426.71
12	Jun-09	14,493.84	30	Mar-12	18,835.77
13	Sep-09	17,126.84	31	Apr-2013	19,504.18
14	Dec-09	17,464.81	32	Jun-13	19,395.81
15	Mar-09	17,527.77	33	Sep-13	19,379.77
16	Apr-2010	17,558.71	34	Dec-13	21,170.68
17	Jun-10	17,700.90	35	Mar-13	22,386.27
18	Sep-10	20,069.12	36	Apr-14	22,417.80

As per the Mann-Kendall trend test, the mean share price of Tata Motors Ltd for the past 35 month period was 50.435, $\pm$ 17.016 with a minimum price of 15.6 and a maximum price of 79.47. Since CVTS (Mann-Kendall Trend Test) is -0.133 and P-Value is 0.27, (P>0.05), it is evident that there is no significant trend in the given series over the period under the study for Tata Motors Ltd. That is, the movement of share price does not form any specific pattern. Statistically, this shows that the share price

pattern of Tata Motors Ltd over the period under the study is not useful for prediction, fundamental analysis and technical analysis (Fig. 1). The Mann-Kendall trend test/ Two-tailed test of Mahindra & Mahindra Ltd are presented in Table 7.

Table 6: Mann-Kendall trend test / two-tailed test –Tata motors Ltd

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Tata motors	35	15.6	79.47	50.435	17.016
Kendall's tau				-0.133	
S				-79	
Var (S)				0	
p-value (Two-tailed)				0.27	
Alpha				0.05	

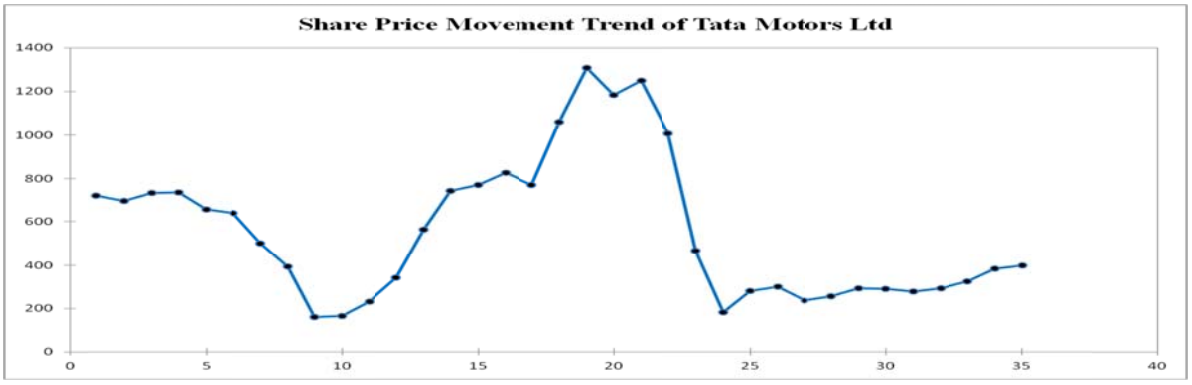

Fig. 1: Share price movement trend of Tata motors Ltd

Table 7: Mann-Kendall trend test/ Two-tailed test – Mahindra & Mahindra Ltd

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Mahindra	35	291.2	1051.85	727.097	171.215
Kendall's tau				0.365	
S				217.000	
Var (S)				0.000	
p-value (Two-tailed)				0.002	
alpha				0.05	

As per the Mann-Kendall trend test, the mean share price of Mahindra & Mahindra Ltd for the past 35 month period was 727.10, ±171.215 with a minimum price of 291.2 and a maximum price of 1051.85. Since CVTS (Mann-Kendall Trend Test) is 0.365 and P-Value is 0.002, (P<0.05), it is evident that there is a significant trend in the given series over the period of the study for Mahindra & Mahindra Ltd. That is, the movement of share price forms a specific pattern. Statistically, this shows that the share price of Mahindra & Mahindra Ltd over the period of the study can be used for prediction, fundamental analysis and technical Analysis (Fig. 2). The Mann- Kendall trend test/ Two-tailed test of Maruti Suzuki Ltd are presented in Table 8.

