

Ratio Analysis in Manufacturing Sector-A Study

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ABSTRACT

To start any business, we need to have finance and success of that business is entirely dependent upon proper management and application of finance. It is necessary to maintain a proper balance between these two which can be done with the help of calculating different type of ratios like current ratios, quick ratios and debt coverage ratio etc. For every manufacturing sector the state of liquidity management/cash management should be very much consistent and stable, which we can measure by calculating the quick asset ratio. In this study, I have explained that the study of ratio analysis will help in forecasting the future performance of the company. The purpose of writing this research paper is to spread the pragmatic usage of ratio analysis in analyzing the financial performance of the company. Although there are various methods and techniques available for studying the company's performance but in my research paper, I have focused on how accurately ratio analysis may help in getting the desired result.

Keywords: Current Ratio, Quick ratio, Liquidity, pragmatic, accurately

1. INTRODUCTION

Ratio analysis is a tool used by management and fundamental investors to determine a company's financial position in an industry or sector in comparison to its peers. An example would be the current ratio, which equals the current assets of a company divided by the current liabilities of which the firm is obligated. The current ratio gives investors and management a quick look as to how liquid a firm is. A large proportion of current assets to liabilities indicate a firm will have little trouble meeting its short-term obligations regardless of the economic cycle. It involves methods of calculating and interpreting financial ratios to assess a firm's performance and status. This Analysis is primarily designed to meet informational needs of investors, creditors and management. The objective of the study Ratio analysis is the comparative measurement of financial data to facilitate wise investment, credit and managerial decisions. There are various types of ratios which a company can calculate to measure the financial performance of the company .

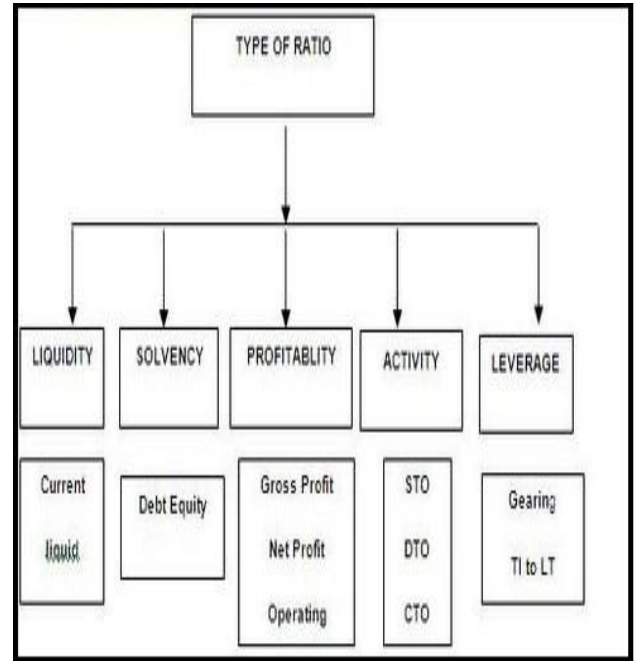


Figure 1. Table showing different types of ratio

1.1 Liquidity Ratio: Liquidity ratios are the ratios that measure the ability of a company to meet its short term debt obligations. These ratios measure the ability of a company to pay off its short-term liabilities when they fall due. Liquidity ratios are a result of dividing cash and other liquid assets by the short term borrowings and current liabilities. They show the number of times the short term debt obligations are covered by the cash and liquid assets. If the value is greater than 1, it means the short term obligations are fully covered. Generally, the higher the liquidity ratios are, the higher the margin of safety that the company possesses to meet its current liabilities. Liquidity ratios greater than 1 indicate that the company is in good financial health and it is less likely to fall into financial difficulties. Most common examples of liquidity ratios include current ratio, acid test ratio (also known as quick ratio), cash ratio and working capital ratio.

1.1.1 Acid Test Ratio

The term "Acid-test ratio" is also known as quick ratio. The most basic definition of acid-test ratio is that, "it measures current (short term) liquidity and position of the company". To do the analysis accountants weight current assets of the company against the current liabilities which result in the ratio that highlights the liquidity of the company. The formula for the acid-test ratio is:

$$\text{Quick ratio} = (\text{Current Assets} - \text{Inventory}) / \text{Current liabilities}$$

1.1.2 Cash Ratio

Cash ratio (also called cash asset ratio) is the ratio of a company's cash and cash equivalent assets to its total liabilities. Cash ratio is a refinement of quick ratio and indicates the extent to which readily available funds can pay off current liabilities. It is the most stringent and conservative of the three liquidity ratios (current, quick and cash ratio). It only looks at the company's most liquid short-term assets – cash and cash equivalents – which can be most easily used to pay off current obligations. Cash ratio is calculated by dividing absolute liquid assets by current liabilities:

