

Topic 14



Accounting Ratios

ACCOUNTING RATIOS

Performance/Profitability Ratios

Liquidity Ratios

Efficiency Ratios

Efficiency Ratio

1. Rate of Inventory Turnover: It measures the efficiency of a business of converting stock into sales.

It measures that on average how many times inventory purchased in converted into sales, the higher the rate of inventory turnover, the more efficient a business is. The lower the inventory turnover in days the better it is for the business.

Note: Businesses dealing in fast moving consumer goods, perishable goods or working on low profit margins usually have higher rate of inventory turnover.

• Businesses dealing in luxury and fashionable goods or working on high profit margins usually have lower rate of inventory turnover.

$$\text{Inventory turnover} = \frac{\text{cost of sales}}{\text{average inventory}} = \text{times}$$

$$\text{Average Inventory} = \frac{\text{opening inventory} + \text{closing inventory}}{2}$$

Example

	A		B	
	\$	\$	\$	\$
Sales		600000		450000
e) cost of sales				
opening inventory	90000		50000	
+ purchases	360000		250000	
e) closing inventory	(50000)	(400000)	(60000)	(240000)
gross profit		200000		210000

Business A

$$\text{Average Inventory} = \frac{\text{opening inventory} + \text{closing inventory}}{2}$$

$$\text{Average inventory} = \frac{90000 + 50000}{2} = \$70000$$

$$\text{Inventory turnover} = \frac{\text{cost of sales}}{\text{average inventory}} = \text{times}$$

$$\text{Rate of Inventory Turnover} = \frac{\$400000}{\$70000} = 5.71 \text{ times} \quad \text{or} \quad \frac{365}{5.71} = 64 \text{ days}$$

Business B

$$\text{Average inventory} = \frac{50000 + 60000}{2} = \$55000$$

$$\text{Rate of Inventory Turnover} = \frac{\$240000}{\$55000} = 4.36 \text{ times} \quad \text{or} \quad \frac{365}{4.36} = 84 \text{ days}$$

Analysis/comment: Business A's rate of inventory turnover is 1.35 times higher and better which means business A is more efficient in converting stock into sales.

Reason for higher rate of inventory turnover/

How to improve rate of inventory turnover:

1. Increase in demand.
2. Decrease/Reduction in selling price.
3. Holding lesser amount of inventory.
4. Holding a 'sale' (seasonal/festive)

Advantages of holding low level of inventory:

1. Reduction in storage cost/warehousing cost.
2. Reduction in insurance cost.
3. Lower opportunity cost.
4. Less chances of inventory becoming obsolete/outdated.
5. Lesser risk of damage.

Disadvantages:

1. The business can run out of stock/demand can not be satisfied.

$$\text{Inventory Turnover (Days)} = \frac{\text{Average inventory} \times 365}{\text{Cost of Sales}} = \text{Days}$$

$$\text{(Weeks)} = \frac{\text{Average inventory} \times 52}{\text{Cost of Sales}} = \text{Weeks}$$

$$\text{(Months)} = \frac{\text{Average inventory} \times 12}{\text{Cost of Sales}} = \text{months}$$

It measures on average how many days are required to convert inventory into sales.

Trade Receivables Collection Period/Trade Receivables Turnover: It measures the efficiency of credit control department that on average how many days are required to collect amount from credit customers.

The shorter the collection period the more efficient a business is and there are less chances of cashflow problems and bad debts.

$$\text{Trade Receivables Collection Period} = \frac{\text{Trade}^{\text{c/d}} \text{ receivables} \times 365}{\text{credit sales}} = \text{days}$$

How can we improve the collection period:

1. Strict credit terms.
2. Allow cash discount for early settlement
3. Improve efficiency of credit control department.
4. Reduce credit sales to risky customer.
5. Charge interest for late payment.

Trade Payables Payment Period/

$$\text{Trade Payables turnover} = \frac{\text{trade payables}}{\text{credit purchases}} \times 365 = \text{days}$$

It measures that on average how many days are required to settle the amount to trade payables.

Trade payables payment period should always be higher than Trade receivables collection period to have positive impact on cashflow position.