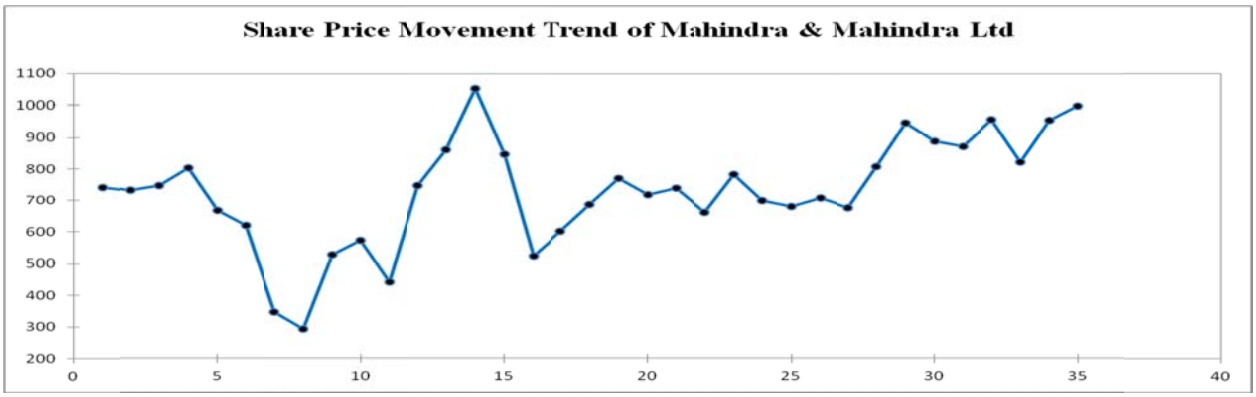

Fig. 2: Share price movement trend of Mahindra & Mahindra Ltd

As per the Mann-Kendall trend test, the mean share price of Maruti Suzuki Ltd for the past 35 month period was 1186.36, ± 314.87 with a minimum price of 670.1 and a maximum price of 1765. Since CVTS (Mann-Kendall Trend Test) is 0.471 and P-Value is 0.000, (P<0.05) it is evident that there is a significant trend in the given series over the period of the study for Maruti Suzuki Ltd. That is,

the movement of share price forms a specific pattern. Statistically, this shows that the share price of Maruti Suzuki Ltd over the period of the study can be used for prediction, fundamental analysis and technical analysis (Fig. 3). The Mann- Kendall trend test/ Two-tailed test of Ashok Leyland Ltd are presented in Table 9.

Table 8: Mann-Kendall trend test/ Two-tailed test - Maruti Suzuki Ltd

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Maruti Suzuki Ltd	35	670.1	1765	1186.364	314.874
Kendall's tau				0.471	
S				280.000	
Var(S)				4957.333	
P-value (Two-tailed)				0.0000	
alpha				0.05	

