

Finance Management & Planning

Financial Ratios – Part 1

- Recap of Last week
 - Assignment discussion
 - Ratios – an introduction Balance Sheet
- This Week
 - Profitability Ratios - continued
 - Liquidity Ratios
 - Activity Ratios

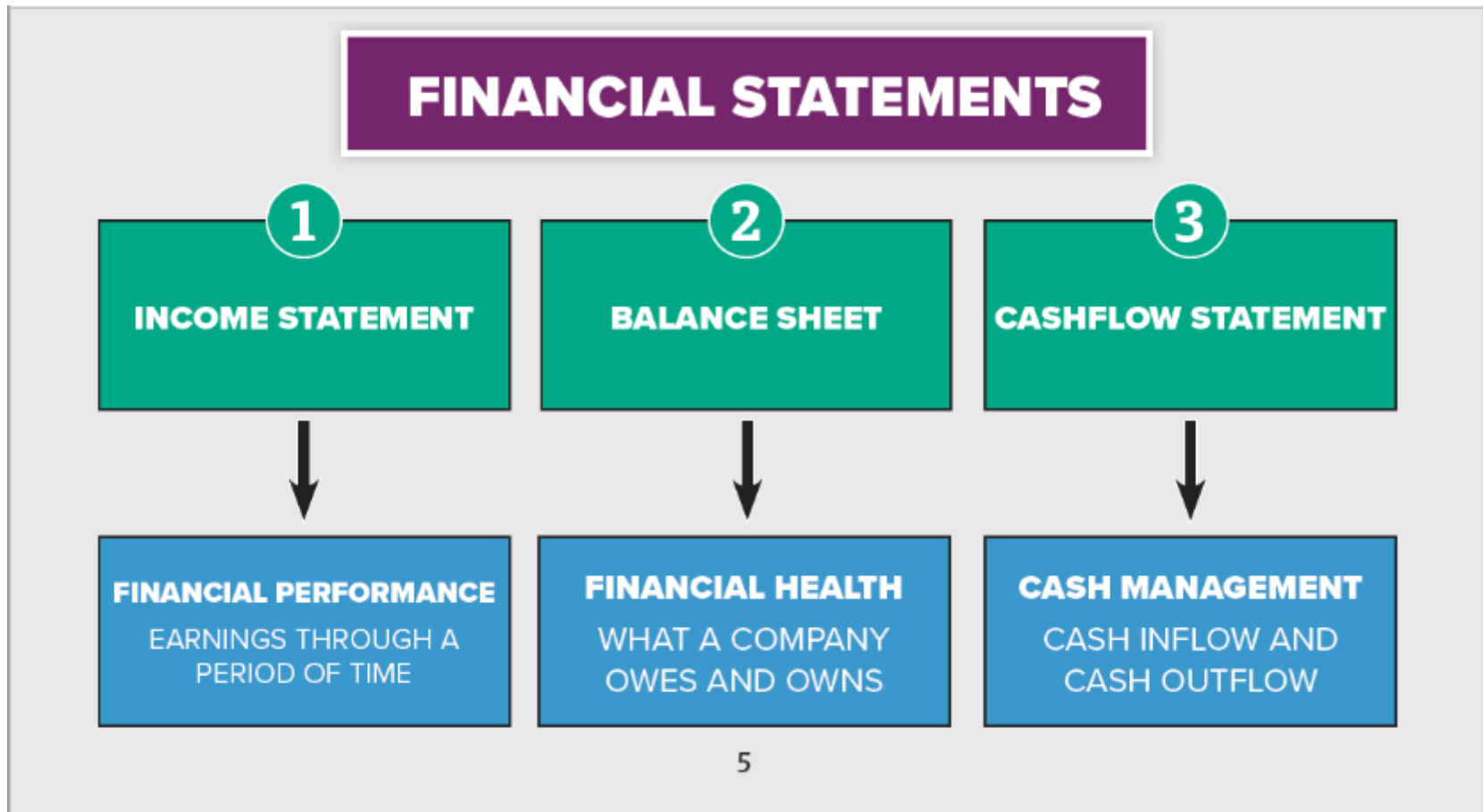
Financial Ratios

Statistical Information within your business

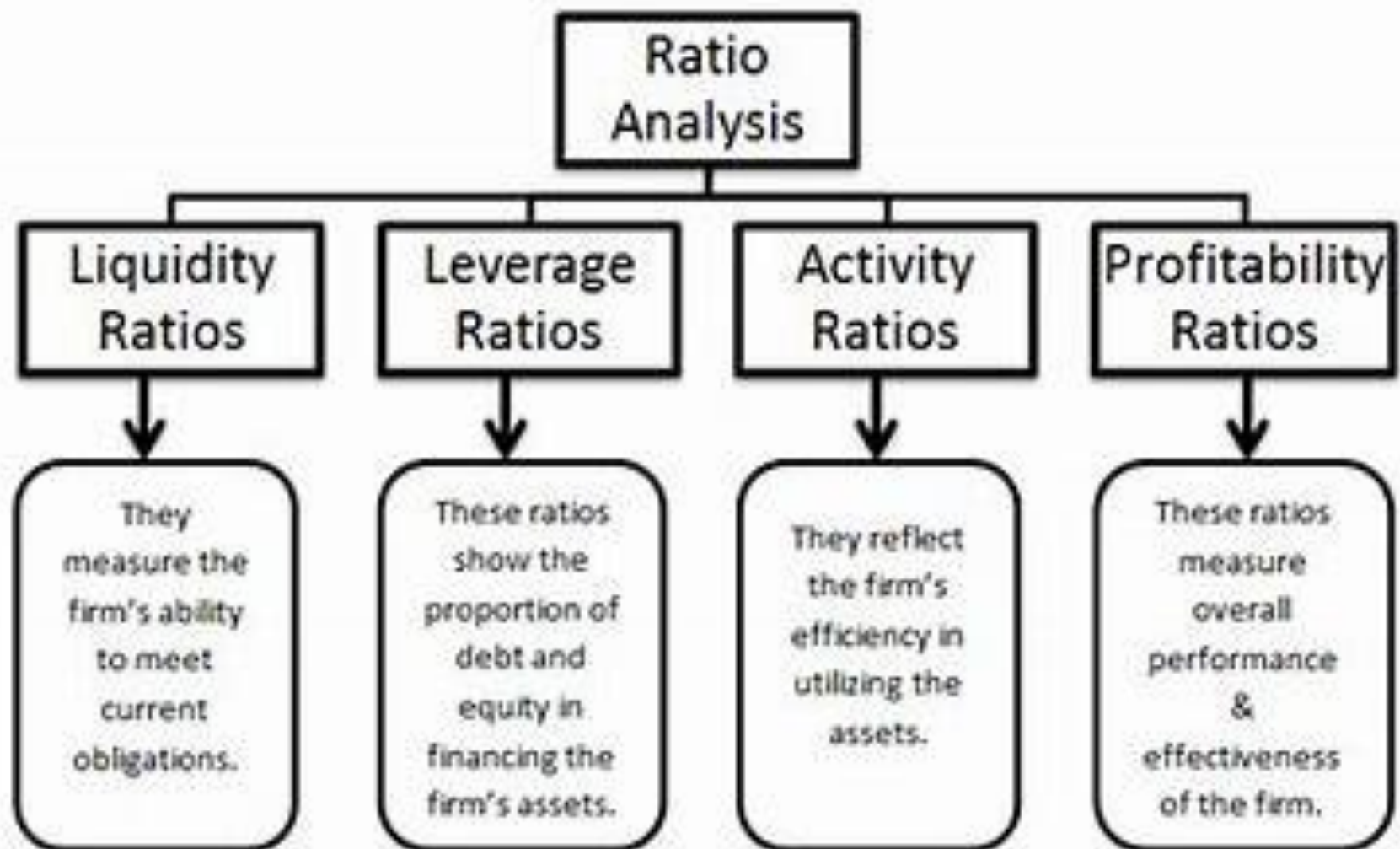


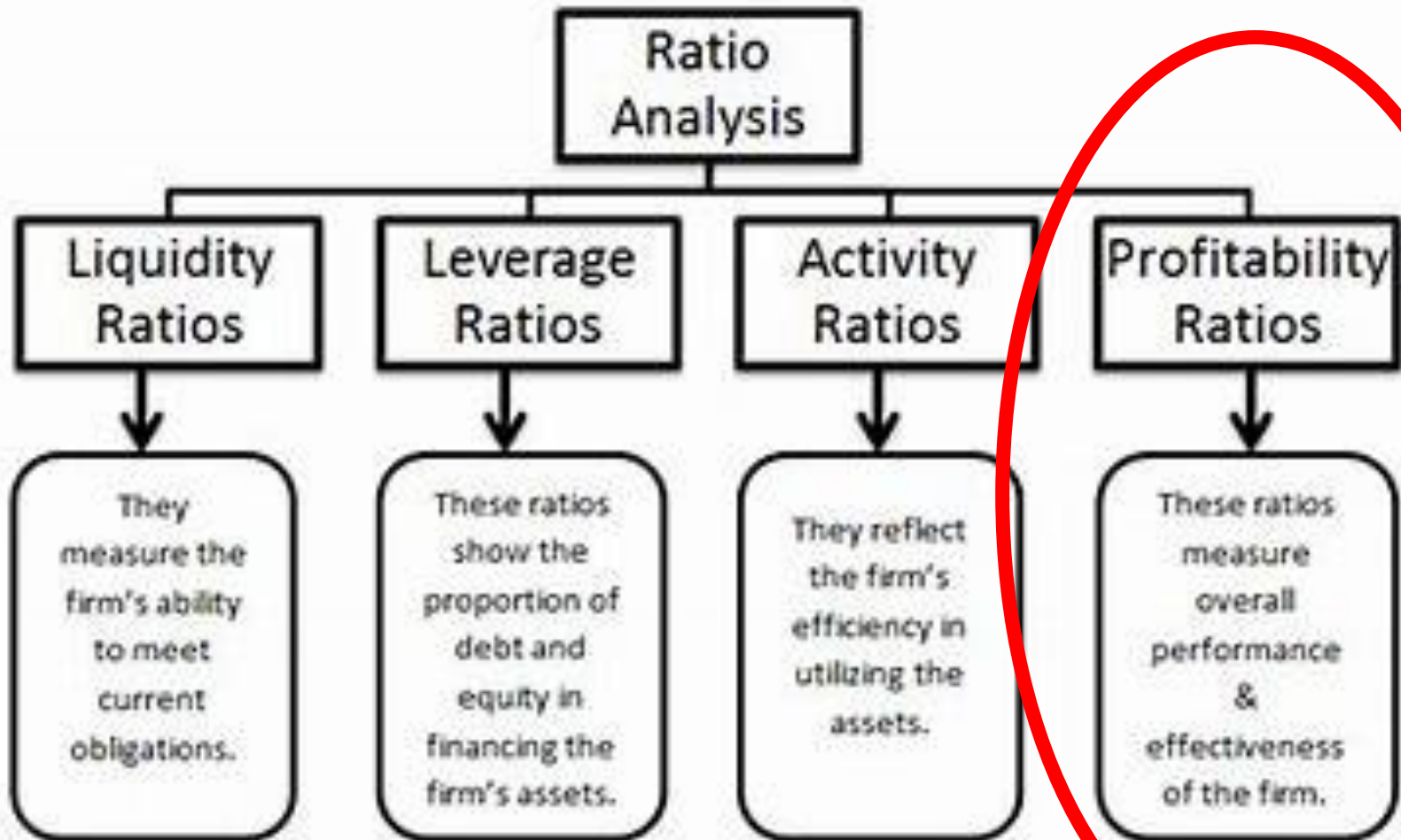
The Financial Statements

Financial statements measure the financial health of the organisation:



- Grouped into categories relating to a particular aspect of financial performance or position.
 - Profitability
 - Efficiency
 - Liquidity
 - Financial Gearing
 - Investment (of more interest to external stakeholders)
- Atrill & McLaney chapter: 6
 - Analysing and interpreting financial statements





Profitability Ratios Formula

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Sales}} \times 100$$

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Assets}} \times 100$$

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$$

- **Types of Profitability Ratios**
- Margin Ratios – Shows the ability for a company to convert sales into profitability.
- Return Ratios – Shows the companies ability to generate returns to its shareholders.

Ratio Reference

	2018	2019	2020
Revenue	185000	250000	300000
Material	100000	100000	150000
Labour	35000	75000	95000
