

M23/BUSMT/HP1/ENG/MOCK

Business management
Higher level
Paper 1

2 hour 15 minutes

Instructions to candidates

- Do not open this examination paper until instructed to do so.
- A clean copy of the **business management case study** is required for this examination paper.
- Read the case study carefully.
- A clean copy of the **business management formulae sheet** is required for this examination paper.
- **Section A: answer two questions.**
- **Section B: answer question 4**
- **Section C: answer question 5**
- A calculator is required for this examination paper.
- The maximum mark for this examination paper is **[60 marks]**.

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Section A

Answer **two** questions from this section.

1. (a) Describe **one advantage** and **one disadvantage** of SVT being a public limited company [4]
- (b) Explain possible economies of scale that may apply to SVT. [6]
2. (a) With reference to SVT, explain **one advantage** and **one disadvantage** of using secondary market research (line 134) [4]
- (b) With reference to Yannick and Ariadne, explain the differences between a situational and an autocratic leadership style (line 19). [6]
3. (a) With reference to SVT, explain **one advantage** and **one disadvantage** of an organizational structure based on product. [4]
- (b) Explain how internal and external growth have helped SVT to grow. [6]

Section B

Answer the following question

4. It is now end of 2024. SVT decided in 2023 to produce the portable water purifiers “WF15” within the consumer products division. The board of directors finally decided to set a cost plus (mark up) pricing strategy for the “WF15”. The production and sales of the portable purifiers “WF15” has been going for a year. SVT’s board of directors are concerned that the financial results of “WF15” are not as good as they could be. The following table shows the forecasts and the actual results of the product for 2024.

Table 1: Variance analysis for “WF15” for 2023

	Forecast	Actual	Variance Analysis
Sales of WF15	190,000\$	150,000\$	-40,000\$
Cost of sales	157,000\$	126,000\$	-31,000\$
Gross Profit	33,000\$	24,000\$	-9,000\$
Expenses	30,000\$	35,000\$	5,000\$
Net Profit before interest and tax	3,000\$	-11,000	-8,000\$

On the other hand, the demand for water filters for use at home produced by the same division has increased significantly the last year, especially due to the increasing healthy habits in western countries with economic growth. SVT has reached at full capacity although there have been some quality issues due to faulty components by suppliers. The forecasts for the future are that there will be even more increasing demand for filters for use at home. The Board of Directors is considering the to following options:

Option1: Implement lean production methods, which includes investing in ecologically sustainable machines that will increase capacity by 10 %. Total quality management (TQM) will also be implemented. However, SVT will need to pay a high initial cost of 300,000\$. In addition, this additional capacity cannot support the production of WF15.

Option 2: Outsource the production to CF, a well-established company known for its reliability, high-quality and high capacity to produce excellent water filters. However, CF insists on signing a five-year contract with SVT according to which the quantities ordered cannot change more or less than 5%.

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4. (a) Outline **two** characteristics of cost-plus pricing (mark up). [2]
- (b) With reference to *SVT*, explain **one** advantage **and one** disadvantage of using total quality management (TQM). [4]
- (c) Explain the usefulness to *SVT* of the variance analysis in **Table 1**. [4]
- (d) Using information from the case study and additional information from page 3, evaluate the two options *SVT*'s Board of directors is considering. [10]

Section C

Answer the following question

5. During a meeting of the Board of Directors the following two options have been presented by Yannick and Ariadne. The board of directors is considering the two options, due to budget constraints they will need choose the one out of two:

Option 1: Yannick has decided to raise the issue that the machinery needed to update water treatment plants and this has an impact on the services provided by the Fresh Water Division around the world and may impact SVT's reputation. This is because due to the high maintenance costs of the old machinery they will need to raise their price for potable water. Also, quality issues may arise if the machinery gets older. He proposes that SVT buys the new machinery from an external supplier as it will be more digitalised and automated leading to increased quantities of water treatment. In addition, the new machinery will ensure the quality of the potable water with lower risk of fault than the current. The employees will need to be trained.

Option 2: Ariadne has introduced a plan to the board of directors for increasing the capacity of wind turbines production. This will enable SVT to accept more orders for 2023 and to be able to increase their capacity to 15 large turbines for the following years. She believes that they will increase their market share and gain economies of scale. More employees will need to be employed for the wind turbines. However, there are increasing complaints about Ariadne's leadership style currently and despite the fact of high productivity, employees' feel demotivated.

Option 1:

- Cost of changing machinery: \$1,500,000
- Annual additional increase in sales revenue from new machinery: \$400,000
- Lifetime of machinery: five years
- Average Rate of return (ARR): 3.33%
- Net present value (NPV) at 4% discount: \$58,130
- Additional annual costs for maintenance of new machinery: \$50,000

Option 2:

- Cost of changing machinery: \$3,500,000
- Annual additional increase in sales revenue from new machinery: \$780,000
- Lifetime of machinery: ten years
- Average Rate of return (ARR): 8.6%
- Net present value (NPV) at 4% discount: \$1,772,085
- Additional annual costs for maintenance of new machinery: \$130,000

5. Using the case study and the additional information above, recommend either Option 1 or Option 2 for SVT. You will find it useful to calculate the payback period for the two options. [20]

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