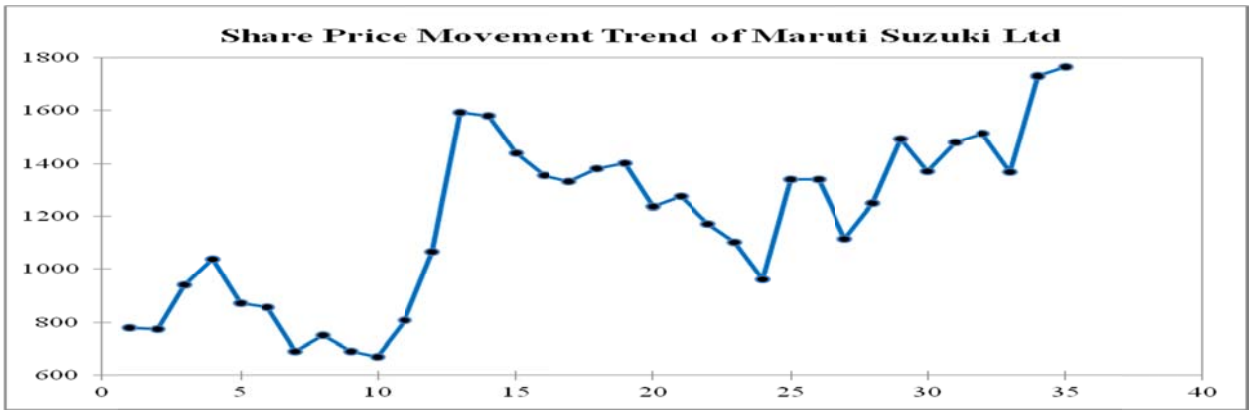

Fig. 3: Share price movement trend of Maruti Suzuki Ltd

Table 9: Mann-Kendall trend test/ Two-tailed test –Ashok Leyland Ltd

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Ashok Leyland Ltd	35	13.66	75.32	35.861	15.93
Kendall's tau				-0.294	
S				-175.000	
Var(S)				4957.333	
P-value (Two-tailed)				0.013	
Alpha				0.05	

As per the Mann-Kendall trend test, the mean share price of Ashok Leyland Ltd for the past 35 month period was 35.861, ±15.93 with a minimum price of 13.66 and a maximum price of 75.32. Since CVTS (Mann-Kendall Trend Test) is -0.294 and P-Value is 0.013, (P<0.05), it is evident that there is a significant trend in the given series over the period of the study for Ashok Leyland Ltd. That is, the movement of share price forms a specific pattern. Statistically, this shows that the share price of Ashok Leyland Ltd over the period of the study can be used for Prediction, Fundamental Analysis and Technical Analysis (Fig. 4). The Mann- Kendall trend test / Two-tailed test of Bharat Gears Ltd are presented in Table 10.

Fig. 4: Share price movement trend of Ashok Leyland Ltd

As per the Mann-Kendall trend test, the mean share price of Bharat Gears Ltd for the past 35 month period was 50.435, ±17.02 with a minimum price of 15.6 and a maximum price of 79.47. Since CVTS (Mann-Kendall Trend Test) is -0.032 and P-Value is 0.8, (P>0.05), it is evident that there is no significant trend in the given series over the period of the study for the Bharat Gears Ltd. Namely; the

movement of share price does not form any specific pattern. Statistically, this shows that the share price of Bharat gears Ltd over the period of the study is not useful for Prediction, Fundamental Analysis and Technical Analysis (Fig. 5). The Mann- Kendall trend test /Two-tailed test of TVS Motor Company Ltd are presented in Table 11.

Table 10: Mann-Kendall trend test/ Two-tailed test – Bharat Gears Ltd

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Bharat gears	35	15.6	79.47	50.435	17.016
Kendall's tau				-0.032	
S				-19.000	
Var(S)				4957.333	
P-value (Two-tailed)				0.800	
Alpha				0.05	

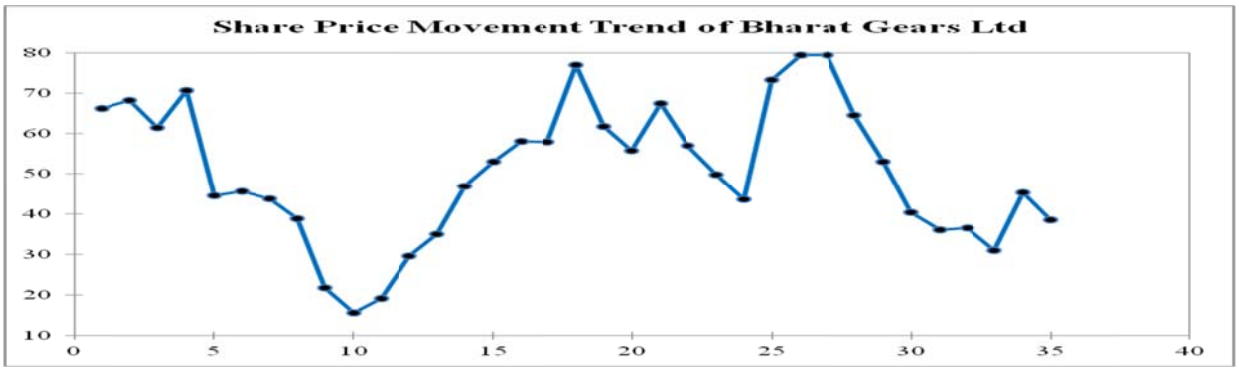

Fig. 5: Share price movement trend of Bharat Gears Ltd

Table 11: Mann-Kendall trend test/ Two-tailed test – TVS Motor company Ltd

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
TVS motor	35	20.95	7704	271.95	1293.39
Kendall's tau				-0.094	
S				-56.000	
Var(S)				4957.333	
p-value (Two-tailed)				0.435	
Alpha				0.05	

