

# CHAPTER IV

## Analysis and Interpretation Of Data

# Financial Analysis With The Help Of Ratio

## Meaning Of Financial Analysis :-

To analysis is to examine therefore analysis of financial statements means the systematic classification comparison and examination of the facts and figures as disclosed in the financial statement of the in order to have the full diagnosis of the profitability and the financial position of the enterprise.

When the absolute figures in these statements are methodically classified and compared with similar figures of the previous years or with the figures of the other firms. For proper understanding of the profitability and position of the business. It is known as analysis. Thus the analysis of financial statements consist of relationship of facts with figures and tends to determine whether the working results and financial position are satisfactory or unsatisfactory.

# Ratio Analysis

Ratio analysis is a widely used tool of financial analysis. It is defined as the systematic use of ratio to interpret the financial statement. So that the strengths and weaknesses of a firm as well as its historical performance and current financial condition can be determined. The term ratio refers to the numerical or quantitative relationship between two items. The relationship can be expressed as

- 1) Percentage
- 2) Proportion Of Numbers
- 3) Fraction.

1) Percentage :- Net profits are 25% of sales.

2) Proportion :- The relationship between profit & sales is 1:4

3) Fraction :- Net profit is  $\frac{1}{4}$  of sales.

## Types Of Ratio :-

These ratios are based on the premise that a firm should earn sufficient profit on each rupee. If adequate profits are not earned on sales, there will be difficulty in meeting the operating expenses and no returns will be available to the owners.

The profitability ratios are designed to provide answers to the questions such as

- 1) Is the profit earned by the firm adequate ?
- 2) What rate of return does it represent ?
- 3) What is the rate of profit for various divisions and segments of the firm ?
- 4) What are the earnings per share ?
- 5) What was the amount paid as dividends ?

These ratios are as follows.

Profitability ratios related to sales.

## 1) Gross Profit Ratio :

Gross profit is the result of the relationship between prices sales volume and costs. A change in gross margin can be brought about by changes in any of these factors. The gross margin represents the limit beyond which fall in sales prices are outside the tolerance limit.

A high ratio of gross profit to sales is a sign of good management as it implies that the cost of production of the firm is relatively low. It may also indicative of a higher sales price without a corresponding increase in the cost of goods sold. Nevertheless a very high and rising gross margin may also be the result of unsatisfactory basis of valuation of stock that is overvaluation of closing stock or undervaluation of opening stock.

A relatively low gross margin is definitely a danger signal , warranting a carefully and detailed analysis of the factors responsible for it. The important contributory factors may be

1) High cost of production reflecting acquisition of raw materials and other inputs on unfavorable terms , inefficient utilisation of current as well as fixed assets and so on and

2) A low selling price resulting from serve competition interior quality of product lack of demand.

A firm should have a reasonable gross margin to ensure adequate coverage for operating expenses of the firm and sufficient return to the owners of the business which is reflected in the net profit margin.

**Gross Profit Ratio = Gross Profit / Net Sales × 100**

$$\begin{aligned} 1) \quad \text{For 2004-2005} &= 3,30,51,922 / 61,44,14,408 \times 100 \\ &= 5.38 \% \end{aligned}$$

$$\begin{aligned} 2) \quad \text{For 2005-2006} &= 3,68,56,257 / 68,86,21,406 \times 100 \\ &= 5.35 \% \end{aligned}$$

$$\begin{aligned} 3) \quad \text{For 2006-2007} &= 3,93,39,438 / 79,99,79,324 \times 100 \\ &= 4.92 \% \end{aligned}$$

$$\begin{aligned} 4) \quad \text{For 2007-2008} &= 4,56,43,180 / 81,67,13,323 \times 100 \\ &= 5.59 \% \end{aligned}$$

$$\begin{aligned} 5) \quad \text{For 2008-2009} &= 4,78,35,968 / 86,49,24,164 \times 100 \\ &= 5.53 \% \end{aligned}$$

Gross Profit is the result which comes after deducting cost of production from sales. The gross profit ratio of Warana Bazar is relatively good . Because their main aim is to satisfy the consumers not to earn maximum Profit. The gross profit ratio of Warana Bazar is stable.

## 2) Net Profit Ratio :-

This measures the relationship between net profits and sales of firm depending on concept of net profit employed.

The net profit margin is indicative of management's ability to operate the business with sufficient success not only to recover from the revenues of the period the cost of operating the business and the cost of the borrowed funds but also to leave a margin of reasonable compensation to the owners for providing their capital at risk.

A high net profit margin would ensure adequate return to the owners as well as enable a firm to withstand adverse economic conditions when selling price is declining, cost of production is rising and demand for the product is falling.

