Volume : 5 | Issue : 1 | JANUARY 2016 • ISSN No 2277 - 8179

Research Paper

Analysis of Financial Performance Using Mva Approach

Commerce

KEYWORDS :

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1. THE PRELUDE

The Indian Steel Industry is today the 8th largest producer of steel in the world. Steel is a highly capital intensive Industry and cyclical in nature. Its growth is intertwined with the growth of the economy at large. The Steel Industry contributes 1.3 percent to India's GDP and accounts for 10 percent in Excise Duty Collections. Indian Steel Industry is with capital investment of over Rs.1,00,000 crores. It provides employment to 2 million people. The Steel Industry plays a vital role in transforming India into an economic super power. Steel provides basic raw materials to the large number of industries such as engineering, machine tools, ship building, railways and other industries. In this paper an attempt has been made to analyse the financial performance of Iron and Steel units through Market Value Added approach.

2. MARKET VALUE ADDED (MVA) APPROACH

In a nut shell, the Iron and Steel Industry in India plays a pivotal role in the country's prosperity and economic development. The present study is undertaken to study the financial performance of Iron and Steel units in India by using Market Value Added (MVA) approach. MVA is one of the external indicators which give the utmost satisfaction to the investors. From the investor's point of view, increase of the share prices is always desirable. The most reliable measure of management's long term success in adding value is known as "Market Value Added" (MVA). MVA is the difference between company's current market value as determined by its Stock price and economic book value. Economic value of the company can be determined as the amount of capital that share holders have committed to the firm throughout its existence, including earnings that have been retained in the business. MVA is the best external performance indicator as it indicates the market assessment of the effectiveness with which companies' managers have used the scarce resources under their control. Hence, it turns out to be very significant and important to analyse and identify the internal indicators that relate well with Market Value Added (MVA). Market Value Added refers to the value added to the shareholders' wealth by the firm. If MVA is positive, it implies that the firm added value to the shareholders' wealth. If MVA is negative, it indicates that the firm is destroying the shareholders' wealth.

3. METHODOLOGY

There are 227 Sponge Iron units, 650 mini furnace units and 1200 reroller units working in India. Since Sponge Iron units are the base for production of other Iron and Steel units, the present study is focusing on Sponge Iron units only. Out of 227 Sponge Iron units, 54 units are working for the past five years. Therefore, 20 percent of the sample has been chosen for the present study. Following are the 11 select Iron and Steel units in India.

1. Adhunik Mettaliks Limited, Kolkata, West Bengal
2. Jai Balaji Sponge Limited, Kolkata, West Bengal
3. Godavari Ispat and Power Limited, Sitara, Chattisgarh
4. Monnet Ispat and Energy Limited, Rajpur, Chattisgarh
5. Vikash Metal and Power Limited, Kolkata, West Bengal
6. Jindal Steel and Power Limited, Hissar, Haryana
7. Orissa Sponge Iron Limited, Bhubaneshwar, Orissa
8. Raipur Alloys and Steel Limited, Nagpur, Maharastra
9. Tata Sponge Iron Limited, Joda, Orissa
10. Essar Steel Limited, Surat, Gujarat
11. Kanishk Steel Industries Limited, Salem, Tamil Nadu

In the present study an attempt has been made to examine the effect of select variables on MVA. The objective of the study is to know one of the internal measures, which can influence the MVA. Therefore, MVA is taken as a dependent variable and the eight other variables are selected as independent variables. The independent variables chosen for the study are:

- Return on Net Worth (RONW)
- Capital Productivity (CP)
- Labour Productivity (LP)
- Earnings Per Share (EPS)
- Economic Value Added (EVA)
- Return on Sales or turnover (ROS)
- Return on Total Assets (ROTA)
- Cash profit

One year period has been taken i.e., from 1-4-2014 to 31-3-2015 for computing the above variables and also for analysis. A brief description of each variable is discussed below.

4. DETERMINATION OF MVA AND OTHER INDEPENDENT VARIABLES

a) Market Value Added (MVA)

MVA is derived by deducting the book value of the firm from its market capitalisation. The book value of the firm is equity share capital plus reserves and surplus, minus any revaluation reserve and miscellaneous expenses. Market value of the firm can be arrived at by dividing Earnings Before Interest and Taxes (EBIT) by overall cost of capital.

MVA = Market Value of the firm – Book Value of the firm

$$\text{Market Value of the firm} = \frac{\text{EBIT}}{\text{Ko}}$$

Where EBIT = Earnings Before Interest and Taxes

KO = Weighted Average Cost of Capital (WACC)

Book value of the firm = Equity share capital + Reserves and surplus - (Revaluation reserves + miscellaneous expenses)

b) Return on Net Worth (RONW)

It is calculated by dividing the net profit after taxes and preference share dividend by the average net worth.

$$\text{RONW} = \frac{\text{PAT} - \text{Preference share dividend}}{\text{Average net worth}}$$

$$\text{Where, average net worth} = \frac{\text{Opening Net Worth} + \text{Closing Net Worth}}{2}$$

c) Capital Productivity (CP)