As per the Mann-Kendall trend test, the mean share price of TVS Motor company Ltd for the past 35 month period was 271.95, ±1293.39 with a minimum price of 20.95 and a maximum price of 7704. Since CVTS (Mann-Kendall Trend Test) is -0.094 and P-Value is 0.435, (P>0.05), it is evident that there is no significant trend in the given series over the period of the study for TVS Motor company Ltd. That is, the movement of share price does not form any specific pattern. Statistically, this shows that the share price of TVS Motor Company Ltd over the period of the study is not useful for Prediction, Fundamental Analysis and Technical Analysis (Fig. 6). The Mann- Kendall trend test/Two-tailed tests of Bajaj Auto Ltd are presented in Table 12.

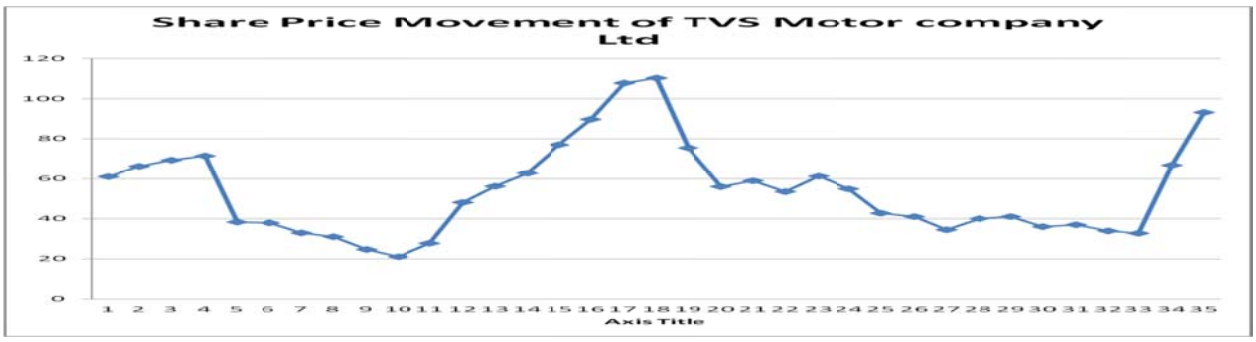

Fig. 6: Share price movement trend of TVS Motor Company Ltd

As per the Mann-Kendall trend test, the mean share price of Bajaj Auto Ltd for the past 35 month period was 1302.32, ±704.613 with a minimum price of 91 and a maximum price of 2328.45. Since CVTS (Mann-Kendall Trend Test) is 0.664 and P-Value is 0.0001, (P<0.05), it is evident that there is a

significant trend in the given series over the period of the study for Bajaj Auto Ltd. It means that the movement of the share price forms a specific pattern. Statistically, this shows that the share price of Bajaj Auto Ltd over the period of the study can be used for Prediction, Fundamental Analysis and Technical Analysis (Fig. 7). The Mann- Kendall trend test /Two-tailed test of Hero Moto Corp Ltd are presented in Table 13.

