

General Certificate of Education  
January 2008  
Advanced Level Examination



**BUSINESS STUDIES**  
**Unit 4**

**BUS4**

Monday 21 January 2008 1.30 pm to 3.00 pm

**For this paper you must have:**

- a 12-page answer book.

You may use a calculator.

Time allowed: 1 hour 30 minutes

**Instructions**

- Use blue or black ink or ball-point pen.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is BUS4.
- Answer **all** questions.
- Do all rough work in the answer book. Cross through any work you do not want to be marked.

**Information**

- The maximum mark for this paper is 84.  
Four of these marks will be awarded for using good English, organising information clearly and using specialist vocabulary where appropriate.
- The marks for questions are shown in brackets.

Read the Case Study and answer **all** the questions that follow.

### Hifonics Ltd

“Vinyl is back,” announced the Business Daily. The upsurge in demand for turntables to play vinyl records is due to consumer preferences for the ‘original sound’ offered by this medium of playing music. Technological improvements in turntable design which allow transfers of vinyl recordings to either computers or MP3 players have also boosted sales. This is excellent news for Hifonics, the UK-based manufacturer of electronic goods. Two years ago it had predicted this trend. To overcome problems with its outdated models, it invested in an additional UK factory to produce an advanced range of music centres with turntables using a production process that gave great flexibility and cost effectiveness. The turntables, the transfer technology and the production process were developed by Hifonics Ltd’s small Research and Development (R&D) Department.

5

10

#### The product range

There are four models in the Hifonics music centre range which are all assembled at the additional factory. The ‘Titan’, the latest model, is aimed at professional DJs (Disc Jockeys) and allows transfers of recordings to computers as well as ‘mixing’ facilities for nightclub-type effects. This is the company’s first entry into this fast growing segment of the market. Sales of the other three models are impressive but Titan’s sales have been disappointing. “We did not know what to expect with this product but sales are much lower than competitors’ models,” commented the Sales Manager. “Our promotion spending might be too low. Perhaps professional DJs need more clearly focused promotion campaigns than traditional retail customers.” Costs and sales data for these four products is shown in **Table 1**. The Chief Executive, on seeing the data, remarked that, “If we stopped the Titan now, profits would surely rise. Is there any reason to keep production going?”

15

20

**Table 1: Costs and sales data (year ending 31 December 2007)**

	<b>Titan</b>	<b>MC1</b>	<b>MC2</b>	<b>MC3</b>
Labour costs per unit	£120	£60	£70	£90
Material costs per unit	£180	£30	£40	£80
Fixed factory costs and share of head office costs	£250 000	£350 000	£650 000	£350 000
Selling price per unit to retailers	£500	£150	£260	£300
Sales (units)	750	5250	8000	6400

Hifonics Ltd’s Chief Executive wrote in the latest Company Report, “Heavy reliance on solid construction and quality materials, our traditional virtues, no longer gives guaranteed sales growth. Although costly, we must focus on more research and development (R&D) spending to develop new technology products and processes. This strategy will always succeed. Our sales forecasts suggest we could sell up to 35 000 of the music centres in the 12 months starting from June 2008” (**Appendix A**).

25

## The location options

Hifonics Ltd has always assembled its products in the UK. The directors are now considering opening a factory abroad. Increasing imports of cheap electrical goods from China, where workers earn a fraction of UK wages, is resulting in big cutbacks in Western European factories. Apart from sites in China, locations in Poland are also being considered. The Operations Director submitted a report to the Board detailing the location options. He made the following points. 30

- The opportunities for joint ventures and sub-contracts will be great in China due to the huge electronics industry there. This would give scope for scale economies. 35
- Exports into the European Union (EU) from Poland, a member of the EU, will not be subject to protectionist policies. Labour law principles in Poland are the same as in the UK.
- The initial investment for a five-year lease of a factory in Poland would be £4m.
- Cash outgoings are expected to be 50% of cash inflows in any one year.

### Forecasted cash inflows from the factory in Poland

	Year 1	Year 2	Year 3	Year 4	Year 5
Forecasted cash inflows £ m	2.0	4.0	6.0	3.0	1.0

### Forecasted data on a possible Chinese location

Average Rate of Return (ARR) for first five years of operation	40%
Payback	3 years
Capital cost, including property lease for five years	£8 million

The report concluded, “We need to consider many qualitative factors too. The supply of unskilled labour in China is virtually limitless but senior managers may find Poland a more appealing location.” 40

## Other decisions

Opening a factory abroad would be likely to lead to the closure of one of the two UK factories. The axe would probably fall on the company’s old factory, 25 miles from the newer one. The directors disagreed on how this decision should be managed and communicated to the workers. 45

