



Capital Structure and Leverage analysis for maximization of stakeholders' wealth with reference to Metal Forging Industry in India

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Abstract: The study attempts to look into the financial statements of the metal forging companies in India and checks out whether the capital structure and leverage of those companies are sufficient to ensure the sustainability of wealth creation of the shareholders of metal forging industries. Leverage to some extent is good for expanding operation and generating profits for the companies. However, too much leverage is considered to be unsustainable and can make the companies prone to default in the event of recession or external shocks. The companies need to maintain a sound debt-equity ratio which should have a proper mix of tier 1 and tier 2 capital. The structure of equity capital should have a good weightage of Convertible preference share that can be converted into equity in the event of the difficulties of the companies in fulfilling debt obligations. The companies are recommended to maintain a decent debt-service coverage ratio to meet the interest and principal payment obligation in an uninterrupted manner. The dividend policy should be such that it does not hinder the expansionary requirement of the metal forgers. The external agencies need to be assigned to periodically audit the financial position of the companies and review the creditability in due manner. Board of the companies should be inclined towards funding the expansionary needs of the companies from the retained earnings rather than leveraging funds from financial markets and institutions in the form of debentures and bank loans. Companies resorting to external commercial borrowing should be aware of the exchange rate risk and its consequent impact on the financial profile.

Key Words: Metal forging firm, Capital Structure, Debt to Equity, Leverage, Profitability, Liquidity, Ratio Analysis, Shareholders' wealth, Dividend.

1. INTRODUCTION:

The story India's economic growth and prosperity post-Independence has seen a level jump from an Agrarian economy to a Service-based economy without putting much importance on the manufacturing sector, except some State-owned heavy industries holding the monopolies in their fields. The LPG reforms has opened up the avenue of Global presence in Indian market and the competition has fostered the growth of domestic private manufacturers. The 21st Century has seen some of the biggest manufacturing segments flourishing in the Indian economy, with Automobile and Shipping industries being the forerunner and defence, aerospace, robotics being the latest entrants. Metal forging and Casting Industries predominantly dominated by Steel forging has all along been prevalent in India. India is the world's largest Steel producer and the overall Metal forging sector in India stands third in the world. Given the role of the Metal casting and forging industries as the contributor of the industrial components to the end-user industries, the importance of this sector has increased tremendously with the recent manufacturing boom in India. The Automotive and Construction Industries are highest users of forged metals and are jointly contributing almost 35% of India's manufacturing GDP. India is all set to become the Global Manufacturing hub and is putting all pieces together to forge its dream envisaged under the 'Make in India' program, which articulates 25% share of manufacturing sector in India's GDP by 2025. In lines with the vision, the Metal forging industry has a significant role to play to process and supply the much-needed capital goods to the product manufacturers.

The Capital Structure of any industry is a mix of equity and debt capital. Higher leverage of a company in the form of debt burden diminishes the Net profit as a major chunk goes to meet the obligation of interest and principal payment. Funding the operation of a company through the equity shareholder's fund retains the profit with the Company and maximizes wealth of Shareholders in terms of higher dividends.

