



EVA and Traditional Performance Measurement Techniques (A Comparative Study)

* Shivani Gupta ** Manisha Gaur

* Assistant Professor in PG Deptt. Of Commerce, Govt. College, Chandigarh

** Assistant Professor in Department of Economics, Govt. College, Chandigarh

ABSTRACT

EVA is a registered trademark by its developer, Stern Stewart & Co. Economic Value Added or EVA is an estimate of true economic profit after making corrective adjustments to GAAP accounting, including deducting the opportunity cost of equity capital. By taking all capital costs into account, including the cost of equity, EVA shows the financial amount of wealth a business has created or destroyed in a reporting period.

Key word : EVA, Commerce, Chandigarh

The EVA Theory

EVA can be calculated as follows:

$$EVA = NOPAT - WACC \times CAPITAL EMPLOYED$$

Where

NOPAT refers to net operating profits after taxes. NOPAT is equal to earnings before interest and tax (EBIT) minus adjusted taxes (AT).

EBIT refers to the earnings before interest and tax.

Till now the companies have been applying traditional performance measures like Net Income, Return on Assets (ROA), Return on Equity (ROE), Earnings Per Share (EPS) and Market Value Added (MVA). But these traditional measures have a major limitation that they ignore cost of capital which is essential to determine the actual performance.

For the purpose of comparison between traditional performance techniques and Economic Value Added technique, the following parameters have been used for performance evaluation: -

B= bad (negative value)

A= Average (upto 5%)

S= Satisfactory (5% to 10%)

G= Good (10% to 15%)

VG= very good (More than 15%)

In case of EPS

B= bad (negative value)

A= Average (upto Rs. 5)

S= Satisfactory (Rs. 5 to Rs. 10)

G= Good (Rs. 10 to Rs. 15)

VG= very good (More than Rs. 15)

Table 1: Five companies have been selected in Steel Industry as follows

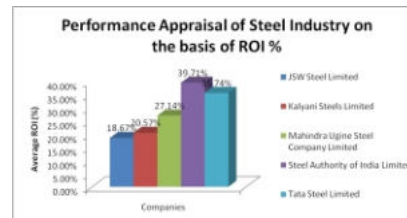
S.No.	Name of the Company
A	Steel Industry
1	JSW Steel Limited
2	Kalyani Steels Limited
3	Mahindra Ugine Steel Company Limited
4	Steel Authority of India Ltd.
5	Tata Steel Limited

The Analysis

I. On the Basis of ROI

Return on Investment (ROI) analysis is one of several commonly used financial metrics for evaluating the financial consequences of business investments, decisions, or actions. ROI analysis compares the magnitude and timing of investment gains directly with the magnitude and timing of investment costs. A high ROI means that investment gains compare favorably to investment costs.

Figure 1



Following observations have been made regarding performance of Steel Industry on the basis of ROI Technique:

1. Overall performance of steel industry has been rated as very good.
2. Steel Authority of India Limited has earned the highest ROI at 39.71% and JSW Steel Limited has earned the lowest ROI at 18.67%.
3. All the five companies have earned high rate of ROI and the performance of all the five has been rated as very good. (Above 15%)

II. On the Basis of EPS:

Earnings per share (EPS) are the earnings returned on the initial investment amount. The EPS formula does not include preferred dividends for categories outside of continued operations and net income. Earnings per share for continuing operations and net income are more complicated in that any preferred dividends are removed from net income before calculating EPS.

$$\text{Earnings Per Share} = \frac{\text{Profit}}{\text{Weighted avg common shares}}$$

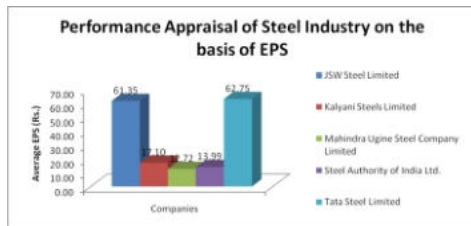
$$\text{Earnings Per Share} = \frac{\text{Net Income}}{\text{Weighted avg common shares}}$$

(Net Income Formula)

$$\text{Earnings Per Share} = \frac{\text{Income from Operations}}{\text{Weighted avg common shares}}$$

(Continuing Operations Formula)

Figure 2



Following observations have been made regarding performance of Steel Industry on the basis of EPS Technique:

