JMC vLearning
"your virtual learning partner"

Ratio Analysis

AAT Level III
FAR - Financial Reporting

Sandeepa Jayasekera
ACA, B.Sc. (Accounting) Sp. Hons., ACMA (SL), SAT, CIMA Passed Finalist,
Reading for MBA (PIM), CA and CIMA Prize Winner

JMC ජයසේකර කළමනාකරණ මධ්‍යස්ථානය
JAYASEKERA MANAGEMENT CENTRE (PVT) LTD
Estd. 1972

JMC Jayasekera Management Centre (Pvt) Ltd
Pioneers in Professional Education
65/2A, Chittampalam Gardiner Mawatha, Colombo 02 | T: +94 112 430451 | E: info@jmc.lk | F: +94 115 377917

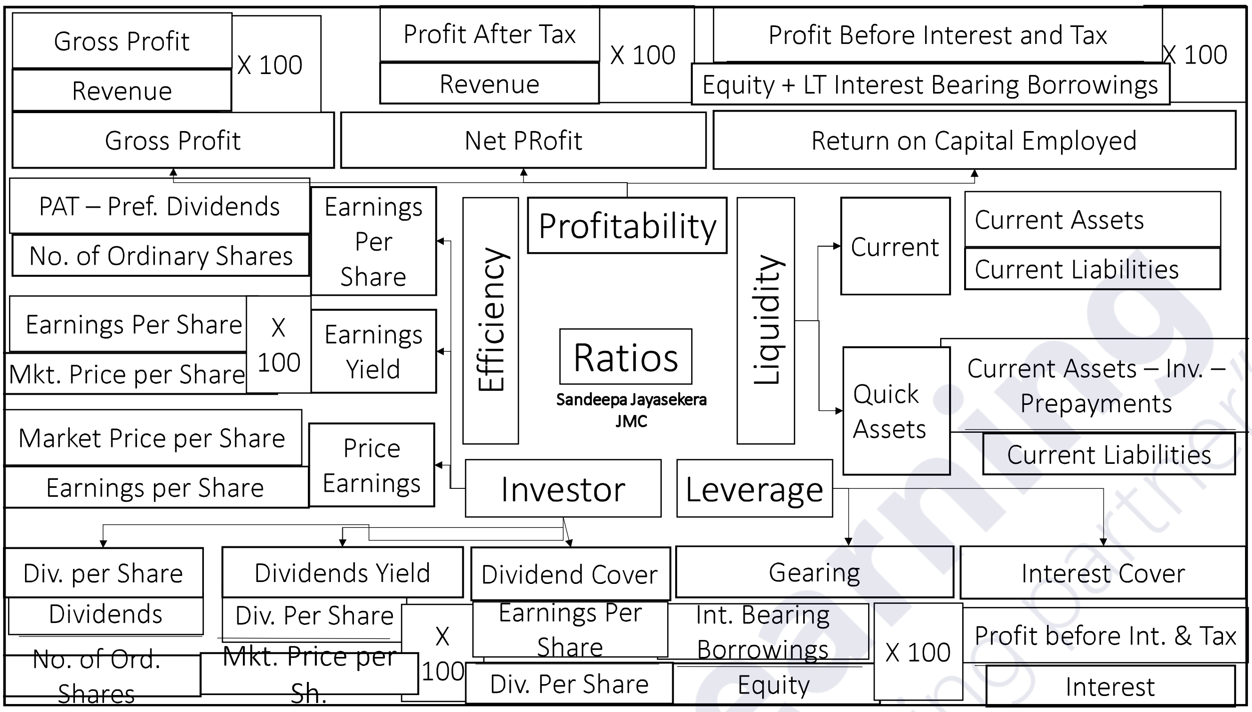
Ratio Analysis

Sandeepa Jayasekera
B.Sc. (Accounting) Sp. Hons., ACA, ACMA (SL), SAT, CIMA Passed Finalist, MBA PIM-USJP, Gold Medal Winner for the Most Outstanding Student in University of Sri Jayewardenepura Accounting Batch 2014. Chief Executive Officer and Lecturer of JMC

1

Ratio Analysis

2



3

Ratios provide the **Relationship** of **Two Financial Statement Figures** as a

- Percentage
- Times
- Days

4

Ratio Analysis Steps

- Calculate
- Planning the Answer
  - What?
  - Why?
  - Impact?
- Write the Report
- Conclusion

5

Profitability

- Gross Profit Margin
- Net Profit Margin
- Return on Capital Employed

6

6

Gross Profit Margin	Gross Profit/Sales X 100
Net Profit Margin	Profit After Tax/Sales X 100
Return on Capital Employed (ROCE)	$\frac{\text{Interest + Profit Before Tax}}{\text{Long Term Interest Bearing Borrowings + Equity}} \times 100$

