General Certificate of Education
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Advanced Subsidiary Examination

BUSINESS STUDIES **BUS2/3/PM**
Unit 2 and Unit 3

Case Study

To be distributed to candidates no sooner than Monday 14 November 2005

NOTICE TO CANDIDATES

You will be given **one** copy of this Case Study for use during your preparation for the examination, which you may annotate as you wish, but which you will **not** be allowed to take into the examination.

You will be provided with a clean copy of the Case Study, along with the question paper, for use in the examination.

You are advised to carry out your own research using this Case Study. It is the business concepts and ideas raised by the Case Study which should be researched.

Your teacher is encouraged to give assistance and advice as required.

BUS2/3/PM

ABACUS AROMATHERAPY

Aromatherapy involves the use of highly concentrated natural extracts from plants. Their chemical composition means that they can be easily absorbed by smell or through the skin. Aromatherapy oils are used by some people to ease aches and pains, as an alternative to medical treatments. Oils such as lavender can be used as a finished product or mixed with other oils to form a new blend of aromatherapy oils.

A. Getting started: The first three months (July 2000 to September 2000)

Nadia's interest in aromatherapy started at the age of ten. By the time she sat her GCSEs, she was running a thriving little business selling aromatherapy oils to friends at school.

Nadia finished her A levels on 30 June 2000. On 1 July, she started trading as *Abacus Aromatherapy*.

Nadia had planned *Abacus Aromatherapy* methodically. She had noted down the aims of the business for the first three years:

- to achieve 20% growth in each year;
- to become a recognised name in aromatherapy production in the UK;
- to establish a reputation for quality.

Nadia faced a number of problems common to any new business. She possessed limited finance which meant that any major expenditure would lead to cash flow problems. Deciding on a location from which she could sell her products was another difficulty and, initially, her customer base was limited to some old schoolfriends.

Nadia also needed to plan her marketing. She decided that there were three realistic approaches to the advertising of her products. She could:

- advertise in Yellow Pages – this would restrict her market to the local area, but would mean that deliveries could be done directly;
- advertise in a specialist magazine, 'Aromatherapy Monthly' – this would enable her to reach a national market, but the adverts would need to be repeated every month;
- set up a website (this would provide a method of selling as well as advertising) – Nadia's own research indicated that 25% of all aromatherapy sales in the UK were direct orders from websites.

After weighing up the benefits and drawbacks, she decided to set up a website. Nadia wanted a website that allowed customers to order on-line and she had paid a fee to Ahmed, a family friend, to set up a website that would both promote the business and allow on-line ordering and payment.

Nadia had set specific objectives for the first year: to reach sales of £250 000, gain 50% of sales from repeat customers by the end of the first year and to acquire five patents. Nadia had already taken out two patents on products based on unusual combinations of oils, but the final objective proved to be difficult because the patent office refused to allow patents on traditional products such as lavender oil.

Whilst at school, Nadia had already gained experience from running her business and this experience helped her to produce an impressive business plan. The bank manager agreed to Nadia's request for an overdraft.

The first two weeks of trading, as *Abacus Aromatherapy*, were the worst weeks of her life. Ahmed had designed the website very skilfully and, from the start, the number of orders for products overwhelmed Nadia. In those first two weeks, Nadia spent over 200 hours in her mother's kitchen mixing ingredients. By the Saturday of the second week, she was suffering from exhaustion and had met only 20% of the orders. Fortunately, Nadia's friends rallied round. Despite Nadia's protests, her best friend, Jill, took control. She said, "You are going to spend the day training us to mix the ingredients. I've hired a local hall for the rest of the week. With fourteen of us working, we can solve your immediate problem whilst you sort out the longer-term problems."

The crisis passed. A group of student friends without holiday jobs kept production going throughout the summer. Armed with a totally new business plan, Nadia returned to the bank manager to request more finance. By the end of the summer, *Abacus Aromatherapy* was based in a factory unit on the outskirts of town, with seven full-time employees. Nadia had also persuaded Jill to take on the role of Production Manager, in return for a good wage and a 20% share of any profits. This would allow Nadia to concentrate on her strengths – developing new products and planning strategy and marketing.