Other Costs	10000	20000	25000
Cost of Goods Sold	145000	195000	270000
Gross Profit	40000	55000	30000
Gross Profit %	21.62%	22.00%	10.00%
Sales Cost	10000	10000	15000
Admin Cost	2500	5000	3500
General Costs	5000	5000	7500
Depreciation	3000	5000	5000
Total Operating Expenses	20500	25000	31000
Operating Profit	19500	30000	-1000
Interest Paid	0	0	1000
Tax @ 20%	3900	6000	0
Net Income	15600	24000	-2000

Profitability Ratios

- Gross Profit Margin %

$$\frac{\text{Gross Profit}}{\text{Revenue}} = \text{Gross Profit Margin \%}$$

Where Gross Profit is Revenue less Cost of Goods Sold

$$\frac{\text{Gross Margin}}{\text{Revenue}} = \text{Gross Margin \%}$$

Year	2017	2018
Revenue	100000	150000
COGS	80000	110000

Gross Profit	20000	40000
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Gross Margin %	20.0%	26.7%
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$$\frac{\text{Gross Profit}}{\text{Revenue}} = \text{Gross Profit Margin \%}$$

Product A

$$\frac{10}{100} = 10\%$$

Product B

$$\frac{0}{130} = 0\% \quad \text{Gross Profit (Revenue £130 - Mats £75 - Lab £50 - Distrib £5)}$$

Product C

$$\frac{20}{75} = 27\% \quad \text{Gross Profit (Revenue £75 - Mats £25 - Lab £25 - Distrib £5)}$$

Product D

$$\frac{10}{50} = 20\% \quad \text{Gross Profit (Revenue £50 - Mats £27.50 - Lab £7.50 - Distrib £5)}$$

$$\frac{\text{Gross Profit}}{\text{Revenue}} = \text{Gross Profit Margin \%}$$

		Split by Product			
