ANALYSIS OF FINANCIAL STATEMENTS

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INTRODUCTION

- Financial statements gives us a information of performance and positions of a firms, if it is properly analyzed and interpreted.
- Accounting process involves recording, classifying and summarizing the business transactions which ultimately aims at preparing financial statements which are the outcome of summarizing process of accounting
- The principal tool of financial statement analysis is ratio analysis.

MEANING & DEFINITION

- **Meaning:**

It refers to proper arrangement and rearrangement, grouping and regrouping of the financial and operational data into their distinct and different component parts. Regrouping of the data becomes inevitable because the financial statements comprise of a number of varied and diverse accounting information.

Ratio is the quotient formed when one magnitude is divided by another measured in the same unit. A ratio is defined as "the indicated quotient of two mathematical expressions" and "as the relationship between two things".

DEFINITION

- The definitions of financial analysis are as follows:-
- "Financial analysis is a process of evaluating the relationship between component parts of financial statement to obtain a better understanding of the firms position and performance".
- According to Foster G- "Financial analysis is the process of identifying the financial **strengths and weaknesses** of the firm by properly establishing **relationships** between the items of the **Balance sheet and the Profit and Loss Account**."
- According to J. Betty– "The term accounting ratios is used to describe significant relationships which exist between figures shown in a Balance Sheet, Profit and Loss Account, in budgetary control system or in any other part of accounting organisation."

STEPS

- Selection of relevant information.
- Comparison of calculated ratio.
- Interpretation and reporting.