Table 12: Mann-Kendall trend test/ Two-tailed test – Bajaj Auto Ltd

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Bajaj Auto Ltd	35	91	2328.45	1302.317	704.613
Kendall's tau				0.664	
S				395.000	
Var(S)				4957.333	
p-value (Two-tailed)				0.0001	
Alpha				0.05	

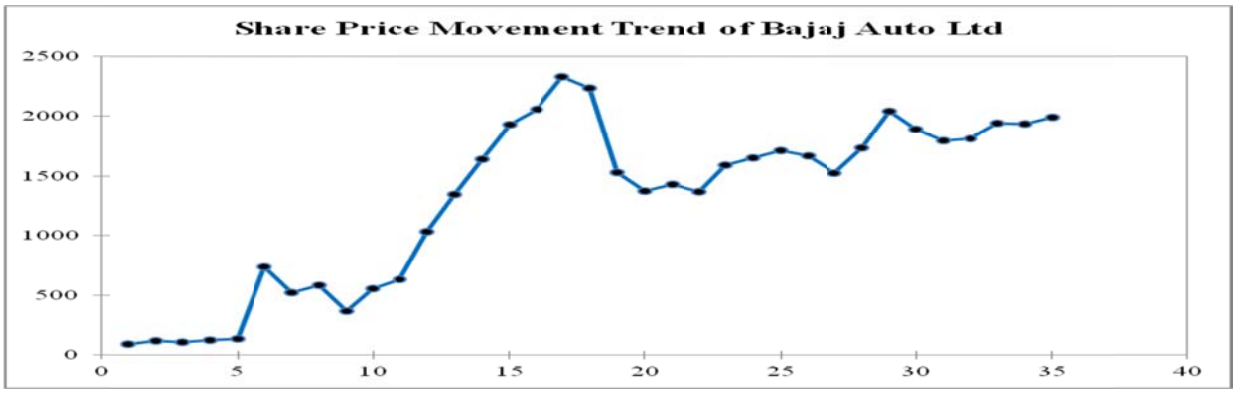

Fig. 7: Share price movement trend of Bajaj Auto Ltd

Table 13: Mann-Kendall trend test/ Two-tailed test – Hero Moto Corp Ltd

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Hero Moto Corp Ltd	35	630.95	2119.35	1488.351	521.102
Kendall's tau				0.704	
S				419.000	
Var(S)				4957.333	
p-value (Two-tailed)				0.0001	
Alpha				0.05	

As per the Mann-Kendall trend test, the mean share price of Hero Moto Corp Ltd for the past 35 month period was 1488.35, ±521.102 with a minimum price of 630.95 and a maximum price of 2119.35. Since CVTS (Mann-Kendall Trend Test) is 0.704 and P-Value is 0.0001, (P<0.05), it is evident that there is a significant trend in the given series over the period under the study for Hero Moto Corp Ltd. So, the movement of share price forms a specific pattern. Statistically, this shows that the share price of Hero Moto Corp Ltd over the period under study can be used for Prediction, Fundamental Analysis and Technical Analysis (Fig. 8). The Mann- Kendall trend test/Two-tailed test of Amara Raja Batteries Ltd is presented in Table 14.

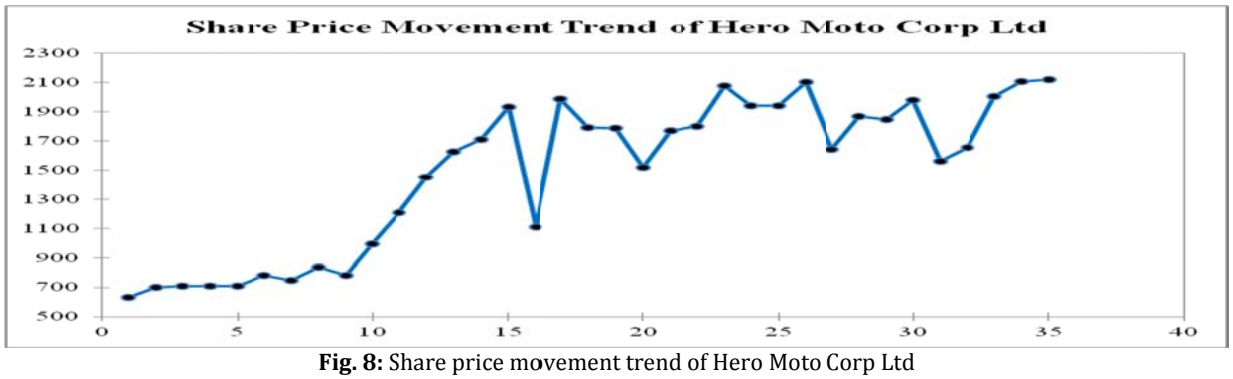

Fig. 8: Share price movement trend of Hero Moto Corp Ltd

As per the Mann-Kendall trend test, the mean share price of Amara Raja Batteries Ltd for the past 35 month period was 221.89, ±101.332 with a minimum price of 35.2 and a maximum price of 454.12. Since CVTS (Mann-Kendall Trend Test) is 0.385 and P-Value is 0.0001, (P<0.05), it is evident