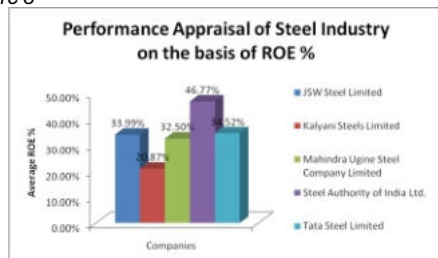
1. Overall performance of steel industry has been rated as very good.
2. Tata Steel Limited has earned the highest EPS at Rs. 62.75 per share and Mahindra Ugine Steel Company Limited has earned the lowest EPS at Rs. 12.72 per share.
3. The performance of 3 companies has been rated as very good (Above 15%) and the performance of 2 companies as good (Between 10% to 15%).

III. On the Basis of ROE

Return on Equity (ROE), Return on average common equity, return on net worth measures the rate of return on the ownership interest common stock owners. It measures a firm's efficiency at generating profits from every dollar of shareholders' equity (also known as net assets or assets minus liabilities). It shows how well a company uses investment dollars to generate earnings growth. ROE is equal to a fiscal year's net income (after preferred stock dividends but before common stock dividends) divided by total equity (excluding preferred shares), expressed as a percentage.

$$\text{ROE} = \frac{\text{Net income}}{\text{Shareholder equity}}$$

Figure 3



Following observations have been made regarding performance of Steel Industry on the basis of ROE Technique:

1. Overall performance of steel industry has been rated as

very good.

2. Steel Authority of India Limited has earned the highest ROE at 46.77% and Kalyani Steels Limited has earned the lowest ROE at 20.87%.

3. All the five companies have earned high rate of ROE and the performance of all the five has been rated as very good. (Above 15%)

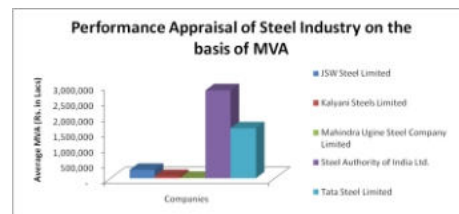
IV. On the Basis of MVA and MVA as % of Capital Employed

Market Value Added (MVA) is the difference between the current market value of a firm and the capital contributed by investors. If MVA is positive, the firm has added value. If it is negative, the firm has destroyed value. The amount of value added needs to be greater than the firm's investors could have achieved investing in the market portfolio, adjusted for the leverage (beta coefficient) of the firm relative to the market.

$$\text{Market Value Added (MVA)} = \text{Market Value} - \text{Invested Capital.}$$

The higher the Market Value Added (MVA) is, the better it is. A high MVA indicates the company has created substantial wealth for the shareholders. MVA is equivalent to the present value of all future expected EVAs. Negative MVA means that the value of the actions and investments of management is less than the value of the capital contributed to the company by the capital markets. This means that wealth or value has been destroyed.

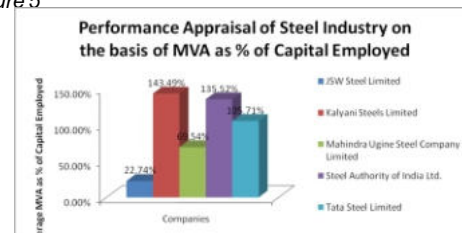
Figure 4



Following observations have been made regarding performance of Steel Industry on the basis of MVA Technique:

1. Overall performance of steel industry has been rated as very good.
2. Steel Authority of India Limited has added the highest MVA at Rs. 28,35,201 lacs and Mahindra Ugine Steel Limited has added the lowest MVA at Rs. 15,399 lacs.
3. Performance of all the 5 companies has been rated as very good.

Figure 5



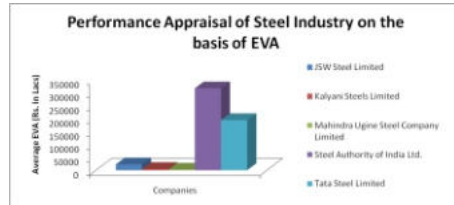
Following observations have been made regarding performance of Steel Industry on the basis of MVA as % of capital employed Technique:

1. Overall performance of steel industry has been rated as very good.
2. Kalyani Steels Limited has added the highest MVA as % of capital employed at 143.49% and JSW Steel Limited has added the lowest MVA as % of capital employed at 22.74%.
3. All the five companies have added high rate of MVA as % of capital employed and the performance of all the five has been rated as very good. (Above 15%)

V. On the Basis of EVA and EVA as % of Capital Employed

One of the main drawbacks of traditional measures of performance is that they ignore cost of capital. While true profitability can be measured by calculating how much profit available after compensation against cost of capital. Such a performance evaluation is possible with help of EVA.

