

A Study on Shareholders Value Creation and Financial Performance of Selected Auto Mobile Companies in India

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Abstract: *Economic Value Added is the financial performance measure that comes closer than any other to capturing the true economic profit of an enterprise. It is the performance measure most directly linked to the creation of shareholders wealth over time. The study has aimed at shareholders value creation and its measures linked to the financial performance of the automobile manufacturing companies in India. For this purpose, EVA and MVA have been computed and also compare with actual and trend values, whether predict these values significantly associative or not. The study has used stratified sampling techniques and eight companies were selected. The data were collected from CMIE-PROWESS of respective companies annual financial statement during from 2003-04 to 2012-13. The study result has found that Economic Value Added and Market Value Added of selected companies have recorded positive and a high fluctuation trend. The actual EVA and MVA have significant association of its trend values throughout the study period.*

Keywords: *Economic Value Added, Market Value Added, Financial Performance, Automobile.*

1. INTRODUCTION

Economic Value Added (EVA) is the financial performance measure that comes closer than any other to capturing the true economic profit of an enterprise. Thus, in modern economics and finance area, EVA holds an important part that has less debate among practitioners. It is the performance measure most directly linked to the creation of shareholders wealth over time. Shareholders are very much choosy for their interest into the business and they like management to come up with very specific solution. Thus, EVA can be taken as the net operating profit minus an appropriate charge for the opportunity cost of all the capital invested in an enterprise. As such, EVA is an estimate of true economic profit or the amount by which earnings exceed or fall short of the required minimum rate of return that shareholder and lenders could get by investing in other securities of comparable risk.

Any financial measures used in assessing firm's performance must be highly correlated with shareholders wealth and on the other hand should not be subjected to randomness inherent in it. Traditional performance measures such as NOPAT, EPS, ROI, ROE etc. have been criticized due to their inability to incorporate full cost of capital thereby accounting income is not a consistent predictor of firm value and cannot be used for measuring corporate performance. Value based management system has gained popularity in academic literature in last two decades. One such innovation in the field of internal and external performance measurement is EVA. Pioneered and advocated by US based business consultant Stern Stewart and company argue that EVA can be used instead of earnings or cash from operations as measures of both internal and external performance.

2. SIGNIFICANCE OF THE STUDY

The automobile industry is one of the key drivers that boost the economic growth of the country. Today, almost leading global automobile manufacture's has set up production units and servicing facilities in our country. Also, India has the largest producer and manufacturer of commercial vehicles and multi-utility vehicle industry in the world. These factors have considered studying the attention and interest of automobile sector in India.

There has been a growing concern about the performance measures based on traditional accounting information such as Return on Equity (ROE), Earning per Shares (EPS), Net operating profit after taxes (NOPAT) and Return on Investment (ROI) etc., these measures although widely used fails to

capture the shareholders' value creation/destruction as a result of management actions. The concept of EVA has gained popularity all over the world particularly in USA, UK and European countries as companies are using EVA as an internal as well as external performance measure because it is consistent with the organizational objective of shareholder's value creation. Due to its popularity lot of research work has been conducted in late 1990's covering diverse issues on EVA. Although theoretically the significance of EVA has been proved but there exist gaps between the various studies about the superiority of EVA. In some academic literature EVA has been proved superior to traditional measures and some studies reject this hypothesis partially or fully. In the light of above, present study has been conducted to find out various issues underlying EVA and the impact of capital structure decision of financial performance of Automobile industry in India.

