

MAC3702

SOLUTION

OCTOBER / NOVEMBER 2014

QUESTION 1 - RATIOS

QUESTION 1 (22 MARKS)

PART A

Ratios for 2X14

(i) **Gross profit percentage**

$$\begin{aligned} &= \frac{\text{Gross profit}}{\text{Turnover}} \\ &= \frac{345\,113}{908\,191} \times 100 \end{aligned}$$

$$= 38\% \quad (2)$$

The gross profit margin has improved from 32% to 38% due to:

Reason:

- This is due to **sales increasing at a higher rate than cost of sales**
- It could also be an indication of more **effective inventory control**
- It may be due to the **higher margins** on the new exclusive brand introduced in 2014
- The exchange rate fluctuations may also have impacted the gross profit
- **Bulk purchases** to cut shipping costs helped control costs
- Increase in the **markup** during the year / **increase in the selling price** while reduction in **cost per unit**

(1)

(ii) **Net operating profit percentage**

$$\begin{aligned} &= \frac{\text{Operating profit (EBIT)}}{\text{Turnover}} \\ &= \frac{157\,479}{908\,191} \times 100 \end{aligned}$$

$$= 17,34\% \quad (2)$$

The net operating profit percentage has increased from 16,6% to 17,34% due to:

Reason:

- Increases of less than 1%, compared to 6% increase on gross margin – company's operating expenses (**or increase of 50%**) **do not seem to be monitored closely**
- The increase in operating costs may be due to extra costs incurred on **promoting the new product range** or **holding costs for bulk purchases**

(1)

Question 1 (continued)

(iii) **Change in turnover**

$$= \frac{\text{Turnover for 2X14} - \text{Turnover for 2X13}}{\text{Turnover for 2X13}}$$

$$= \frac{908\,191 - 814\,521}{814\,521} \times 100$$

$$= 11,50\%$$

(2)

Increase in sales of 11,50% compared to 10,31% for the previous year due to:

Reason:

- The **newly launched clothing brand** is popular amongst most teenagers and therefore turnover improved from 2X13
- Increase in sales due to **general inflation**
- Increase in **youth population** (or **spending power**)

(1)

(iv) **Return on assets (ROA)**

Option 1

$$= \frac{\text{Operating profit (EBIT)}}{\text{Total assets}}$$

$$= \frac{157\,479}{792\,621} \times 100$$

$$= 19,87\%$$

Option 2

$$= \frac{\text{EBIAT}}{\text{Total assets}}$$

$$= \frac{157\,479 - [37\,500 + (23\,547 \times 0,28)]}{792\,621} \times 100$$

$$= 14,31\%$$

Option 3

$$= \frac{\text{Profit after tax}}{\text{Total assets}}$$

$$= \frac{96\,432}{792\,621} \times 100$$

$$= 12,17\%$$

(2)

Question 1 (continued)

A decline in ROA from 22% to 20% (14,31% or 12,17%) due to:

Reason:

- **Increase in current assets** of 77% could indicate inefficiencies in working capital management or underutilisation
- **Increase in inventory** (78%), **trade receivables** (97%) or **cash** (66%)
- Operating profit increasing at a lower rate than assets
- Increase in **tax expense and finance charges** (where option 3 is used)

(1)

(v) Return on equity (ROE)

$$= \frac{\text{Profit after tax}}{\text{Equity}}$$

$$= \frac{96\,432}{343\,876} \times 100$$

$$= 28,04\%$$

(2)

Slight improvement in return on equity ratio (from 27,6% to 28,04%) due to:

Reason:

- This is as a result of increase in the net profit for the year (growth in business as a result of new product, better cost control, etc.)

(1)

(vi) Debtors' collection period

Option 1

$$= \frac{\text{Closing balance of trade receivables} \times 365}{\text{Credit sales}}$$

$$= \frac{89\,669 \times 365}{908\,191 \times 65\%}$$

$$= 55,44 \text{ days}$$

Question 1 (continued)

Option 2

$$= \frac{[(\text{Opening balance} + \text{Closing balance of trade receivables})/2] \times 365}{\text{Credit sales}}$$

$$= \frac{\left(\frac{45\,421 - 89\,669}{2}\right) \times 365}{908\,191 \times 65\%}$$

$$= 41,76 \text{ days}$$

(2)

Increase in debtors' collection period (adverse) from 29,1 to 55,44 (or 41,76) days due to:

Reason:

- **Increase in trade receivables** (97%), despite credit sales dropping
- **Poor credit policy** (**NOTE:** but not the policy to reduce credit sales)
- **Poor credit control measures**
- **Poor debt collection policy**

(1)

(vii) **Inventory days**

Option 1

$$= \frac{\text{Closing balance of inventory} \times 365}{\text{Cost of sales}}$$

$$= \frac{214\,000 \times 365}{563\,078}$$

$$= 138,72 \text{ days}$$

Option 2

$$= \frac{[(\text{Opening balance} + \text{Closing balance of inventory})/2] \times 365}{\text{Cost of sales}}$$

$$= \frac{[(120\,000 + 214\,000)/2] \times 365}{563\,078}$$

$$= 108,25 \text{ days}$$

(2)

Increase in inventory days (adverse) from 79,1 to 138,72 (or 108,25) days due to:

Question 1 (continued)

Reason:

- **High levels of stock kept** at stores (especially with the new product launched)
- **Large consignments** of imported stock to limit the ordering cost (bulk purchase)
- **Poor inventory control**
- **High closing inventory** balance / **low opening inventory** balance

(1)

QUESTION 1 TOTAL MARKS: 22

Notes:

- Extra **1 mark** given for layout and communication
- Full marks are awarded for the **correct answer** – calculation steps not clearly shown (no mark is awarded for layout and communication though)
- Full marks are awarded for not correctly rounding to the **nearest 2 decimal places** – however, no mark is given for layout and presentation
- **No marks** are awarded for just stating that the **ratio improved or deteriorated**
- Only award commentary mark if student demonstrated **some knowledge** re calculation of the ratio (e.g. use of profit after interest before tax is used for ROE or ROA) – commentary must be in line with the student's calculation