BUS.FI6 Analysing financial statements: ratio analysis

AQA 8132 · Calculator allowed · about 70 minutes

Total Marks

Name: ______________________________ Date: ____ / ____ / ______

Answer ALL questions in the spaces provided. Show your working for every calculation: method marks are available even if your final answer is wrong. Foxglove Fitness Studio, used throughout this pack, is a fictional business.

1 Which ratio shows the percentage of revenue remaining after deducting the cost of sales?

- ☐ A) Net profit margin
- ☐ B) Gross profit margin
- ☐ C) Current ratio
- ☐ D) Working capital

(Total for Question 1 is 1 mark)

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2 Which ratio shows a business's ability to pay its short-term (current) liabilities using its short-term (current) assets?

- ☐ A) Gross profit margin
- ☐ B) Net profit margin
- ☐ C) Current ratio
- ☐ D) Net profit

(Total for Question 2 is 1 mark)

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3 State the formula used to calculate gross profit margin.

(Total for Question 3 is 1 mark)

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4 State the formula used to calculate net profit margin.

(Total for Question 4 is 1 mark)

5 In Year 1, Foxglove Fitness Studio, a fictional gym, had revenue of 150,000 pounds, cost of sales of 60,000 pounds and expenses of 66,000 pounds.

(a) Calculate Foxglove Fitness Studio's gross profit for Year 1. Show your working. **(2)**

....

(b) Using your answer to part a, calculate Foxglove Fitness Studio's gross profit margin for Year 1, as a percentage of revenue. Give your answer to 1 decimal place. **(2)**

....

(c) Calculate Foxglove Fitness Studio's net profit for Year 1. Show your working. **(2)**

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(d) Using your answer to part c, calculate Foxglove Fitness Studio's net profit margin for Year 1, as a percentage of revenue. Give your answer to 1 decimal place. **(2)**

....

(Total for Question 5 is 8 marks)

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6 In Year 2, Foxglove Fitness Studio's revenue was 180,000 pounds, cost of sales was 81,000 pounds and expenses were 72,000 pounds.

(a) Calculate Foxglove Fitness Studio's gross profit margin for Year 2, as a percentage of revenue. Give your answer to 1 decimal place. Show your working. **(2)**

....

(b) Calculate Foxglove Fitness Studio's net profit margin for Year 2, as a percentage of revenue. Give your answer to 1 decimal place. Show your working. **(2)**

....

(Total for Question 6 is 4 marks)

7 Using your answers to questions 5b and 6a, state whether Foxglove Fitness Studio's gross profit margin improved or declined between Year 1 and Year 2, and calculate by how many percentage points. Show your working.

(Total for Question 7 is 3 marks)

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8 Using your answers to questions 5d and 6b, state whether Foxglove Fitness Studio's net profit margin improved or declined between Year 1 and Year 2, and calculate by how many percentage points. Show your working.

(Total for Question 8 is 3 marks)

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9 Explain one possible reason why Foxglove Fitness Studio's gross profit margin fell between Year 1 and Year 2, even though its revenue increased.

(Total for Question 9 is 3 marks)

10 Foxglove Fitness Studio's current assets and current liabilities were: Year 1 - current assets 20,000 pounds, current liabilities 16,000 pounds; Year 2 - current assets 21,000 pounds, current liabilities 21,000 pounds.

(a) Calculate Foxglove Fitness Studio's current ratio for Year 1. Give your answer to 2 decimal places. Show your working. **(2)**

....

(b) Calculate Foxglove Fitness Studio's current ratio for Year 2. Give your answer to 2 decimal places. Show your working. **(2)**

....

(Total for Question 10 is 4 marks)

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11 State what a current ratio tells us about a business, and comment on whether Foxglove Fitness Studio's liquidity position improved or worsened between Year 1 and Year 2 (question 10).

(Total for Question 11 is 2 marks)

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12 State two possible actions Foxglove Fitness Studio could take to improve its current ratio (liquidity).

(Total for Question 12 is 2 marks)

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13 State two limitations of using ratio analysis alone to judge a business's performance.

(Total for Question 13 is 2 marks)

14 Which of the following is a NON-financial way to assess how successful a business has been over a given year?

- [ ] A) Gross profit margin
- [ ] B) Net profit margin
- [ ] C) Customer satisfaction/reviews
- [ ] D) Current ratio

(Total for Question 14 is 1 mark)

15 Foxglove Fitness Studio's Year 2 results show revenue and gross profit both grew compared with Year 1, but its gross profit margin fell from 60.0% to 55.0%, its net profit margin fell from 16.0% to 15.0%, and its current ratio fell from 1.25 to 1.00 (questions 5-10). Callum, the owner, is deciding whether to describe Year 2 as a successful year for the business. Recommend whether Callum should view Year 2 as a success. Justify your answer using the figures given in this pack.