	Total	A	B	C	D
Revenue	100,000	27,500	5,000	57,500	10,000
COGS	80,000	24,750	5,000	42,250	8,000
Gross Profit	20,000	2,750	0	15,333	2,000
Gross Margin %	20.0%	10.0%	0.0%	26.7%	20.0%

- Increase Product A and B Revenue by 10% and restate Gross margin%

$$\frac{\text{Gross Profit}}{\text{Revenue}} = \text{Gross Profit Margin \%}$$

Price increase on Product A + B of 10%

		Split by Product			
	Total	A	B	C	D
Revenue	103,250	30,250	5,500	57,500	10,000
COGS	80,000	24,750	5,000	42,250	8,000
Gross Profit	23,250	5,500	500	15,250	2,000
Gross Margin %	22.5%	18.2%	9.1%	26.5%	20.0%

5% improvement on COGS

		Split by Product			
	Total	A	B	C	D
Revenue	100,000	27,500	5,000	57,500	10,000
COGS	76,000	23,513	4,750	40,137	7,600
Gross Profit	24,000	3,988	250	17,363	2,400
Gross Margin %	24.0%	14.5%	5.0%	30.2%	24.0%

$$\frac{\text{Gross Profit}}{\text{Revenue}} = \text{Gross Profit Margin \%}$$

If Both Achieved

		Split by Product			
	Total	A	B	C	D
Revenue	103,250	30,250	5,500	57,500	10,000
COGS	76,000	23,513	4,750	40,137	7,600
Gross Profit	27,250	6,738	750	17,363	2,400
Gross Margin %	26.4%	22.3%	13.6%	30.2%	24.0%

Achieved Price increase on B , Price increase of 5% on A , Cogs improved by 3%

		Split by Product			
	Total	A	B	C	D
Revenue	101,875	28,875	5,500	57,500	10,000
COGS	77,600	24,008	4,850	40,982	7,760
Gross Margin	24,275	4,868	650	16,518	2,240
Gross Margin %	23.8%	16.9%	11.8%	28.7%	22.4%

