

## A Study on Ratio Analysis With Reference To D. L. Automotive Pvt. Ltd., Chennai

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### **ABSTRACT**

*The present was based on secondary data from records, reports and profile of the organization. The validity of any research is based on the systematic method of data collection analysis. The Ratio analysis is the process of identifying the financial soundness and cost effectiveness of the firm by establishing relationship between the items of balance sheet and profit and loss a/c. The present study has thrown major concentration in ratio analysis, from the 5 years balance sheet and profit and loss a/c. An objective of the study includes the profitability, turnover and solvency position of the company & overall financial performance of the company.*

Key Words: Liquidity ratio, profitability ratio & turnover ratio

### **BACKGROUND OF THE STUDY**

The term ration refers to the numerical or quantitative relationship between two figures. A ratio is the relationship between two figures, and obtained by dividing the former by the latter. Ratios are designed to show how one number is related to another. It is worked out by dividing one number by another.

### **PROFITABILITY RATIOS**

Profit making is the main objective of business. Aim of every business concern is to earn maximum profit in absolute terms and also in relative terms. Profit is to be maximum in terms and also in relative terms. Profit is to

be maximum in terms of risk undertaken and capital employed. Ability to make maximum profit from optimum utilization of resources by a business concern is termed as “profitability”. Profit is an absolute measure of earning capacity.

Profitability depends on sales, costs and utilization of resources. The following are various ratios used to analyze profitability.

#### **1) Return on Investment**

This ratio is called return on “Capital employed “. It measures the sufficiency or otherwise of profit in relation to capital employed.

$$\text{Return on Investment} = \frac{\text{operating profit}}{\text{Capital employed}} * 100$$
  
The term operating profit means profit before interest and tax

#### **2) Gross profit ratio**

This ratio is also known as gross margin or trading margin ratio. Gross profit ratio indicates the difference between sales and direct costs. Gross profit ratio explains the relationship between gross profit and net sales.

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Net sales}} * 100$$

A higher ratio is preferable, indicating higher profitability

#### **3) Operating ratio**

This ratio indicates the relationship between total operating expenses and sales

$$\text{Operating ratio} = \frac{\text{Cost of sales} + \text{Operating expenses}}{\text{Net sales}} * 100$$

Operating ratio measures the amount of expenditure incurred in production sales and distribution of output. It indicates operational efficiency of the concern. Lower the ratio more is the efficiency.

#### 4) Operating profit ratio

It is the ratio of profit made from operating sources to the sales usually shown as a percentage. It shows the operational efficiency of the firm and is measure of the managements efficiency in running the routine operations of the firm

Operating profit ratio = operating profit / sales \* 100

#### 5) Expenses ratios

These ratios are also known as supporting ratios to operating ratio. They indicate the efficiency with which business as a whole functions. It is better for the concern to know how it is able to save or waste over expenditure in respect of different items of expenses.

- i) Administration expenses ratio :  
$$\text{Administration expenses ratio} / \text{net sales} * 100$$
- ii) Selling and distribution expenses ratio :  
$$\text{Selling and distribution expenses ratio} / \text{Net sales} * 100$$
- iii) Financial expenses ratio  
$$\text{Financial expenses ratio} / \text{Net sales} * 100$$

### TURNOVER RATIOS

These ratios are also called as performance ratios. These ratios highlight the operational efficiency of the business concern the term operational efficiency refers to effective. Profitable and rational use of resources available to concern. The ratios

comprising this category are calculated with reference to sales or cost of sales and expressed in number of times.

#### 1) Inventory Ratio:

This ratio is called stock velocity ratio. It is calculated to ascertain the efficiency of inventory management in terms of capital investment. It shows the relationship between the cost of goods sold and the amount of average inventory. Stock turnover ratio is obtained by dividing the cost of sales by average stock.

Stock turnover ratio = Cost of goods sold / Average inventory.

#### 2) Debtors turnover ratio:

Debtor's turnover ratio is also called as receivables turnover ratio. A business concern generally adopts different methods of sales. Goods are sold on credit based on credit policy adopted by the firm.