that there is a significant trend in the given series over the period under the study for the Amara Raja Batteries Ltd. That is, the movement of share price forms a specific pattern. Statistically, this shows that the share price of Amara Raja Batteries Ltd over the period under the study can be used for Prediction, Fundamental Analysis and Technical Analysis (Fig. 9). The Mann- Kendall trend test/Two-tailed test of Motherson Sumi System Ltd is presented in Table 15.

Table 14: Mann-Kendall trend test/ Two-tailed test – Amara Raja Batteries Ltd

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Amara Raja Batteries Ltd	35	35.2	454.12	221.894	101.332
Kendall's tau				0.385	
S				229.000	
Var(S)				4957.333	
p-value (Two-tailed)				0.0001	
Alpha				0.05	

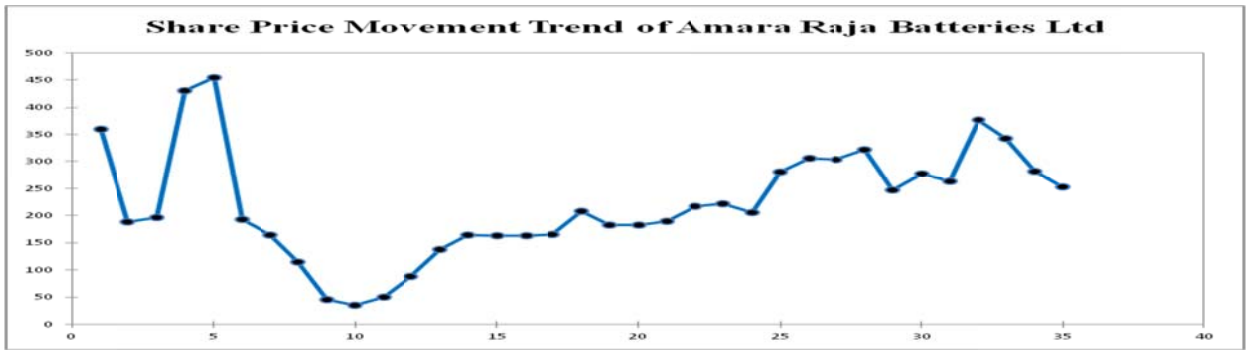

Fig. 9: Share price movement trend of Amara Raja Batteries Ltd

Table 15: Mann-Kendall trend test/ Two-tailed test – Motherson Sumi System Ltd

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Motherson Sumi System Ltd	35	54	238.97	152.043	57.176
Kendall's tau				0.659	
S				392.000	
Var(S)				4957.333	
P-value (Two-tailed)				0.0001	
Alpha				0.05	

As per the Mann-Kendall trend test, the mean share price of Motherson Sumi System Ltd for the past 35 month period was 152.043, ± 57.17 with a minimum price of 54 and a maximum price of 238.97. Since CVTS (Mann-Kendall Trend Test) is 0.659 and P-Value is 0.0001, (P<0.05), it is evident that there is a significant trend in the given series over the period under the study for the Motherson Sumi System Ltd. That is, the movement of share price forms a specific pattern. Statistically, this shows that the share price of Motherson Sumi System Ltd over the period under the study can be used for Prediction, Fundamental Analysis and Technical Analysis (Fig. 10). The relationship between mean Net profit as an independent variable and mean value of share price as a dependent variable of the selected companies is given in Table 16. Correlation between share price and Net profit is given in Table 17.