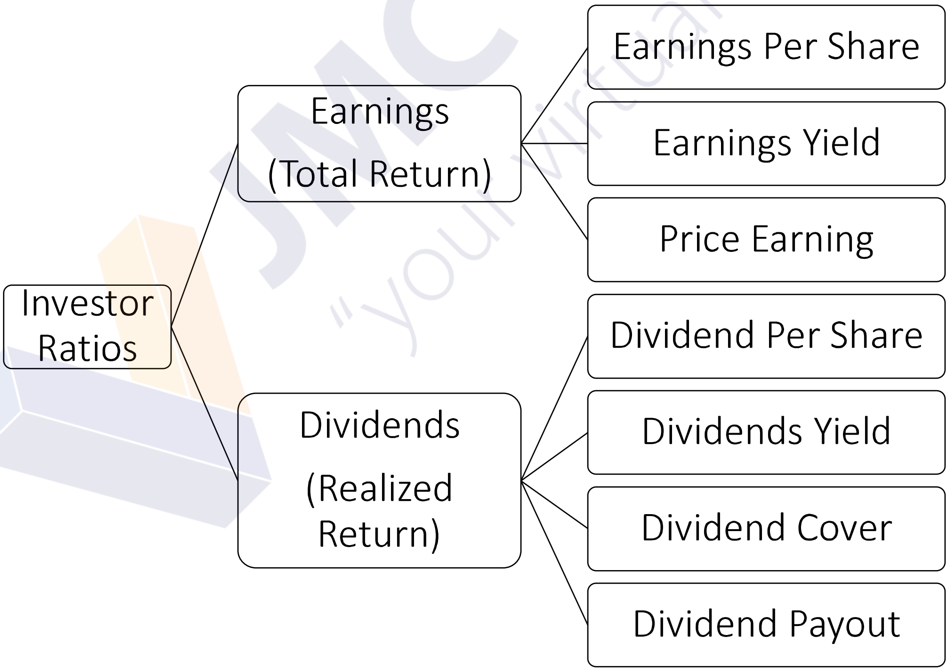
7

NP Margin

Point	Explanation
Definition	Per rupee sales how much of Net profits were generated
Reflects	Overall efficiency and effectiveness in management
Higher the ratio	Higher the efficiency and management Higher savings for company growth Higher ability to declare dividends

8

Investor Ratios



EPS

Point	Explanation
Definition	Per ordinary share, how much of earnings has been generated
Reflects	Distribution of Earnings among the Ordinary Shareholders
Higher the ratio	• Higher earnings generated for ordinary shareholders • Higher ability to pay dividends

Price Earning

Point	Explanation
Definition	Number of times of Earnings required to recover the investment (Investment Recovery Period)
Reflects	• Investors faith over growth potential • Investor's Risk Appetite
Higher the ratio	• Investors are having growth prospects about the company • Mature Company
Lower the ratio	• Either ○ Company is doing exceptionally well in return ○ Company may be undervalued

Dividends Based Ratios

Dividend Per Share (DPS)	$\frac{\text{Ordinary Share Dividends}}{\text{Weighted Average Number of Ord Shares}}$
Dividend Yield	$\frac{\text{Dividend Per Share}}{\text{Market Price Share}} \times 100$
Dividend Cover	$\frac{\text{Earnings Per Share}}{\text{Dividend Per Share}}$
Dividend Payout	$\frac{\text{Dividend Per Share}}{\text{Earnings Per Share}} \times 100$

Dividends Yield

Point	Explanation
Definition	Per rupee investment (Cost) how much of dividends (Realized Return) being paid
Reflects	• Dividend payout per market price
Higher the ratio	• Investors gets encouraged • Affect the growth, as dividend is a cash outflow

Dividend Cover

Point	Explanation
Definition	How many times dividends can be paid out of the earnings
Reflects	• Dividend coverage over earnings • Dividend policy
Higher the ratio	• Investors are discouraged as low dividend paid • Beneficial for the growth

Liquidity Ratios

Different Types of Current Assets

Inventory	• Less Liquid
Prepayments	• Less Liquid
Trade Receivables	• High Liquid
Short Term Investments	• High Liquid
Cash & Cash Equivalents	• High Liquid

Current Ratio

Quick Asset Ratio

17

Liquidity Ratios (Times)

Current Ratio

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

Quick Asset Ratio

$$\frac{(\text{Current Assets} - \text{Inventory} - \text{Prepayments})}{\text{Current Liabilities}}$$

18

Quick Asset (Acid Test) Ratio

Point	Explanation
Quick Assets	Current Assets – Inventory - Prepayments
Definition	How much of Quick Assets available for per rupee of Current Liability
Reflects	Adequacy of quick assets to settle current liabilities
Higher the ratio	Strong ability to settle current liabilities Stronger Liquidity position

Leverage Ratios

Gearing Ratio

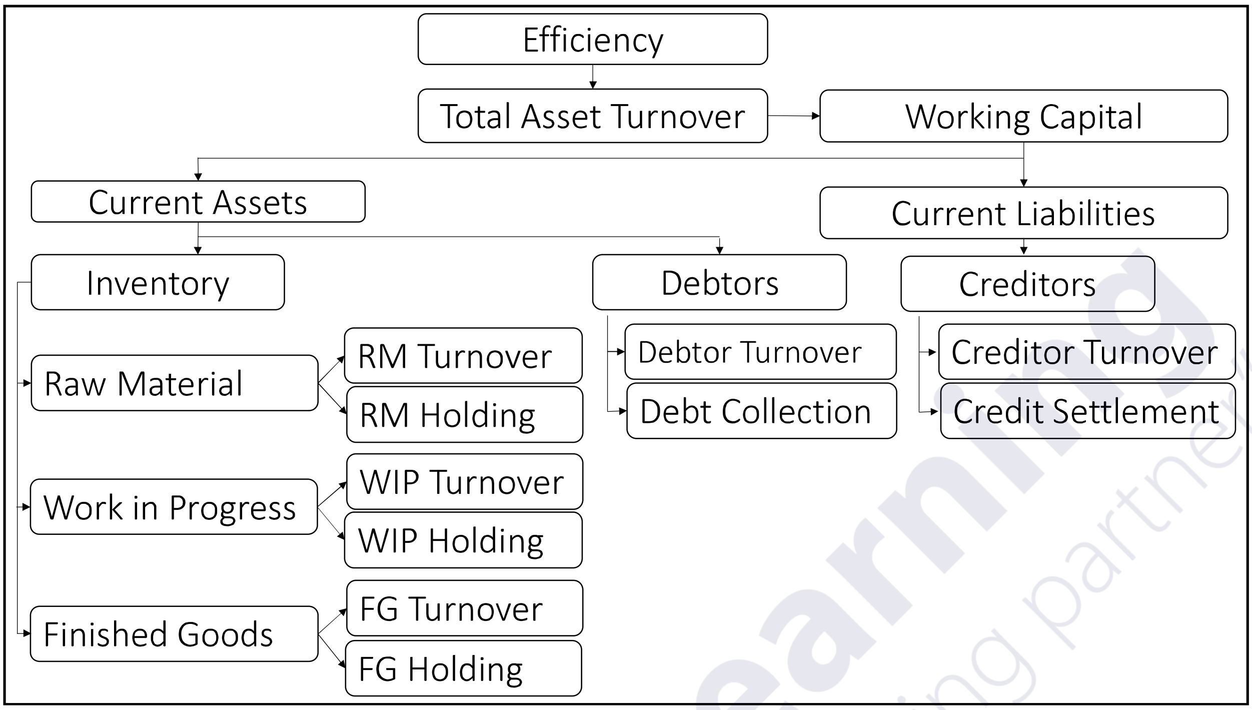
$$\frac{\text{Interest Bearing Borrowings}}{\text{Equity}} \times 100$$