•Cash ratio = Cash and cash equivalents/Current Liabilities

1.2 SOLVENCY RATIO

Solvency ratio is one of the various ratios used to measure the ability of a company to meet its long-term debts. Moreover, the solvency ratio quantifies the size of a company's after tax income, not counting non-cash depreciation expenses, as contrasted to the total debt obligations of the firm. Also, it provides an assessment of the likelihood of a company to continue congregating its debt obligations. The formula used for computing the solvency ratio is:

$$\text{Solvency ratio} = (\text{After Tax Net Profit} + \text{Depreciation}) / \text{Total liabilities}$$

1.2.1 Debt Equity Ratio: A measure of a company's financial leverage calculated by dividing its total liabilities by stockholders' equity. It indicates what proportion of equity and debt the company is using to finance its assets. Note: Sometimes only interest-bearing, long-term debt is used instead of total liabilities in the calculation.

1.2.2 Interest coverage ratios: These ratios measure a company's ability to keep up with interest payments which rise along with outstanding debt. As a business owner, You can calculate interest coverage ratio by dividing earnings before interest and tax (EBIT) by interest expenses.

1.2.3 Total-debt-to-total-assets: This refers to the ratio of long term and short term liabilities compared to total holdings. As an equation, it is expressed as your business short and long term liabilities divided by its total assets. As a company's total-debt-to-total-assets ratio increases it poses a greater financial risk to banks and creditors. when calculating total-debt-to-assets it's important to take into account the degree of leverage. While some liabilities ,Such as supplier costs and employee bonuses, may be negotiable, companies with high total-debt-to-assets have higher leverages and as a result lower flexibility. Because of this, businesses should strive to raise the value of current assets or reduce their debt levels moving forward.

1.2.4 Solvency ratios: A key part of financial analysis a company's solvency ratio determines whether it has sufficient cash flow to manage its debts as they come due. The following formula is used to track a business solvency ratio, which is usually expressed as a percentage;

$$\text{Solvency ratio} = \frac{\text{Net income} + \text{depreciation}}{\text{short term} + \text{long term liabilities}}$$

For the purpose of calculating solvency net income includes all cash and holdings that can be easily liquidated. Overall companies with higher solvency ratios are viewed as more likely to meet their financial obligations, whereas those with lower scores are seen as posing a greater risk to banks and creditors.

3. OBJECTIVE

- To analyze the working capital position of company.
- To understand the liquidity position of HAL
- To analyze the behavior and financial performance of the company
- To study the working capital policy options

4. RESEARCH METHODOLOGY

Methodology is the systematic theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the book of methods and principles associated with branch of knowledge.

Table1. Table showing the details of research way in HAL

RESEARCH UNIT	H.A.L ORGANIZATION
SAMPLING	PROBABILITY SAMPLING
SOURCES OF DATA	PRIMARY AND SECONDARY BOTH
SAMPLEUNIT	FINANCE DEPARTMENT
SAMPLE SIZE	11 FINANCE SECTIONS
RESEARCH UNIT	H.A.L ORGANIZATION

5. ANALYSIS OF STUDY

Table 2: Table showing the current assets of the company for five years

particulars	2009	2010	2011	2012	2013
Inventories	33630.	66170.7	81116.1	129747.1	133307.2
Debtors	9800.79	9000.11	9121.19	8743.47	9705.75
cash	17.65	27.41	28.33	15.24	19.15
Loans & Adv.	104664.19	148355.94	140019.29	25754.54	8479.28

