Tutorial 13: **Financial Analysis (Interpretation of Accounts)**

Question 1

You are to study the following financial statements for two departmental stores and then answer the questions which follow:

	Juzzco		Izeetan	
	RM	RM	RM	RM
Statement of Profit or Loss				
Sales		680,000		925,000
Less: Cost of goods sold:				
Opening inventories	150,000		80,000	
Purchases	300,000		420,000	
	450,000		500,000	
Less: Closing inventories	(115,000)	(335,000)	(95,000)	(405,000)
Gross profit		345,000		520,000
Less: Expenses:				
Depreciation	5,000		20,000	
Wages & salaries	190,000		300,000	
Other expenses	65,000	(260,000)	50,000	(370,000)
Net profit		85,000		150,000
Stat. of Financial Position				
Non-current assets				
Equipment		18,000		20,000
Current assets				
Inventories	115,000		95,000	
Trade receivables	135,000		150,000	
Bank	25,000		12,500	
Less: Current liabilities	275,000		257,500	
Trade payables	(173,000)	102,000	(101,000)	156,500
		120,000		176,500
Financed by:				
Opening capital		90,000		80,000
Add: Net profit		85,000		150,000
		175,000		230,000
Less: Drawings		(55,000)		(53,500)
		120,000		176,500

Required:

(a) Calculate the following ratios for each business:

(i) Gross profit as a percentage of sales;

A higher ratio shows a better financial performance.

Juzzco	**Izeetan**
$\frac{345000}{680000} \times 100\%$ = 51% For every RM 1 of sales, Juzzco makes RM 0.51 in gross profit, RM 0.49 is COGS.	$\frac{520000}{925000} \times 100\%$ = 56% For every RM 1 of sales, Izeetan makes RM 0.56 in gross profit, RM 0.44 is COGS.

(ii) Net profit as a percentage of sales;

A higher ratio shows a better financial performance.

Juzzco	**Izeetan**
$\frac{85000}{680000} \times 100\%$ = 13% For every RM 1 of sales, RM 0.13 is the remainder profit.	$\frac{150000}{925000} \times 100\%$ = 16% For every RM 1 of sales, RM 0.16 is the remainder profit.

(iii) Current ratio;
A ratio greater than 1 means short-term assets are more than enough to meet short-term liabilities

Juzzco	Izeetan
275000 173000 = 1.6:1 (1.6 times)	257500 101000 = 2.5:1 (2.5 times)

(iv) Quick ratio;
A ratio greater than 1 means short-term assets are more than enough to meet short-term liabilities (just that closing inventories is excluded as it it considered illiquid)

Juzzco	Izeetan
275000 - 115000 173000 = 0.9:1 (0.9 times)	257500 - 95000 101000 = 1.6:1 (1.6 times)

(v) Inventories turnover *days*;
A lower ratio shows that the inventories are moving fast (the product sells faster). Smaller is better.
Average Inventories x 365 days
Cost of Good Solds

Juzzco	Izeetan
Average Inventories 150000 + 115000 2 = 132500 132500 x 365 335000 = 144 days	Average Inventories 80000 + 95000 2 = 87500 87500 x 365 405000 = 79 days

(vi) Trade receivables turnover days;
Average period taken by trade receivables to pay up. Smaller is better.
trade receivables x 365 days
sales

Juzzco	Izeetan
135000 x 365 680000 = 72 days	150000 x 365 925000 = 59 days

(vii) Trade payables turnover days.
Average period taken to pay trade payables. Higher ratio might indicate that the business has a problem paying its supplier.
trade payables x 365 days
purchase

Juzzco	Izeetan
173000 x 365 300000 = 210 days	101000 x 365 420000 = 88 days

(b) Drawing upon all your knowledge of accounting, comment upon the differences and similarities of the accounting ratios for Juzzco and Izeetan. Which business seems to be the most efficient? Give possible reasons.

Izeetan seems to be the most efficient in terms of both the profitability ratios which are gross profit margin and net profit margin. Izeetan is also more liquid due to its higher current ratio and acid test ratio of 2.5 times and 1.6 times respectively.