Interest Cover

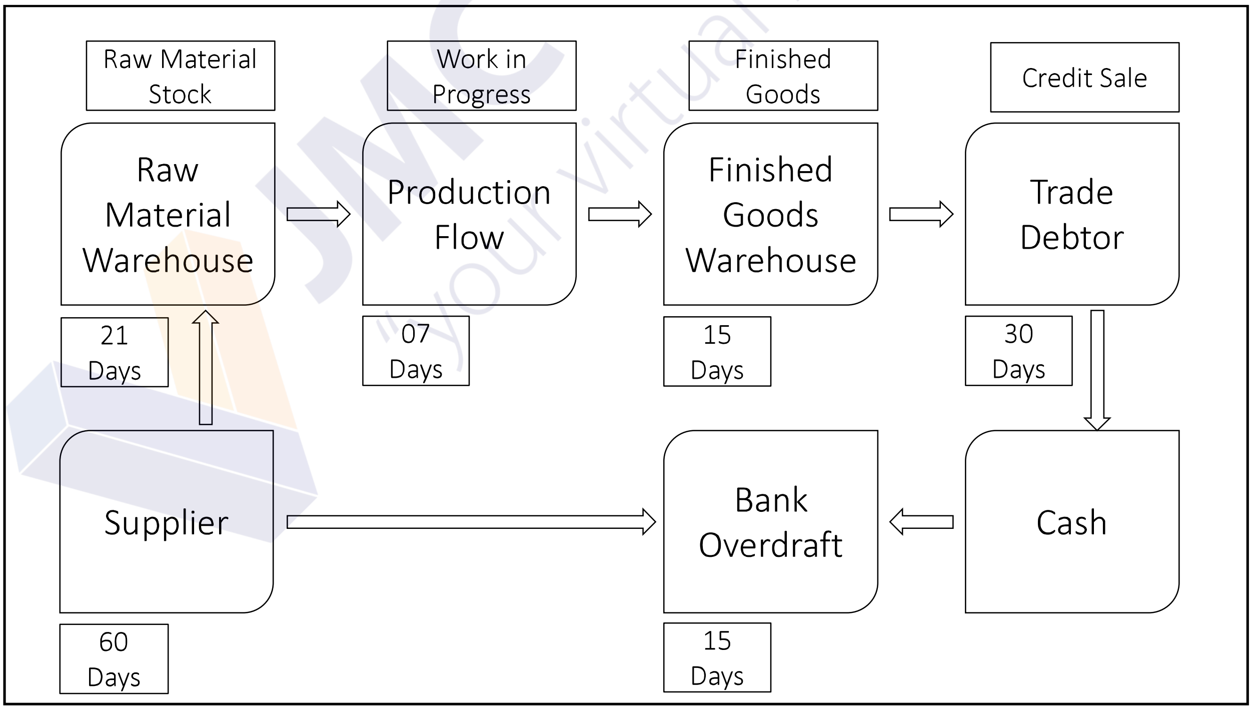
$$\frac{\text{Operating Profit}}{\text{Interest Expense}}$$

Interest Cover

Point	Explanation
Definition	How many times Interest can be paid out of Operating Profit
Reflects	Adequacy of earnings to settle interest payments
Higher the ratio	• Higher ability to pay interest • Higher ability to obtain further loans • Lower risk of defaulting interest payments • Lower solvency risks


Efficiency
Total Asset Turnover
Working Capital
Current Assets
Current Liabilities
Inventory
Debtors
Creditors
Raw Material
RM Turnover
RM Holding
Debtor Turnover
Debt Collection
Creditor Turnover
Credit Settlement
Work in Progress
WIP Turnover
WIP Holding
Finished Goods
FG Turnover
FG Holding

23


Raw Material Stock
Work in Progress
Finished Goods
Credit Sale
Raw Material Warehouse
Production Flow
Finished Goods Warehouse
Trade Debtor
21 Days
07 Days
15 Days
30 Days
Supplier
Bank Overdraft
Cash
60 Days
15 Days