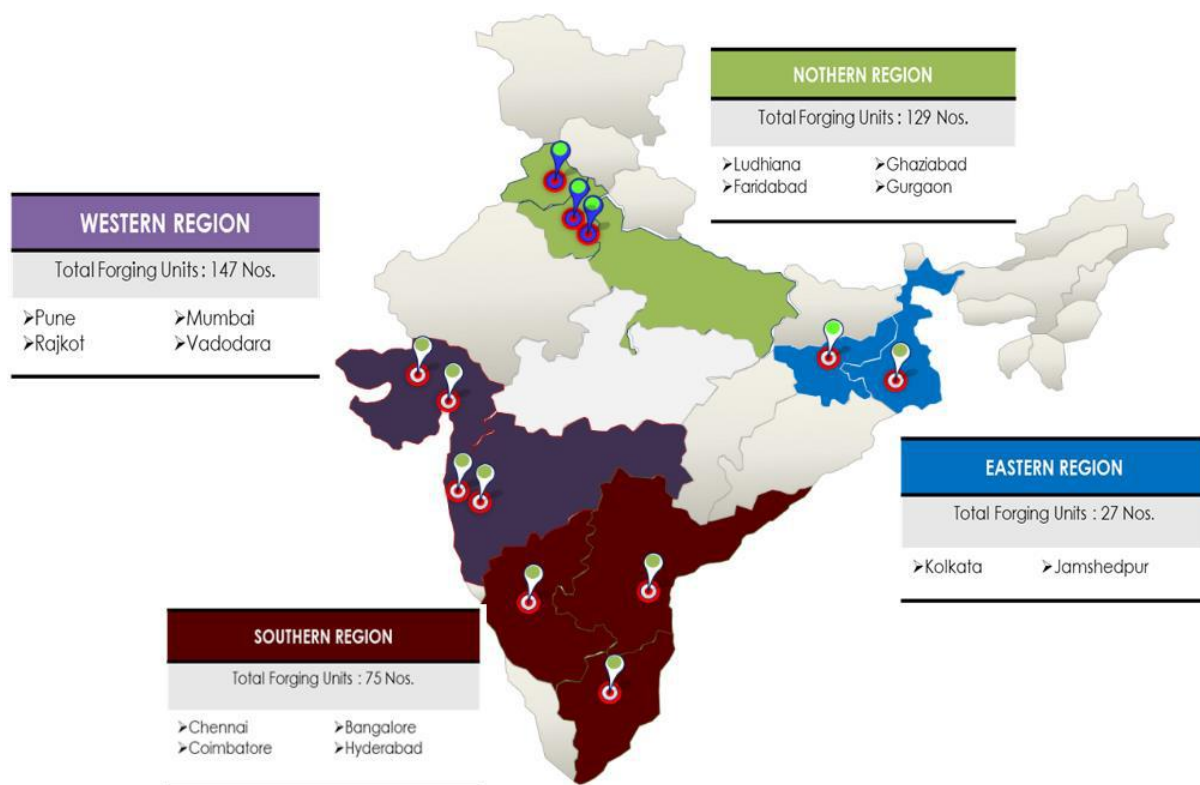


Figure 1: Metal Forging Industry in India

2. REVIEW OF LITERATURE:

Mohammed Abu Sayeed (2011) revealed in their study that the Capital Structure is decided based on 2 theories: Packing Order and Static Trade Off theory. The debt to total Capital of the company is analysed with the help of regression analysis. Some factors are found to positively affecting the capital structure, whereas others are found to have negative impact on the same.

Anup Chowdhury and Suman Paul Chowdhury (2010) conducted their research on the companies of Bangladesh to analyse the debt equity structure of the same. They took the share price as proxy while determining the market valuation of the companies and took the help of ratio analysis in explaining the Capital structure. They have concluded that the shareholders' wealth is maximized with the perfect mix of debt and equity of the companies.

Lalith, P.S (1999) studied the leverage of Sri Lankan companies and found out that the average leverage of those firms stood at 13.5. The long-term debt to equity ratio came out as 24% while the total debt to equity ratio was 101%. They concluded that the leverage in Sri Lankan companies is much lower as compared to global counterparts and majority of their firms had a capital structure tilted towards equity financing.

Taiwo Adel Mawa (2012) pointed out the impact of Capital Structure on the performance of a firm. The financial performance of a firm was determined by the Asset Turnover and the Return on Equity also indicated the measure of financial performance. The age and Size of the firm also influenced the performance and sectoral variance. Their study revealed a negative relation between Asset tangibility and ROA.

Pascal Francois and Erwan Morel (2004) have highlighted in their model the importance of leverage in the Corporate Decision. They advocated that debt recognition is directed towards early default and rising credit spreads on Corporate Debt. Where the debtors have most of the bargaining power, the constraint on the recognition phase determines whether the leverage is set to increase or decrease.

3. RESEARCH GAP:

After reviewing the research papers, following research gaps have been identified:

- The liquidity of the firm needs to be analysed to further understand the requirement of change in Capital mix.
- The Operating profit of the firms need to be focused and its impact on determining capital structure should be examined.
- The efficiency of the firms to monetize its fixed assets needs to be looked after.