Capital Productivity can be determined by dividing value added by capital. Value added is net sales plus changes in stocks minus raw materials consumed and power and fuel cost. Capital is treated as net fixed assets. This ratio is crucial because it is a reliable indicator of efficient utilisation of assets which is the sine

Volume : 5 | Issue : 1 | JANUARY 2016 • ISSN No 2277 - 8179

$$\text{Capital Productivity} = \frac{\text{Value Added}}{\text{Capital}}$$

d) Labour Productivity (LP)

The higher the value of output per unit of rupee spent on wage the higher the labour productivity. This can be done by employing less labour, by reducing per employee cost or by really improving productivity. Thus:

$$\text{Labour Productivity} = \frac{\text{Value added}}{\text{Wage Cost}}$$

e) Earnings Per Share (EPS)

This is calculated by dividing the net profit after tax and preference share dividend or net profit available to the equity share holders divided by the number of ordinary shares. It indicates the net profit available to the ordinary share holders on a per share basis.

$$EPS = \frac{\text{Net Profit (after taxes and preference share dividend)}}{\text{Number of ordinary shares}}$$

(or)

$$EPS = \frac{(EBIT - I)(1 - t) - Pd}{N}$$

Where:

EBIT = Earnings Before Interest and Taxes

I = Interest

t = Tax

Pd = Preference share dividend

N = Number of common shares outstanding

f) Economic Value Added (EVA)

EVA is just the dollar amount by which, a company's pre interest but after tax net operating income or net operating profit after taxes (NOPAT) exceeds the charge for total Capital. Economic Value Added is positively and significantly associated with the firm's value. For the purpose of analysis, EVA is derived as follows:

$$EVA = (r - c) \times \text{Invested capital}$$

Where:

$$r = \frac{\text{NOPAT}}{\text{Invested capital}}, \quad c = \frac{\text{Cost of capital}}{\text{Invested capital}}$$

For calculation of Weighted Average Cost of Capital (WACC), invested capital is divided into three parts, viz., equity and preference and debt capitals. WACC is the combination of cost of equity, cost of preference and cost of debt i.e., Ko + Kp + Kd.

g) Return on Sales (ROS)

Return on sales is derived by dividing profit before interest and tax (PBIT) by sales.

$$ROS = \frac{PBIT}{Sales}$$

h) Return on Total Assets (ROTA)

This gives productivity of all assets taken together. It can be calculated using the following formula:

$$\text{Return on Total Assets} = \frac{\text{PBIT – Tax Provision}}{\text{Total assets}}$$

i) Cash Profit

Cash profit is derived as profit after taxes plus depreciation plus expenses amortized. The Market value Added (MVA) and the eight other independent variables such as Return on Net Worth (RONW), Capital Productivity (CP), Labour Productivity (LP), Earnings Per Share (EPS), Economic Value Added (EVA), Return On Sales (ROS), Return o0n Total Assets (ROTA) and Cash profit of eleven sample Iron and Steel units are computed.

The Market Value Added (MVA) is positive in the case of Adhunik Metalliks Limited, Godavari Ispat and Power Limited, Jai Balaji Sponge Limited, Monnet Ispat and Energy Limited, Jindal Steel and Power Limited, Raipur Alloys and Steel Limited, Tata Sponge Iron Limited, Essar Steel Limited and Kanishk Steel Limited. Therefore, the performance of these companies in terms of MVA is good. It implies that these companies added value to the shareholders' wealth. In the case of Vikash Metal and power Limited and Orissa Sponge Iron Limited, the MVA is negative. It means that the financial performance of these two units is not satisfactory. In other words, these two Iron and Steel units are destroying the wealth of shareholders'.

Regressions are run of MVA on eight variables mentioned above individually to examine the effect of each variable on MVA. The results are shown in the following Table.

REGRESSION OF MVA ON SELECT INDEPENDENT VARIABLES

S.No	Variable	R	R^2	t-Value
1	Return On Net Worth	0.306	0.094	0.965^{NS}
2	Capital Productivity	0.419	0.176	1.387^{NS}
3	Labour Productivity	0.122	0.014	-0.368^{NS}
4	Earning Per Share	0.976	0.953	13.520*
5	Economic Value Added	0.049	0.002	0.149^{NS}
6	Return On Sales	0.734	0.538	3.239**
7	Return On Total Assets	0.423	0.179	1.40^{NS}
8	Cash Profits	0.681	0.464	2.792**

NS : Not Significant * : Significant at 1% level ** : Significant at 5% level

It can be inferred from the above analysis that three variables out of eight viz., EPS, ROS and Cash Profit are found to have significant impact on MVA. This implies that the MVA of Iron and Steel units is not only affected by select independent variables but also influenced by other factors.

5. CONCLUSION

The performance of select Iron and Steel units in terms of profitability cannot be increased unless the interlinked problems like modernisation, cost reduction, control, taxes etc. are solved. Since Iron and Steel Industry is playing an important role in building the industrial base of the nation and providing infrastructure for the development for the economy, the government of India should play a pivotal role in extending financial support to the Iron and Steel units at concessional rates and should take suitable policy measures for its development.

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