Financial Ratios

$$\frac{\text{Operating Profit}}{\text{Revenue}} = \text{Operating Profit \%}$$

Year	2017	2018
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Revenue	100,000	150,000
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COGS	80,000	110,000
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Gross Margin	20,000	40,000
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Gross Margin %	20.0%	26.7%
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SG&A	10,000	15,000
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Operating Profit	10,000	25,000
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Operating Profit %	10%	17%
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		Split by Product			
	Total	A	B	C	D
Revenue	100,000	27,500	5,000	57,500	10,000
COGS	80,000	24,750	5,000	42,250	8,000
Gross Profit	20,000	2,750	0	15,333	2,000
Gross Margin %	20.0%	10.0%	0.0%	26.7%	20.0%
SG&A	10,000	1,500	2,000	4,000	2,500
Operating Profit	10,000	1,250	-2,000	11,333	-500
Operating Profit %	10.0%	4.5%	-40.0%	19.7%	-5.0%

Gross Margin % – we reviewed product A and B

Operating Profit % - we would review B and D first

Financial Ratios

$$\frac{\text{Net Income}}{\text{Revenue}} = \text{Net Profit \%}$$

Year	2017	2018
Revenue	100000	150000
COGS	80000	110000
Gross Profit	20000	40000
Gross Margin %	20.0%	26.7%
SG&A	10000	15000
Operating Profit	10000	25000
Operating Profit %	10.0%	16.7%
Interest + Tax	5000	10000

Net Income	5,000	15,000
Net Profit %	5.0%	10.0%

Financial Ratios

Exercise

Year	2019	2020
Revenue	165,000	180,000
COGS	120,000	128,000
SG&A	25,000	25,000
Interest + Tax	8,000	10,800

Calculate

Gross Margin %

Operating Margin %

Net Profit %

Financial Ratios

Exercise

Year	2017	2018	2019	2020
Revenue	100000	150000	165000	180000
COGS	80000	110000	120000	128000
Gross Profit	20000	40000	45000	52000
Gross Margin %	20.0%	26.7%	27.3%	28.9%
SG&A	10000	15000	25000	25000
Operating Profit	10000	25000	20000	27000
Operating Profit %	10.0%	16.7%	12.1%	15.0%
Interest + Tax	5000	10000	8000	10800
Net Income	5,000	15,000	12,000	16,200
Net Profit %	5.0%	10.0%	7.3%	9.0%

Return Ratios

$$\frac{\text{Net Income}}{\text{Assets}} = \text{Return on Assets}$$

$$\frac{\text{Net Income}}{\text{Shareholders Equity}} = \text{Return on Shareholders Equity}$$

- Used to evaluate how management are utilising the capital within the business
- Assets includes Debt
- Shareholders Equity utilised the investment into the business and retained earnings.

$$\frac{\text{Net Income}}{\text{Assets}} = \text{Return on Assets}$$

Net Income	5,000	15,000
Net Profit %	5.0%	10.0%

Balance Sheet		
Year	2017	2018
Fixed Assets	100,000	90,000
Current Assets	75,000	80,000
Total Assets	175,000	170,000

Current Liabilities	60,000	45,000
Long Term Liabilities	50,000	45,000
Total Liabilities	110,000	90,000
Assets Less Liabilities	65,000	80,000

Ordinary Shares	60,000	60,000
Retained Earnings	5,000	20,000
Shareholders Equity	65,000	80,000

Return on Assets	2.9%	8.8%
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$$\frac{\text{Net Income}}{\text{Shareholders Equity}} = \text{Return on Shareholders Equity}$$

Shareholders' equity = total assets – total liabilities

Net Income	5,000	15,000
Net Profit %	5.0%	10.0%

Balance Sheet		
Year	2017	2018
Fixed Assets	100,000	90,000
Current Assets	75,000	80,000
Total Assets	175,000	170,000

Current Liabilities	60,000	45,000
Long Term Liabilities	50,000	45,000
Total Liabilities	110,000	90,000
Assets Less Liabilities	65,000	80,000

Ordinary Shares	60,000	60,000
Retained Earnings	5,000	20,000
Shareholders Equity	65,000	80,000

Return on Shareholder Equity	7.7%	18.8%
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Financial Ratios

Year	2017	2018	2019	2020
Net Profit	5,000	15,000	12,000	16,200

Balance Sheet				
Year	2017	2018	2019	2020
Fixed Assets	100,000	90,000	80,000	70,000
Current Assets	75,000	80,000	90,000	108,200
Total Assets	175,000	170,000	170,000	178,200
Current Liabilities	60,000	45,000	38,000	35,000
Long Term Liabilities	50,000	45,000	40,000	35,000
Total Liabilities	110,000	90,000	78,000	70,000
Assets Less Liabilities	65,000	80,000	92,000	108,200
Ordinary Shares	60,000	60,000	60,000	60,000
Retained Earnings	5,000	20,000	32,000	48,200
Shareholders Equity	65,000	80,000	92,000	108,200

Return on Assets	2.9%	8.8%	7.1%	9.1%
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Return on Shareholder Equity	7.7%	18.8%	13.0%	15.0%
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Profitability Ratios Formula

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Sales}} \times 100$$

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Assets}} \times 100$$

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$$

Income Statement

Year	2018	2019	2020
Units sold	10,000	12,500	17,000
Revenue	185,000	250,000	300,000
	100%	100%	100%

Material	100,000	100,000	150,000
Labour	35,000	75,000	95,000
Other Direct Costs	10,000	20,000	25,000
Cost of Good Sold	145,000	195,000	270,000