- The Capital Structure needs to be discussed in the light on the previously accumulated interest and principal payment obligation.

4. OBJECTIVES OF THE STUDY:

- To check out the liquidity and efficiency of the Metal forging firm to maintain a stable Capital mix without much disruption.
- To examine the Capital Structure in the form of ratio of debt to equity with a consideration of solvency to meet previous payment obligation.
- To analyse the profitability of the Metal forging firm to further determine the course of action with regard to the Capital Structure.

5. RESEARCH METHODOLOGY:

The study is based on the secondary data acquired from the annual report of the financial Statement of the well-known Metal Forging Firm Hilton Metal Forging Ltd. The data from the Balance Sheet of the company is picked up for 5 years ranging from 2018 to 2022. The following financial ratio has been computed for analysing different dimensions of the company, i.e Liquidity, Leverage, Activity and Profitability.

Liquidity Ratio:

- Current Ratio- Current Asset / Current Liability
- Quick Ratio- Quick Asset / Quick Liability

Leverage Ratio:

- Total Debt / Equity
- Debt Service Coverage Ratio- Total Cash flow / Debt Obligation

Capital Structure Ratio:

- Owner's Fund / Capital

Activity or Efficiency Ratio:

- Fixed Asset Turnover Ratio- Inventory Turnover / Fixed Asset

Profitability Ratio:

- Percentage Return on Net Worth

6. DATA ANALYSIS:

BalanceSheet - Hilton Metal Forging Ltd.

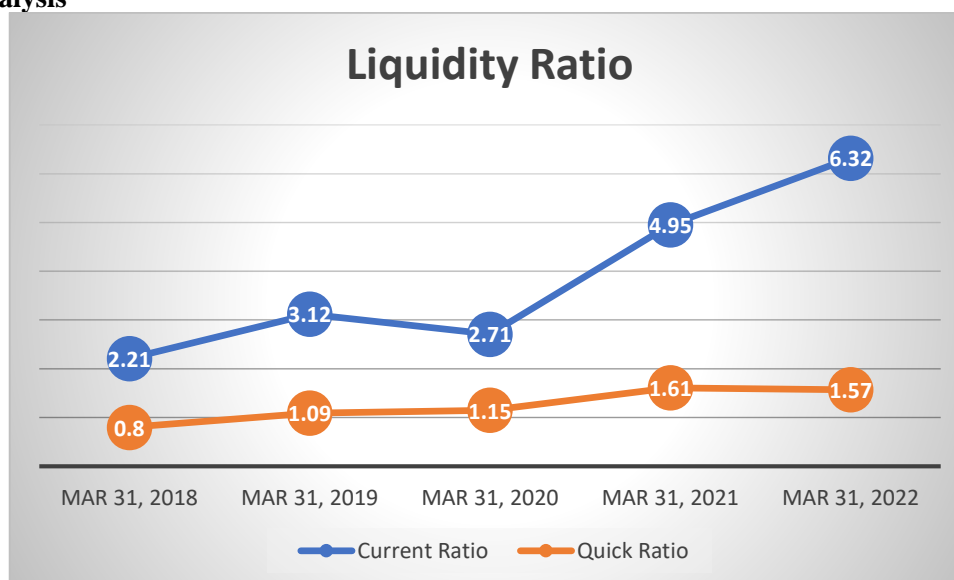
Rs (in Crores)					
Particulars	Mar'22	Mar'21	Mar'20	Mar'19	Mar'18
Liabilities	12 Months	12 Months	12 Months	12 Months	12 Months
Share Capital	12.44	12.44	12.44	12.44	12.44
Reserves & Surplus	32.43	30.67	50.24	48.78	46.99
Net Worth	44.88	43.11	62.69	61.22	59.44
Secured Loan	57.33	53.73	43.76	38.26	32.11
Unsecured Loan	.00	.00	.00	3.25	3.00
TOTAL LIABILITIES	102.20	96.85	106.45	102.73	94.54
Assets					