Debtors turnover = Net credit sales/ Average receivables

#### 3) Creditors turnover ratio:

This ratio is also known as accounts payable. A business concern usually purchases raw materials, services and goods on credit. The quantum of payables of a business concern depends upon its purchase policy, the quantity of purchase and suppliers' credit policy. Creditors turnover ration indicates the number of times the payable rotate in a year. Creditors turnover ratio= Net credit purchase/Average accounts payable

#### 4) Working capital ratio:

Working capital ratio measures the effective utilization of working capital. It also measures the smooth running of business. The ratio establishes relationship between cost of sales and working capital.

### 5) Fixed assets turnover ratio:

This ratio determines efficiency of utilization of fixed assets and profitability of a business concern. Higher the ratio, more is the efficiency in utilization of fixed assets. A lower ratio is under utilization of fixed assets. Fixed assets turn over ratio=Cost of sales/Net fixed assets

- To determine the profitability position of the company.
- To determine the liquidity position of the company.
- To give viable suggestions

### 6) Capital turnover ratio:

Managerial efficiency is also calculated by establishing the relationship between cost of sales or with the amount of capital invested in the business.

Capital turnover ratio=Cost of sales/Capital employed

### SCOPE OF THE STUDY

The study covers the annual report of DYMOS LEAR AUTOMOTIVE PVT.LTD., CHENNAI for the five years from 31.03.2005 to 31.03.2010.

### III) SOLVENCY RATIOS

The ratio of current assets to Current Liabilities is called 'Current ratio' In order to measure the short term liquidity or solvency of a concern, comparison of current assets and current liabilities is inevitable.

Current ratio=Current assets/Current liabilities

### RESEARCH DESIGN

The study fully based on secondary data. The data for the study were collected from Budgeted formats and Five years annual reports of the company. Discussions with the Finance Department Executives were held to collect some of the Information.

### OBJECTIVE OF THE STUDY

- To determine the financial performance of the company through ratio analysis.

### LIMITATIONS OF THE STUDY

- Ratio analysis generally historical nature.
- Mishandling or misuse of ratios and using them without proper context may lead the management to a wrong direction.

### Analysis And Interpretation Profitability Ratios

Table No: 1  
Return On Investment

#### FORMULA:

Return on investment = (Operating profit/Capital employed) \*100

Year	Operating profit Rs in Lakhs	Capital employed Rs in Lakhs	Ratio
2005 – 06	5832	4434	131.5
2006 – 07	5464	4919	111.0
2007 – 08	5087	5910	86.0
2008 – 09	5740	9191	62.4
2009 - 10	9558	8401	113.77

In 2005-06 it has been increased to 131.5. But in 2006-07, 2007-08, 2008-09 it has been decrease to 111.0, 86.0 and 62.4 respectively. But presently the ratio 113.77 in 2010 is satisfactory.

**TABLE NO: 2**  
**OPERATING RATIO**

**FORMULA:**

**Operating ratio = (Cost of sales + operating expenses/ Net sales)\*100**

Year	Cost of sales+ operating expenses Rs in lakhs	Net sales Rs in lakhs	Ratio
2005-06	46613	27634	168.6
2006-07	48959	28232	173.4
2007-08	60006	33340	179.9
2008-09	94552	51216	184.6
2009-10	130468	72907	178.9

The ratio is increasing and decreasing. In the year 2006 – 07 the ratio is lower indicates more efficiency during that year and in 2007 – 08, 2008 – 09 and 2010 the ratio is higher indicates less efficiency

**TABLE NO: 3**  
**OPERATING PROFIT RATIO**

**FORMULA:**

**Operating profit ratio = (operating profit/sales)\*100**

Year	Operating profit Rs in lakhs	Sales Rs in lakhs	Ratio
2005-06	5832	24811	23.50
2006-07	5464	26191	20.86
2007-08	5087	31753	16.02
2008-09	5740	49076	11.69
2009-10	9558	67119	14.24

The Operating profit is decreasing in the mixed trend; the reason for this is due to increase in the input cost.