B. Growing pains (October 2000 to August 2002)

Nadia had not appreciated the difficulties involved in entering a national market. The rush of orders from customers discovering the new website in August and September was followed by a sudden fall in sales in October. Nadia was faced with a difficult decision. She was reluctant to reduce her workforce, and so she decided to keep production going in order to build up stock levels of the more popular products, rather than just producing to meet orders from the website. Fortunately, the factory had plenty of space, and so storage was not a problem. A rush of orders in December was met from stock. In its first summer, in 2000, *Abacus Aromatherapy* had gained a reputation for unreliable delivery; by Christmas, in the same year, the speed of its delivery had become a major strength. Nadia noticed that some of the very early customers who had complained were now buying again; in fact, over 60% of orders were repeat customers. However, the high levels of stock were causing cash flow problems.

In January 2001, four of the seven factory workers resigned, two of them complaining about the 'boring' nature of the job. Each worker specialised in making a narrow range of products. Jill dealt with any orders that needed a complicated combination of ingredients. Jill's main concern was how to overcome the workers' boredom and to motivate the staff. In order to build up stock levels she had originally introduced a piece-rate system of pay, but this had led to workers rushing to complete orders. As a consequence, a number of products had broken consumer protection laws. They had contained shorter measures than stated and had not included the ingredients that were listed on the packaging. This had led to the threat of legal action against *Abacus Aromatherapy* and had caused damaging publicity.

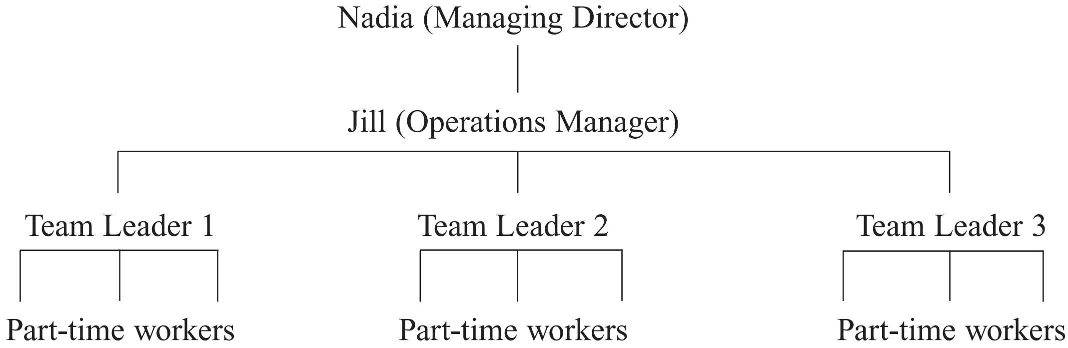
Whilst the four workers were serving their notice, Jill and Nadia got together to plan replacements. Nadia and Jill decided to ask the opinions of the three workers who were staying with the company. It immediately became clear that these workers also disliked their jobs.

"We have no contact with customers and spend the whole day mixing ingredients into finished products that are then checked by Jill, who organises delivery," complained Will, one of the workers.

Eventually, they agreed to a radical change in the operation of the factory. The remaining full-time staff would each lead separate teams of two or three part-time workers who would work flexible hours in order to supply orders on a 'just-in-time' basis. Jill drew up an organisation chart to show the new structure (see **Figure 1**).

Turn over ▶

Figure 1: Organisation Chart of the *Abacus Aromatherapy* Operations Department: February 2001



Jill would take the details of the orders from the website and allocate them to the team that specialised in those oils. The team would then be responsible for processing the order, ensuring quality and arranging delivery. The team members were paid a generous hourly rate in return for agreeing to work extra hours at short notice, to cope with any rush orders. A bonus based on low levels of customer complaints was also agreed.

The new system worked well. The team leaders were given authority to organise the recruitment of the new team members and to provide on-the-job training days for each team. Jill organised the induction programme and ran three separate off-the-job training days for each team. In the following months, Jill received no complaints from customers and orders were processed far more quickly. Sales increased over the next 18 months and more workers were recruited. By August 2002, Team 1 had grown to eight employees, Team 2 contained ten employees and Team 3 had fifteen employees, each reporting directly to their Team Leader. The team sizes reflected the fact that certain oils were growing in popularity much faster than other oils.