A low net profit margin has the opposite implications. However a firm with low net profit can earn a high rate of return on investment if it has a higher inventory turnover.

$$\text{Net Profit Ratio} = \text{Net Profit} / \text{Net Sales} \times 100$$

$$\begin{aligned} 1) \quad \text{For 2004-2005} &= 7,31,370 / 61,44,14,408 \times 100 \\ &= 0.12\% \end{aligned}$$

- 2) For 2005-2006 =  $8,90,130 / 68,86,21,406 \times 100$   
= 0.13%
- 3) For 2006-2007 =  $9,96,994 / 79,99,79,324 \times 100$   
= 0.12%
- 4) For 2007-2008 =  $12,01,282 / 81,67,13,323 \times 100$   
= 0.14%
- 5) For 2008-2009 =  $12,45,249 / 86,49,24,164 \times 100$   
= 0.14%

It measures the percentage of sales rupee which remains after all costs & expenses including interest & taxes have been deducted. Warana Bazaar make regular payment of all the taxes & interest net profit can not increase as fast as gross profit. It may be due to the increasing operating expenses. With these reasons also Warana Bazaar show consistency in its net profit.

### 3) Return On Total Assets :

Here the profitability ratio is measured in terms of the relationship between net profit and assets. The ROA may also be called profit to asset ratio.

**Return On Assets = Net Profit After Tax And Interest / Total Assets**  
**× 100**

$$\begin{aligned} 1) \text{ For } 2004-2005 &= 7,31,370 / 8,74,28,569 \times 100 \\ &= 0.84\% \end{aligned}$$

$$\begin{aligned} 2) \text{ For } 2005-2006 &= 8,90,130 / 10,20,12,616 \times 100 \\ &= 0.87\% \end{aligned}$$

$$\begin{aligned} 3) \text{ For } 2006-2007 &= 9,96,994 / 11,80,81,596 \times 100 \\ &= 0.84\% \end{aligned}$$

$$\begin{aligned} 4) \text{ For } 2007-2008 &= 12,01,282 / 12,29,59,916 \times 100 \\ &= 0.97\% \end{aligned}$$

$$\begin{aligned} 5) \text{ For } 2008-2009 &= 12,45,249 / 12,38,48,731 \times 100 \\ &= 1.005\% \end{aligned}$$

The return on total assets of Warana Bazar shows increasing trend. In 2004- 05 it is .84% but in 2008-09 it increases upto 1.005%

## Turnover Ratio :

### 1) Inventory Turnover Ratio :

This ratio indicates the number of times inventory is replaced during the year. It measures the relationship between the cost of goods sold and inventory level.

The inventory turnover ratio measures how quickly the inventory is sold. It is a test of efficient inventory management. In general high inventory turnover ratio is better than a low ratio. A high ratio implies good inventory management. A very low level of inventory has a serious implication. It will adversely affect the ability to meet customer demand as it may not cope with it's requirements.

A low inventory turnover ratio is dangerous. It signifies excessive inventory or over investment in inventory. Carrying excessive inventory involves cost in terms of interest on funds locked up , rental of space and so on. A low ratio may be the result of inferior goods , stock of unsalable etc.

**Inventory Turnover Ratio = Cost Of Good Sold / Average Inventory**

$$\begin{aligned} 1) \quad \text{For 2004-2005} &= 58,13,62,486 / 3,25,53,453 \\ &= 17.85 \text{ times.} \end{aligned}$$

- 2) For 2005-2006 = 65,17,65,149 / 3,61,37,173.5  
= 18.03 times.
- 3) For 2006-2007 = 76,06,39,886 / 3,99,09,792  
= 19 Times.
- 4) For 2007-2008 = 77,10,70,143 / 4,70,23,230.5  
= 16.39 Times.
- 5) For 2008-2009 = 81,70,88,196 / 4,78,83,507  
= 17.06 Times.

Warana Bazar has good inventory ratio. It indicates that the inventory management of Warana Bazar is efficient. Because of good inventory ratio it is also clear that the inventory of Warana Bazar is quickly sold. There is no more difference in turnover ratio in five years

## 2) Debtors Turnover Ratio :

The second major activity ratio is the receivable or debtors turnover ratio. It shows how quickly the

receivables or debtors are converted into cash. In other words the debtors turnover ratio is a test of the liquidity of debtors of firm.

**Debtors Turnover Ratio = Debtors + Bills Receivable / Net Credit Sales × 360**

- 1) For 2004-2005 =  $58,32,710 / 61,44,14,408 \times 360$   
= 3.41 Days.
- 2) For 2005-2006 =  $1,12,92,997 / 68,86,21,446 \times 360$   
= 5.90  
= i.e. 6 Days.
- 3) For 2006-2007 =  $1,61,28,357 / 79,99,79,324 \times 360$   
= 7.25  
= i.e. 7 Days.
- 4) For 2007-2008 =  $1,06,31,435 / 81,67,13,323 \times 360$   
= 4.68  
= i.e. 5 Days.
- 5) For 2008-2009 =  $84,06,693 / 86,49,24,164 \times 360$   
= 3.49  
= i.e. 4 Days.