Gross Margin / Profit	40,000	55,000	30,000
Gross Margin / Profit %	21.6%	22.0%	10.0%

Sales Cost	10,000	10,000	15,000
Admin Cost	2,500	5,000	3,500
General Costs	5,000	5,000	7,500
Depreciation	3,000	5,000	5,000
Total Operating Expenses	20,500	25,000	31,000

Operating Profit / Margin	19,500	30,000	-1,000
Operating Profit / Margin %	10.5%	12.0%	-0.3%

Interest Paid	0		1,000
Tax	3,900	6,000	0

Net income / Profit	15,600	24,000	-2,000
Net Income / Profit %	8.4%	9.6%	-0.7%

Profitability Ratios

- Gross Profit Margin %

$$\frac{\text{Gross Profit}}{\text{Revenue}} = \text{Gross Profit Margin \%}$$

Where Gross Profit is Revenue less Cost of Goods Sold

Financial Ratios

Exercise

Year	2019	2020
Revenue	165,000	180,000
COGS	120,000	128,000
SG&A	25,000	25,000
Interest + Tax	8,000	10,800

Calculate

Gross Margin %

Operating Margin %

Net Profit %

Financial Ratios

Exercise

Year	2017	2018	2019	2020
Revenue	100000	150000	165000	180000
COGS	80000	110000	120000	128000
Gross Profit	20000	40000	45000	52000
Gross Margin %	20.0%	26.7%	27.3%	28.9%
SG&A	10000	15000	25000	25000
Operating Profit	10000	25000	20000	27000
Operating Profit %	10.0%	16.7%	12.1%	15.0%
Interest + Tax	5000	10000	8000	10800
Net Income	5,000	15,000	12,000	16,200
Net Profit %	5.0%	10.0%	7.3%	9.0%

Return Ratios

$$\frac{\text{Net Income}}{\text{Assets}} = \text{Return on Assets}$$

$$\frac{\text{Net Income}}{\text{Shareholders Equity}} = \text{Return on Shareholders Equity}$$

- Used to evaluate how management are utilising the capital within the business
- Shareholders Equity utilised the investment into the business and retained earnings.

$$\frac{\text{Net Income}}{\text{Assets}} = \text{Return on Assets}$$

Net Income	5,000	15,000
Net Profit %	5.0%	10.0%

Balance Sheet		
Year	2017	2018
Fixed Assets	100,000	90,000
Current Assets	75,000	80,000
Total Assets	175,000	170,000

Current Liabilities	60,000	45,000
Long Term Liabilities	50,000	45,000
Total Liabilities	110,000	90,000
Assets Less Liabilities	65,000	80,000

Ordinary Shares	60,000	60,000
Retained Earnings	5,000	20,000
Shareholders Equity	65,000	80,000

Return on Assets	2.9%	8.8%
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$$\frac{\text{Net Income}}{\text{Shareholders Equity}} = \text{Return on Shareholders Equity}$$

Shareholders' equity = total assets – total liabilities

Net Income	5,000	15,000
Net Profit %	5.0%	10.0%

Balance Sheet		
Year	2017	2018
Fixed Assets	100,000	90,000
Current Assets	75,000	80,000
Total Assets	175,000	170,000

Current Liabilities	60,000	45,000
Long Term Liabilities	50,000	45,000
Total Liabilities	110,000	90,000
Assets Less Liabilities	65,000	80,000

Ordinary Shares	60,000	60,000
Retained Earnings	5,000	20,000
Shareholders Equity	65,000	80,000

Return on Shareholder Equity	7.7%	18.8%
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Financial Ratios

Year	2017	2018	2019	2020
Net Profit	5,000	15,000	12,000	16,200

Balance Sheet				
Year	2017	2018	2019	2020
Fixed Assets	100,000	90,000	80,000	70,000
Current Assets	75,000	80,000	90,000	108,200
Total Assets	175,000	170,000	170,000	178,200
Current Liabilities	60,000	45,000	38,000	35,000
Long Term Liabilities	50,000	45,000	40,000	35,000
Total Liabilities	110,000	90,000	78,000	70,000
Assets Less Liabilities	65,000	80,000	92,000	108,200
Ordinary Shares	60,000	60,000	60,000	60,000
Retained Earnings	5,000	20,000	32,000	48,200
Shareholders Equity	65,000	80,000	92,000	108,200

Return on Assets	2.9%	8.8%	7.1%	9.1%
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Return on Shareholder Equity	7.7%	18.8%	13.0%	15.0%
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Profitability Ratios Formula