Gross Block	60.34	60.23	58.04	57.58	57.64
(-) Acc. Depreciation	29.53	27.20	24.93	22.67	20.58
Net Block	30.81	33.03	33.11	34.91	37.06
Capital Work in Progress	8.48	.00	.00	.30	.00
Investments	.01	.01	.01	.01	.01
Inventories	54.64	53.99	66.80	64.53	67.08
Sundry Debtors	1.39	9.42	33.51	18.62	27.55
Cash and Bank	1.24	.98	1.60	1.20	1.36
Loans and Advances	17.45	15.57	14.26	15.05	9.00
Total Current Assets	74.72	79.96	116.16	99.40	105.00
Current Liabilities	10.87	15.22	41.89	31.11	46.75
Provisions	.95	.93	.93	.77	.77
Total Current Liabilities	11.82	16.15	42.82	31.88	47.52
NET CURRENT ASSETS	62.90	63.81	73.34	67.52	57.48
Misc. Expenses	.00	.00	.00	.00	.00
TOTAL ASSETS(A+B+C+D+E)	102.20	96.85	106.45	102.73	94.54

Table 1: Balance Sheet of Hilton Metal Forging Ltd.

6.1 Liquidity Analysis



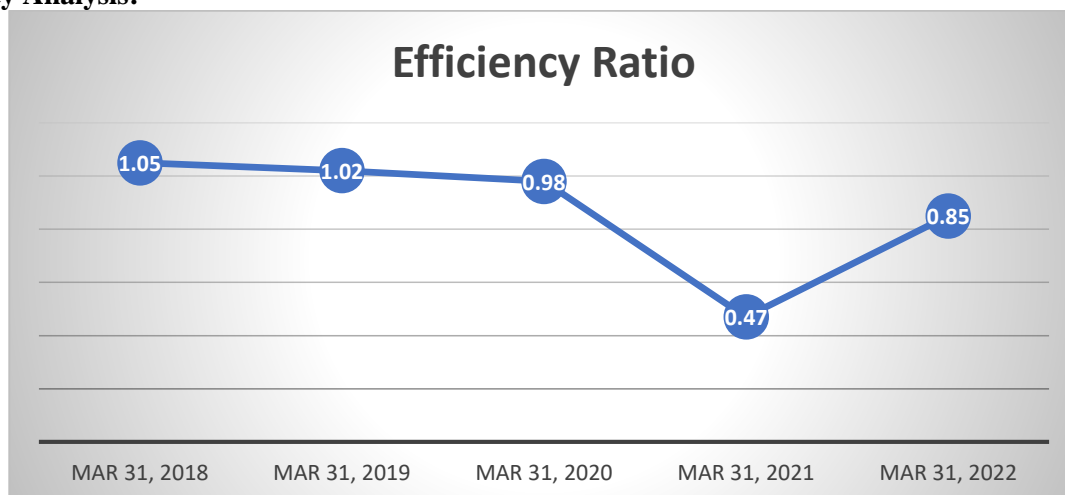
Graph 1: Liquidity Ratio of Hilton Metal Forging Ltd.

After analysing the balance sheet of Hilton Metal Forging Ltd., we have calculated 2 liquidity ratios. The Current ratio, given as the ratio of Current Assets and Current Liabilities, is observed to be positive over the last 5 years of analysis, which indicates a positive working capital gap, given by the excess of Current Assets over Current Liabilities. The Current Ratio averages around 2.6 for the first 3 years and later it spiked to 4.95 in 2021 and 6.32 in 2022. The Quick ratio, indicating the liquid assets available with the company to meet immediate requirement of operating expenses and payment obligation, is also found to be positive, i.e higher than the Current Liabilities. The



Quick Ratio averages around 1 for the first three years of study, then it became slightly higher for the next two years, 1.61 and 1.57 respectively. Notably, The Quick ratio didn't increase that much as compared to the Current Ratio for 2021 and 2022. That means that the Current Assets the firm acquired for the time periods is mostly illiquid in nature, might be in the form of Inventories or Account receivables.