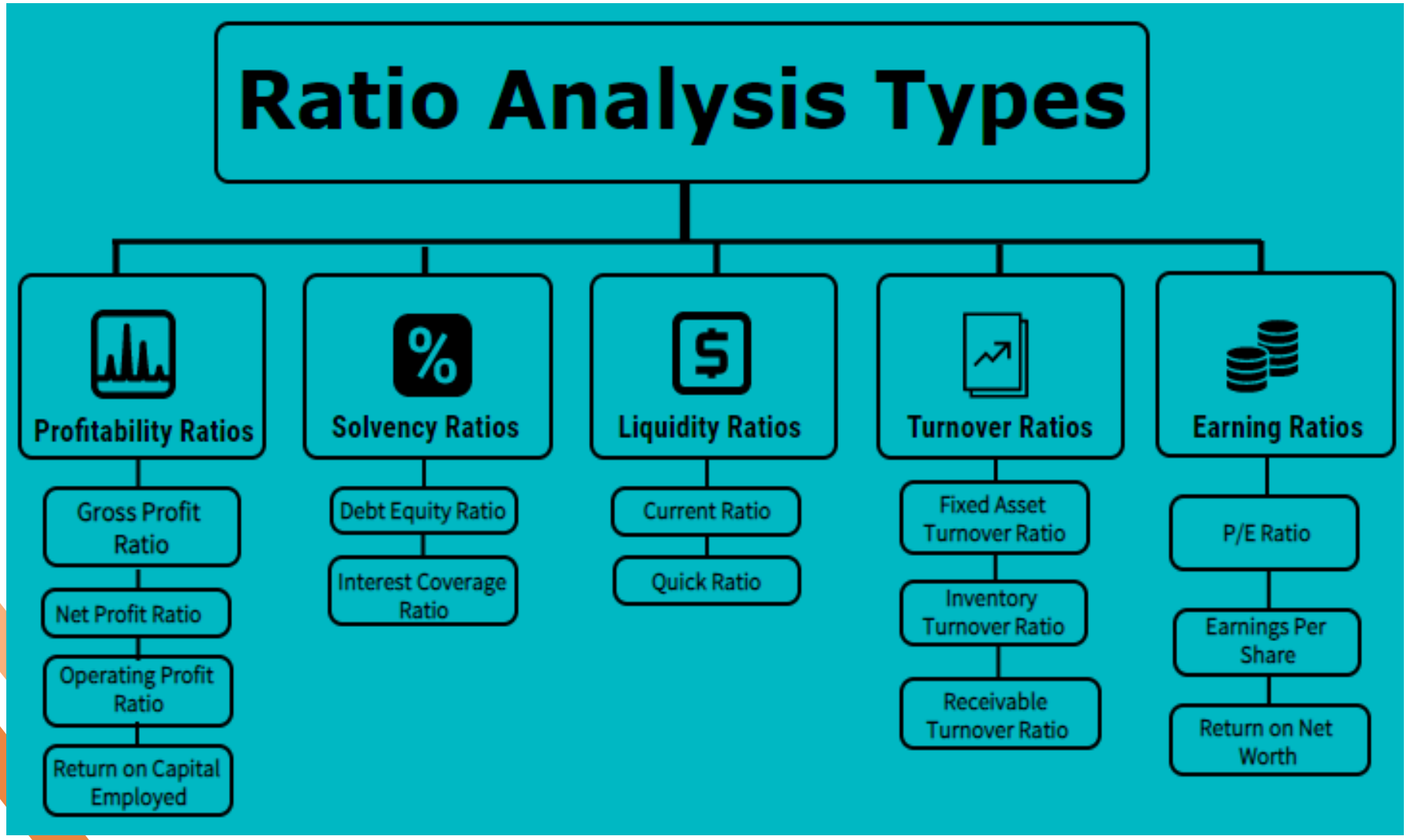
ADVANTAGES

- Forecasting.
- Throws light on efficiency of business.
- Inter firm comparisons.
- Cost control.
- Measuring efficiency.
- Managerial control.
- Investment decisions.

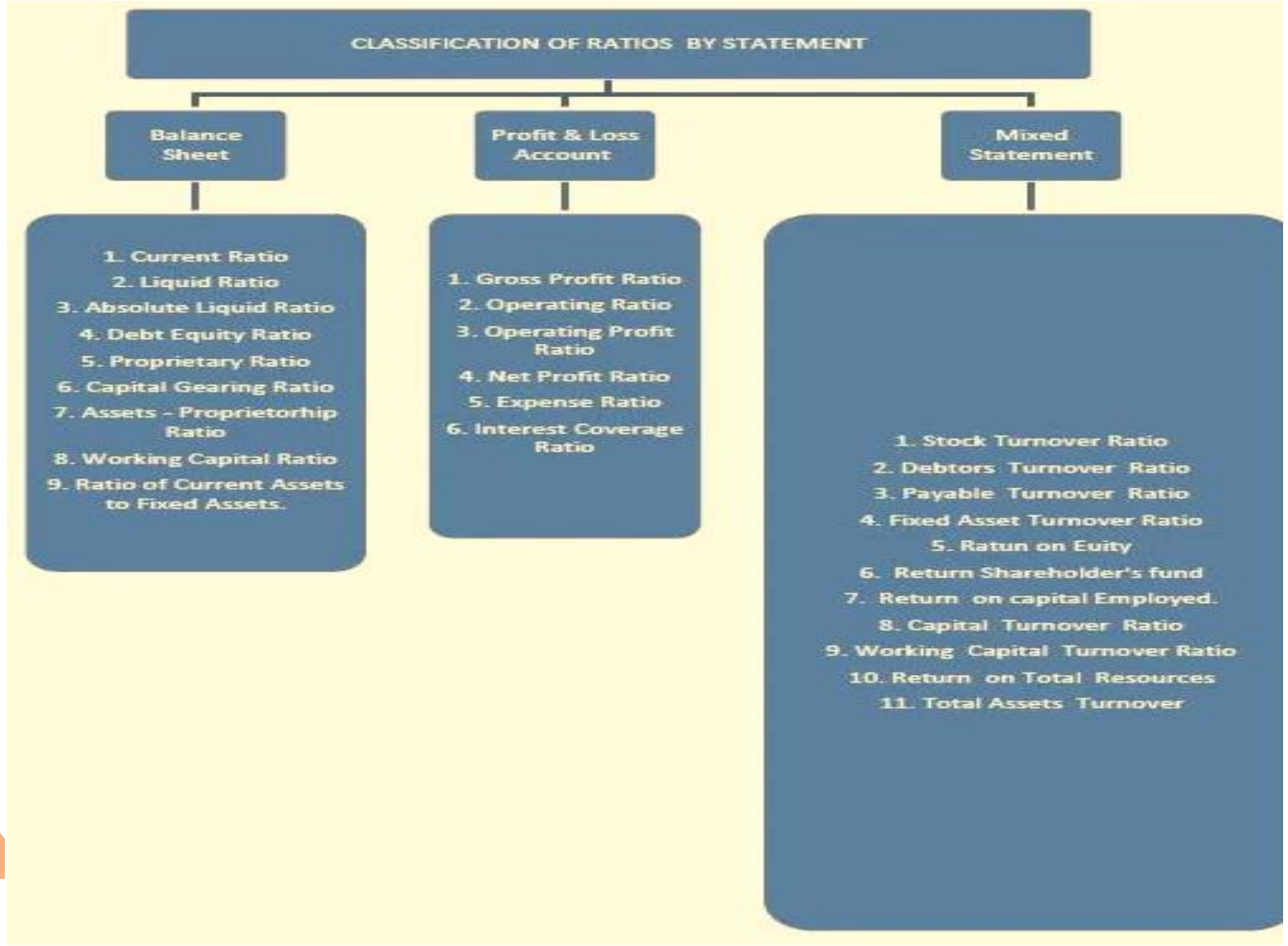
LIMITATIONS

- Scientific analysis is not possible.
- Inter relationship comparison.
- Lacks in comparison standards.
- Accuracy of financial information.
- Time log.
- Consistency of preparation of financial statements.
- Does not indicates errors or mistakes immediately.
- Market and other changes are not taken into consideration.