3. REVIEW OF LITERATURE

Stern (1990) observed that EVA as a performance measure captures the true economic profit of an organization. EVA is a performance measure which is most closely linked to the creation of shareholders' wealth over a period of time. The managers may be guided by EVA and pursue such objectives that improve operating profits investing more capital. Managers can be remunerated a proportion of both the total EVA and the positive change in EVA. **Stewart (1994)** has expended that EVA is a powerful new management tool that has gained worldwide recognition as the standard tool of corporate performance. EVA presents an integrated framework of financial management and incentive compensation. The adoption of EVA system by more and more companies throughout the world clearly depicts that it provides an integrated decision-making framework, can reforms energies and redirect resources to create sustainable value for companies, customers, employees, shareholders and for managements. **Kramer and Pushner (1996)** empirically test the strength of the relationship between EVA and market value added. The results do not fully support the arguments of EVA proponents that it is the best internal measure of corporate success in adding value to shareholder investments. **Blair (1997)** observed that the EVA has generated much interest in the business community. This financial tool advocates debt finance as evidenced by its basic formula, which uses the weighted cost as the cost of capital, thus becomes cheaper than equity, partly due to the tax deductible interest. **Burkette and Hedley (1997)** explained that the EVA concept can be used to assess organizational performance known as economic profit; it can be applied for profit companies, public sector organizations and non-profit organizations. EVA as a measure of financial performance provides an excellent tool for strategy planning, investment appraisal, pricing decisions and a basis for incentive compensation. **Thenmozhi (1999)** made a comparative study of how the traditional performance measures are comparable to EVA. Working on a sample of 28 companies for a period of three financial years he found that only 6 out of the 28 companies have positive EVA while the others have negative. The EVA as a percentage of Capital Employed (EVA/CE) has been found to indicate the true return on capital employed. The study shows that the traditional measures do not reflect the real value of shareholders and EVA has to be measured to have an idea about the shareholders value. **Ray (2001)** observed that the missing link between EVA and improved financials is actually productivity. EVA can be a powerful tool when properly applied. For those areas of the firm where the former is indeed greater than the latter EVA analysis then allows the firm to concentrate on the firm's productivity in order to maximize the value created of the firm. **Larmande and Ponsard (2003)** investigated an actual implementation of an EVA system through a case study. The case study provides detailed information on how the performance measure was cascaded down in the organization and how the standards were constructed.

Madhu Malik (2004) examined the relationship between shareholder wealth and certain financial variables like EPS, RNOW and ROCE. By using correlation analysis, it was found that there was positive and high correlation between EVA and RONW, ROCE. There was a positive but low correlation between EVA and EPS. By using co-efficient of determination (R^2), EVA was compared with Traditional performance measures and it was found that not a single traditional performance measure explains to the fullest extent variation in shareholder wealth. **Ramachandra Reddy and Yuvaraja Reddy (2007)** examined the effect of selected variables on MVA. This study was conducted with 10 cement companies in India and the objective of this study was to examine the effect of select variables on MVA. The study found that none of the factors is found to have impact on MVA and EPS is found to have negative and significant impact on MVA. **Kaur and Narang (2009)** examined the shareholder value creation using two value based metrics of financial performance viz., EVA and MVA for a sample of 104 Indian companies. The study supported the claim that EVA

influences the market value of shares. **Chauhan and Bhayani, (2010)** has examined the impact of mergers on shareholders' value creation in Indian industry. The result suggests that firm's shareholders value creation is highly dependent on Operating expenses, Profit margin, ROCE and Expense ratio. The inter company and inter industry analysis results indicate there is no positive impact of mergers on shareholder value creation. **Sakthivel (2011)** analyzed shareholder's value in Indian pharmaceutical industry for the period of 1997-98 to 2006-07. It is concluded that the companies under pharmaceutical industry has succeeded to meet public expectations in terms of shareholders' value creation through EVA either by increasing operating income from assets in place through reducing cost of production or increasing sales, or reducing the cost of capital by changing the financing mix in capital structure. **Pratapsinh Chauhan (2012)** examines the shareholder's value creation in the Indian petroleum industry. The study aims to analyze the performance of the company we have divided petroleum into public sector firm and private sector firms. EVA has been found to have significant correlation with OP, NOPAT, EPS, Market Capitalization and MVA figures of firms of both the sectors. **Vijaykumar(2012)**, in his study, using factor-analytic approach, attempted to find out whether EVA has got a better predictive power of selected automobile companies in India. The results of his study showed that out of eight variables, three factors have been extracted and these three factors put together explain 69.902 per cent of the total variance. Further, sales and profit after tax are found to have a stronger relationship with EVA. **Asha Sharma (2013)**, her study explores that the value creation strategy of Infosys by analyzing whether the EVA better represents the market value of company in comparison to conventional performance measures. EVA is now recognized as an important tool of performance measurement and management all over the world, particularly in advance economies by adopting it as corporate strategy. **Angayarkanni and Anand Shankar Raja. M (2014)** studied capital structure and measuring its impact of EVA; a case study of the Bimetal Bearing Limited. The study concludes that Bimetal bearings Ltd have utilized the debt-equity capital to the satisfactory level during the study period. The company has used more equity capital than the debt capital, instead the firm can increase the debt content which may reduce the weighted average cost of capital and increase the value of the firm.