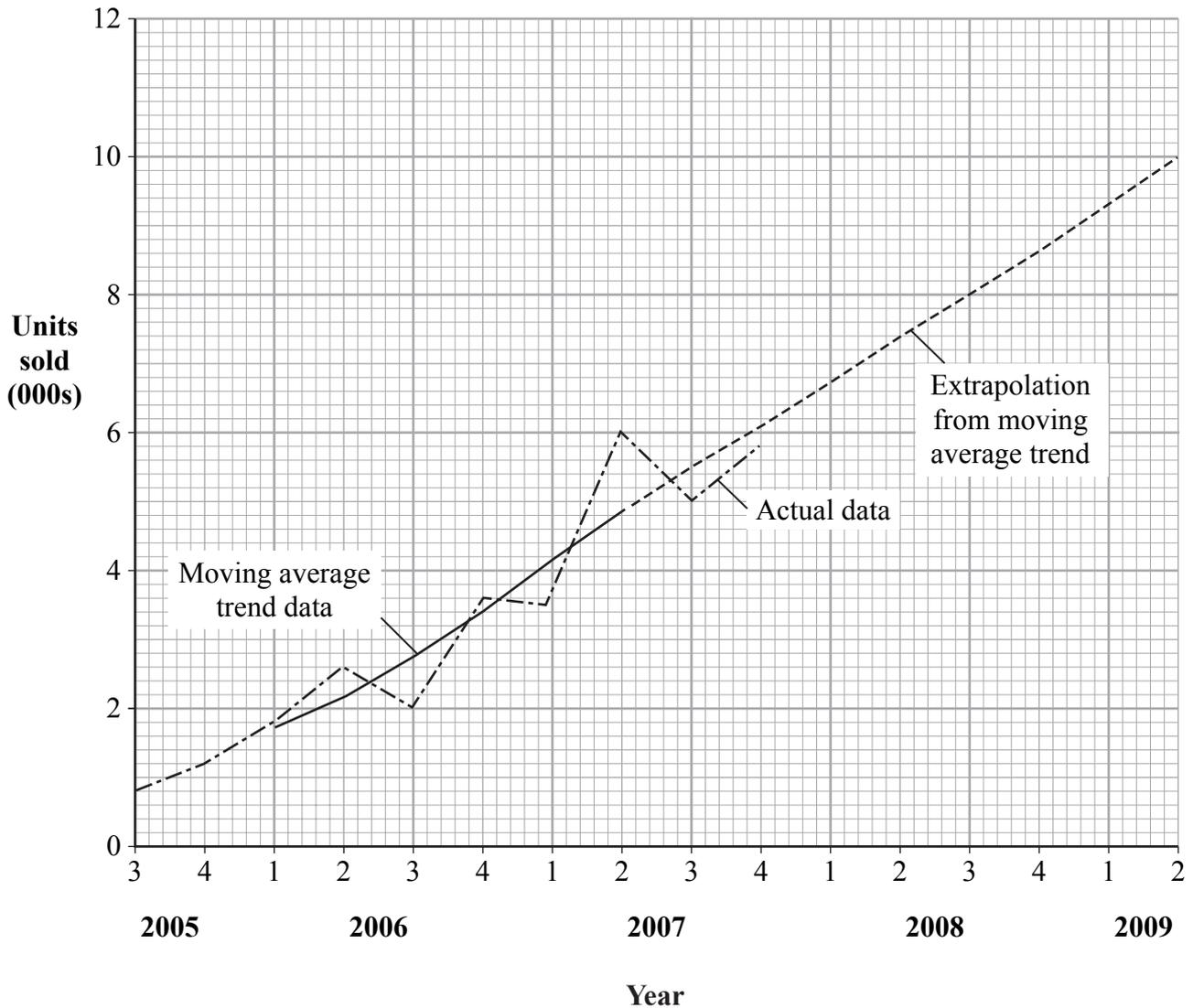
Several directors supported the Finance Director’s views, “It would be best to tell the staff at the last possible moment, within the limits of the law. They would have less time to worry and could not take any effective industrial action.” Some directors supported the Human Resources Director’s suggestion, “We should discuss this issue with the workforce and union representatives in both factories and allow early retirement and voluntary redundancies. If we operated in more than one EU country, we would have to consider this within a Works Council. We could appear authoritarian if we do not allow detailed consultation.” 50

The other major issue for the Board was the problem of head office expenses. These were rising faster than inflation, reducing the 2007 net profit despite higher sales. One option being considered was to lease out two floors of the building and encourage some staff to work from home. The Operations Director was uncertain of the benefits stating, “We would 55

need to update our IT and put modern technology into employees' homes. Our designers, HR and administration staff could work from home or 'telework' and just come in for meetings once a week. After training costs, this change could reduce overheads. However, would the designers be able to work effectively in this way and would we be able to check up on employees on a regular basis?"

60

### Appendix A: Quarterly sales of Hifonics Ltd's music centres



- 
- 1 (a) Discuss the likely accuracy of the sales forecasting method used by Hifonics Ltd. (**Appendix A**). *(10 marks)*
- (b) To what extent would a marketing plan have been useful to Hifonics Ltd when launching the Titan music centre? *(10 marks)*
- 2 (a) Analyse the possible benefits to Hifonics Ltd of further investment in research and development (R&D). *(8 marks)*
- (b) Discuss whether the company should stop producing the Titan music centre, using the quantitative and qualitative information available. *(12 marks)*
- 3 (a) Calculate the payback period **and** the average rate of return (ARR) for the location in Poland. *(8 marks)*
- (b) Recommend, using your answers from **3(a)** and other information, which location Hifonics Ltd should choose for the new factory. Justify your answer. *(12 marks)*
- 4 (a) Discuss the likely **human resource management** consequences for Hifonics Ltd of encouraging head office staff to work from home (telework). *(10 marks)*
- (b) The directors of Hifonics Ltd cannot agree on how a decision to close the old factory should be managed and communicated to staff. Recommend which approach should be used. Justify your answer. *(10 marks)*

**END OF QUESTIONS**

**There are no questions on this page**

**There are no questions on this page**

**There are no questions on this page**