This ratio indicates the speed with which debtors are being collected. The inventory turnover ratio of Warana Bazaar is very high. The higher turnover ratio and shorter collection period it shows better trade credit management and better is the liquidity of debtor. It show promptness in the payment of debtors. The problem of bad debts is *also eliminated.*

## Creditors Turnover Ratio :

It is a ratio between net credit purchases and the average amount of creditors outstanding during the year.

A low turnover ratio reflects liberal credit terms granted by suppliers while a high ratio shows that accounts are to be settled rapidly. The creditors turnover ratio is an important tool of analysis as a firm can reduce its requirement of current assets by relying on suppliers credit. The extend to which trade creditors are willing to wait for payment can be approximated by the creditors turnover ratio.

Creditors Turnover Ratio = Creditors / Credit Purchase  $\times$  360

1) For 2004-2005 = 2,03,61,500 / 58,07,61,255  $\times$  360

= 13 Days.

2) For 2005-2006 = 2,02,78,421 / 64,67,72,381  $\times$  360

= 11 Days.

3) For 2006-2007 = 2,67,18,984 / 75,75,57,637  $\times$  360

= 13 Days.

4) For 2007-2008 = 2,23,18,984 / 76,97,69,808  $\times$  360

= 29 Days.

$$\begin{aligned}
 5) \text{ For } 2008-2009 &= 2,17,42,308 / 80,09,22,821 \times 360 \\
 &= 10 \text{ Days.}
 \end{aligned}$$

The time period allowed by the creditors is more than the time period allowed to the debtors so Warana Bazar manage its working capital. The Warana Bazar has no problem to raise extra current assets.

## Assets Turnover Ratio :

This ratio is also known as the investment turnover ratio. This indicates the efficiency with which firms uses all it's assets to generate sales.

The assets turnover ratio is defined , Measures the efficiency of a firm in managing and utilising it's assets.

$$\text{Assets Turnover Ratio} = \text{Net Sales} / \text{Total Assets}$$

$$\begin{aligned}
 1) \text{ For } 2004-2005 &= 61,44,14,408 / 8,74,28,569 \\
 &= 7.02:1
 \end{aligned}$$

$$\begin{aligned}
 2) \text{ For } 2005-2006 &= 68,86,21,446 / 10,20,12,616 \\
 &= 6.75:1
 \end{aligned}$$

$$\begin{aligned} 3) \quad \text{For 2006-2007} &= 79,99,79,324 / 11,80,81,595 \\ &= 6.77:1 \end{aligned}$$

$$\begin{aligned} 4) \quad \text{For 2007-2008} &= 81,67,13,323, / 12,29,59,916 \\ &= 6.64:1 \end{aligned}$$

$$\begin{aligned} 5) \quad \text{For 2008-2009} &= 86,49,24,164 / 12,38,48,731 \\ &= 6.98:1 \end{aligned}$$

The utilization of assets of Warana Bazar is made properly. Firm can not make extra investment in capital investment warana Bazar's performance is increased by improving their sales volume without increasing assets of the firm. If assets are more but sales can not justify them then business has to improve their sales.

### 3) Liquidity Ratio :-

The liquidity ratio measures the ability of a firm to meet its short term obligations and reflect the short term financial strength/solvency of a firm. The following are some liquidity ratios.

#### A) Current Ratio :

The current ratio is the ratio of total current assets to total current liabilities. It is calculated by dividing current assets by current liabilities.

The current ratio of a firm measures the short term solvency , that it , it's ability to meet short term obligation 2:1 current ratio considered satisfactory. The size of current assets should be sufficiently larger than current liabilities.

The higher current ratio is larger amount available for each rupee of current liability the more is the firm's ability to meet current obligations and the greater is the safety of funds of short term creditors.

$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$$

- 1) For 2004-2005 = 4,77,19,102 / 2,61,56,057  
= 1.9:1
- 2) For 2005-2006 = 5,51,96,803 / 3,33,65,394  
= 1.7:1
- 3) For 2006-2007 = 6,49,77,748 / 3,94,76,564  
= 1.6:1
- 4) For 2007-2008 = 6,81,123,17 / 3,83,82,154  
= 1.8:1
- 5) For 2008-2009 = 6,18,82,407 / 3,26,67,307  
= 1.9:1

2:1 is the standard current ratio and considered satisfactory. The current ratio of Warna Bazzar is less than standard but it should meet its current liabilities. There is a problem only if the value of current assets are reduced. The current ratio of Warana Bazar is consistent, but less than standard,

## B) Acid Test/Quick Ratio :

Current ratio fails to answer questions such as ,

- 1) How liquid are the receivables and the inventory ?
- 2) What effect does the omission of inventory and prepaid expenses have on the liquidity of firm ?