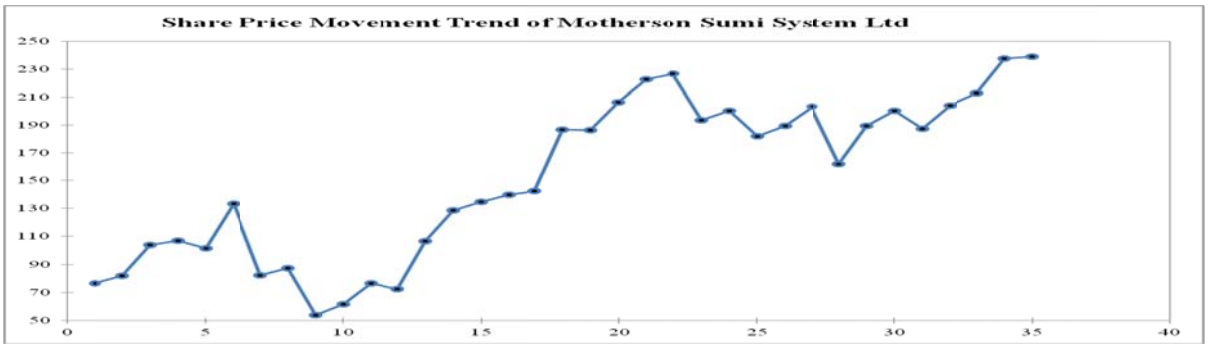

Fig. 10: Share price movement trend of Motherson Sumi System Ltd

The comparison between Share Price and Net Profit shows strong positive correlation and it is statistically significant. That means when there is one degree change in net profit; the chance of change in the share price is 88.50%. This indicates that there exists a positive relationship between net profit and

share price. Table 18 shows the model summary of the Regression Equation (R Square) for the net profit and share price of the selected companies from 2007 to 2013.

Table 16: Mean value of Share price and Net profit

Company	Mean Value	
	Net Profit	Share price
TATA MOTORS Ltd	1,280.09	540.6443
Mahindra & Mahindra Ltd	2,382.87	743.1857
Maruti Suzuki Ltd	2,078.00	1201.1
Ashok Leyland Ltd	391.907	35.42
Bharat Gears Ltd	7.733	49.71471
TVS Motor company Ltd	138.88	54.981
Bajaj Auto Ltd	2,249.10	1380.439
Hero Moto Corp Ltd	1,859.25	1533.557
Amara raja batteries Ltd	194.171	222.9843
Motherson Sumi Systems Ltd	283.614	151.4443

Source: computed from Financial Statements of the selected companies

Table 17: Correlation between Share price and Net profit

	Net profit	share prices
Net profit	1.000	
share prices	0.885	1.000

Table 18: Model summary of the regression equation for the Net profit and Share price

R^2	Adjusted R^2	R	Std. Error	n	k	Dep. Var.
0.783	0.756	0.885	291.36	10	1	Mean-share price

The R Square value in this case is 0.783. This explains the fact that independent variables in the model, namely net profit account for 78.30 percent variance in the dependent variable share price. This highlights the fact that the above model is considered to be fit in the selected companies because the coefficient of determination adjusted for degree of freedom (R Square) is statistically significant.

Table 19 shows a summary of the ANOVA test value of the Regression Equation for the Net profit and Share price. As the significant level of the F-Value is 28.84 and P-Value is 0.0007, ($P<0.05$), this model is fit to the input data and statistically it is significant. It is inferred that there is a significant relationship between independent variable (Net profit) and dependent variable (Share price); because the level of the significance is 0.0007 which is less than 0.05. Regression Analyze for Net profit and Share price is given in Table 20.

Table 19: Summary of ANOVA for the Net profit and Share price

Source	SS	df	MS	F	P-value
Regression	2448038.066	1	2448038.066	28.84	0.0007
Residual	679126.595	8	84890.82437		
Total	3127164.661	9			

Source: Performed Using MS- SPSS Software

Table 20: Regression analyze for Net profit and Share price

Source	SS	df	MS	F	P-value
Regression	2448038.066	1	2448038.066	28.84	0.0007
Residual	679126.595	8	84890.82437		
Total	3127164.661	9			

Regression output					Confidence Interval	
variables	coefficients	std. error	t (df=5)	P-value	95% lower	95%upper
Intercept	12.80738234	141.7596014	0.090345784	0.930233505	- 314.09084	339.705609
Net profit	0.53244998	0.099151687	5.370054679	0.000669559	0.30380578	0.76109418

Table 20 shows the regression coefficients of the relationship between net profit and share price. These regression coefficients can be used to construct an Ordinary Least Square (OLS) equation and also to test the hypotheses for each of the independent variable.