24

How many days does raw materials remained in raw material warehouse?	21 Days	Raw Material Holding Period
In a year, on average how many times raw materials are issued to production flow?	365/21 17 Times	Raw Material Turnover
How many days it took to convert raw materials to finished goods (Production lead time)?	07 Days	Work in Progress Holding Period
In a year, on average, What is the number of production batches?	365/07 52 Times	Work in Progress Turnover

25

How many days does finished goods remained in warehouse before becoming a sale?	15 Days	Finished Goods Holding Period
In a year, on average how many times does finished goods were sold?	365/15 24 Times	Finished Goods Turnover
How many days offered to trade debtors as credit period?	30 Days	Debt Collection Period
In a year, on average, how many times does a trade debtor has settled the due amounts?	365/3 12 Times	Debtor Turnover

26

How many days offered by suppliers as credit period?	60 Days	Credit Settlement Period
In a year, on average, how many times does entity has settled the trade payables?	365/60 06 Times	Creditor's Turnover

27

Asset Turnover Ratios (Times)

Total Asset Turnover	• Sales/Total Assets

28

Total Asset Turnover - Explanation

Point	Explanation
Definition	Per rupee asset how many **times** sales were generated in a given period of time
Reflects	Asset utilization in terms of generating sales
Higher the ratio	Higher the asset utilization Lower overstatements in assets Lower idle and unnecessary assets

29

Inventory Turnover Ratios (Times)

Raw Material Turnover

$$\frac{\text{Raw Material Consumption}}{\text{Average Raw Materials}}$$

Work in Progress Turnover

$$\frac{\text{Cost of Production}}{\text{Average Work in Progress}}$$

Finished Goods Turnover

$$\frac{\text{Cost of Sales}}{\text{Average Finished Goods}}$$

30

Inventory Turnover Requisites

Raw Material Consumption	Opening Raw Material Stock + Raw Material Purchases (-) Closing Raw Material Stock
Cost of Production	Cost of Sales + Closing Finished Goods Stock (-) Opening Finished Goods Stock

31

Inventory Holding Ratios (Days)

Raw Material Holding Period	$\frac{365}{\text{Raw Material Turnover}}$
Raw Material Holding Period	$\frac{365}{\text{RM Consumption}} \times$ Average Raw Material Stock
Work in Progress Holding Period	$\frac{365}{\text{Work in Progress Turnover}}$
Work in Progress Holding Period	$\frac{365}{\text{Cost of Production}} \times$ Average Work in Progress Stock

32

Inventory Holding Ratios (Days)

Finished Goods Holding Period	$\dfrac{365}{\text{Finished Goods Turnover}}$
Finished Goods Holding Period	$\dfrac{365}{\text{Cost of Sales}} \times$ Average Finished Goods Stock

33

Raw Material Turnover - Explanation

Point	Explanation
Definition	How many times raw materials have been issued to the production during a given period of time
Reflects	Movability of raw materials from Raw materials warehouse to production
Higher the ratio	Highly moving raw materials Lower slow-moving inventories Lower risk of impairment, obsolescence Lower risk of cash tied up in raw materials

34

Raw Material Holding Period - Explanation

Point	Explanation
Definition	How many days raw materials were within the Raw Material warehouse prior to be issued to production
Reflects	Movability of raw materials
Lower the ratio	Highly moving raw materials Lower slow-moving inventories Lower risk of impairment, obsolescence Lower risk of cash tied up in raw materials

35

Work in Progress Turnover - Explanation

Point	Explanation
Definition	How many times work in progress have become finished goods during a given period of time (No. of Production Batches)
Reflects	Manufacturing efficiency
Higher the ratio	Highly moving work in progress Lower slow-moving work in progress Lower risk of impairment, obsolescence Lower risk of cash tied up in work in progress

36

Work in Progress Holding Period - Explanation

Point	Explanation
Definition	How many days work in progress were within the Production prior becoming a finished good (Manufacturing Time)
Reflects	Manufacturing efficiency
Lower the ratio	Highly moving work in progress Lower slow-moving work in progress Lower risk of impairment, obsolescence Lower risk of cash tied up in work in progress

37

Finished Goods Turnover - Explanation

Point	Explanation
Definition	How many times finished goods have become sales during a given period of time
Reflects	Movability and income generation frequency of finished goods
Higher the ratio	Highly moving finished goods Lower slow-moving finished goods Lower risk of impairment, obsolescence Lower risk of cash tied up in finished goods

38

Finished Goods Holding Period - Explanation

Point	Explanation
Definition	How many days Finished Goods were within the Finished Goods warehouse prior becoming a sale
Reflects	Movability and income generation frequency of finished goods
Lower the ratio	Highly moving finished goods Lower slow-moving finished goods Lower risk of impairment, obsolescence Lower risk of cash tied up in finished goods

39

Debtor Turnover (Times)

Debtor Turnover

$$\frac{\text{Credit Sales}}{\text{Average Debtors}}$$

40

Debt Collection Period (Days)

Debt Collection Period = $\dfrac{365}{\text{Debtor Turnover}}$

Debt Collection Period = $\dfrac{365}{\text{Credit Sales}} \times \text{Average Debtors}$

41

Debtor Turnover - Explanation

Point	Explanation
Definition	How many times a debtor has settled the debt in a given period of time
Reflects	Frequency of debt recoveries
Higher the ratio	Higher recoveries Aggressive recovering strategy Lower risk of debtor impairment Negative impacts over relationships with the customers

42

Debtor Collection Period - Explanation

Point	Explanation
Definition	How many days an average debtor takes to settle the debt.
Reflects	Credit period given to debtors
Lower the ratio	Higher recoveries Aggressive recovering strategy Conservative credit policy Lower risk of debtor impairment Negative impacts over relationships with customers

43

Creditor Turnover (Times)

$$\text{Creditor Turnover} = \frac{\text{Credit Purchases}}{\text{Average Creditors}}$$

44

Credit Settlement Period (Days)

Credit Settlement Period = $\frac{365}{\text{Creditor Turnover}}$

Credit Settlement Period = $\frac{365}{\text{Credit Purchases}}$ X Average Creditors

45

Limitations of FSA

- Historical
- Subjectivity
- Only Monetary
- Negativity Effect
- Inflation Ignored
- Absence of Standard
- Differences in Acc. Policies
- Financial Position is a Snap Shot
- Manipulations (Window Dressing, Changes in Ac. Estimates etc.)

