A Study on Performance Evaluation of Selected Corporate Sector units of BSE – An Application of EVA

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ABSTRACT

Maximizing shareholder's value has become the new corporate paradigm in recent years. In modern competitive world each & every corporate units earn a profit. Just earning profit is not enough, a business should earn sufficient profit to cover its cost of capital and create surplus to grow. Traditionally the methods of measurement of corporate performance are many i.e, EPS, ROCE, ROI and Ratio analysis. But EVA is one of the modern technique for performance measurement of corporate unit. EVA focuses on clear surplus in contradiction to the traditionally used profit available to the shareholder. In the present study researcher has been attempt to discover EVA of selected corporate sector units of Indian Stock Exchange. Statistical tools like ANOVA have been applied for the proposed study. In the Present study variability can seen in value creation ability of sample companies during the study period. Ashok Leyland creates negative EVA in the year 2009, 2013.

Key words **:** EVA, ANOVA, Cost of Capital

1. Introduction:

The term 'Economic Value Added (EVA)' is a registered trademark of Stern Stewart & Co. of New York City (USA). Bennett Stewart in his book, *"The Quest for Value",* used the term EVA with a symbol ™ as super script, which is the normal practice of referring to any registered trademark whenever the term is used. Thus EVA is actually Stern Stewart & Co.'s trademark for a specific method of calculating economic profit. *"The Quest for Value"* was published in 1991. Peter Drucker claimed that he discussed EVA in 1964 in his book, *"Managing for Results".* It cannot be denied; however, without going into

argument as to who invented EVA first that the concept became popular only after Stern Stewart & Co. marketed it.

2. Review of Literature:

- Debdas Rakshit studied performance measurement of Dabur India Limited through EVA. Where he found that The ROI does not help the management to judge the efficiency of any decision, value creation or value addition aspect, while EVA gives clear idea of shareholder's value addition or value creation. The company has been able to generate sufficient profit for create the wealth for its shareholders during the study period.
- H.M. van der Poll, N.J. Booyse, A.J. Pienaar, S. Büchner & J. Foot studied Seven participants from the private and public sectors attended the focus group. In study researcher reveals that EVA does not suitable for all types of companies, and consultants therefore need to understand the specific company in order to decide which metric should be used.
- Nikhil Chandra Shil studied theoretical background of EVA. In this paper, efforts have been made to explain theoretical foundation of EVA with its origin, definition, different adjustments, scopes etc. Researcher also define theoretical step – by- step process & methodology which was used for the study. Researcher concluded that EVA should be used with other to take decisions more effectively.

3. Statement of Problem:

Researcher has chosen this topic on the basis of emerging trend of FII and Domestic investors in Indian Stock market, so the value creation by Indian corporate companies are needed to proper investments in capital market and EVA is as better parameter to study the real value of the corporate in Indian concerned.

4. Title of the Study:

This study consist Title,

"A Study on Performance Evaluation of Selected Corporate Sector units of BSE – An Application of EVA"

5. Objectives of the study:

- To examine whether selected Corporate units generate sufficient value for its shareholders.
- To compute the performance of the selected corporate units by applying new corporate performance measure EVA.

6. Data Collection:

This Study is mainly based on secondary data which is collected through selected company's annual report, various databases like capitaline.com & bseindia.com. The Researcher uses daily stock prices, daily sensex prices and daily government bond yield prices for the proposed study which are collected through various websites.

7. Sample of the Study:

Population of the study consist all corporate sector units registered under Indian stock market. But due to constraint of time and money it is not possible to collect all data. So that in the present study researcher has been take a sample of five companies which are Ashok Leyland, Hero Motorcorp, ITC Ltd, TCS Ltd, Maruti Suzuki. Researcher has been used convenient sampling method for the proposed study.

8. Period of the Study:

Period of the study consist 9 year commencing from 2004-05 to 2012 -13.

9. Hypothesis of the Study:

- There is no significant difference in the value creation ability of selected corporate units during the study period.