4. STATEMENT OF PROBLEM

The automobile industry is one of India's most vibrant and growing industries. This industry accounts for 22 per cent of the country's manufacturing gross domestic product (GDP). India is presently the world's third largest exporter of two-wheelers after China and Japan. According to a report by Standard Chartered Bank, India is likely to overtake Thailand in global auto-export market share by the year 2020. Shareholder wealth maximization is now widely considered to be the main objective of the management of firms. A firm can finance its investment project either through debt or equity. The prime objective of a firm is to maximize shareholders wealth. Wealth maximization implies the maximization of market price of shares which depends on economic value added (EVA) and focus on stake holders. A positive EVA would increase owner's wealth therefore only investment with positive EVA would be desirable for maximizing shareholders wealth choosing debt form of financing results in increased earnings per share leading to enhanced shareholder's wealth. Economic profit or Economic Value Added has become a popular tool for managers to measure performance and for guiding investment decisions. Economic value added is influenced by the company decisions, investment decisions, dividend, and return of capital, financing decisions, and cost of capital. As an internal standard, measuring the investment performance of the firms' success in adding shareholder value is the best possible option. Economic value added shows that firm value depends directly on the performance of management. Some companies produce a final dividend without regarding their opportunity cost of capital estimate. Economic value added (EVA) and the Theory of the company's value are consistent only by selecting projects with positive net present value increase.

5. OBJECTIVES OF THE STUDY

- To analyze the trend and growth of shareholders' value in selected Automobile Companies in India.
- To find out the significant association between EVACE and its trend value.
- To find out the significant association between MVATA and its trend value.

6. METHODOLOGY

The study was extensively used for secondary data which are collected from CMIE PROWESS for the published annual reports. This study has empirical and analytical in nature. In order to identify the sample among the automobile companies, using stratified sampling techniques has been adopted. Initially, to identify the population of 124 companies which are listed in Bombay Stock Exchange in Automobile Sector were selected. Then after screening the companies audited annual reports having the incomplete data and insufficient information available were not included in the sample and finally 20 firms were selected. For the purpose of the study has met the criterion of market capitalization represents more than Rs. 10000 crores were selected and included in the sample. Finally, eight companies were selected these are: These are Tata Motors Limited, Eicher Motors Limited, SML ISUZU Limited, TVS Motor Company Limited, Maruti Suzuki India Limited, Hero MotoCorp Limited, Atul Auto Limited and Bajaj Auto Limited.

7. TOOLS FOR ANALYSIS

The techniques such as Mean, Standard deviation, percentage analysis, Co-efficient of variation, Growth rates, trend indices and Chi Square test were used.

8. LIMITATIONS OF THE STUDY

- Analysis of the study is based on financing data collected from CMIE Prowess Package. The quality of the study depends purely upon the accuracy, reliability and quality of secondary data.
- The firms chosen are restricted to eight companies due to limitations such as lack of continuous listing, non-availability of data pertaining to those firms in the data source.

9. ANALYSIS AND INTERPRETATION

The analysis of economic value added and market value added for the selected Automobile companies during the study period. A Chi-square test has been applied to find out any significant difference between actual and trend value of EVA and MVA.