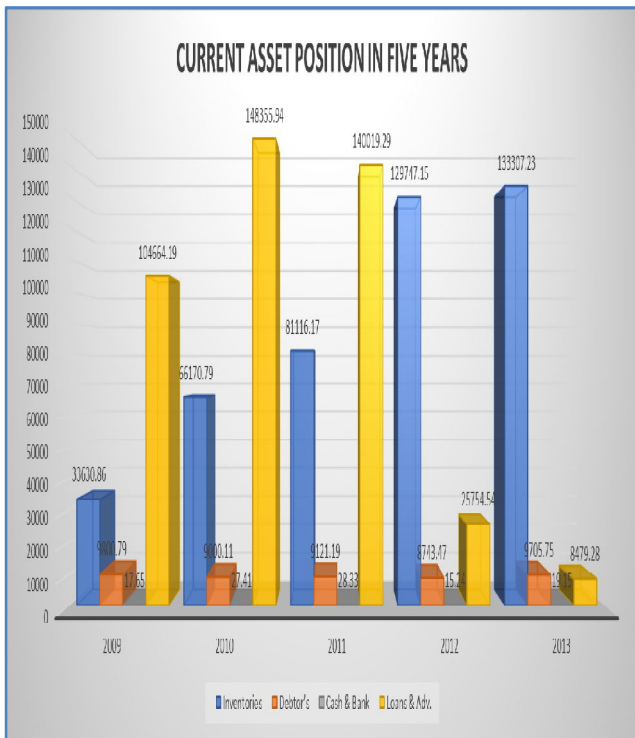


FIGURE 2: showing graphical presentation of current assets in HAL

X-Axis indicates the number of years

Y-Axis indicates the amount

Interpretation

From the above table/graph we can interpret that the inventory position of H.A.L has been increasing over the years. In 2005, it is 33630.86 and has increased in 2006 up to 66170.79 and for the other three years it has also increased. Debtors of H.A.L

Company has been fluctuating; the position of cash bank has also been fluctuating. This symbolizes that the position of current assets is not stable which is not good for long-term growth.

Table 3: Table showing current liabilities for five years

particulars	2009	2010	2011	2012	2013
Current liabilities	196772.4	320144.6	377117.1	332674.4	289557.8

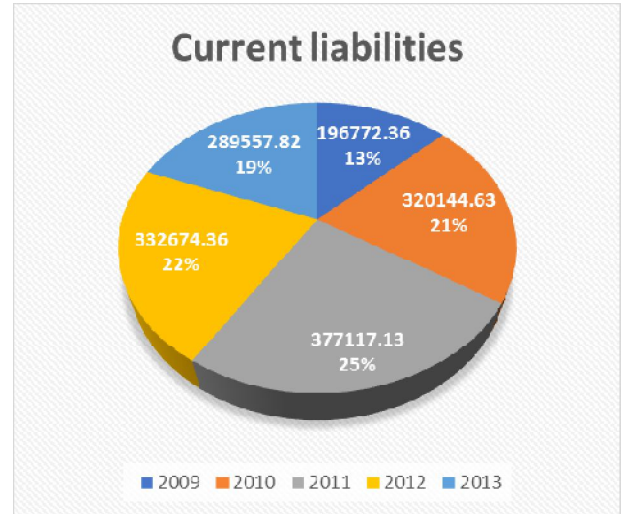


FIGURE 3: showing graphical presentation of current liabilities Interpretation

The above table/graph indicates the current liability of the H.A.L company. It also measures that there is change in current liabilities year after year. The current liabilities of HAL company are very high so, it will affect the working capital of the. An increase in liability may reduce company's reputation

Current Ratio

Formula: Current ratio=current assets/current liabilities

Table 3. Table showing current ratio for five years

Particulars	2009	2010	2011	2012	2013
Current assets	148113.51	223554.26	230285	164260.4	151511.41
Current liabilities	196772.36	320144.63	377117.13	332674.36	289557.82
Current ratio	0.75	0.69	0.61	0.49	0.52

Interpretation

This table shows the five-year current ratio of the company (HAL) and this ratios show that the company is at better profitable position and in the upcoming year this company will get some better growth opportunities.

Findings

- Study of ratio analysis is very much helpful in forecasting the future growth prospects for the company
- Current ratio calculation is very much helpful in explaining organization ability to pay short term liabilities
- The current asset of the company which is 151511 is lower than liabilities means the liquidity position of the company is not that much stable
- The current ration of the organization is less than one every year which means company is managing their net earnings very positively
- The short term liabilities means current liabilities is very much higher in the year 2011 which is 25% means the company has various investment alternatives
- Financial leverage of the company is also stable as the loans and advances are taken in a very meager amount which the company able to pay through its net earnings Being a manufacturing sector the company has several growth opportunities

Suggestions

- Company should focus more on the productivity and efficiency
- Although company is managing their long term finance by investing in long term projects but should focus on the management of working capital
- Short term liabilities should be cleared within in a year so that in future they can focus on increasing their production and sales volume
- HAL is a developed state government company which has a great sustainability power

6. CONCLUSION

Although analysis is a much known concept but still it is not practically implemented by the manufacturing companies In this research, I briefed about the concept of how the calculation of ratios help in studying the accurate financial position of the organization. Current Ratio, Quick Ratio etc are the easiest way of finding the position of current assets and current liabilities of the company. In this research paper, I have covered the points which will give a light on the fact that pragmatic study of ratio analysis is also very much important along with the theoretical study

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