10. Data Analysis & Interpretation:

EVA is the residual income after charging the company for the cost of capital provided by the lenders and shareholders. It represents the value added to the shareholders by generating operating profits in excess of the cost of capital employed in the business. EVA indicates the impact on shareholders wealth.

- **Assumption under EVA:**
  1) Risk Free Return: I have assumed that the bank rate is risk free rate of return and 9 year's bank rate is collected from the website of RBI.

I have assumed 7% risk free rate of return.

2) Market Premium: I have assumed that the RBI government bond yield as market premium and 9 year's data has been collected from the website of RBI.
3) Risk co efficient: I have taken BSE Sensex to compute beta value of selected auto mobile companies as risk co efficient.

- **Calculation of EVA:**

EVA = ADJUSTED NET PROFIT – WACC X Capital Employed.

Table No. 1

Total Cost of Debt of Sample Corporate Units During the Study Period (%)

Year	Ashok Leyland	Hero Motocorp	Maruti Suzuki	ITC Ltd.	TCS Ltd.	Mean
2004-05	2.83%	0.67%	261.12%	15.79%	7.69%	57.62%
2005-06	4.80%	1.14%	324.57%	12.60%	11.43%	70.91%
2006-07	3.73%	0.71%	194.30%	6.01%	6.15%	42.18%
2007-08	7.62%	1.09%	203.36%	12.89%	17.23%	48.44%
2008-09	8.19%	2.44%	158.03%	20.82%	16.91%	41.28%
2009-10	4.47%	2.56%	131.88%	58.39%	23.32%	44.12%
2010-11	6.71%	1.89%	129.15%	63.63%	42.88%	48.85%
2011-12	7.75%	2.57%	220.20%	79.71%	13.02%	64.65%
2012-13	8.65%	1.61%	438.50%	101.82%	14.71%	113.06%
Mean	6.08%	1.63%	229.01%	41.30%	17.04%	59.01%

(Source: Computed by researcher from capitaline.com)

Above table No. 1 present Average cost of debt of sample companies during the study period. So far as concern to Average cost of debt during the study period it is 59.01%. Maruti Suzuki india ltd. having highest average cost of debt 229.01% during period under review. With 41.30% ITC Ltd. is second highest cost of debt during the study period. It was 17.04%, 6.08% and 1.63% cost of debt respectively TCS Ltd, Ashok Layland and Hero motorcorp ltd.

Table No. 2

Beta Value of Selected Corporate units During the Study Period

Year	Ashok Leyland	Hero Motocorp	Maruti Suzuki	ITC Ltd.	TCS Ltd.
2004-05	0.69	0.87	1.19	0.79	0.82
2005-06	1.06	0.78	1.06	0.93	0.94
2006-07	1.15	0.64	1.13	0.96	0.97
2007-08	0.90	0.47	0.67	0.66	0.70
2008-09	0.66	0.33	0.70	0.50	0.89
2009-10	1.04	0.63	0.69	0.58	0.79
2010-11	1.13	0.51	0.80	0.74	0.87
2011-12	0.88	0.51	0.67	0.50	0.94
2012-13	1.06	0.73	0.94	0.68	0.56
Mean	0.95	0.61	0.87	0.70	0.83

(Source: www.capitaline.com)

Above table No. 2 presents beta value of sample corporate unit companies during the study period. Beta value less than 1 represent low risky security, while more than 1 value of beta represent riskier security. In the present study Average risk is lower than 1 of selected corporate units during the study period.

Table No. 3

Total Cost of Equity of Sample Corporate units During the Study Period (%)

Year	Ashok Leyland	Hero Motocorp	Maruti Suzuki	ITC Ltd.	TCS Ltd.	Mean
2004-05	7.51	7.64	7.88	7.59	7.61	7.65
2005-06	7.78	7.58	7.78	7.69	7.70	7.70
2006-07	7.85	7.48	7.84	7.71	7.72	7.72
2007-08	7.67	7.35	7.50	7.49	7.51	7.51
2008-09	7.49	7.25	7.52	7.37	7.66	7.46
2009-10	7.77	7.47	7.51	7.43	7.59	7.55
2010-11	7.84	7.38	7.59	7.55	7.64	7.60
2011-12	7.65	7.38	7.50	7.37	7.69	7.52
2012-13	7.78	7.54	7.70	7.50	7.41	7.59
Mean	7.70	7.45	7.65	7.52	7.61	7.59