Types of Ratio Analysis



CLASSIFICATION



Current Ratio

Formula: Current Ratio = $\frac{Current\ Assets}{Current\ Liabilities}$
Nature of Ratio: Balance Sheet
Current Assets = Sundry Debtors, Bills Receivables, Inventories, Marketable securities, cash in hand, cash at bank, Working progress, prepaid expenses, short term loans and advances given to other, other short term high quality investments.
Current Liabilities = Sundry Creditors, Bills Payable, Bank Overdraft, Cash credit, Outstanding expenses, Proposed dividend, Income tax payable, etc.
Significance: It represents Working capital. It indicates the solvency of business i.e. ability to meet the current obligations as and when they fall due for payment.

Acid Test Ratio

Formula: Acid Test Ratio = $\frac{Quick\ Liquid\ Assets}{Quick\ Liquid\ Liabilities}$
Nature of Ratio: Balance Sheet.
Quick Liquid Assets = Current Assets – Stock – Prepaid expenses.
Quick Liquid Liabilities = Current Liabilities – Bank Overdraft – Outstanding expenses.
Significance: This ratio is considered as 1:1 ratio. A low ratio may be an indication of bad liquidity position. It indicates the relations of quick assets with quick liabilities.

Inventory Turnover Ratio

Formula: Inventory Turnover Ratio $= \frac{Cost\ of\ Goods\ Sold}{Average\ Inventory}$

OR

$= \frac{Net\ Sales}{Average\ inventory\ at\ selling\ price}$

OR

$= \frac{Cost\ of\ Goods\ Sold}{Closing\ Inventory}$

Nature: Composite

Average Inventory $= \frac{Opening\ stock + Closing\ Stock}{2}$

Significance: A high inventory turnover ratio indicates that maximum sales turnover is obtained by investing minimum possible funds in the inventory which is sign of better performance of organisation. A low inventory turnover ratio indicates slow moving inventory.

Gross Profit Ratio

Formula: Gross Profit Ratio = $\frac{Gross\ Profit}{Sales} \times 100$

Nature: Revenue

Significance: This ratio indicates the efficiency of the production as well as pricing. A high gross profit ratio means sufficient margin to cover expenses other than cost of goods sold. A low gross profit ratio may indicate unfavorable purchasing as well as inability of the management to group the sales.

Net Profit Ratio

Formula: Net Profit Ratio $= \frac{Net\ Profit\ (after\ tax)}{Net\ Sales} \times 100$
Nature: Revenue
Significance: The net profit ratio is used to measure overall profitability of the business organisation.
This ratio indicates the firms ability to face adverse, economic situations such as decrease in demand, cut throat competition, etc. Higher is the net profit ratio it indicates the better profitability and lower net profit ratio indicates poor profitability of business organisations.

Operating Ratio

Formula: Operating Ratio = $\frac{\textit{Cost of Goods Sold+Operating Expenses}}{\textit{Net Sales}} \times 100$

Nature: Revenue

Operating Expenses Includes-
Factory Expenses like factory rent, wages, factory insurance, etc.
Administrative expenses like rent, insurance, office staff salaries, printing and stationery, etc.
Selling and Distribution Expenses like Salesmen salaries, Advertising expenses, Travelling expenses, Delivery Van expenses, etc.

Significance: Higher the ratio less favorable it is, because it will leave a small margin to meet interest, dividends and any other corporate needs. The ratio is an index of the operating efficiency of the enterprise. This ratio establishes the relationship of the cost of goods sold plus operating expenses on the one hand and sales on other hand. As this is cost ratio better the position/ profitability and vice versa.

Debt Equity Ratio

Formula: Debt Equity Ratio = $\frac{Total\ Long\ term\ debts}{Total\ shareholders\ fund}$ OR $\frac{Debt}{Net\ worth}$

Total long term debts = Long term loan, Borrowings and Debentures, etc.

Total shareholders fund = Equity share capital, Preference share capital, Reserves and Surplus, Profit.

Significance: This ratio indicates the relationship between the long term funds provided by creditors and funds provided by owners. Shareholder. The debt equity ratio is calculated by comparing the long term debts with total shareholders funds.

Debtors Turnover Ratio

Formula: Debtors Turnover Ratio = $\frac{Credit\ Sales}{Average\ debtors}$ OR $\frac{Net\ credit\ sales}{Debtors+Bills\ Receivable}$

Significance: The debtors turnover ratio indicates the number of times on the average that debtors turnover each year. Generally higher the value of debtors turnover the more efficient is the management of credit. It indicates shorter time span between credit sales and cash collection.

Solved Example

- The following is the financial information of Aditya Mills Ltd as under.

