UNIT 21

INTERPRETING RATIOS: THE INCOME STATEMENT

Question 1

Comments could include

- Revenue: the business’s revenue is declining which is a weakness for the business.
- Percentage of gross profit to revenue: the percentage is declining which is a weakness for the business as it will make less gross profit for every $1 of revenue. The fall indicates that the business’s pricing policy has changed with prices being reduced, in the hope of making the business more competitive. Alternatively, the reduction in the percentage could be due to the increased cost of purchases which has not been passed on to customers.
- Percentage or profit to revenue: the percentage is declining which is a weakness for the business as it will make less profit for every $1 of revenue. The fall may be due to the decline in the business’s gross profit to revenue percentage, or it may be due to increasing costs (or both).
- The rate of inventory to turnover has increased which is a strength for the business. This indicates that inventory is being sold more quickly. However, since revenue is declining, the likely cause is a reduction in the average inventory held by the business.

Question 2

Comments could include

- Revenue: the business’s revenue is increasing which is a strength for the business.
- Percentage of gross profit to revenue: the percentage is increasing which is a weakness for the business as it will make more gross profit for every $1 of revenue. The increase indicates that the business’s pricing policy has changed with prices being increased, perhaps because the business has lost a local competitor. Alternatively, the increase in the percentage could be due a reduction in the price of goods purchased.
- Percentage or profit to revenue: the percentage is increasing which is a strength for the business as it will make more profit for every $1 of revenue. The increase may be due to the increase in the business’s gross profit to revenue percentage, or it may be due to tighter control of costs (or both).
- The rate of inventory to turnover has decreased which is a weakness for the business. This indicates that inventory is being sold more slowly. However, since revenue is increasing, the likely cause is an increase in the average inventory held by the business.
Question 3

*Comments could include*

- Return on capital employed is declining which is a weakness for the business as it will be making less profit per $1 of capital employed. The business is, therefore, using its resources less efficiently.
- Current ratio reduces over the three-year period and is increasingly below the typical ratio for this type of business. This is a weakness for the business, as it will find it increasingly difficult to pay its short term debts.
- Quick (acid test) ratio is also declining and has moved from being slightly above the typical ratio for this type of business to slightly below. This is a weakness for the business, as it will find it increasingly difficult to pay its more immediate debts.
- Trade receivables collection period is increasing and has moved from being below the typical ratio for this type of business to being well above. This is a weakness for the business as it is taking longer that is typical to receive amounts due from credit customers. There is a risk that the business could suffer from an increasing incidence of bad debts.
- Trade payable payment period has reduced and has moved from being above the typical ratio for this type of business to being below. This could be a strength for the business if it means that it is now gaining discounts for prompt payment. However, it could also be a weakness since the business is paying suppliers more frequently than it received payment from its customers.

Question 4

*Comments could include*

- Return on capital employed is increasing which is a strength for the business as it will be making more profit per $1 of capital employed. The business is, therefore, using its resources more efficiently.
- Current ratio increases over the three-year period and is currently above the typical ratio for this type of business. This is a strength for the business, as it will more easily be able to pay its short term debts. However, because the ratio is now above the typical ratio for this type of business, it could be make more efficient use of its net current assets.
- Quick (acid test) ratio is increasing and has moved from well below the typical ratio for this type of business to being slightly below. Although the ratio has improved, further increases are necessary. The business will still find it difficult to pay its more immediate debts and this is a weakness for the business.
- Trade receivables collection period is decreasing but is still above the ratio typical for this type of business. This is a weakness for the business as it is taking longer to receive amounts due from credit customers. There is a reduced risk that the business could suffer from an increasing incidence of bad debts.
- Trade payable payment period has increased and is now the same as the typical ratio for this type of business. This is a strength for the business. However, the business continues to pay its suppliers more quickly than it receives payment from its credit customers and this will have an adverse effect on the business’s liquidity.
Question 5

Comments could include

Strengths
- The gross profit to revenue (gross profit margin) percentage has increased. The business is making more profit on each $1 of sales. However, the business’s total revenue has declined.
- The rate of inventory turnover has increased which means that average inventory has been sold more quickly. Since overall revenue has declined this is probably caused by a decrease in the average inventory.
- The current ratio has increased and is now at the level typical for this type of business. The business will find it easier to pay its debts.
- The trade payables payment period has been reduced to a more usual level. This may mean that the business is able to deduct cash discounts for prompt payment.

Weaknesses
- The business’s revenue has declined. This reduces the opportunities for the business to make a profit. This may have resulted from the increase in the gross profit margin which could have made the business less competitive.
- There has been a fall in the profit margin (percentage of profit to revenue) despite the increased gross profit margin. It is likely that there has been less effective control of costs.
- There has been a sharp fall in the return on capital employed. This may partly have been caused by the decrease in profit margin, but also indicates that the business is using its resources less effectively.
- The quick assets ratio has decreased and is now below the average for this type of business. As a result the business is likely to find it more difficult to pay its immediate debts.
- The trade receivables collection period has lengthened and so customers are taking longer to pay the amounts due. This will have a adverse impact on liquidity particularly since trade payables are paid more quickly than credit customers pay their accounts.

Overall the business’s performance has declined with falling revenue and falling profitability ratios. There has been some improvement in the business’s liquidity ratios, however.