(Source: Computed by researcher from BSE and RBI websites)

Above table No. 3 shows average cost of equity of sample auto mobile companies during the study period. It was 7.59% average cost of equity of sample auto mobile companies during the study period. It can found that Ashok Leyland stood first position with 7.70% average cost of equity. While Hero Motorcorp stood at last position with 7.45% average cost of equity. So far as concern to yearly average cost of equity, it can found that in the year 2008 - 09 it was 7.46% lowest during the study period.

Table No. 4

Total Weighted Average Cost of Capital of Selected Corporate units

Year	Maruti Suzuki	Hero Motocorp	Ashok Leyland	ITC Ltd.	TCS Ltd.	Mean
2004-05	4.32	6.73	4.29	7.29	7.31	5.99
2005-06	4.15	6.94	5.24	7.54	7.62	6.30
2006-07	3.70	7.01	5.88	7.56	7.64	6.36
2007-08	3.23	7.04	5.45	7.34	7.44	6.10
2008-09	3.07	7.10	4.82	7.23	7.58	5.96
2009-10	3.31	7.33	4.81	7.36	7.51	6.06
2010-11	3.45	4.23	4.73	7.40	7.49	5.46
2011-12	3.91	5.23	4.39	7.30	7.54	5.67
2012-13	7.30	6.31	3.94	7.43	7.26	6.45
Mean	4.05	6.44	4.84	7.38	7.49	6.04

(Sources: Computed by researcher from capitaline.com)

Above table No. 4 represent average wacc of the sample auto mobile companies during the study period. It was 6.04% average WACC of sample corporate sector units during the study period. With the 7.49% average wacc TCS Ltd stood at first position among selected companies during the study period. It can be found that with 7.38%, 6.44% and 4.84% respectively ITC Ltd, Hero Motocorp and Ashok Leyland stood second, third and forth position among selected corporate units during the study period.

Table No. 5

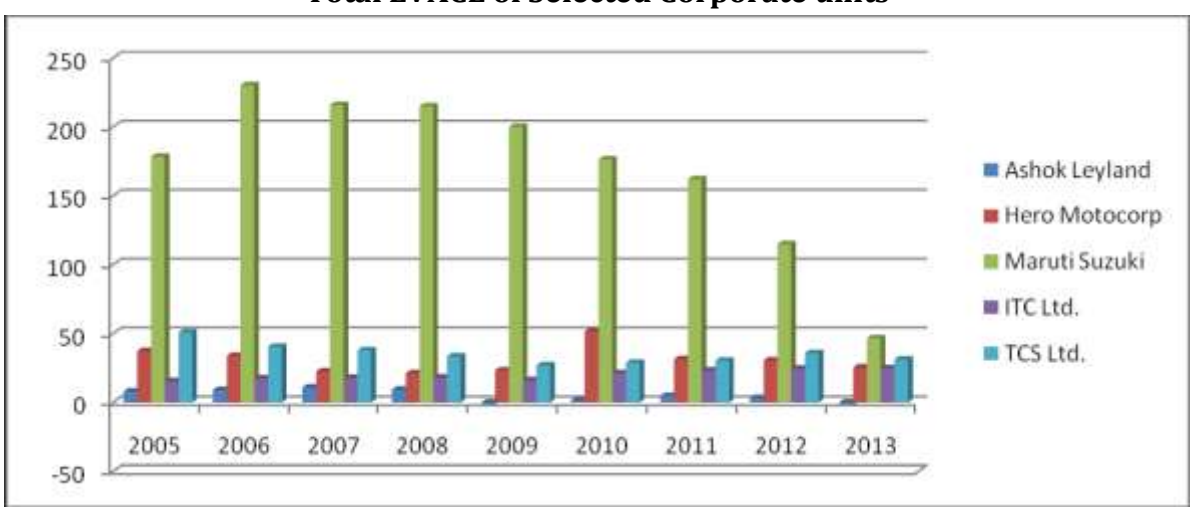
Total EVACE of Selected Corporate Sector units (In %)