46

Question 01

The following information has been extracted from the Financial Statements of **Eco Protect Lanka (Pvt) Ltd.** as at / for the year ended 31st March 2018 and 31st March 2017:

(Rs. '000)

For the year ended	**31st March 2018**	**31st March 2017**
Turnover	220,650	199,500
Cost of Sales	147,835	137,655
Gross Profit	72,815	61,845
Profit before interest and income tax	17,750	18,220
Profit for the year	15,620	15,820
As at	**31st March 2018**	**31st March 2017**
Inventories	12,200	10,550
Trade Receivables	28,200	22,500
Shareholders' Equity	121,030	105,410
Bank Loans	9,950	10,350
Stated Capital (1,000,000 ordinary shares)	100,000	100,000

The following industry averages have also been identified:

Gross profit ratio	40%
Net profit ratio	12%
Return on Capital Employed (ROCE)	8%
Stock turnover ratio	10 times
Debtors' turnover ratio	9 times
Debtors' collection period	40 days

Assume that all sales were made on credit terms and there was no other comprehensive income for the year.

You are required to:

Analyse the performance of **Eco Protect Lanka (Pvt) Ltd.** for the year ended / as at 31st March 2018, considering the industry averages identified above. (10 marks)

Answer 01

Ratio	Formula	2018	Industry Average
Gross Profit Margin	Gross Profit/Sales X 100	72,815/220,650X100 =33%	40%
Net Profit Margin	Profit After Tax/Sales X 100	15,620/220,650X100 =7%	12%
Return on Capital Employed	Profit before Interest and Tax/(Equity + Interest bearing Long-Term Debt) X 100	17,750/(121,030+9950)X100 =13.55%	8%
Stock Turnover	Cost of Sales/Inventory	147,835/(12,200+10,550)/2 =13 times	10 times

Answer 01

Ratio	Formula	2018	Industry Average
Debtor Turnover	Sales/Receivables	220,650/(28,200+22,500)/2 =8.7 times	9 times
Debt Collection Period	365/Sales X Receivables	365/8.7 =42 Days	40 Days

To : Eco Protect Lanka (Pvt) Ltd
From : Financial Consultant
Date : 31/7/2021

I'm pleased to submit this report analyzing the profitability and efficiency of Eco Lanka (Pvt) Ltd for the year ended 31 March 2018 with the industry averages.

Despite the improvement in revenue by 10% compared to previous year and the increase in gross profit margin, yet the company has a lower gross profit margin than the industry. This may be either due to lower sales prices than the market rates or due to higher cost of sales caused by inefficiencies.
The net profit margin is even lower by 41% than the industry average. This may be partly due to lower gross profits and comparatively higher operating expenses in Eco Private Ltd. The cost controls, systems and waste may be causing comparatively lower profitability.

51

The return on capital employed shows a 69% higher ratio than the industry. This may be due to lower debt capital in the company than the industry. We can observe that the company's gearing position is only 8% resulting in a low geared situation. Therefore, other companies in industry may be using debt funding than Eco Lanka.
The inventory turnover of the company is 30% higher in company. Therefore, the sales volume may be higher than the industry. This may be due to company's application of lower prices and high-volume strategy.
The debtor turnover and the debt collection period is compatible to industry with minor variance.

Conclusion
Overall the recommendations would be to revisit the pricing strategy and increase marketing awareness of the company. There's a possibility to expand the company with debt funding as company is less geared.

52

Question 02

The following additional information is also extracted for the year ended 31st March 2018 from **Indochem PLC (ICL)** and **Takasago (Pvt) Ltd. (TL)**:

	ICL (Rs.'000)	**TL (Rs.'000)**
Current Assets	66,850	35,600
Current Liabilities	26,900	17,900
Sales	175,000	89,000
Purchases	64,000	36,000
Equity	97,750	26,700
Long-Term Interest Bearing Debt Non-Current Portion	10,200	0
Long-Term Interest Bearing Debt Current Portion	5,200	5,500
Trade Payables	13,100	8,000

Question 02

(1) Credit purchases is 80% from the total purchase.
(2) Trade payables as at 31st March 2017 of **ICL** and **TL** were Rs.12 million and Rs.6 million respectively.