To improve the business’s performance the owner should aim to:
- increase sales, perhaps by reducing prices or by more effective marketing
- control costs more effectively to improve the profit margin
- make sure the business’s resources are full utilised to improve the return on capital employed
- ensure that credit customers pay their debts more quickly.
**Question 6**

*Comments could include*

**Strengths**
- The business’s revenue has increased significantly. This gives the business the opportunity to make more profit and may have been caused by the fall in the gross profit margin.
- The return on capital employed has increased, despite the fall in the business’s profit margin. The business is making more effective use of its resources.
- The current ratio has increased and is now above the level typical for this type of business. The business will find it easier to pay its debts, but could have an unnecessarily high level of net current assets.
- The quick assets ratio has decreased to the level typical for this type of business. The business will be making good use of its liquid assets and is less likely to have difficulty in paying its immediate debts.
- The trade receivables collection period has been reduced to more normal levels. Credit customers are now paying their accounts more quickly and this will improve the business’s liquidity particularly as amounts are being received from credit customers as quickly as credit suppliers are being paid.
- The trade payables payment period has been reduced to a more usual level. This may mean that the business is able to deduct cash discounts for prompt payment.

**Weaknesses**
- The gross profit margin has decreased. The business will make less gross profit per $1 of sales. However, this may have been caused by reducing prices to become more competitive and could be the reason for the sizeable increase in revenue.
- There has been a fall in the profit margin (percentage of profit to revenue. This may have resulted from the fall in the gross profit margin but could also be caused by a less effective control of costs.
- The rate of inventory turnover has declined. This means that the business’s average inventory is being sold more slowly. However, since revenue has increased, it is likely to have been caused by an increase in the business’s average inventory.

Overall the business’s performance has improved with some increase in profitability ratios and better liquidity ratios.

To improve the business’s performance the owner should aim to:

- Improve the profit margin by more effective control of prices
- Slightly reduce the current ratio to ensure that net current assets are being used efficiently.
Question 7

(a) Garford Stores is stronger than Hobson Stores for: gross profit margin; return on capital employed.

Hobson Stores is stronger than Garford Stores for: rate of inventory turnover, profit margin and current ratio.

Answers could include:

(b) Garford Stores could improve its rate of inventory turnover by reducing its average inventory and/or changing pricing policy to make its goods more competitive. It could improve its profit margin by controlling costs more effectively. It should reduce its current ratio to bring it in line with the usual ratio for this type of business, by reducing its net current assets.

Hobson Stores could improve its gross profit margin by increasing its selling prices and/or finding a cheaper supplier of goods. It could improve its return on capital employed by increasing its profit and/or making more effective use of its resources.

(c) The ratios may not be strictly comparable because the businesses may not be strictly comparable:
- they may have different accounting policies
- differences in asset structure (eg renting or owing some assets)
- ratios may have been calculated in different ways (eg return on capital employed)
- one of the businesses may have experienced unusual events affecting its performance.

Question 8

(a) Anwar & Sons is stronger than Mopsa Wholesale for return on capital employed; trade receivables collection period.

Mopsa Wholesale is stronger than Anwar & Sons for: gross profit margin; profit margin; trade payables payment period; rate of inventory turnover.

(b) Anwar & Sons should increase their gross profit margin by increasing selling prices and/or finding a cheaper supplier; increase profit margin by increasing the gross profit margin and/or controlling costs more effectively; pay their credit supplies more frequently.

Mopsa Wholesale should increase their rate of inventory turnover by reducing average inventory and/or improving sales performance perhaps by becoming more competitive; the return on capital employed should be increased by improving the efficiency with which resources are used; collect amounts due from credit customers slightly less frequently this could improve sales because some new credit customers may be attracted to the business.

(c) See answer to Question 7(c).
PREPARING FOR THE EXAMINATION

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**Question 14**

(a)

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<th>2012</th>
<th>2011</th>
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<td>Gross profit as a percentage of revenue (gross profit margin)</td>
<td>$192 000 x 100/$480 000 = 40%</td>
<td>35%</td>
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<tr>
<td>Profit as a percentage of revenue (profit margin)</td>
<td>$38 400 x 100/$480 000 = 8%</td>
<td>11%</td>
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<td>Return on capital employed (ROCE)</td>
<td>$38 400 x 100/$256 000 =15%</td>
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<td>Current ratio</td>
<td>$66 000:$60 000 = 1.1:1</td>
<td>1.4:1</td>
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(b) The gross profit margin could have increased because prices were increased or because a cheaper supplier was found.

(c) No, because it is has decreased indicating that she is making less profit per $1 of revenue than before.

(d) The current ratio could be improved by increasing profit, reducing drawings, borrowing funds long-term, etc.

(e) The increase in the return on capital employed could have arisen because capital employed was less in 2012 than in 2011.

(f) Answers could include: the time lag between the end of the financial year and the production of the statements; the results may be untypical because of some unusual event; events effecting the local, regional or national economy, etc.

**Question 15**

(a)

<table>
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<th>Samir</th>
<th>Kim</th>
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<td>Rate of inventory turnover</td>
<td>Cost of sales ($262 500)/average inventory ($17 500) = 15 times</td>
<td>17 times</td>
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<tr>
<td>Quick assets (acid test) ratio</td>
<td>Liquid assets ($36 200):current liabilities ($21 773) = 1.67:1</td>
<td>0.8:1</td>
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<tr>
<td>Trade receivables collection period</td>
<td>$34 718/$384 000 x 365 = 33 days</td>
<td>29 days</td>
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<tr>
<td>Trade payable payment period</td>
<td>$21 773/$264 900 x 365 = 30 days</td>
<td>32 days</td>
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(b) Kim’s business has the higher rate of inventory turnover. This could be because her business has a smaller average inventory than Samir’s business or because it sells more goods.

(c) Samir’s business has the better quick assets ratio. This means that her business will be able to pay its immediate debts more easily than Kim’s business.

(d) Kim pays her credit suppliers less frequently than her credit customers pay their accounts. Samir could improve the trade receivables collection period by offering cash discounts to her credit customers to encourage prompt payment.

(e) See answer to Question 7(c).