10. EVA ANALYSIS OF SAMPLE COMPANIES

EVA created by the selected automobile companies during the study period from 2003-04 to 2012-13 is depicted in Table 1.1. It depicts that industry average of EVA has recorded positive and a high fluctuation trend. In EVA, it was minimum of (209.59 during the year 2003-04 and its maximum was (782.18) during the year 2010-11. The mean value of industry average of economic value added was 486.31 and among the selected companies it was maximum of 1533.72 gained by BAJAJ, followed by HERO with 1199.18 and MARUTI with 835.59 crores. In comparison with among the selected companies, below EVA below the Industry average was 270.80 with TATA and followed by EICHER with 40.32, TVS with 9.44, ATUL with 6.63 and SML with (-5.19). The computation of coefficient of variation of EVA reveals that industry average during the study period was 38.95 per cent and its maximum of (46.74) got by HERO and it was negative CV of (-330.44) obtained by SML. It shows that EVA reveals high fluctuating trend throughout the study period.

The EVA of TATA has recorded a high fluctuating trend throughout the period of study. It was maximum of 1257.44 recorded in the year 2006-07, and it was minimum of (-1342.51) during the year 2012-13. The mean value of EVA was 270.80 and its coefficient of variation was 326.43 during the period under study. The EVA of EICHER has recorded a high fluctuating trend. The positive EVA was the highest of 137.70 obtained during the year 2012-13 and its minimum of (-24.90) got during the year 2004-05. The mean value of EVA was 40.32 and its coefficient of variation was 145.48 during the period under study. The EVA of SML has recorded a high fluctuating trend. In the value of EVA, it was maximum of (11.93) during the year 2003-04 and it was minimum of (-46.70) during the year 2009-10. The mean value of EVA indicates negative was -5.19 and its coefficient of variation was -330.44 during the period under study. The EVA of TVS has recorded as a high fluctuating trend. The EVA value of TVS, it was maximum of (99.15) during the year 2004-05 and it was minimum of (-81.82) during the year 2008-09. The mean value of EVA was (9.44) and its coefficient of variation was (653.17) during the period under study.

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Table1.1. Analysis of economic value added (EVA), (Value Rupees in Crores)

Year	TATA	EICHER	SML	TVS	MARUTI	HERO	ATUL	BAJAJ	INDUSTRY AVERAGE
2003-04	76.41 (1.39)	-10.55 (-2.22)	11.93 (23.72)	62.04 (7.50)	263.46 (6.09)	640.99 (45.67)	1.96 (8.08)	630.45 (12.76)	209.59 (9.55)
2004-05	921.92 (12.67)	-24.90 (-5.43)	3.27 (4.01)	99.15 (9.63)	534.14 (10.64)	742.15 (41.31)	3.68 (10.98)	702.50 (12.60)	372.74 (14.02)
2005-06	1074.71 (11.62)	130.10 (19.22)	3.81 (2.10)	55.49 (4.21)	812.15 (13.96)	872.97 (37.71)	5.21 (12.17)	1022.34 (15.90)	497.10 (15.28)
2006-07	1257.44 (10.62)	9.49 (1.42)	-2.09 (-1.13)	-5.52 (-0.34)	1282.20 (16.52)	747.40 (27.03)	3.76 (6.46)	1189.78 (16.20)	560.31 (13.89)
2007-08	993.71 (6.41)	8.93 (1.25)	6.46 (2.70)	-16.34 (-0.96)	1273.63 (12.81)	794.81 (24.46)	1.14 (1.75)	724.86 (23.66)	473.40 (10.98)
2008-09	-58.09 (-0.21)	-4.94 (-0.99)	-19.12 (-5.82)	-81.82 (-4.23)	504.30 (4.88)	1092.63 (27.10)	-0.06 (-0.09)	618.77 (17.13)	256.46 (4.24)
2009-10	858.66 (2.54)	26.59 (6.29)	-46.70 (-16.16)	-50.55 (-2.49)	1985.02 (15.32)	1217.78 (32.99)	4.47 (7.17)	1670.57 (37.45)	708.23 (9.81)
2010-11	-354.65 (-0.92)	41.45 (8.62)	-2.26 (-0.72)	10.57 (0.55)	1443.67 (9.92)	1827.60 (34.09)	7.70 (14.85)	3283.32 (60.42)	782.18 (9.37)
2011-12	-719.59 (-1.86)	89.31 (15.88)	4.26 (1.18)	75.89 (3.51)	911.64 (5.37)	2190.09 (35.12)	13.82 (21.35)	2545.09 (39.94)	638.81 (7.15)
2012-13	-1342.51 (-3.37)	137.70 (20.85)	-11.45 (-2.56)	-54.46 (-2.70)	-654.32 (-3.18)	1865.40 (30.74)	24.61 (31.08)	2949.53 (35.70)	364.31 (3.74)
Mean	270.80 (1.19)	40.32 (7.18)	-5.19 (-2.10)	9.44 (0.57)	835.59 (7.72)	1199.18 (32.48)	6.63 (12.08)	1533.72 (27.64)	486.31 (8.57)
SD	883.97	58.65	17.14	61.69	733.06	560.44	7.43	1026.60	189.44
C.V.	326.43	145.48	-330.44	653.17	87.73	46.74	112.03	66.94	38.95
MAX	1257.44	137.70	11.93	99.15	1985.02	2190.09	24.61	3283.32	782.18
MIN	-1342.51	-24.90	-46.70	-81.82	-654.32	640.99	-0.06	618.77	209.59