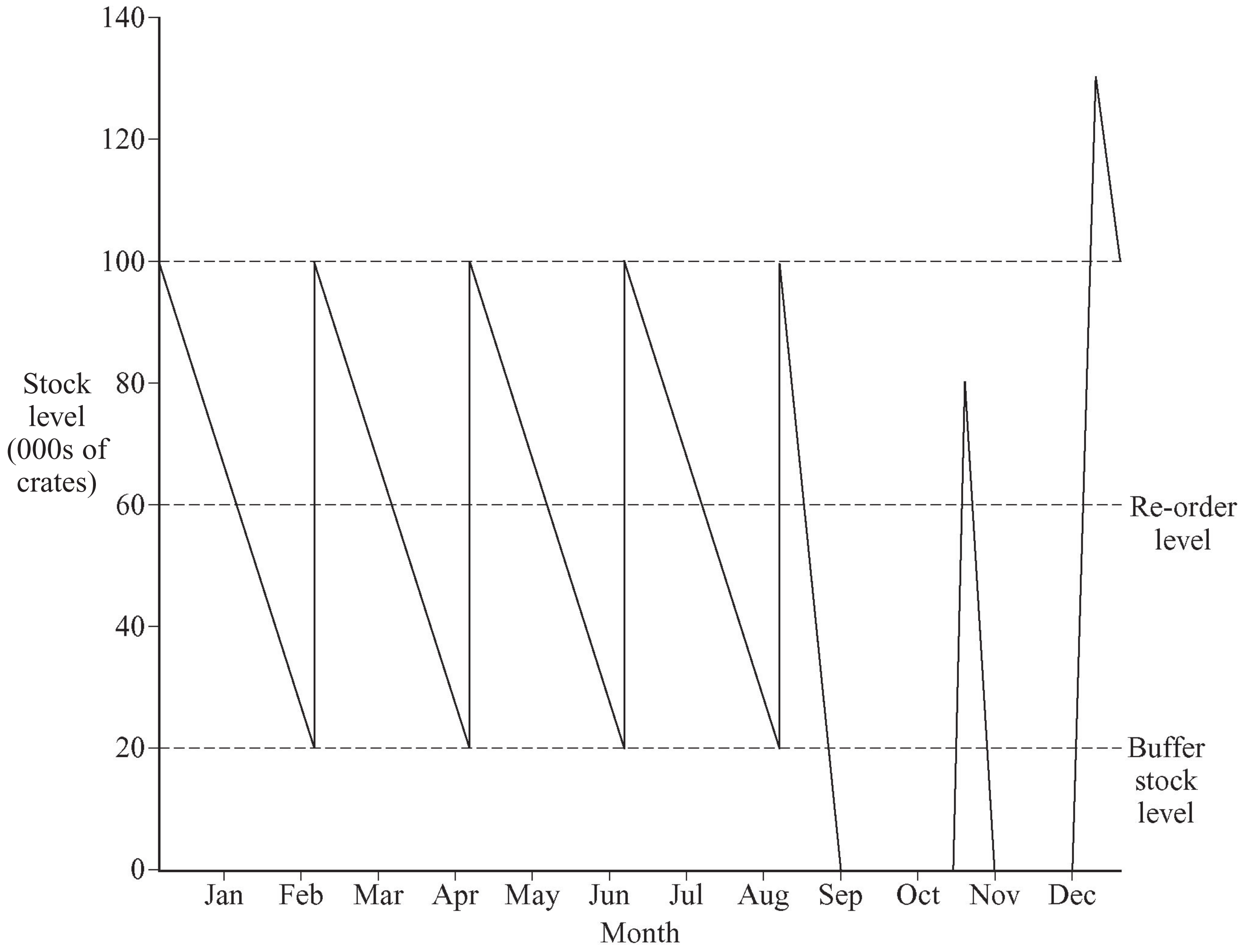
C. Major expansion (September 2002 to June 2004)

By September 2002, Nadia was beginning to feel more knowledgeable about the aromatherapy market. She had studied sales figures and had noticed that they were closely related to the business cycle: in a boom, sales rose dramatically; during a downturn, they fell slightly. Sales of oils changed seasonally: in November and December, sales of most oils would increase, as winter illnesses started and aromatherapy oils were given as Christmas presents; during the remainder of the year, monthly sales were mostly quite steady.

The exchange rate was an important influence on the profit. Most of the ingredients were imported from India and a steady rise in the value of the British Pound against the Indian Rupee led to an increase in Nadia's profit margins. As there was growing competition, this restricted her ability to increase prices, although she noticed that it was much easier to increase the price of the ten products that had been patented. These products accounted for 30% of total sales, but 70% of the company's profits. Because of the level of competition in the market, Nadia converted her sole trader business to a private limited company (*Abacus Aromatherapy Ltd*). This change gave the protection of limited liability. Jill's entitlement to a 20% share of the profits was translated into ownership of 20% of the shares, with Nadia owning the remaining 80%.