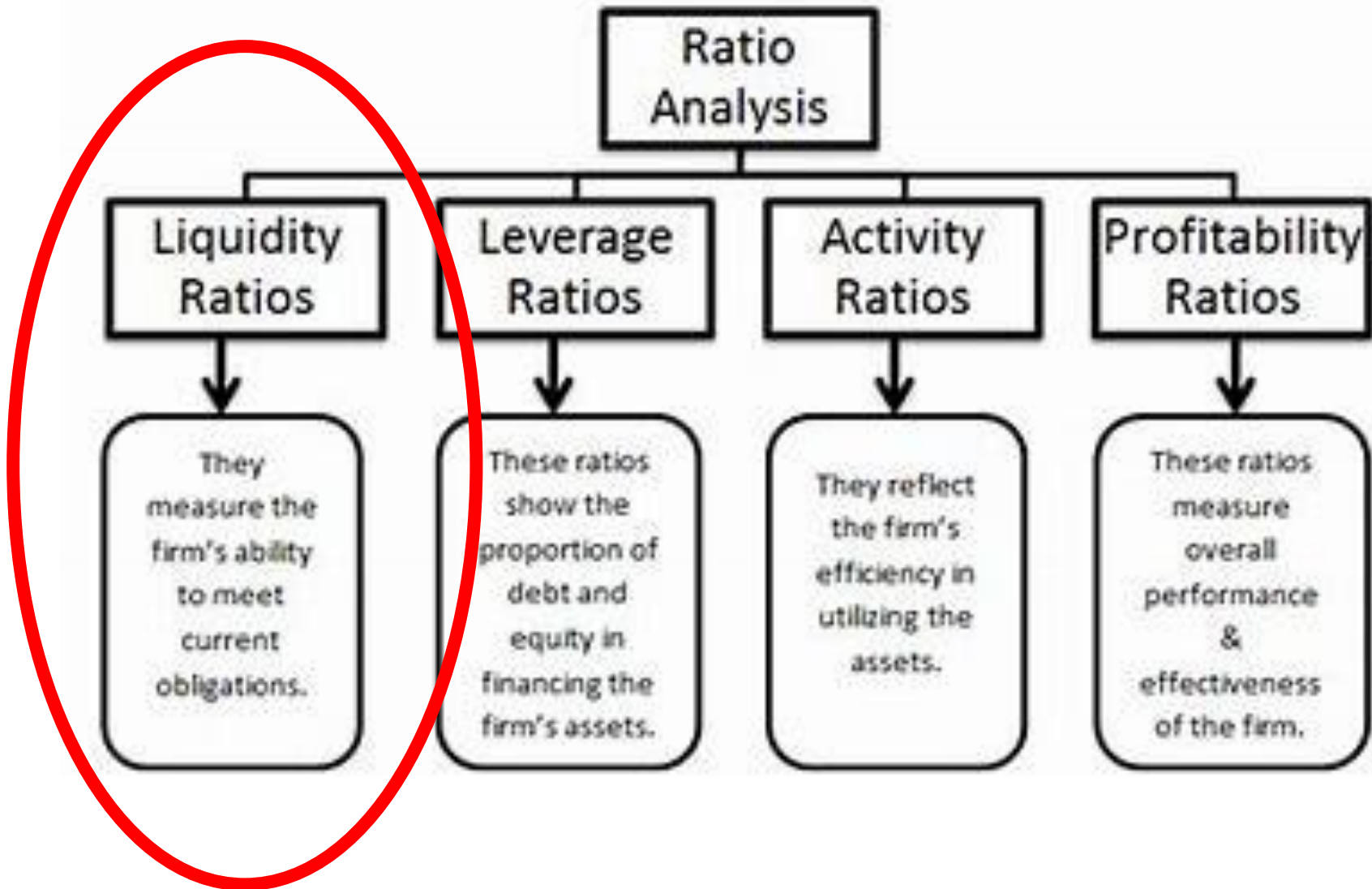
$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Sales}} \times 100$$

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Assets}} \times 100$$

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$$



Liquidity Ratios

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

$$\text{Quick Ratios (or Acid Test Ratio)} = \frac{\text{Current Assets Less Stock}}{\text{Current Liabilities}}$$

Refresh of Terms

Current Assets made up of

- Stock
- Cash and Cash Equivalents
- Market Securities
- Debtors
- Prepayments

Current Liabilities made up of

- Creditors
- Cash and Cash Equivalents
- Accrued Liabilities

Liquidity Ratios

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

The Current Ratio is used to measure whether a company's short-term assets cover the value of our short term liabilities

Financial Ratios

Balance Sheet	
Year	2017
Fixed Assets	100,000
Stock	20,000
Cash and Cash Equivalents	20,000
Debtors	30,000
Other Current Assets	5,000
Current Assets	75,000
Total Assets	175,000
Creditors	50,000
Accruals	10,000
Current Liabilities	60,000
Long Term Liabilities	50,000
Total Liabilities	110,000
Net Assets	65,000
Ordinary Shares	60,000
Retained Earnings	5,000
Shareholders Equity	65,000

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

Current Assets	£75,000
Current Liabilities	£60,000

Current Ratio	1.25
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Liquidity Ratios

$$\text{Quick Ratios (or Acid Test Ratio)} = \frac{\text{Current Assets Less Stock}}{\text{Current Liabilities}}$$

The Quick Ratio excludes stock as this still needs to be turned into a saleable item or sold to a customer and is not classed as “near cash”.

Financial Ratios

Balance Sheet	
Year	2017
Fixed Assets	100,000
Stock	20,000
Cash and Cash Equivalents	20,000
Debtors	30,000
Other Current Assets	5,000
Current Assets	75,000
Total Assets	175,000
Creditors	50,000
Accruals	10,000
Current Liabilities	60,000
Long Term Liabilities	50,000
Total Liabilities	110,000
Net Assets	65,000
Ordinary Shares	60,000
Retained Earnings	5,000
Shareholders Equity	65,000

$$\text{Quick Ratios (or Acid Test Ratio)} = \frac{\text{Current Assets Less Stock}}{\text{Current Liabilities}}$$