Company Name	2005	2006	2007	2008	2009	2010	2011	2012	2013	Mean
Ashok Leyland	7.93	9.14	10.92	9.39	-1.53	1.64	4.80	3.22	-2.11	4.82
Hero Motocorp	37.26	33.90	22.48	21.16	23.33	51.63	31.49	30.48	25.33	30.78
Maruti Suzuki	178.39	230.23	215.81	215.04	199.98	176.36	162.03	114.88	46.66	171.04
ITC Ltd.	15.45	17.41	17.91	18.12	16.23	21.35	23.15	24.49	24.87	19.89
TCS Ltd.	50.88	40.46	37.87	33.40	26.89	28.78	30.38	35.78	31.14	35.06
Mean	57.98	66.23	61.00	59.42	52.98	55.95	50.37	41.77	25.18	52.32

(Source: Computed by researcher from capitaline.com)

Chart No. 1

Total EVACE of Selected Corporate units



Above mention table No. 5 and chart No. 1 represents EVACE of the sample corporate units during the study period. From above table it can found that average EVACE of the sample auto companies during the study period was 52.32%. During the period under review among the five companies Maruti Suzuki generate maximum EVA 171.04%. It shows that among the five selected corporate units Maruti Suzuki is best performing unit during the study period. With the 35.06% TCS Ltd, 30.78% Hero Motocorp, and 19.89% ITC Ltd respectively stood second, third and fourth position among selected automobile companies during the study period.

So far as concern to year wise interpretation researcher has been

analyze that in the year 2005-06, Maruti Suzuki having 230.23% EVACE which is highest among the selected automobile companies during the study period. In the year 2006-07 it decrease with 14.42% and reached up to 215.81%. After word continues decreasing trend has been seen in the Maruti Suzuki ltd during the study perod. In the year 2008 – 09 & 2012 – 13 Ashok Leyland create negative EVACE among the selected corporate units.

$H_0 = \mu_1=\mu_2=\mu_3=$……

There is no significant difference in the value creation ability of sample corporate units during the study period.

Table No. 6

Two – way ANOVA Table for EVACE of selected corporate units

Source of Variation	SS	D.F.	M.S	F	P-value	F crit
Between Rows	163477.5	4	40869.4	58.263	3.1E-14	2.67
Between Columns	6083.1	8	760.387	1.084	0.40	2.24
Error/ Resudual	22446.7	32	701.459			
Total	192007.3	44				

Result of two way ANOVA table

Computed value of F between row = 58.26

Critical value of F at 5% significance level between row = 2.67

Result = H_1 Accepted

Computed value of F between column = 1.08

Critical value of F at 5% significance level between column = 2.24

Result = H_0 Accepted

As per table No. 6 shows since computed value of F 58.26 between row is higher than critical/ table value 2.67, null hypothesis has been rejected and alternative hypothesis has been accepted. It shows that there is significant difference in the value creation ability of selected corporate units during the study period. But since computed value of F between columns 1.08 is lower than critical value 2.24, null hypothesis has been accepted. It shows

that there is no significant difference in the EVACE during the study period.

11. Findings of the Study:

- In the present study researcher found that difference in EVACE of selected corporate units can be seen significant. That shows that value creation ability of sample auto mobile companies are different.
- Further researcher has also been found that there is no significant difference in the EVACE during the study period. Difference between years was due to chance factor.
- Ashok Leyland create negative EVA in the year 2008 – 09, 2012 - 13.

12. Conclusion:

The overall performance of sample corporate units has been satisfactory. All sample companies able to generate value for its shareholders. But Ashok Leyland should create positive EVA over a period of time. Traditional concept of profit shows quite high value as compare to EVACE. It shows that traditional tool shows healthy financial position of the sample companies during the study period. It does not deduct value of cost of capital from their actual profit.

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