The big change came by chance. In August 2002, a national newspaper had uncovered some research that showed that aromatherapy treatments were more effective than many prescription drugs. Demand rocketed so fast that *Abacus Aromatherapy Ltd* was unable to cope. Even with a sudden recruitment of new workers, there was still a capacity shortage in the business. Jill was also experiencing difficulties in stock control, with the main product, Lavender Oil, causing particular problems (see **Figure 2**).

Figure 2: Stock Control Chart for bought-in Lavender Oil, January 2002–December 2002



Abacus Aromatherapy Ltd bought the lease on the factory unit next door to increase its capacity, in order to meet the increased demand. However, according to Nadia's forecasts, this would be large enough to cope with only the next two years of growth. More worryingly for the long term, other companies were beginning to recognise the existence of capacity shortage in the market as a whole. Nadia took the initiative. She knew that chains of pharmacy shops were struggling to supply their customers and so she approached IP plc, the UK's second largest pharmacy chain. Nadia offered to supply them with aromatherapy products under their 'own brand' name, in return for help with the setting up of a new large-scale factory.

The response was 'yes'. IP plc wanted to locate the factory in Asia, to take advantage of low wages. However, Nadia and Jill refused to agree, on the grounds that this might involve exploitation of workers. They approached their bank which agreed to a large six-year loan at a variable interest rate linked to the Bank of England's base rate, to purchase a factory in the UK.

Turn over ▶

The contract between the two companies stated that the new factory would be used only to produce IP plc 'own brand' products, with orders to be delivered to IP plc within two working days. The prices that IP plc would pay for the IP 'own brand' products were agreed. These prices would be fixed for the next three years and were calculated to be 25% below the normal *Abacus Aromatherapy Ltd* prices, on the basis that the new factory would use flow production and thus produce at a lower unit cost. After three years, a new contract and new prices would be discussed. *Abacus Aromatherapy Ltd* would continue to use its original factory as before, to supply its internet customers, with Jill as its manager.

With the new contract signed, Nadia and Jill realised that one of the key elements to ensuring the future success of the business would be how they managed a larger workforce. Thankfully, Jill's father was a Human Resource Management (HRM) specialist who offered the following advice, "Before you do anything else, you must sit down and devise a workforce plan, both on a short-term and long-term basis. Remember, in any business it is the people who are the most important asset."

Jill was given strategic responsibility for all matters involving production and personnel. The new factory opened in January 2003. An experienced Factory Manager, Scott Devine, was appointed and given responsibility for the new capital-intensive factory that would supply the IP plc orders. Following the success of the company's decision to delegate responsibility to the teams, Jill vowed to give him as much freedom as possible. Scott was given one major objective – to achieve production costs that were 25% below those of Jill's factory. He would be assessed and rewarded according to how well that objective was met.

At first, the agreement worked well for *Abacus Aromatherapy Ltd*. IP plc promoted the new products very successfully in their shops and capacity utilisation at Scott's factory rose from 40% to 95% in the first year. However, by the middle of 2004, the factory was unable to meet demand. Fortunately, there was still spare capacity in Jill's factory, and Jill's organisational skills were put to the test by requests from Scott to assist in meeting orders for IP plc 'own brand' products.

D. Troubled times (July 2004 to December 2004)

Nadia was spending more and more time on visits to exotic countries, trying to discover new products that would keep *Abacus Aromatherapy Ltd* ahead of it competitors. As a result, the strategic management of the business suffered because Jill, who took responsibility whilst Nadia was away, was under pressure to both supply the internet orders and meet Scott's constant requests for help.

Matters came to a head when Nadia arrived at the end-of-month management meeting, jet-lagged from a two-week trip to the Amazon rainforest. She had just identified a number of new ingredients that would dramatically increase the product range. However, she was horrified when her assistant gave her a report showing a sharp increase in customer complaints about late deliveries and poor quality in the UK. At the same time, absenteeism in Jill's factory had risen and overall profits were falling. She confronted Jill with the report.

Nadia was shocked by Jill's aggressive reply, "Of course profits are down. I am spending half my time making batches of products for Scott. It is totally illogical to shift production of 'own label' products from a purpose-built factory with advanced flow production techniques to my factory which uses relatively expensive batch production methods. Furthermore, my staff have had to divert their attention away from their own targets to help meet the IP plc orders, and so they are falling behind and making mistakes. The absenteeism isn't deliberate – my staff are ill from over-work, something you should understand, Nadia. The only way I have managed to maintain the level of production of the *Abacus Aromatherapy Ltd* product range is by persuading existing staff to work overtime and by putting on an extra night shift staffed mainly by temporary workers. I'm not surprised that profits are falling – look at my latest productivity figures." Jill slammed a table of figures on to the table (see **Table 1**). "You need to sort out Scott's factory, not this one," shouted Jill, as she stormed out of the room.