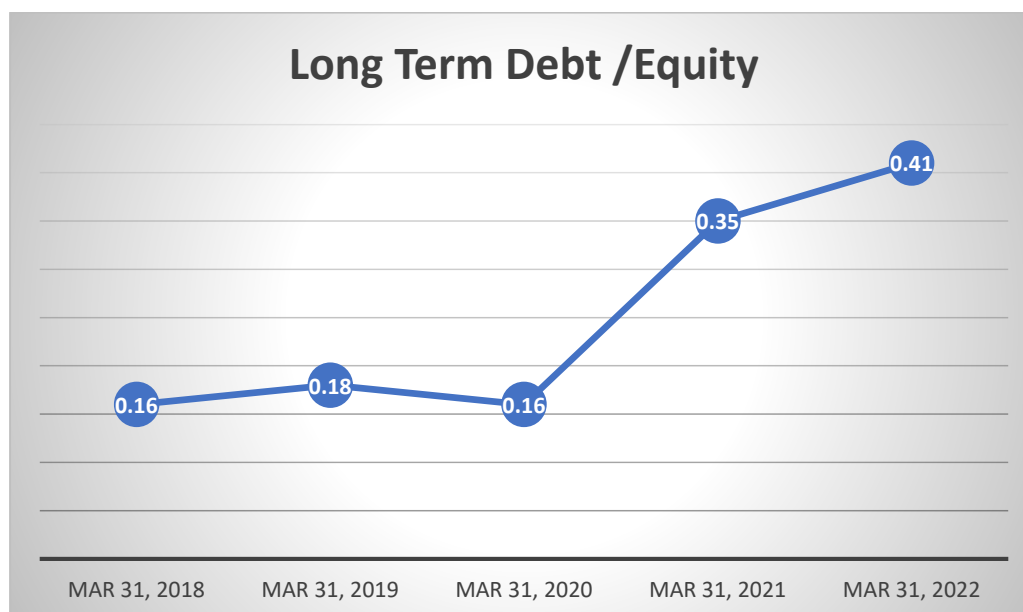
6.2 Efficiency Analysis:



Graph 2: Efficiency Ratio of Hilton Metal Forging Ltd.

The Fixed Asset Turnover Ratio, indicating the efficiency with which the firm is generating income out of its fixed asset is 1 on an average for the first three years. However, the years of 2021 and 2022 have seen an inefficient operation of the firm in generating lesser income than the fixed assets employed, marked by the respective ratios of 0.47 and 0.85.

6.3 Leverage Analysis:

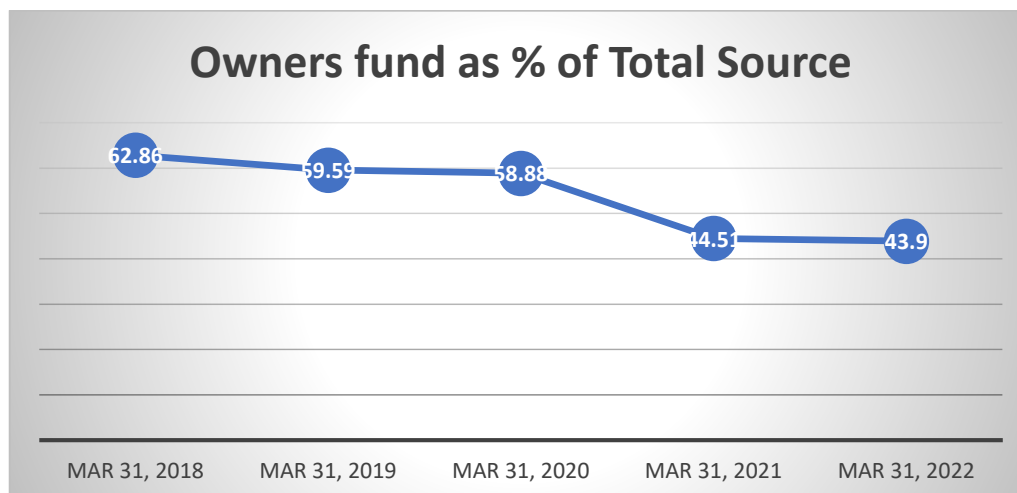


Graph 3: Long Term Debt/Equity Ratio of Hilton Metal Forging Ltd.