(Total for Question 15 is 12 marks)

Mark scheme · BUS.FI6 Analysing financial statements: ratio analysis

Question 1

- **B1** B cao
- **Answer: B**

Question 2

- **B1** C cao
- **Answer: C**

Question 3

- **B1** gross profit margin = (gross profit / revenue) x 100, oe
- **Answer: Gross profit margin = (gross profit / revenue) x 100.**

Question 4

- **B1** net profit margin = (net profit / revenue) x 100, oe
- **Answer: Net profit margin = (net profit / revenue) x 100.**

Question 5

- (a) **M1** 150,000 - 60,000 seen
- (a) **A1** 90,000 pounds cao
- **(a) Answer: 90,000 pounds.**
- (b) **M1** 90,000 / 150,000 x 100 seen (ft from part a)
- (b) **A1** 60.0% cao
- **(b) Answer: 60.0%.**
- (c) **M1** 90,000 - 66,000 seen (ft from part a)
- (c) **A1** 24,000 pounds cao
- **(c) Answer: 24,000 pounds.**
- (d) **M1** 24,000 / 150,000 x 100 seen (ft from part c)
- (d) **A1** 16.0% cao
- **(d) Answer: 16.0%.**

Question 6

- (a) **M1** (180,000 - 81,000) / 180,000 x 100 seen (= 99,000 / 180,000 x 100)
- (a) **A1** 55.0% cao
- **(a) Answer: 55.0%.**
- (b) **M1** (99,000 - 72,000) / 180,000 x 100 seen (= 27,000 / 180,000 x 100)
- (b) **A1** 15.0% cao
- **(b) Answer: 15.0%.**

Question 7

- **B1** declined (fell)
- **M1** 60.0% - 55.0% seen (ft from questions 5b and 6a)
- **A1** 5.0 percentage points cao
- **Answer: Declined by 5.0 percentage points.**

Question 8

- **B1** declined (fell)
- **M1** 16.0% - 15.0% seen (ft from questions 5d and 6b)
- **A1** 1.0 percentage point cao
- **Answer: Declined by 1.0 percentage point.**

Question 9

- **B1** identifies that cost of sales may have risen faster, as a proportion of revenue, than revenue itself, e.g. through higher supplier prices
- **B1** develops the point with figures, e.g. cost of sales rose from 60,000 to 81,000 pounds (a 35% increase), while revenue rose from 150,000 to 180,000 pounds (only a 20% increase)
- **B1** links clearly to an outcome, e.g. this squeezed the gross profit kept from each pound of revenue, lowering the margin even though total gross profit in pounds rose (from 90,000 to 99,000)
- **Answer: Cost of sales grew faster (35%) than revenue (20%), squeezing the gross margin even though total gross profit rose in pounds.**

Question 10

- (a) **M1** 20,000 / 16,000 seen
- (a) **A1** 1.25 (or 1.25:1) cao
- **(a) Answer: 1.25 (or 1.25:1).**
- (b) **M1** 21,000 / 21,000 seen
- (b) **A1** 1.00 (or 1.00:1) cao
- **(b) Answer: 1.00 (or 1.00:1).**

Question 11

- **B1** the current ratio shows whether a business has enough current (short-term) assets to cover its current (short-term) liabilities
- **B1** Foxglove Fitness Studio's liquidity worsened, since the ratio fell from 1.25 in Year 1 to 1.00 in Year 2, leaving no safety margin
- **Answer: The current ratio measures short-term liquidity; Foxglove Fitness Studio's worsened, falling from 1.25 to 1.00.**

Question 12

- **B1** delay/reduce short-term borrowing, or negotiate longer payment terms with suppliers, to reduce current liabilities
- **B1** hold more cash, or collect money from customers faster, to increase current assets
- **Answer: Any two, e.g. negotiate longer supplier terms (lower current liabilities); collect customer payments faster (raise current assets).**

Question 13

- **B1** ratios only use financial information and ignore non-financial factors, e.g. customer satisfaction or staff morale
- **B1** ratios do not explain WHY a figure has changed, and comparing different-sized or different-sector businesses using the same ratio can be misleading
- **Answer: Any two, e.g. ignores non-financial factors; does not explain why a figure changed/can mislead when comparing different businesses.**

Question 14

- **B1** C cao
- **Answer: C**

Question 15

- **Level 1** (1-4): Makes simple, undeveloped comments about Year 2, with little or no use of the pack's figures and no clear recommendation.
- **Level 2** (5-8): Gives a developed argument for or against viewing Year 2 as a success, using some of the pack's figures, but does not fully weigh both sides or reach a clearly justified recommendation.
- **Level 3** (9-12): Weighs the evidence for and against viewing Year 2 as a success, using the margin, current ratio and absolute profit figures from this pack, and reaches a justified recommendation supported by that analysis.
- **Indicative content:**
  - For success: total revenue grew by 30,000 pounds (20%), from 150,000 to 180,000 pounds, and both gross profit (90,000 to 99,000) and net profit (24,000 to 27,000) increased in absolute pound terms, so the business generated more profit overall than in Year 1.
  - For success: growth in scale, such as more members or sales, is often taken as a sign of a successful, expanding business.
  - Against success: profitability, measured by margins, actually declined: gross profit margin fell 5.0 percentage points (60.0% to 55.0%) and net profit margin fell 1.0 percentage point (16.0% to 15.0%), meaning Foxglove Fitness Studio kept a smaller share of every pound of revenue as profit in Year 2.
  - Against success: liquidity also worsened, with the current ratio falling from 1.25 to 1.00 (question 10), leaving no margin of safety to cover short-term debts, which increases financial risk even while the business is growing.
  - A top-level answer weighs the positive absolute growth in profit against the negative trend in margins and liquidity, recognising that Year 2 cannot be judged a simple success or failure - it depends on which measure (scale, efficiency, or risk) Callum prioritises.
  - Judgement: a reasonable recommendation is that Year 2 should NOT be viewed as an unqualified success: although the business grew in size and total profit, the falling margins and current ratio are early warning signs that, if the trend continues into Year 3, could threaten both profitability and Foxglove Fitness Studio's ability to pay its short-term debts, so Callum should investigate why costs and current liabilities grew faster than revenue before treating Year 2 as a straightforward success.