Izeetan seems to be more efficient, possibly due to:

(i) Izeetan products are sold at a slightly more profitable price compared to Juzzco. Higher gross profit margin of 56% means higher selling price and/or lower cost of goods sold

(ii) Higher net profit margin of 16% achieved means proportionately less expenses incurred in operating the business

(iii) Faster turnover of inventories means proportionately large amount of inventories are being purchased to generate sales, hence less amount of inventories lying idle;

(iv) Juzzco's quick ratio is less than 1, therefore, liquid current assets are not adequate to cover current liabilities. However, the situation is still not too serious yet because the ratio is 0.9 times;

(v) Faster collection of debts from trade receivables, hence, faster turnaround of cash to generate more sales for the business.

(vi) Faster payment to trade payables means ability to purchase at cheaper prices or enjoy more trade discounts from suppliers.

(vii) However, Juzzco is taking a long time (210 days) to pay its trade payables in order to keep the money for its business operations. If suppliers demand for earlier payment, Juzzco will probably face liquidity problem because its liquid current assets will not be sufficient to pay its trade payables.

Question 2

Statement of profit or loss of Hill Enterprise for the year ended 31 August:

	2018	2019	2020
	RM'000	RM'000	RM'000
Sales	244	362	542
Less: Cost of goods sold	(162)	(272)	(434)
Gross profit	82	90	108
Less: Expenses	(55)	(76)	(96)
Net profit	27	14	12

Statement of financial position for Hill Enterprise as at 31 August:

	2018		2019		2020	
	RM '000	RM '000	RM '000	RM '000	RM '000	RM '000
Non-current assets		62		122		162
Current assets						
Inventories as at 31 August	50		52		82	
Trade Receivables	54		82		112	
Bank balance	46		22		-	
		150		156		194
		212		278		356

(Continued)

	2018		2019		2020	
	RM '000	RM '000	RM '000	RM '000	RM '000	RM '000
Equity						
Share capital	102		126		152	
Reserves	68		80		90	
		170		206		242
Current liabilities						
Trade payables	42		72		92	
Bank overdraft	-		-		22	
		42		72		114
		212		278		356

Inventories as at 31 August 2017 amounted to RM42,000.

Required:
(a) Calculate the following ratios for years 2019 and 2020 (2018 is given):

(i) Gross profit margin (2018: 34%);

2019	2020
$\frac{90000}{362000} \times 100\%$ = 25%	$\frac{108}{542} \times 100$ = 20%

(ii) Net profit margin (2018: 11%);

2019	2020
$\frac{14}{362} \times 100\%$ = 4%	$\frac{12}{542} \times 100$ = 2%

(iii) Current ratio (2018: 3.6:1);

2019	2020
$\frac{156}{72}$ = 2.2:1 (2.2 times)	$\frac{194}{114}$ = 1.7:1 (1.7 times)

(iv) Quick ratio (2018: 2.4:1);

2019	2020
$\frac{156 - 52}{72}$ = 1.4:1 (1.4 times)	$\frac{194 - 82}{114}$ = 1:1 (1 times)

(v) Inventory turnover days (2018: 104 days);

2019	2020
Average Inventories $\frac{50000 + 52000}{2} = 51000$	Average Inventories $\frac{82000 + 52000}{2} = 67000$

51 x 365 272 = 68 days	67 x 365 434 = 56 days

(vi) Trade receivable days (2018: 81 days);

2019	2020
82 x 365 362 = 83 days	112 x 365 542 = 75 days

(vii) Trade payable days (2018: 90 days).
Cost of Goods Sold (COGS) = Opening Inventory + Purchases - Closing Inventory

2019	2020
Purchase = COGS - OI + CI = 272 - 50 + 52 = 274 72 x 365 274 = 96 days	Purchase = COGS - OI + CI = 434 - 52 + 82 = 464 92 x 365 464 = 72 days

(b) Based on the ratios given/calculated for 2018, 2019 and 2020, comment on the trends you see in each of the following categories of ratios:
(i) Profitability;
Gross Profit Margin
There is a decrease in gross profit margin from 2018 to 2020. This might be due to the growing COGS from 2018 to 2020. Higher cost of goods sold will lead to lower gross profit margin.

Net Profit Margin
2018 - 2019 = decrease by 7%
2019 - 2020 = decrease by 2%

It is due to the increasing expense from 2018 to 2020 which results in a lower ratio of net profit margin.

(ii) Liquidity;
Current ratio and Quick ratio
Decreasing in current ratio and quick ratio from 2018 to 2020. It might be due to the increase in current liabilities from 2018 to 2020.