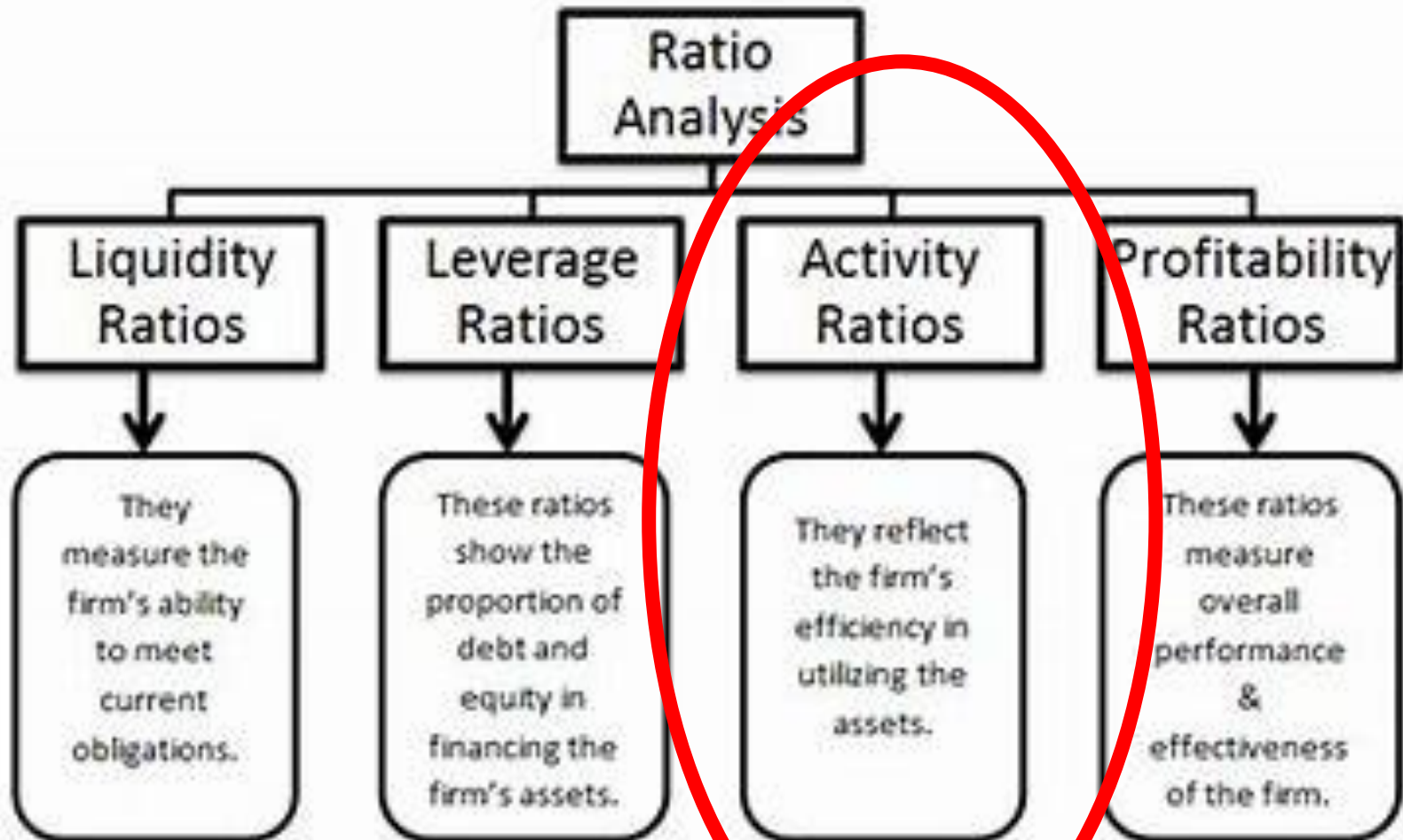
Current Assets	£55,000
Current Liabilities	£60,000

Current Ratio	0.92
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Financial Ratios

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \quad \text{Quick Ratios (or Acid Test Ratio)} = \frac{\text{Current Assets Less Stock}}{\text{Current Liabilities}}$$

Balance Sheet				
Year	2017	2018	2019	2020
Fixed Assets	100,000	90,000	80,000	70,000
Stock	20,000	30,000	50,000	60,000
Cash and Cash Equivalents	20,000	15,000	10,000	8,200
Debtors	30,000	25,000	20,000	30,000
Other Current Assets	5,000	10,000	10,000	10,000
Current Assets	75,000	80,000	90,000	108,200
Total Assets	175,000	170,000	170,000	178,200
Creditors	50,000	35,000	33,000	33,000
Accruals	10,000	10,000	5,000	2,000
Current Liabilities	60,000	45,000	38,000	35,000
Long Term Liabilities	50,000	45,000	40,000	35,000
Total Liabilities	110,000	90,000	78,000	70,000
Net Assets	65,000	80,000	92,000	108,200
Current Ratio	1.25	1.78	2.37	3.09
Quick Ratio	0.92	1.11	1.05	1.38



Activity Ratios

$$\text{Days Sales Outstanding (DSO)} = \frac{\text{Accounts Receivable (i.e. Debtors)}}{\text{Average Revenue per Day}}$$

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

$$\text{Days Payable Outstanding (DPO)} = \frac{\text{Accounts Payable (i.e. Creditors)}}{\text{Average COGS per day}}$$

$$\text{Where Average Revenue per Day} = \frac{\text{Annual Revenue}}{365}$$

$$\text{Where Average COGS per Day} = \frac{\text{Annual COGS}}{365}$$

Financial Ratios

Year	2017
Revenue	100000
COGS	80000
Gross Profit	20000
Gross Margin %	20.0%
SG&A	10000
Operating Profit	10000
Operating Profit %	10.0%
Interest + Tax	5000
Net Income	5,000
Net Profit %	5.0%