**TABLE NO: 4**  
**ADMINISTRATION EXPENSES RATIO**

**FORMULA:**

**Administration expense ratio = (Administration expenses/Net sales)\*100**

Year	Administration expenses Rs in lakhs	Net sales Rs in lakhs	Ratio
2005-06	2899	27634	10.49
2006-07	3295	28232	11.69
2007-08	3360	33340	10.08
2008-09	3450	51216	6.62
2009-10	3610	72907	4.95

The administration expense is moving. It was fluctuating, from 2008-09 onwards it was in decreasing trend. In 2009-10 it was 4.95 due to increase in turnover. Higher turnover will have lower ratio

**TABLE NO: 5**  
**SELLING AND DISTRIBUTION EXPENSES RATIO**

**FORMULA:**

$$\text{Selling \& Distribution Expenses} = \frac{\text{Selling \& distribution expenses}}{\text{Net sales}} * 100$$

Year	Selling & distribution expenses Rs in lakhs	Net sales Rs in lakhs	Ratio
2005-06	110	27634	0.40
2006-07	128	28232	0.45
2007-08	140	33340	0.42
2008-09	150	51216	0.29
2009-10	160	72907	0.22

The selling & distribution expenses are in the line with the turnover. If the turnover goes up, the ratio will be lower. Due to increase in the volume of business and turnover the ratio is in the decreasing trend.

**TURN OVER RATIOS**

**TABLE NO: 6**  
**INVENTORY TURNOVER RATIO.**

**FORMULA:**

$$\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{average inventory}}$$

Year	Cost of goods sold Rs in lakhs	Average inventory Rs in lakhs	Ratio
2005 – 06	24811	4479.5	0.180
2006 – 07	26191	4975.5	0.189
2007 – 08	31753	7051.5	0.222
2008 – 09	49076	12870.5	0.262
2009 – 10	23645	5089.5	0.215

The ratios are fluctuating; high ratios indicate the efficient inventory management and efficiency of business operations.

**TABLE NO: 7**  
**DEBTORS TURNOVER RATIO**

**FORMULA:**

**Debtors turnover ratio = Net credit sales / Average receivables**

Year	Sales Rs in lakhs	Avg. a/c receivables Rs in lakhs	Ratio
2005 – 06	24811	2783	9.93
2006 – 07	26191	2872	9.83
2007 – 08	31753	3026	11.02
2008 – 09	49076	2870	17.85
2009 – 10	67119	3508	19.13

Higher ratios show that better is the liquidity of the debtors collection from the customer is good.

**TABLE NO: 8**  
**CREDITORS TURNOVER RATIO**

**FORMULA:**

**Creditors turnover ratio = Net credit purchase / Average accounts payable**

Year	Purchases Rs in Lakhs	Average accounts payable Rs in Lakhs	Ratio
2005 – 06	14566	5216	2.79
2006 – 07	15713	5573	2.82
2007 – 08	21391	6337	3.38
2008 – 09	38707	7992	4.84
2009 – 10	56130	9858	5.69

The purchase as increased due to volume of business, the ratios are satisfactory in the company point of view.

**TABLE NO: 9**  
**FIXED ASSET TURNOVER RATIO**

**FORMULA:**

**Fixed Assets turnover ratio = (Cost of sales / Net fixed assets)**

Year	Sales Rs in Lakhs	Fixed assets Rs in lakhs	Ratio
2005 – 06	24811	3442	7.21
2006 – 07	26191	3139	8.34
2007 – 08	31753	3021	10.51
2008 – 09	49076	2763	17.76
2009 – 10	67119	2618	25.68

The ratio shows that the fixed assets are efficiently utilized. The ratios are showing up gradually i.e., from 2005 – 06 to 2009 – 10 is 7.21, 8.34, 10.51, 17.76 and 25.68 respectively.

