



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
General Certificate of Education Advanced Level

**BUSINESS STUDIES**

**9707/31**

Paper 3

**October/November 2010**

CASE STUDY

**3 hours**

Additional Materials: Answer Booklet/Paper

**READ THESE INSTRUCTIONS FIRST**

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

**Section A**

Answer **all** questions.

**Section B**

Answer **one** question.

You are advised to spend 40 minutes on Section B.

The businesses described in this question paper are entirely fictitious.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **5** printed pages and **3** blank pages.



## Radar Cosmetics

### Good news for Radar Cosmetics

'Sales of branded cosmetics in Asia hit all time high!' announced the Daily Echo headline last month. This is excellent news for Radar. The company manufactures cosmetics, shampoos and creams. Women, and increasingly men too, buy these products to look more beautiful! The increase in sales of cosmetics and similar products has been due to rising disposable incomes amongst the 18–35 year old, middle income market segment in country P. This is the main market for Radar products, accounting for 80% of the company's total sales.

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### Research and Development success

For years Radar had struggled with a poor brand image and lack of product focus. The business used to make products for supermarkets which sold them under the supermarkets' 'own name' labels. This changed when Radar's small research and development team of scientists developed a new range of skin creams. Radar's scientists made two claims about these creams:

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- They definitely reduced the signs of ageing in 75% of users.
- Three separate products have been developed – creams A, B and C – to suit different ethnic skin types.

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The directors of Radar made a strategic decision. The company stopped making skin creams for other companies and launched its own range of three expensive up-market creams. The brand 'Aquaskin' was created. A large marketing budget paid for advertisements on TV and in fashion magazines which created much consumer interest. The advertisements stated its unique selling point as: 'Aquaskin is an entirely natural product, is not tested on animals and is guaranteed to make you look younger'. Clever publicity was arranged with the support of an Olympic swimming gold medallist. She was paid by Radar to suggest that 'Aquaskin keeps my skin fresh each day even after 6 hours training in the pool'. Sales of Aquaskin products were 50% above the company's target in the first two years despite prices being 20% above those of most competitors' products.

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### Extending the product range

Encouraged by this success, Radar introduced other products under the same brand name. 'Aquaskin Junior' was aimed at young people. The Marketing Director had said at a directors meeting: 'Young people can be tricked into buying these products, even at high prices, by telling them that famous models and sports stars use them. 10–17 year olds are more worried about their appearance than they used to be. This junior range is certain to sell well. There is no need to research this market segment. The Aquaskin name is so well known that the junior range will sell itself without much promotion'. The Finance Director presented the following data to the Board one year after the 'Aquaskin Junior' launch.

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**Table 1: 2010 cost and sales data**

	Aquaskin Junior	Aquaskin Cream A	Aquaskin Cream B	Aquaskin Cream C
Labour costs per 100 units	\$40	\$60	\$30	\$80
Material costs per 100 units	\$200	\$300	\$100	\$600
Allocated fixed factory and Head Office costs	\$190 000	\$250 000	\$450 000	\$350 000
Selling price per 100 units to retailers	\$400	\$500	\$250	\$900
Sales (boxes of 100 units)	1000	12 000	20 000	6000

On seeing these figures, the Chief Executive quickly suggested that: 'These are bad results for the Aquaskin Junior range. I believe that we should stop making this product immediately. This would increase our annual profit by \$30 000.'

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#### **New factory location could reduce costs**

Radar has always manufactured its products in country P. However, wage rates and land prices are at least 50% higher than in countries R and S. The directors plan to establish a new factory abroad to manufacture products under the 'Aquaskin' brand. This would lead to the closure of one of the two existing factories in country P. The Operations Director had produced a report about two possible factory sites – one in country R and one in country S. Here is some of his report.

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- The employment laws in country R are the same as in country P.
- Country R is in a large free trade area with many other countries and is a well known tourist destination.
- The opportunities for joint ventures and accepting sub-contracted work are likely to be higher in country S due to the huge cosmetics industry already based there. This would offer opportunities for economies of scale.
- The initial investment in country R for the factory capacity required would be at least \$3.5m, based on a five year lease of the property.
- The expected cash inflows from the country R location over this time period are forecast to be:

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	Year 1	Year 2	Year 3	Year 4	Year 5
Expected cash inflows \$m	2.5	2.5	3.0	4.0	6.0

- Cash outgoings are expected to be 50% of cash inflows in any one year.
- Data on the location in country S are contained in Table 2.

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**Table 2: Financial forecasts for factory location in country S**

Average Rate of Return (ARR) (first 5 years)	40%
Payback	3 years
Net present value over 5 years (at 10% discount rate)	\$3.6m
Capital cost including property lease for 5 years	\$8 million

The Operations Director concluded: 'However, these figures are only part of the issue. We need to consider so many qualitative factors too. The relative appeal of these two locations to some of our senior managers will be one factor.'

### Temporary and flexible labour contracts

Having a new factory in a low cost location would mean the inevitable closure of one of the two existing plants. The Human Resources Director suggested that moving the factory to either country R or S would give Radar the chance to save even more on labour costs by using temporary and flexible labour contracts. 'We can vary the number of workers and the hours they work according to seasonal demand. If they don't meet our quality standards we can replace them quickly.'

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### Another news story

The directors of Radar have just been called to an emergency meeting. Today's Daily Echo reported: 'Former Radar employee claims that Aquaskin **IS** tested on animals! Many consumers now claim it hasn't made them look any younger!'

Radar's directors have many important decisions to make over the next few days – and how to deal with this bad publicity is one of them.

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### Appendix A: Forecasted data on country P and other countries Radar sells in

	Country P	Other countries
Annual GDP growth rate 2010-2015	2.0%	3.5%
Annual total population growth rate 2010-2015	1%	1.8%
Annual population growth: 10-17 year olds 2010-2015	4%	2%
Inflation 2011	4.5%	2.5%
Change in interest rate in 2011	+2%	+1.5%

### Appendix B: 10% discount factors

Year	1	2	3	4	5
Discount factor	0.91	0.83	0.75	0.68	0.62

### Section A

Answer **all** questions in this section.

- 1 Analyse the benefits to Radar of further investment in research and development (R & D). [10]
- 2 Do you agree with the Chief Executive that the company should stop producing the 'Aquaskin Junior' cream? Use the quantitative data in Table 1, relevant calculations and the qualitative information available to justify your answer. [16]
- 3 Evaluate the benefit to Radar of preparing a detailed marketing plan before launching a new product such as the 'Aquaskin Junior' cream. [16]
- 4 (a) Calculate for the country R location:
  - (i) Average rate of return (ARR) [3]
  - (ii) Payback period [3]
  - (iii) Net Present Value (NPV) at 10% discount rate. [4]
 (b) Using your results from part (a), data in Table 2 and other information, recommend the country in which Radar should locate its new factory. [14]
- 5 Discuss the advantages and disadvantages to Radar of forcing factory staff to accept temporary and flexible working contracts. [14]

### Section B

Answer **one** question from this section.

- 6 Discuss the extent to which the data in Appendix A and other external factors could influence the future success of Radar. [20]
- 7 Evaluate the extent to which Radar is fulfilling its responsibilities to stakeholders. [20]





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