You are required to:
Compute the following ratios for both companies:
(a) Current Assets Ratio.
(b) Gearing Ratio.
(c) Creditors' Turnover Ratio. (06 marks)

Answer 02

Ratio	Formula	Indochem	Takasago
Current Ratio	Current Assets : Current Liabilities	66,850:26,900 2.48:1	35,600:17,900 1.98:1
Gearing	Long-term Interest Bearing Debt/Equity X 100	(10,200+5,200)/97,750 X 100 15.75%	5,500/26,700X100 =20.6%
Creditor's Turnover	Credit Purchases/Trade Payables	(64,000X80%)/(12,000+13,100)/2 4.08 Times	(36,000X80%)/(6,000+8,000)/2 4.11 Times

Question 03

The following information has been extracted from the Financial Statements of **Sabco Ltd.** as at / for the year ended 31st March 2019 and 31st March 2018:

Extract of Statement of Comprehensive Income *(Rs. '000)*

For the year ended	**31st March 2019**
Turnover	220,700
Cost of Sales	143,780
Gross Profit	76,920
Profit before Interest and Tax	34,760
Profit After Tax	16,177

Extract of Statement of Financial Position *(Rs. '000)*

As at	**31st March 2019**	**31st March 2018**
Inventories	25,250	16,400
Trade Receivables	27,580	19,850
Equity	125,600	118,000
Long-term Loan	12,000	15,600

Assume that all sales are on credit basis.

You are required to:

(a) **Compute** the following ratios based on the above information for the financial year ended 31st March 2019:
(i) Gross Profit Ratio.
(ii) Debtors' Collection Period.
(iii) Stock Residence Period.
(iv) Return on Capital Employed (ROCE). (06 marks)

(b) **List** two (02) possible actions each for further improvements of below ratios:
(i) Gross Profit Ratio.
(ii) Debtors' Collection Period. (04 marks)
(Total 10 marks)

Answer 03

Ratio	Formula	2019
Gross Profit Margin	Gross Profit/Sales X 100	76,920/220,700X100 =34.5%
Debtor's Collection Period	365/Credit Sales X Average Debtor	365/220,700X(27,580 +19,850)/2 39 Days
Stock Residence Period	365/Cost of Sales X Average Stock	365/143,780X(25,250 +16,400)/2 53 Days
Return on Capital Employed	Profit before Interest and Tax/(Equity + Long-term Interest bearing Debt) X 100	34,760/(125,600+12,000)X100 =25.3%

Answer 03

Improve Gross Profit

- Increase Sales
  - Better pricing
  - Increased marketing
  - Increased branding and promotions
  - Sales targets
  - Change the product mix
  - Increased geographical coverage

Answer 03

Improve Gross Profit

- Reduce Cost of Sales
  - Cost controls
  - Increase quality
  - Reduce waste
  - Use of technology
  - Management techniques to reduce cost

Improve Debtor's Collection

- Strengthen recovery controls
- Debtor's factoring
- Discounts

Question 04

Explain three (03) limitations of ratio analysis. (06 marks)

Answer 04

Absence of proper standards

The ratios are not governed by a regulatory body. Therefore, standard definitions are not available for ratios. For an example the net profit margin may use profit before tax as well as profit after tax as the numerator. Further, gearing is calculated as debt divided by equity and debt divided by debt plus equity. This creates confusions in reaching conclusions.

Answer 04

Window dressing

The ratios are prepared based on financial statements. The financials can be manipulated using accounting estimates, leading and lagging, fake transactions etc. Thus, the ratios may even show a manipulated picture.

Only quantitative

Ratios are only numerical figures and it covers the quantitative aspects of the entity. However, the qualitative aspects such as humanitarian aspects, nature protections, employee welfare, social responsibilities etc. are not being covered.

Question 05

The following information has been extracted from the Financial Statements of **Medi Tec (Pvt) Ltd.** as at / for the years ended 31st March 2019, 31st March 2018 and 31st March 2017:

Extract from Statements of Comprehensive Income *(Rs.'000)*

For the year ended	31st March 2019	31st March 2018	31st March 2017
Turnover	300,000	275,000	260,000
Cost of sales	179,960	178,425	169,450
Gross profit	120,040	96,575	90,550
Profit before interest and Tax	43,000	38,000	41,250
Profit after Tax	27,500	28,300	27,800

Extract from Statements of Financial Position *(Rs. '000)*

As at	31st March 2019	31st March 2018	31st March 2017
Current Assets:			
Inventories	19,000	15,000	14,000
Trade Receivables	40,500	27,000	21,500
Cash and cash equivalents	8,500	6,200	7,400
	68,000	**48,200**	**42,900**
Equity:			
Stated capital	110,000	110,000	110,000
Retained earnings	60,000	32,500	4,200
	170,000	**142,000**	**114,200**
Long-term Loan	42,000	56,000	38,000
Current Liabilities:			
Trade Payables	19,500	16,200	15,300
Income Tax Payables	9,500	9,100	7,600
Accrued Expenses	8,500	6,100	6,800
	37,500	**31,400**	**29,700**

You may assume that all sales are made on credit basis.

Using the above information,

You are required to:

Analyze the performance of **Medi Tec (Pvt) Ltd.** for the years ended / as at 31st March 2018 and 31st March 2019 calculating the following ratios:

(a) Gross Profit Ratio

(b) Net Profit Ratio

(c) Stock Turnover Ratio

(d) Debtors' Collection Period

(e) Return on Capital Employed (ROCE)

(10 marks)

Answer 05

Ratio	Formula	2019	2018
Gross Profit Margin	Gross Profit/Sales X 100	120,040/300,000X100 =40%	96,575/275,000X100 =35%
Net Profit Margin	Profit after Tax/Sales X 100	27,500/300,000X100 =9.1%	28,300/275,000X100 =10.3%
Stock Turnover	Cost of Sales/Average Stock	179,960/(19,000+15,000)/2 =10.6 Times	178,425/(15,000+14,000)/2 =12.3 Times

Answer 05

Ratio	Formula	2019	2018
Debtor's Collection Period	365/Credit Sales X Average Debtor	365/300,000X(40,500+27,000)/2 =41 Days	365/275,000X(27,000+21,500)/2 =32 Days
Return on Capital Employed	Profit before Interest and Tax/(Equity + Long-term Interest bearing Debt) X 100	43,400/(170,000+42,000)X100 =20.48%	38,300/(142,000+56,000)X100 =19.29%

To : Chief Executive Officer
From : Financial Consultant
Date : 31/7/2021

I'm pleased to submit this report analyzing the profitability and efficiency of Medi Tec (Pvt) Ltd for the year ended 31 March 2018 and 2019.