SP = 12.807 + 0.532 ***NP***.

Where:

SP = Share Price

NP = Net Profit

Table 20 and the equation show the coefficient of the Regression Analysis and their significance for Net profit and Share price of the selected companies.

Equation is the level of share price which shows the relationship between net profit and share price.

Regression coefficient is one of the elements which show the correlation between variables but do not show the amount of units change. The coefficient of net profit is 0.5325 and 12.8073 is Intercept. Regression coefficient also shows the significance level of t-test, it is found to be less than 0.05, indicating the relationship between net profit and share price is significant. Similarly in this equation the level of significance is 0.0007 and coefficient of the net profit is found to be 0.5325, which indicates that for every rise in the net profit by one rupee, the price of share increase by 0.5325 rupee, which means the value of share price, will increase by 0.5325 rupee, but this relationship is significant at five percent level. So, it is inferred that there is a significant relationship between net profit and share price; it means share price fluctuates with change in net profit in the selected companies.

Thus, net profit has control over share price. This clearly shows that share price is dependent on net profit as is evident from R Square value of 78.30 percent. In this context, the hypothesis that there is a significant relationship between performances of the selected companies and share price is rejected. It is inferred that there is a significant relationship between net profit and share prices.

9. Conclusion

- The results of study indicate that the mean value of shares of Hero Moto Corp Ltd (1533.57, $\pm$281179.1) was the highest among the selected companies, whereas the mean value of Ashok Leyland Ltd recorded the lowest value, which was 35.42, $\pm$ 245.93. The performance of the shares of Bharat gears Ltd, in terms of share price variation, indicates a stable position, whereas the share price of Bajaj Auto Ltd indicated wide fluctuation.
- The analysis of the weighted average growth rate (WAGR) of the share prices of selected companies indicates that the mean WAGR of Share price of Bajaj Auto Ltd was highest in the group , which was 2.37, $\pm$0.81. Similarly, among the sample companies considered, Amara Raja Batteries Ltd recorded the lowest mean weighted average Growth rate in Share price, which was 0.75, $\pm$0.02.
- The results of the Mann Kendall Trend Test revealed that there is no significant trend in the weighted average growth rate of Tata Motors Ltd, Bharat gears Ltd and TVS Motor Ltd in the given series over the period under the study. It means that the movement of share price does not form any specific trend in Tata Motors Ltd, Bharat gears Ltd and TVS Motor Ltd.
- The results of the Mann Kendall Trend Test showed that there is a significant trend in the weighted average growth rate of Mahindra & Mahindra Ltd, Maruti Suzuki Ltd, Ashok Leyland Ltd, Hero Moto Corp Ltd, Amara Raja Batteries Ltd and Motherson Sumi system Ltd in the given series over the period under the study. It means that the movement of share price forms a specific trend in Mahindra & Mahindra Ltd, Maruti Suzuki Ltd, Ashok Leyland Ltd, Hero Moto Corp Ltd, Amara Raja Batteries Ltd Ltd and Motherson Sumi system Ltd.
- The comparison between Share Price and Net Profit shows strong positive correlation and it is statistically significant.
- The R Square value, in the study of relationship between Net profit and Share price is 0.783. This explains the fact that independent variables (Net profit) account for 78.30 percent variance in the dependent variable (share price). This highlights the fact that the model is considered to be fit in the selected companies.
- ANOVA test of the Net profit and Share price showed that significant level of the F-Value is 28.84 and P-Value is 0.0007, ($P<0.05$), this model is fit to the input data and statistically it is significant.
- The results of the study revealed that there is a positive relationship between net profit and share price; it means share price fluctuates with change in net profit in the selected companies.

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