Advantages of early payment to suppliers

- Discount received from credit suppliers
- Good relationship with credit suppliers
- Credit worthiness in the market (credit rating)
- Savings from interest charged by suppliers

Disadvantages of early payment

- Poor cashflow position
- increase in short term borrowings [e.g.: bank overdraft]

Revenue
↑

Non Current Assets turnover: It measures the efficiency of non current assets in generation of sales revenue that how effectively a business is using its non current assets to generate sales.

$$\text{Non Current Assets turnover} = \frac{\text{net Revenue}}{\text{non current assets (nbv)}} = \text{times}$$

It measures that how many times of non current assets a business earns sales revenue.

increase in non current asset turnover	decrease in non current asset turnover
<ul style="list-style-type: none">• Increase in sales revenue• Depreciation of non current asset• Disposal of non current asset	<ul style="list-style-type: none">• decrease in sales revenue• Upward revaluation of non current assets• additions in non current assets.

working capital: capital available to manage day to day operations of a business.

Liquidity Ratios

Liquidity: It is an ability of a business to pay short term debts. For short term survival of business liquidity is more important than profitability.

1. Current Ratio / Working capital ratio

$$\begin{aligned}\text{Current Ratio} &= \frac{\text{Current Assets}}{\text{Current Liabilities}} = x : 1 && [1.5 - 2] \\ &= \frac{\$20000}{\$10000} = 2 : 1\end{aligned}$$

Current ratio measures that how much amount of current assets are available to settle a liability of \$1.

	Adeel	Arham	Jaweria	Natalia
current assets	30000	25000	20000	50000
current liabilities	15000	18000	22000	10000

Adeel
current ratio = $\frac{\$30000}{\$15000} = 2 : 1 \rightarrow$ liquidity position is stable

Arham
current ratio = $\frac{\$25000}{\$18000} = 1.38 : 1 \rightarrow$ liquidity position is unstable and needs improvement.

Jaweria
current ratio = $\frac{\$20000}{\$22000} = 0.9 : 1 \rightarrow$ liquidity position is quite alarming and even the going concern assumption is doubtful

Natalia

current ratio = $\frac{\$50000}{\$10000} = 5 : 1$ → Too much excess ratio is also not a good sign, it means the business is under trading either they are holding too much amount of inventory, too much amount is tied up in trade receivables or holding too much idle cash which is an opportunity lost.

2. Quick Ratio/Acid test Ratio/Liquid ratio:

Quick ratio = $\frac{\text{Current Assets} - \text{inventory}}{\text{current liabilities}}$

It measures how much amount of liquid current assets are available to settle a liability of \$1. Since inventory is the least liquid current asset it is excluded from the calculations. Current assets available to settle urgent liabilities

How a business can improve its liquidity

1. Sale of surplus non current assets.
2. take out a bank loan
3. Introduce additional capital into business
4. Sale of inventory at profit.
5. Reduce Drawings.
6. Control expenses

Example ::

Statement of Financial Position

	\$	\$
Non Current Assets		150,000
<u>Current Assets</u>		
Inventory	10000	
Trade Receivables	30000	
Bank	<u>10000</u>	<u>50,000</u>
Total Assets		<u>200,000</u>
Owner's Capital		140,000
Non Current Liability		25,000
<u>Current liability</u>		
Trade Payables		<u>35000</u>
		<u>200000</u>

Required

Calculate and comment on::

1. current ratio.
2. quick ratio.

INTRODUCTION TO COST AND MANAGEMENT ACCOUNTING

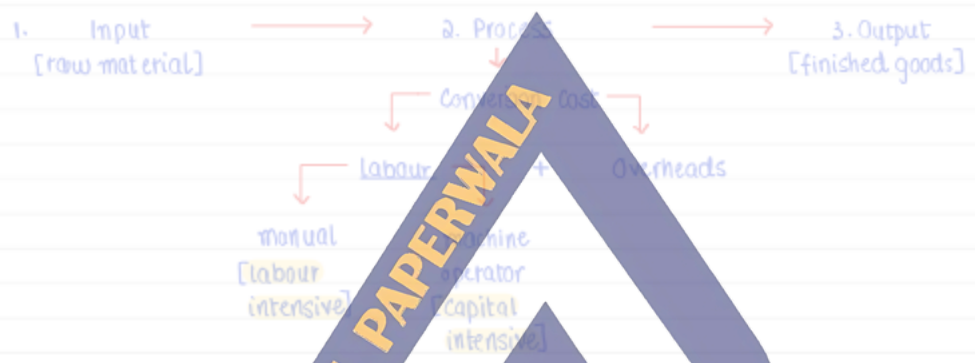
Cost/Expense: Outflow of resources.



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Stages of Manufacturing



Labour intensive business: Business organisations dependant on manual labour rather than technology or machinery.

Capital intensive business: Business organisations which are more dependant on machines rather than manual labour.