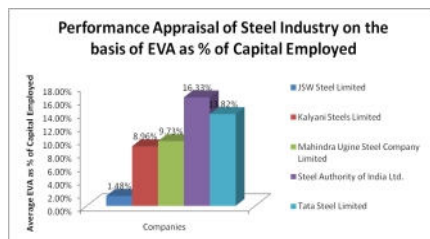
Figure 6



Following observations have been made regarding performance of Steel Industry on the basis of EVA Technique:

1. Overall performance of steel industry has been rated as good.
2. Steel Authority of India Limited has added the highest EVA at Rs. 3,15,357 lacs and Mahindra Ugin Steel Limited has added the lowest EVA at Rs. 2,036 lacs.
3. Performance of 1 company has been rated as very good, performance of 1 company as good, performance of 2 companies as satisfactory and performance of 1 company as average.

Figure 7



Following observations have been made regarding performance of Steel Industry on the basis of EVA as % of capital employed Technique:

1. Overall performance of steel industry has been rated as good.
2. Steel Authority of India Limited (SAIL) has added the highest EVA as % of capital employed at 16.33% and JSW Steel Limited has added the lowest EVA as % of capital employed at 1.48%.
3. Performance of 1 company has been rated as very good (above 15%), performance of 1 company as good (between 10% to 15%), performance of 2 companies as satisfactory (between 5% to 10%) and performance of 1 company as average (between 0% to 5%).

Conclusion:

The above observations indicate that the traditional measures inflate the results because they do not take cost of capital in their calculations. The results derived from the traditional measures do not indicate the true picture. In traditional measures very few companies' performance is bad, but EVA has indicated that the performance of 21 companies has been bad. Though companies are earning high ROI, ROE, EPS, NVA, MVA yet they have not been meeting their cost of capital effectively. EVA does not rate the performance on the higher side. Thus, it is clear from the analysis of all the companies that EVA gives the true picture regarding financial health of the companies and true profit after meeting weighted cost of capital.

REFERENCES

- Al Ebrhar and G. Bennett Stewart III "The EVA Revolution", of Journal Applied Corporate Finance, Summer 1999. | Anand Manoj, Ajay Garg and Asha Arora "EVA, Business performance measure of shareholder value", The Management Account, May 1999. | Biddle, G. Bwen, R.M. Wallace, J.S. "Abstract of Evidence on the relative and incremental information content of EVA residual income, earnings and operating cash flow", University of Washington, USA, 1996. | Benerjee Ashok "Agency Cost and Free Cash Flows: The Stakeholders Stake". The Chartered Accountant, Nov. 1998. | Biddle, Bowen and Wallace "Evidence on EVA", Journal of Applied Corporate Finance, Vol. 12(2), 1999, 69-96. | Benerjee A. "Economic Value Added and Shareholder Wealth- An empirical study of relationship", Paradigm, Vol. 3, (1), 1999, 99-133. | Benerjee Ashok "Linkage between EVA and MV: An Analysis". Vikalpa (IIMA) July Sept. 2000. | Berenson, R.A Bringing Collaboration into the Market Paradigm: Health Affairs 17(6):128-137, 1998. | Benerjee Ashok "An EVA linked Model Executive Compensation"; The Chartered Accountant (ICAI), May 2001. | Bhattacharya Ashish K. and Phani B.V. "Economic Value Added: In search of Relevance"; Decision (IIM Calcutta); July Dec. 2000. | Chattapodhyay A.K. and Gupta A. "Linkage Between market Capitalization and EVA Study with Reference to HLL", IJA, June 2001. | Castles, A.G., Milstein A., and Damberg, C.L "Using Employer Purchasing Power to Improve the Quality of Perinatal Care. Pediatrics" 103(1) Supplement: 248-254, January 1999.