The gross profit margin has increased from 35% to 40%. Given the cost of sales remain the same amount, the increase in gross profits is mainly driven by a selling price increase. The sustainability of a price increase shall be assessed based on nature of product, elasticity of demand, market structure and competition.
However, the net profit margin shows a decline, this may be due to higher operational expenses and finance cost may be. Overall the return on capital employed has slightly increased as a result of increase in operating profits created through increase in gross profits.

69

The stock turnover has been reduced from 12.3 times to 10.6 times. This shows that the volume of inventory moving has been reduced. The inventory has increased creating a risk of impairment, obsolescence and cash tied up in inventory.

The debt collection period has increased from 32 days to 41 days. This can be observed from the increase in trade receivables as well. This cause a risk of debtor impairment and cash tied up in debtors.

Despite, the revenue increased by increase in selling prices, the inventory is getting piled up and debtors are getting aged. These shall be considered.

70

Question 06

The following ratios have been calculated by **Wakkumbura Holdings PLC** for the financial years ending 31st March 2019 and 31st March 2018.

	2018/19	2017/18
Current ratio	1.75	1.5
Return on Capital Employed (ROCE)	11%	13%
Stock residence period	50 days	38 days

You are required to:

State two (02) possible reasons for the variations in each of the above computed ratios during the 2018/19 in compared with 2017/18. (05 marks)

Answer 06

Current Ratio

- Increase in current assets
  - Sales promotions
  - Debtor recoveries
- Reduction in current liabilities
  - Settling the loans obtained
  - Renting out than outright purchase

Answer 06

Return on Capital Employed

- Operating profit
  - Reduction in sales
  - Increase in operational expenses
- Debt capital
  - Increase in borrowings

Answer 06

Stock Residence Period

- Drop in sales
- Slow moving inventory
- Obsolete inventory
- Inefficiencies in warehousing

Question 07

The following information has extracted from the Financial Statements of **Delta Ltd.** as at / for the year ended 31st March 2020 and 31st March 2019:

Extract from Statement of Comprehensive Income *(Rs. '000)*

For the year ended	**31st March 2020**
Sales	92,500
Cost of Sales	62,900
Gross Profit	29,600
Profit Before Interest and Tax	10,700
Interest Expenses	2,200
Profit After Tax	5,500

Extract of Statements of Financial Position *(Rs.'000)*

As at	**31st March 2019**	**31st March 2018**
Inventories	15,000	16,500
Trade Receivables	11,700	12,700
Current Assets	31,300	34,000
Current Liabilities	19,000	17,500
Equity	16,500	11,000
Long-term loan	4,500	6,000

The following ratios have been computed for **Delta Ltd.** for the year ended 31st March 2019.

Gross Profit Ratio	30%
Net Profit Ratio	10%
Debtors' Collection Period	45 days
Inventory Residence Period	85 days
Current Ratio	1.94 : 1
Interest Cover	4 times

You may assume that all sales are made on credit basis.

You are required to:

(a) **Calculate** the following ratios based on the above information for the year ended / as at 31st March 2020.

(i) Gross Profit Ratio

(ii) Net Profit Ratio

(iii) Debtors' Collection Period

(iv) Inventory Residence Period

(v) Current Ratio

(vi) Interest Cover

(06 marks)

(b) **Analyze** the performance of **Delta Ltd.** for the year ended / as at 31st March 2020 considering the computed ratios for the previous year. (06 marks)

(Total 12 marks)

Answer 07

Ratio	Formula	2020	Industry Average
Gross Profit Margin	Gross Profit/Sales X 100	29,600/92,500X100 =32%	30%
Net Profit Margin	Profit After Tax/Sales X 100	5,500/92,500X100 =6%	10%
Debt Collection Period	365/Sales X Average Receivables	365/92,500X(11,700+ 12,700)/2 =48 Days	45 Days
Stock Residence Period	365/Cost of Sales X Average Inventory	365/62,900X(15,000+ 16,500)/2 =91 Days	85 Days

Answer 07

Ratio	Formula	2018	Industry Average
Current Ratio	Current Assets : Current Liabilities	31,300 : 19,000 1.65 : 1	1.94 : 1
Interest Cover	Operating Profit/Interest Expense	10,700/2,200 4.9 Times	4 Times

To : Delta Ltd
From : Financial Consultant
Date : 31/7/2021

I'm pleased to submit this report analyzing the profitability and efficiency of Delta Ltd for the year ended 31 March 2020 with the industry averages.

The gross profit margin of the company is 32% compared to industry average of 30%. This shows a slight increase in gross profits may be caused due to increase in selling prices or cost efficiencies generated in the entity.
However, at the net profit levels, industry net profit remains at 10% while, company rates is at a lower level of 6%. This indicates inefficiencies in managing the operational expenses including the finance costs.
The debt collection period is 3 days in arrears than the industry average and the stock residence period is 6 days in arrears than the industry average. This may indicate the risk of impairment and cash getting tied up in debtors and inventory.