**TABLE NO: 10**

### CAPITAL TURNOVER RATIO

**FORMULA:**

**Capital turnover ratio = (Sales / Capital employed)**

Year	Sales Rs in lakhs	Capital employed Rs in lakhs	Ratio
2005 – 06	24811	4434	5.60
2006 – 07	26191	4919	5.33
2007 – 08	31753	5910	5.37
2008 – 09	49076	9191	5.34
2009 – 10	67119	8401	7.98

The capital turnover ratios are gradually increasing trend, this shows the assets as a whole are efficiently utilized.

### SOLVENCY RATIOS

**TABLE NO: 11  
CURRENT RATIO**

**FORMULA:**

**Current ratio = (current assets/ current liabilities)**

Year	Current assets Rs in lakhs	Current liabilities Rs in lakhs	Ratio
2005-06	8213	7597	1.09
2006-07	8892	7293	1.22
2007-08	13740	9846	1.4
2008-09	20913	14517	1.44
2009-10	25515	26743	0.95

The ratios are lesser than the standard norm (2:1) which indicates the down trend.

**TABLE NO: 12  
LIQUID RATIO**

**FORMULA:**

**Liquid ratio = (Current assets (CA) – Closing stock (CS) / Current Liability)**

Year	CA – CS Rs in Lakhs	Current Liability Rs in Lakhs	Ratio
2005 – 06	3517	7567	0.46
2006 – 07	3637	7293	0.50
2007 – 08	4892	9846	0.49
2008 – 09	4020	14517	0.28
2009 – 10	4757	26743	0.17



The liquid ratio is declining year by year. The prescribed norm is 1:1.

## FINDINGS

- In 2005-06 it has been increased to 131.5. But 2006-07, 2007-08, 2008-09 and 2010 there has been decreased to 111.0, 86.0, 62.4 and 113.77 respectively. The profit is low up to 2009. In 2010 it has increased gradually.
- The ratio is increasing and decreasing. In the year 2006-07 the ratio is lower indicates more efficiency during that year and in 2007-08, 2008-09 and 2010 ratio is higher, indicates less efficiency.
- Administration expense is moving has turnover every year increases the expenses as a percentage on turnover decreases. The management must take steps to check the expenses. In 2009 - 10 the ratio is low due to increase in turnover.
- In 2006 - 07 the ratio has increased to 0.45. In 2007-08 the ratio has decreased to 0.42. In 2008 - 09 and 2010 the ratio has come down due to higher turnover.
- The ratios are fluctuating; high ratios indicate the efficient inventory management and efficiency of business operations.
- The ratios show an increase in trend of 9.93, 11.02, 17.85 and 19.13 from 2005 - 06 to 2009-10 respectively except in 2006 - 07. This gradual increase show that better is the liquidity of the data's.
- The ratios show that the fixed assets are efficiently utilized. The ratios are showing up gradually i.e., from 2005 - 06 to 2009 - 10 is 7.21, 8.34, 10.51, 17.76 and 25.68 respectively except in 2005 - 06.
- The capital turnover ratio from 2005 - 06 to 2009 - 10, it is gradually increasing and decreasing. Higher ratio indicates higher efficiency and lower ratio indicates in effective usage of capital.

- An ideal ratio is 2: 1. The ratios from 2005 - 06 to 2009 - 10 are 1.09, 1.22, 1.40, 1.44 and 0.95 which are lesser than the standard norm.
- The acid test ratio is declining year by year. Presently it is 0.17 which is not satisfactory. The ideal liquid ratio are the generally accepted "norm" for liquid ratio is 1

## SUGGESTIONS

- The unit may forecast selling and distribution expenses approximately and then enters into the contract with the customers, so that company need not incurred the distribution expenses from its sources.
- The company shall concentrate on networking capital.

## CONCLUSIONS

During the study period, major departments are covered. The main purpose of the study is to analysis the financial performance of the company. The detailed observations are presented in the form of analysis. The major financial performance indicators of the firm for the five-year period in terms of ratios like liquidity ratios, creditors turnover ratio, debt turnover ratios, debtors turnover ratio and cash flow statement of the company and so many data's used in this project work report is done. The study period gave an opportunity to interact with the experienced people and gains acquire knowledge about various financial activities.





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