Table 1: Productivity figures for Jill's factory

Month	Number of employees (full-time equivalent)	Average weekly output (crates)	Productivity per worker (crates per week)
June 2004	100	12 500	125
July 2004	125	15 000	120
August 2004	150	16 500	110

The following day, Nadia went to see Scott. It was only the second time that she had been to the factory since it had opened 18 months earlier. She was horrified by what she saw. The safety catches on the machines were not in place, and she counted at least five underage workers on the production line. When challenged, Scott defended himself by arguing that it was the only way to get costs to the level that Nadia and Jill had set. Matters worsened when Nadia asked about the work being transferred to Jill's factory. She found that it had increased dramatically because Government Health and Safety Inspectors had threatened to close Scott's factory for safety reasons.

Nadia, Jill and Scott discussed the operation of the factory. IP plc ordered most of its supplies at the end of the month. Scott showed how the addition of a storage area would allow him to build up stocks during quiet periods to meet the sudden orders at the end of each month. It was also agreed that his personal targets would be amended to put more emphasis on quality and delivery, and less on costs.

E. Stability for a while (January 2005 to December 2005)

Abacus Aromatherapy Ltd continued to grow. By mid-2005, profits were in the millions and Nadia and Jill were considering expansion into Europe. However, there was a cloud on the horizon. The Managing Director of IP plc had deliberately leaked the fact that all of its 'own brand' products were supplied by *Abacus Aromatherapy Ltd*. Immediately after this statement, Nadia noticed a fall in internet orders for *Abacus Aromatherapy Ltd* products that matched the increase in orders from IP plc for its 'own brand' labels.

Nadia went to see IP plc's Managing Director in July 2005. Instead of apologising, he blamed Nadia for her incompetence in failing to achieve lower costs from Scott's factory. He went on to say, "Our agreement ends in six months' time and I can tell you that we will be expecting to pay lower prices for the next three years." Nadia could not believe it. Inflation was rising and the prices had been fixed for three years. She had expected an offer of a price rise, but it was obvious that IP plc's Managing Director had always planned to cut the price after three years, believing that *Abacus Aromatherapy Ltd* would be financially dependent on IP plc's orders after three years. She left the meeting with his words ringing in her ears, "If you don't accept a 30% price cut, then you won't get the contract. I have already got a supplier in India who can undercut your present prices by 35%."

Turn over ▶

Nadia suddenly realised the seriousness of the situation. With current minimum wage legislation in the UK, she realised that it would be impossible to compete with producers in countries such as India. Reluctantly, Nadia decided not to accept the IP plc contract.

As a result of this decision, Nadia and Jill reviewed their aims and objectives. In future, their main short-term aim would be survival. Specific objectives that they felt they could achieve were:

- to increase sales revenue from *Abacus Aromatherapy Ltd* products by 10% for each of the next three years;
- to increase added value on their products by as much as possible.

In September 2005, Nadia and Jill sat down to consider their options. They still had the balance of the loan to repay. Overall sales in the UK had stayed the same over the past six months; the company's recent growth had come from the IP plc 'own brand' goods, in the final months of the contract. Their options were as shown in **Table 2**.

Table 2: Options for *Abacus Aromatherapy Ltd*

Option 1	Supply a different chain of pharmacies. Nadia had provisionally agreed a deal with a major chain but it was only half the size of IP plc.
Option 2	Extend sales into Europe. Currently, deliveries are made only to the UK customers.

Nadia knew that this decision was important for the future of *Abacus Aromatherapy Ltd*. She examined the economic data that might help her to reach a decision (see **Appendix A**).

Appendix A: UK economic data (2004–2009)

Year	Economic growth (%)	Interest rates (%)	Value of £ in Indian rupees	Value of £ in euros
2004 (actual)	+3.3	4.5	84.5	1.50
2005 (actual)	+2.4	4.75	88.0	1.50
2006 (forecast)	+2.0	5.0	86.2	1.45
2007 (forecast)	+1.7	4.25	84.0	1.41
2008 (forecast)	+1.6	4.0	81.7	1.37
2009 (forecast)	+3.5	4.0	77.0	1.33

END OF CASE STUDY