To answer these questions an additional analysis of the quality of current asset is required. This is done in acid test ratio.

**Acid Test Ratio = Quick Assets / Quick Liabilities.**

$$\begin{aligned} 1) 2004-2005 &= 1,14,16,557 / 2,61,56,394 \\ &= 0.43:1 \end{aligned}$$

$$\begin{aligned} 2) 2005-2006 &= 1,72,56,806 / 3,33,65,394 \\ &= 0.5:1 \end{aligned}$$

$$\begin{aligned} 3) 2006-2007 &= 2,11,78,342 / 3,94,76,564 \\ &= 0.5:1 \end{aligned}$$

$$\begin{aligned} 4) 2007-2008 &= 1,61,06,990 / 3,83,82,154 \\ &= 0.4:1 \end{aligned}$$

$$\begin{aligned} 5) 2008-2009 &= 1,59,47,092 / 3,26,67,307 \\ &= 0.5:1 \end{aligned}$$

2:1 current ratio is satisfactory while 1:1 quick ratio is considered satisfactory. In case of Warana Bazar the quick ratio is upto 0.5 which is less than standard. Means that a large part of the current assets is tied up in slow moving and unsaleable inventories and slow pay back debts. The liquid ratio of Warana Bazar is constant but below standard.

# ANALYSIS

After calculating profitability ratio , Turnover Ratio, Liquidity ratio, of Warana Bazar following analysis is done.

## 1) Profitability -

The Gross Profit Ratio of Warana Bazar is not fluctuating it ranges between 4.50 % to 6% .As Warana Bazaris consumer co-operative store they cannot earn extra profit because their aim is to make satisfaction of customer .In 2008- 09 the GrossProfit ratio is 5.53% if Warana Bazar wants to increase its gross profit then

- 1) They should increase the sales price
- 2) They should make purchases from those concern which will provide them good quality products in minimum cost .

If company adopt second option then they will earn more profit as well as satisfy the customers.

The net profit ratio of Warana bazar is less as compare to gross profit ratio Net profit should be less due to extra expenditure on operating expenses . The bazar should try to keep control on operating expenses . If net profit ratio will be high it will ensure adequate returns to the owners.

Return on total assets reflects whether the returns on concerns assets are efficient or not. Means the total assets are utilized properly or not .The returns on assets ratio of Warana Bazar ranges from 0 .80 % to 1% which is very less . Warana Bazar is in good condition but then also they should make some increase in percentage of return on assets . For this Bazar should increase its net profit or reduce the investment in assets.

## 2) Liquidity -

The standard current ratio is 2:1 Warana Bazar has 1.6 :1 in 2006 -07 and 1.7: 1 in 2005 -06 which is not good but in current year they make improvement in this ratio which is 1.9:1 is fair for Bazar . On the other hand the quick ratio of bazar is very less which is dangerous for Bazar . If quick ratio is not sufficient Bazar can not meet its short term obligations.Bazar should have to reduce its investment in stock or they should adopt the policy which will convert their stock in cash .

## 3) Turnover -

Inventory turnover ratio of Warana Bazar is good .They replace their inventory maximum times in a year. Which results into fresh goods .and the inventory of Warana

Bazar is sold in efficient time. If inventory locked up for long time it results into storage expenses, maintenance, and interest etc.

From calculated results of assets turnover ratio the conclusion is that Warana Bazar make management between total assets and sales. Warana Bazar make quick collection from customers. In the period during 2004-09 maximum credit facility provided to the customers is 7 days. Bazar should make all the transaction on cash basis if possible. Because of it the cash position of Bazar will be improve. And the credit facility provided by the suppliers is more than time allowed to the customers, which means bazaar has no need to raise extra current assets. If the debtors of Warana Bazar will increase the Bazar has to meet more expenses. e.g. expenses made for making collection.

## Consumer Satisfaction

When I ask the consumers about the reason that why do they make purchases from Warana Bazaar Many people give preference to purchase from Warana Bazaar because of better quality reasonable price and accuracy in weight. They come consumers also said that there is no chance for malpractices and bazaar provide the facility of choice for selection that customer should choose product on their likes and dislikes. The employees from warana bazaar also co-operate the consumers in purchasing

### Advantages in purchasing from Warana Bazar -

The main advantage of making purchases from is private that the quality of product is better, variety of product is available Warana Bazar . In private shops sometimes we find that price of product is less but they the quality is low. The opinion of many customers is that if the price of any product should be more then also we make purchases from warana bazaar because of quality.

Maximum consumers are satisfied with the services provided by the Warana bazaar. These all things indicates that the main aim of Warana Bazar is to satisfy their customers.