Note: Figures in the parenthesis indicated percentage as Capital Employed

Source: Computed

The EVA of MARUTI has recorded a high fluctuating trend throughout the period of study. It was maximum of 1985.02 recorded in the year 2009-10, and it was minimum of (-654.32) during the year 2012-13. The mean value of EVA was 835.59 and its coefficient of variation was 87.73 during the period under study. The EVA of HERO has recorded a high positive fluctuating trend. The EVA was the highest of 2190.09 obtained during the year 2011-12 and its minimum of (640.99) got during the year 2003-04. The mean value of EVA was 1199.18 and its coefficient of variation was 46.74 during the period under study. The EVA of ATUL has recorded a high fluctuating trend. In the value of EVA, it was maximum of (24.61) during the year 2012-13 and it was minimum of (-0.06) during the year 2008-09. The mean value of EVA indicates positive was 6.63 and its coefficient of variation was 112.03 during the period under study. The EVA of BAJAJ has recorded as a high fluctuating trend. The EVA value of BAJAJ, it was maximum of (3283.32) during the year 2010-11 and it was minimum of (618.77) during the year 2008-09. The mean value of EVA was (1533.72) and its coefficient of variation was (66.94) during the period under study.

Table1.2. Association between EVACE and Trend EVACE - (Chi - Square Analysis)

Company Name	Chi-Square Value	df	Critical Value at 0.05 Level	Result	Sig.
TATA	24.309	9	16.919	H0 - Rejected	Significant
EICHER	73.600	9	16.919	H0 - Rejected	Significant
SML	-197.072	9	16.919	H0 - Rejected	Significant
TVS	-861.166	9	16.919	H0 - Rejected	Significant
MARUTI	32.651	9	16.919	H0 - Rejected	Significant
HERO	8.970	9	16.919	H0 - Accepted	Not Significant
ATUL	48.672	9	16.919	H0 - Rejected	Significant
BAJAJ	24.999	9	16.919	H0 - Rejected	Significant
IND. AVG	7.202	9	16.919	H0 - Accepted	Not Significant

Source: Computed

The analysis of actual and trend value of economic value added as percentage of average capital employed (EVACE), chi-square test has been shown in Table 1.2. In order to test the hypothesis, "There is no significant difference between the actual and trend values of EVACE". Among the selected companies, the chi-square values were TATA with 24.309, EICHER with 73.600, SML with (-197.072), TVS with (-861.166), MARUTI with 32.651, ATUL with 48.672 and BAJAJ with 24.999. The critical value of chi-square with (10-1) =9, degree of freedom is 16.919. Among these companies, computed chi-square value is greater than the critical value. Hence, the hypothesis is rejected. It is concluded that "There is significant difference between the actual and trend values of EVACE". On the other hand, HERO and Industry Average chi-square values were less than the critical value and found to be not significant.