Balance Sheet as on 31st December 2019

Liabilities	**₹**	**Assets**	**₹**
Equity share capital (Rs.100 each	10,00,000	Plant and equipment	6,40,000
Retained Earnings	3,68,000	Land and Building	80,000
Sundry Creditors	1,04,000	Cash	1,60,000
Bills payable	2,00,000	Sundry Debtors 3,60,000 Less Allowances 40,000	3,20,000
Other Current Liablities	20,000	Stock	4,80,000
		Prepaid Insurance	12,000
	16,92,000		**16,92,000**

Question Continues

Statement of Profit for the year ended 31st December 2019

Sales	40,00,000
Less: Cost of Goods Sold	30,80,000
Gross Profit	**9,20,000**
Less: Operating expenses	6,80,000
Net Profit	**2,40,000**
Less: Taxes @ 50%	1,20,000
Net Profit After Taxes	**1,20,000**

Sundry debtors and Stock at the beginning of the year were Rs.3,00,000 and Rs.4,00,000 respectively.

Calculate all necessary ratio for Aditya Mills Ltd.

Solution

(a) Calculation of Current Ratio

Formula: Current Ratio = $\frac{Current\ Assets}{Current\ Liabilities}$

Current Assets = Sundry Debtors + Cash + Stock + Prepaid Insurance

= Rs.3,20,000 + Rs.1,60,000 + Rs.4,80,000 + Rs.12,000

= **Rs.9,72,000**

Current Liabilities = Sundry Creditors + Bills Payable + Other Current Liabilities

= Rs.1,04,000 + Rs.2,00,000 + Rs.20,000

= **Rs.3,24,000**

Current Ratio = $\frac{9,72,000}{3,24,000}$

∴ **Current Ratio = 3:1**

(b) **Calculation of Acid Test Ratio:**

Formula: Acid Test Ratio = $\frac{Liquid\ Assets}{Liquid\ Liabilities}$

Liquid Assets = Current Assets – Stock – Prepaid Insurance

= Rs.9,72,000 – Rs.4,80,000 – Rs.12,000

= Rs.4,80,000

Liquid Liabilities = Current Liabilities – Bank Overdraft – Outstanding expenses

= Rs.3,24,000 – Rs.0 – Rs.0

= Rs.3,24,000

Acid Test Ratio = $\frac{4,80,000}{3,24,000}$

∴Acid Test Ratio = 1.48:1

(c) Calculation of Stock Turnover Ratio:

Stock Turnover Ratio = $\frac{Cost\ of\ Goods\ Sold}{Average\ Inventory}$

Cost of Goods sold **= Rs.30,80,000**

Average inventory = $\frac{Rs.4,00,000+Rs.4,80,000}{2}$

= Rs.4,40,000

Stock Turnover Ratio = $\frac{30,80,000}{4,40,000}$

∴Stock Turnover Ratio = 7:1

(d) Calculation of Debtors Turnover Ratio:

Debtors Turnover Ratio = $\frac{Credit\ Sales}{Average\ Debtors}$

Credit Sales = **Rs.40,00,000**

Average Debtors = $\frac{Opening\ balance+Closing\ balance}{2} = \frac{Rs.3,00,000+Rs.60,000}{2}$ = **Rs.3,30,000**

Debtors Turnover Ratio = $\frac{40,00,000}{3,30,000}$

∴ Debtors Turnover Ratio = 12.12:1

(e) Calculation of Gross Profit Ratio:

Formula: Gross Profit Ratio $= \frac{Gross\ Profit}{Sales} \times 100$

$= \frac{Rs.9,20,000}{Rs.40,00,000} \times 100$

$= 23\%$

∴Gross Profit Ratio = 23%

(f) Calculation of Net Profit Ratio:

Formula: Net Profit Ratio $= \frac{Net\ Profit\ (after\ tax)}{Sales} \times 100$

$= \frac{Rs.1,20,000}{Rs.40,00,000} \times 100$

$= 3\%$

∴Net Profit Ratio = 3%

(g) Calculation of Operating Ratio:

Formula: Operating Ratio $= \frac{Cost\ of\ goods\ sold + Operating\ expenses}{Sales} \times 100$

$= \frac{Rs.30,80,000 + Rs,6,80,000}{Rs.40,00,000} \times 100$

$= \frac{Rs.37,60,000}{Rs.40,00,000} \times 100$

$= 94\%$

∴Operating Ratio = 94%

Answer: The following are the ratios of Aditya Mills Ltd.

(a) Current Ratio	3:1
(b) Acid Test Ratio	1.48:1
(c) Stock Turnover Ratio	7:1
(d) Debtors Turnover Ratio	12.12:1
(e) Gross Profit Ratio	23%
(f) Net Profit Ratio	3%
(g) Operating Ratio	94%

THANK YOU