Balance Sheet	
Year	2017
Fixed Assets	100,000
Stock	20,000
Cash and Cash Equivalents	35,000
Debtors	30,000
Other Current Assets	5,000
Current Assets	75,000
Total Assets	175,000

Creditors	50,000
Accruals	10,000
Current Liabilities	60,000
Long Term Liabilities	50,000
Total Liabilities	110,000

Net Assets	65,000
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$$\text{Days Sales Outstanding (DSO)} = \frac{\text{Accounts Receivable (i.e. Debtors)}}{\text{Average Revenue per Day}}$$

$$\text{Average Revenue per Day} = \frac{100,000}{365} = 273.97$$

$$\text{Days Sales Outstanding (DSO)} = \frac{30,000}{273.97}$$

$$\text{Days Sales Outstanding (DSO)} = 109.5 \text{ Days}$$

So what does this mean ?

How could the business improve this ?

Financial Ratios

Year	2017
Revenue	100000
COGS	80000
Gross Profit	20000
Gross Margin %	20.0%
SG&A	10000
Operating Profit	10000
Operating Profit %	10.0%
Interest + Tax	5000
Net Income	5,000
Net Profit %	5.0%

Balance Sheet	
Year	2017
Fixed Assets	100,000
Stock	20,000
Cash and Cash Equivalents	25,000
Debtors	30,000
Other Current Assets	5,000
Current Assets	75,000
Total Assets	175,000

Creditors	50,000
Accruals	10,000
Current Liabilities	60,000
Long Term Liabilities	50,000
Total Liabilities	110,000

Net Assets	65,000
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$$\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

$$\text{Inventory Turnover} = \frac{80,000}{20,000} = 4 \text{ Turns per Year}$$

4 turns a year equates to stock being refreshed every 91 days

So what does this mean ?

How could the business improve this ?

Financial Ratios

Year	2017
Revenue	200000
COGS	80000
Gross Profit	20000
Gross Margin %	20.0%
SG&A	10000
Operating Profit	10000
Operating Profit %	10.0%
Interest + Tax	5000
Net Income	5,000
Net Profit %	5.0%

Balance Sheet	
Year	2017
Fixed Assets	100,000

Stock	20,000
Cash and Cash Equivalents	20,000
Debtors	30,000
Other Current Assets	5,000
Current Assets	75,000

Total Assets	175,000
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Creditors	50,000
Accruals	10,000
Current Liabilities	60,000
Long Term Liabilities	50,000
Total Liabilities	110,000

Net Assets	65,000
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$$\text{Days Payable Outstanding (DPO)} = \frac{\text{Accounts Payable (i.e. Creditors)}}{\text{Average COGS per day}}$$

$$\text{Days Payable Outstanding (DPO)} = \frac{50,000}{219.18}$$

$$\text{Days Payable Outstanding (DPO)} = 228.13 \text{ Days}$$

So what does this mean ?

How could the business improve this ?

Financial Ratios



Year	2017	2018	2019	2020
Revenue	100000	150000	165000	180000
COGS	80000	110000	120000	128000
Gross Profit	20000	40000	45000	52000
Gross Margin %	20.0%	26.7%	27.3%	28.9%

Balance Sheet				
Year	2017	2018	2019	2020
Fixed Assets	100,000	90,000	80,000	70,000
Stock	20,000	30,000	50,000	60,000
Cash and Cash Equivalents	20,000	15,000	10,000	8,200
Debtors	30,000	25,000	20,000	30,000
Other Current Assets	5,000	10,000	10,000	10,000
Current Assets	75,000	80,000	90,000	108,200
Total Assets	175,000	170,000	170,000	178,200
Creditors	50,000	35,000	33,000	33,000
Accruals	10,000	10,000	5,000	2,000
Current Liabilities	60,000	45,000	38,000	35,000
Long Term Liabilities	50,000	45,000	40,000	35,000
Total Liabilities	110,000	90,000	78,000	70,000
Net Assets	65,000	80,000	92,000	108,200
Ordinary Shares	60,000	60,000	60,000	60,000
Retained Earnings	5,000	20,000	32,000	48,200
Shareholders Equity	65,000	80,000	92,000	108,200

$$\text{Days Sales Outstanding (DSO)} = \frac{\text{Accounts Receivable (i.e. Debtors)}}{\text{Average Revenue per Day}}$$

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

$$\text{Days Payable Outstanding (DPO) } = \frac{\text{Accounts Payable (i.e. Creditors)}}{\text{Average COGS per day}}$$

Calculate the above formulae for 2018 , 2019 and 2020.

Remember the average inventory is current year and prior year.

Financial Ratios

Ratio's Calculated so Far

Year	2017	2018	2019	2020
Current Ratio	1.25	1.78	2.37	3.09
Quick Ratio	0.92	1.11	1.05	1.38
Days Sales Outstanding	109.50	60.83	44.24	60.83
Inventory Turns	4.00	3.67	2.40	2.13
Days Payable Outstanding	228.13	134.47	104.74	97.14

- Next Week
 - Leverage Ratios
 - Review an Annual Report

Reading List

<https://bizfluent.com/about-6195930-purpose-financial-ratios.html>

<https://www.investopedia.com/ask/answers/070914/what-are-main-differences-between-return-equity-roe-and-return-assets-roa.asp>

<https://www.investopedia.com/terms/p/profitabilityratios.asp>

<https://corporatefinanceinstitute.com/resources/knowledge/finance/profitability-ratios/>