11. MVA ANALYSIS OF SAMPLE COMPANIES

MVA created by the selected automobile companies during the study period from 2003-04 to 2012-13 is depicted in Table 1.3. It depicts that industry average of MVA has recorded positive and a high fluctuation trend. In MVA, it was minimum of (5593.26) during the year 2003-04 and its maximum was (34294.52) during the year 2012-13. The mean value of industry average of market value added was 17920.55 and among the selected companies it was maximum of 42795.94 gained by BAJAJ, followed by TATA with 36011.83, MARUTI with 32133.77 and HERO with 26472.27 crores. In comparison with among the selected companies, below MVA below the Industry average was 3415.34 with EICHER and followed by TVS with 1565.53, SML with 489.09 and ATUL with 480.65. The computation of coefficient of variation of MVA reveals that industry average during the study period was 47.72 per cent and its maximum of (122.60) got by SML and it was minimum of 21.08 obtained by SML. It shows that MVA reveals high fluctuating trend throughout the study period.

Table1.3. Analysis of market value added (MVA), (Value Rupees in Crores)

Year	TATA	EICHER	SML	TVS	MARUT I	HERO	ATUL	BAJAJ	INDUSTRY AVERAGE
2003-04	8004.76 (77.75)	652.45 (79.39)	454.92 (201.33)	1919.35 (148.60)	13782.40 (239.17)	11364.22 (426.46)	158.99 (569.44)	8409.01 (115.72)	5593.26 (157.80)
2004-05	51566.69 (370.95)	594.72 (64.77)	528.94 (152.61)	2352.87 (153.02)	19076.36 (291.31)	17127.20 (519.27)	277.93 (711.91)	10787.60 (128.88)	12789.04 (292.66)
2005-06	37462.29 (230.87)	957.85 (89.56)	460.20 (97.51)	2050.00 (107.58)	27862.35 (360.55)	15183.24 (391.31)	313.08 (536.00)	11030.67 (110.59)	11914.96 (230.72)
2006-07	27296.24 (139.22)	1074.93 (89.43)	445.94 (100.89)	1697.25 (74.80)	29756.40 (273.95)	13891.26 (327.13)	286.68 (414.94)	50688.42 (434.01)	15642.14 (248.40)
2007-08	6948.13 (26.56)	608.37 (53.34)	297.83 (56.36)	510.72 (22.42)	15560.14 (96.35)	16036.90 (315.65)	97.74 (133.10)	44316.56 (769.69)	10547.05 (147.59)
2008-09	14680.74 (38.36)	1744.68 (287.75)	470.04 (84.80)	1511.96 (58.96)	46962.88 (262.84)	34235.42 (562.12)	243.82 (312.71)	45801.01 (834.63)	18206.32 (203.66)
2009-10	35717.26 (69.59)	3304.69 (592.87)	608.24 (104.74)	1654.49 (59.52)	42762.45 (197.71)	39620.00 (464.45)	518.34 (669.17)	61374.74 (941.00)	23195.03 (201.69)
2010-11	32659.44 (59.37)	3963.63 (619.44)	567.36 (87.96)	1209.10 (41.30)	27641.84 (112.10)	38005.52 (353.83)	371.22 (496.54)	54995.65 (1080.17)	19926.72 (159.75)
2011-12	53135.62 (95.86)	7822.48 (994.04)	650.79 (89.48)	969.18 (30.46)	44827.17 (155.72)	37867.74 (382.32)	1227.55 (1269.05)	70271.33 (1325.51)	27096.48 (208.00)
2012-13	92647.13 (171.49)	13429.54 (1304.12)	406.65 (52.28)	1780.39 (55.54)	53105.67 (156.45)	41391.23 (385.72)	1311.20 (1062.47)	70284.36 (1252.16)	34294.52 (250.67)
Mean	36011.83 (105.84)	3415.34 (389.33)	489.09 (92.28)	1565.53 (65.39)	32133.77 (184.75)	26472.27 (406.22)	480.65 (669.23)	42795.94 (602.22)	17920.55 (208.03)
SD	25639.02	4187.23	103.10	542.57	13983.49	12599.74	431.28	24253.70	8551.49
C.V.	71.20	122.60	21.08	34.66	43.52	47.60	89.73	56.67	47.72
MAX	92647.13	13429.54	650.79	2352.87	53105.67	41391.23	1311.20	70284.36	34294.52
MIN	6948.13	594.72	297.83	510.72	13782.40	11364.22	97.74	8409.01	5593.26