However, all the current ratio and quick ratio calculated are still able to meet short-term assets to meet short term liabilities (ratio greater than 1) even though they are decreasing year by year.

(iii) Efficiency.
Inventory turnover days
Inventory turnover ratio is growing faster from 2018 to 2020. This is probably due to better sales management after the new acquisition of non-current assets.

Trade receivables days
Trade receivables turnover improved year to year. It might be due to better collection of debts.

Trade payables days
Trade payables days have been increased by 6 days from 2018 to 2019 due to the company wanting to have extra cash on hand that could be used for short-term investment.

Trade payables days have been shortened by 24 days, probably want to enjoy better trade discounts for early payment to suppliers.

Section B: For students' own practice

Question 1

The summarised accounts of Bright Star Sdn Bhd for the years 2020 and 2021 are given below:

Statement of Comprehensive Income for the years ended 31 December…

	2020		2021	
	RM'000	RM'000	RM'000	RM'000
Sales		198		282
Less: Cost of goods sold		(150)		(207)
Gross profit		48		75
Less: Expenses:				
Administration expenses	37		46	
Debenture interest	-	(37)	5	(51)
Net profit before tax		11		24
Less: Tax expense		(3)		(4)
Net profit after tax		8		20
Less: Appropriation				
5% ordinary dividend		(5)		(5)
Retained profits for the year		3		15
Retained profits b/d		25		28
Retained profits c/d		28		43

Statements of Financial Position as at 31 December…

	2020		2021	
	RM'000	RM'000	RM'000	RM'000
Non-current assets (NBV)		110		140
Inventories	20		30	
Trade receivables	25		28	
Bank	-		7	
	45		65	
Trade payables	(15)		(12)	
Bank	(12)	18	-	53
		128		193
Ordinary share capital		100		100
Retained profits		28		43
		128		143
8% Debentures		-		50
		128		193

Inventories as at 1 January 2020 was RM50,000 (opening inventories).

Required:

(a) Calculate the following ratios for 2020 and 2021:

(i) Gross profit as a percentage of sales;

2020	**2021**
$\frac{48}{198}$ x 100% = 24%	$\frac{75}{282}$ x 100 = 27%

(ii) Net profit as a percentage of sales;

2020	**2021**
$\frac{11}{198}$ x 100% = 5.6%	$\frac{24}{282}$ x 100 = 8.51%

(iii) Inventories turnover times;

2020	**2021**
Average Inventories $\frac{50000 + 20000}{2}$ = 35000 $\frac{150}{35}$ = 4.3 times	Average Inventories $\frac{20000 + 30000}{2}$ = 25000 $\frac{207}{25}$ = 8.3 times

(iv) Trade receivables turnover days;

2020	**2021**
$\frac{25}{198}$ x 365 = 46 days	$\frac{28}{282}$ x 365 = 36 days

(v) Trade payables turnover days;

2020	**2021**
150 = purchase + 50 - 20 purchase = 120 $\frac{15}{120}$ x 365 = 46 days	207 = purchase + 20 - 30 purchase = 217 $\frac{12}{217}$ x 365 = 20 days

(vi) Current ratio;

2020	**2021**
$\frac{45}{27}$ = 1.7 times	$\frac{65}{12}$ = 5.4 times

(vii) Quick ratio.

2020	**2021**
$\frac{45 - 20}{27}$ = 0.93 times	$\frac{65 - 30}{12}$ = 2.92 times

(b) State the possible reasons for and significance of any changes in the ratios shown by your calculations.

(i) There is a slight increase in the gross profit margin possible due to increase in selling prices or sales volume;

(ii) Net profit as a percentage of sales has increased by 3%, probably due to some savings in expenses.

(iii) Inventories turnover almost doubled, as a result of lower inventories. This is probably due to better sales management after the new acquisition of non-current assets (that was financed by debentures)

(iv) Trade receivables turnover improved by about 10 days due to better collection of debts;

(v) Trade payables turnover shortened by 26 days, probably to enjoy better trade discounts for early payment to suppliers, since the company has surplus money in the bank account (in the previous year, the bank account was in overdraft);

(vi) Current ratio has improved by about 3 times due to better liquidity after issuing the debentures (a type of long-term business debt not secured by any collateral);

(vii) Acid test ratio has improved as well due to the same reason in (vi) above.