Industry is having a better liquidity position of 1.94 times compared to 1.65 times in company. Despite the liquidity position in both are comparatively above the general averages, having a higher liquidity position in industry will give better assurance to short term fund providers.
The interest cover of the company is better than the industry as it has 4.9 times compared to 4 times. This suggests that company has lower borrowings than the industry causing lower interest cost.

Question 08

The following information have been extracted from the comprehensive Income Statements for the year ended 31st March 2020 & 31st March 2019 and the Statements of Financial Position as at 31st March 2020 & 31st March 2019 of **Shakthi PLC**.

Extract from Statements of Comprehensive Income *(Rs.'000)*

For the Year Ended	**31st March 2020**	**31st March 2019**
Sales	300,100	275,000
Cost of Sales	180,000	152,500
Gross Profit	120,040	122,500
Profit Before Interest and Tax	44,500	32,000
Profit Before Tax	38,000	27,800
Profit After Tax	27,500	23,500

Statements of Financial Position		*(Rs. '000)*
As at 31st March	**2020**	**2019**
Assets:		
Non-Current Assets:		
Property, Plant and Equipment at Carrying Value	125,000	120,000
Current Assets:		
Inventories	32,000	30,000
Trade Receivables	30,500	27,000
Cash and Cash Equivalents	8,500	6,200
	71,000	**63,200**
Total Assets:	**196,000**	**183,200**

Equity and Liabilities:		
Equity:		
Stated Capital (9,000,000 ordinary shares)	90,000	90,000
Retained Earnings	15,300	5,800
	105,300	**95,800**
Non-Current Liabilities:		
Long Term Loan	45,000	56,000
Current Liabilities:		
Trade and Other Payables	24,200	16,200
Income Tax Payables	9,500	9,100
Accrued Expenses	12,000	6,100
	45,700	**31,400**
Total Equity and Liabilities	**196,000**	**183,200**

You are required to:

(a) **Calculate** the following ratios of **Shakthi PLC** based on the above information for the year ended/as at 31st March 2020 and 31st March 2019:

(i) Gross Profit Ratio

(ii) Net Profit Ratio

(iii) Quick Assets Ratio

(iv) Return on Capital Employed (ROCE)

(v) Gearing Ratio

(vi) Earnings per Share (06 marks)

(b) **Analyze** the performance of **Shakthi PLC** based on the above computed ratios.

(06 marks)

(Total 12 marks)

Question 09 (AAT03 Jan 22)

The following information was extracted from **Beeshma PLC** for the year ended / as at 31st March 2021 and 31st March 2020:

For the year ended 31st March	2021	2020
Sales	372,400	320,300
Cost of Sales	203,500	178,500
Interest Expense	7,220	5,950
Income Tax	4,000	3,800
Profit for the year	22,700	17,800

As at 31st March	2021	2020
Retained Earnings	41,600	18,900
Current Assets	151,400	140,200
Current Liabilities	47,400	33,100
Trade Payables	38,300	25,900
Inventory	95,400	88,400
Stated Capital (5,500,000 Ordinary Shares)	88,400	55,000

All purchases are made on credit

You are required to:

(a) **Compute** the following ratios based on the above information for the year ended / as at 31st March 2021:

(i) Gross Profit Ratio.

(ii) Quick Assets Ratio.

(iii) Stock Residence Period.

(iv) Creditors' Settlement Period.

(v) Earnings Per Share.

Gross Profit Ratio	52%
Quick Assets Ratio	1.25 : 1
Stock Residence Period	35 days
Creditors' Settlement Period	42 days
Earnings Per Share	Rs.7.50

Analyze the performance of Beeshma PLC for the year ended/as at 31st March 2021 with industry averages.

Question 10 (AAT03 July 22)

The following Financial Statements have been extracted from the books of Kaison Ltd. as at / for the year ended 31st March 2022 and 31st March 2021:

Extract from the Income Statement for the year ended 31 March 2022

Sales	76,000
Cost of Sales	(49,400)
Gross Profit	26,600
Profit before Interest and Tax	11,000
Interest Expense	(2,600)
Profit Before Tax	8,400
Profit After Tax	7,140

Extract from the Statement of Financial Position as at 31 March 2022 and 2021

Rs.000	As at 31st March 2022		As at 31st March 2021	
Non-Current Assets				
Property, Plant and Equipment at carrying value		140,000		132,000
Current Assets				
Inventories	41,000		40,000	
Trade Receivables	27,000		22,000	
Cash and Cash Equivalents	7,200	75,200	6,400	68,400
Total Assets:		215,200		200,400

91

91

Extract from the Statement of Financial Position as at 31 March 2022 and 2021

Rs.000	As at 31st March 2022		As at 31st March 2021	
Equity and Liabilities:				
Equity:				
Stated Capital		100,000		100,000
Retained Earnings		45,000		37,860
Non-Current Liabilities:				
Long Term Loan		18,000		24,000
Current Liabilities:				
Trade Payables	35,700		27,000	
Income Tax Payable	4,500		5,500	
Accrued Expenses	12,000	52,200	6,040	38,540
Total Equity and Liabilities		215,200		200,400

92

92

Assume all sales and purchases are on credit basis.

You are required to:

(a)Calculate the following ratios of Kaison Ltd. based on the above information for the financial year ended / as at 31st March 2022

(i) Gross Profit Ratio.
(ii) Current Ratio.
(iii) Debtors' Collection Period.
(iv) Stock Residence Period.
(v) Creditor' Settlement Period
(vi) Gearing Ratio
(vii) Interest Cover
(viii) Assets Turnover Ratio.

(a)State two(02) possible ways of improving below ratios of Kaison Ltd.

(i) Gross Profit Ratio.
(ii) Stock Residence Period.

93