Note: Figures in the parenthesis indicated percentage as Total Assets Invested

Source: Computed

The MVA of TATA has recorded a high fluctuating trend throughout the period of study. It was maximum of 92647.13 recorded in the year 2012-13, and it was minimum of 6948.13 during the year 2007-08. The mean value of MVA was 36011.83 and its coefficient of variation was 71.20 during the

period under study. The MVA of EICHER has recorded a high fluctuating trend. The MVA was the highest of 13429.54 obtained during the year 2012-13 and its minimum of 594.72 got during the year 2004-05. The mean value of MVA was 3415.34 and its coefficient of variation was 122.60 during the period under study. The MVA of SML has recorded a high fluctuating trend. In the value of MVA, it was maximum of 650.79 during the year 2011-12 and it was minimum of 297.83 during the year 2007-08. The mean value of MVA indicates was 489.09 and its coefficient of variation was 21.08 during the period under study. The MVA of TVS has recorded as a high fluctuating trend. The MVA value of TVS, it was maximum of 2352.87 during the year 2004-05 and it was minimum of 510.72 during the year 2007-08. The mean value of MVA was 1565.53 and its coefficient of variation was 34.66 during the period under study.

The MVA of MARUTI has recorded a high fluctuating trend throughout the period of study. It was maximum of 53105.67 recorded in the year 2012-13, and it was minimum of 13782.40 during the year 2003-04. The mean value of MVA was 32133.77 and its coefficient of variation was 43.52 during the period under study. The MVA of HERO has recorded a high positive fluctuating trend. The MVA was the highest of 41391.23 obtained during the year 2012-13 and its minimum of 11364.22 got during the year 2003-04. The mean value of MVA was 26472.27 and its coefficient of variation was 47.60 during the period under study. The MVA of ATUL has recorded a high fluctuating trend. In the value of EVA, it was maximum of 1311.20 during the year 2012-13 and it was minimum of 97.74 during the year 2007-09. The mean value of MVA indicates was 480.65 and its coefficient of variation was 89.73 during the period under study. The MVA of BAJAJ has recorded as a high fluctuating trend. The MVA value of BAJAJ, it was maximum of 70284.36 during the year 2012-13 and it was minimum of 8409.01 during the year 2003-04. The mean value of MVA was 42795.94 and its coefficient of variation was 56.67 during the period under study.

Table 1.4. Association between MVATA and Trend MVATA - (Chi - Square Analysis)

Company Name	Chi-Square Value	df	Critical Value at 0.05 Level	Result	Sig.
TATA	641.598	9	16.919	H0 - Rejected	Significant
EICHER	-111.698	9	16.919	H0 - Rejected	Significant
SML	69.869	9	16.919	H0 - Rejected	Significant
TVS	126.873	9	16.919	H0 - Rejected	Significant
MARUTI	167.463	9	16.919	H0 - Rejected	Significant
HERO	136.497	9	16.919	H0 - Rejected	Significant
ATUL	1255.228	9	16.919	H0 - Rejected	Significant
BAJAJ	809.363	9	16.919	H0 - Rejected	Significant
IND. AVG	92.310	9	16.919	H0 - Rejected	Significant

Source: Computed

The analysis of actual and trend value of market value added as percentage of total assets invested (MVATA), chi-square test has been applied in Table 1.4. In order to test the hypothesis, “There is no significant difference between the actual and trend values of MVATA”. Among the selected companies, the chi-square values were TATA with 645.598, EICHER with (-111.698), SML with 69.869, TVS with 126.873, TVS with 126.873, MARUTI with 167.463, HERO with 136.497, ATUL with 1255.228, BAJAJ with 809.363 and Industry Average with 92.310. The critical value of chi-square with $(10-1) = 9$, degree of freedom is 16.919. Among all the selected companies, computed chi-square value is greater than the critical value. Hence, the hypothesis rejected. It is concluded that, “There is significant difference between the actual and trend values of MVATA”

12. CONCLUSION

The study has found that Economic Value Added of selected companies has recorded positive and a high fluctuation trend. The EVA sample companies has positive value and above the industrial average gained by BAJAJ followed by HERO and MARUTI, on the other hand, EVA below the Industry average was TATA and followed by EICHER, TVS, ATUL and SML. It shows that EVA reveals high fluctuating trend throughout the study period. MVA created by the selected automobile companies during the study period has recorded positive and a high fluctuation trend. The MVA among the selected companies are above the industrial average gained by BAJAJ followed by TATA, MARUTI and HERO. It also shows that MVA reveals high fluctuating trend throughout the study period. The actual EVA and MVA have significant association of its trend values throughout the study period.