It is noted that the long-term debt of the firm stands at approx. 15% of the equity capital of the firm from 2018 to 2020. However, the leverage increased to 35% in 2021 and 41% in 2022, indicating that the company is increasingly piling up debt capital to finance its operation and/or meet its previous payment obligation. Such a trend is unsustainable if not checked in time.



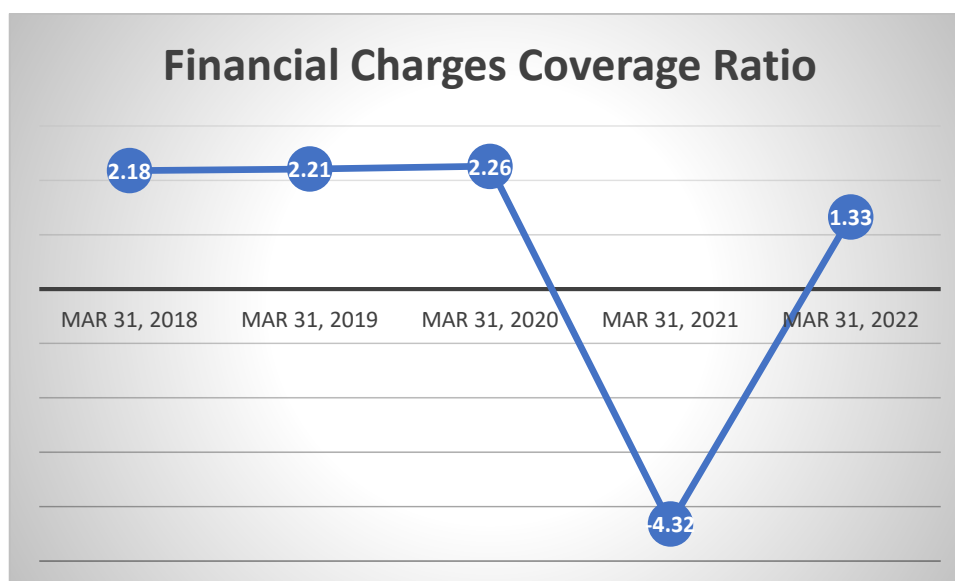
6.4 Capital Structure Analysis



Graph 4: Owner's Fund as percentage of Total Source of Hilton Metal Forging Ltd.

It has been observed that from 2018 to 2020, the firm had almost 60% owners' fund out of total capital. For the next two years, this proportion dipped to almost 44%. So, the firm is increasingly being more inclined towards taking leverage for sustaining its operation and the Capital structure is more tilting towards debt as compared to equity.

6.5 Coverage Analysis:



Graph 5: Financial Charges Coverage Ratio of Hilton Metal Forging Ltd.

The Debt Service Coverage Ratio is higher than 2 for the first 3 years, meaning that the firm is able to cover its interest and payment obligation out of its income. However, the year of 2021 has seen negative DSCR, indicating that the Cash flow was no sufficient to cover its payment obligation and forced the firm to pile up more debt.

6.6 Profitability Analysis:

The Company used to generate positive return on its Net Worth from 2018 to 2020. In 2021, the firm had a severe loss, accounting for almost 45% of its net worth. Such a loss eroded the firm's capital and made the firm take resort to debt pile up. However, in the following year, the company came back on track and generated a higher positive return.



Graph 6: Profitability Ratio of Hilton Metal Forging Ltd.

7. CONCLUSION:

The following conclusion can be drawn from the analysis of the balance sheet of the Hilton Metal Forging Ltd.

- Although the Current ratio of the company is high, the quick ratio tends to be lower. So, it renders that the company is not that much liquid to meet its cash requirement.
- The company is seen to be efficient in generating income out of the fixed asset employed in its business.
- The Capital structure of the company has a higher weightage of equity than debt. However, the last 2 years has seen a higher debt pile up due to an operating loss in 2021.
- The company is able to meet its interest and principal payment obligation throughout the years except 2021, the year of operating loss.

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