REFERENCES

- [1] Angayarkanni and Anand Shankar Raja .M, “A study on the Capital Structure of Bimetal Bearings Limited and its impact using EVA”, *Indian Journal of Applied Research*, Vol.4, Issue 9, September 2014. pp: 79-81.
- [2] Asha Sharma, “Economic Value Added in Infosys Limited”, *International Journal of Management and Social Sciences Research*, Volume 2, No.5, May 2013, pp: 55-62.
- [3] Blair, A., “EVA fevers”, *Management Today*, 78(7), Jan 1997, pp: 42 (4).
- [4] Burkette, G. Hedley, T., “The truth about economic value added”, *The CPA Journal*, Volume 4, No.7, June 1997, pp: 46.
- [5] Chauhan Pratapsinh and Bhayani Sanjay, “Effect of Mergers on Shareholders Value: Indian Evidence”, *Management Trends*, Vol. 7, No. 2, pp: 1-30, 2010.
- [6] François Larmande and Jean-Pierre Ponsard, “EVA and Incentives Theory: A case study”, September 2003.
- [7] Hejazi, R., &Khademi, S. (2013), “The impact of firm characteristics and economic factors on the capital structure of listed companies in Tehran Stock Exchange”, *Financial Accounting Research Journal*, 2, pp: 11-16.
- [8] Kaur, M., & Narang, S. (2009). Shareholder Value Creation in India’s Most Valuable Companies: An Empirical Study. *The Icfai Journal of Management Research*, 8 (8), 16-42.
- [9] Kramer and George Pushner, “An Empirical Analysis of Economic Value Added as a Proxy for Market Value Added”, *Financial Management Association Conference in New York*, 1996.
- [10] Malik, Madhu, (2004), “EVA and Traditional Performance Measures: Some Empirical Evidence”, *the Indian Journal of Commerce*, Vol. 57, No. 2, April-June, pp: 32-37.
- [11] Pratapsinh Chauhan, “Shareholders Value Creation in Indian Petroleum Industry: An Empirical Analysis”, International Conference on Business, *Economics, Management and Behavioral Sciences* (ICBEMBS'2012) Jan. 7-8, 2012, Dubai.
- [12] Ramachandra Reddy, B. and Yuvaraja Reddy, B, (2007), “Financial Performance through Market Value Added (MVA) Approach”, *the Management Accountant*, January, pp: 56-59.
- [13] Ray, R., “Economic Value Added: Theory Evidence”, *A Missing Link. Review of Business*, 22 (1&2), 2001, pp: 66-70.
- [14] Sakthivel N., “Shareholders’ Value in Indian Pharmaceutical Industry: An Empirical Analysis”, *Indian Journal of Commerce & Management Studies*, Vol. II, No. 1 January, pp: 87-99, 2011.
- [15] Stern,Joel, “One way to build value in your firm, Executive Compensation”, *Financial Executive*, Nov/Dec. 1990, pp: 51-54.
- [16] Stewart, G. Bennet, “EVATM Fact and Fantasy”, *Journal of Corporate Finance*, Vol. 7, No. 2, June 1994, pp: 71-84.
- [17] Thenmozhi, M., “Economic Value Added as a Measure of Corporate Performance”, *The Indian Journal of Commerce*, 52 (4), 1999, pp: 72-88.
- [18] Vijaykumar, A. (2012) EVA and other accounting performance indicator: an empirical analysis of Indian automobile industry’, *International Journal of Management and Technology*, Volume 2, Issue No. 3, pp: 131-153.

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