

Professional Level – Essentials Module

# Business Analysis

Wednesday 16 December 2009

**Time allowed**

Reading and planning: 15 minutes

Writing: 3 hours

This paper is divided into two sections:

Section A – This ONE question is compulsory and MUST be attempted

Section B – TWO questions ONLY to be attempted

**Do NOT open this paper until instructed by the supervisor.**

**During reading and planning time only the question paper may be annotated. You must NOT write in your answer booklet until instructed by the supervisor.**

**This question paper must not be removed from the examination hall.**

The Association of Chartered Certified Accountants

Paper 3

**ACCA**

## **Section A – This ONE question is compulsory and MUST be attempted**

The following information should be used when answering question 1

### **1 Introduction**

ABC Learning plc (ABCL) is a large training company based in Arcadia. It specialises in professional certification training for accountants, lawyers, business analysts and business consultants. ABCL delivers training through face-to-face courses and e-learning, mainly using full-time lecturing staff. Thirty percent of its revenue is from e-learning solutions. It is constantly seeking new markets and acquisitions to improve shareholder value. It has become aware of the expanding business analysis certification training industry (BACTI) in the neighbouring country of Erewhon. ABCL has commissioned Xenon, a market intelligence company to undertake an analysis of the BACTI market in Erewhon with the aim of assessing its attractiveness and profitability before deciding whether or not to expand into Erewhon. ABCL is aware that an Arcadian competitor, Megatrain, has previously tried to establish itself in this market in Erewhon. Established providers in the BACTI industry in Erewhon responded by price cutting and strengthened promotional campaigns. This was supported by a campaign to discredit the CEO of Megatrain and to highlight its foreign ownership. Within six months Megatrain had withdrawn from the market in Erewhon.

#### **Xenon interim report on the BACTI market in Erewhon – January 2009**

##### **Introduction**

The BACTI market in Erewhon is dominated by three suppliers; CATalyst, Batrain and Ecoba (collectively known as the 'big three'). CATalyst is a wholly owned subsidiary of the Tuition Group, a public limited company quoted on the Erewhon stock market. The last annual report of the Tuition Group identified CATalyst as core to their strategy and a source of significant growth. Batrain is a private limited company, with the shares equally divided between the eight founding directors. Four of these directors are under 40. Ecoba is also a private limited company with 95% of the shares owned by Gillian Vari. The other 5% are owned by her business partner Willy Senterit. Gillian is approaching retirement age.

##### **Delivery model**

Both CATalyst and Batrain have similar delivery models. They employ mainly full-time lecturing staff who are offered attractive salary packages, share options and generous benefits; such as ten weeks paid holiday. Even with these packages they find it hard to recruit. Teaching vacancies are advertised on both of their websites. CATalyst and Batrain both stress their 'brand' in their marketing material. On their websites there is no specific reference to the lecturers who will present each module. In contrast, Ecoba specifically identifies lecturers in both its advertisements (supported by photographs of the lecturers) and on their website, where the lecturer taking the module is specified. All the lecturers are 'high profile' names in the business analysis training community. None of these are directly employed by Ecoba. They are all on fixed-term contracts and are paid a premium daily rate for lecturing and assignment marking. Xenon interviewed Mike Wilson, a named management lecturer and asked him about the arrangement. He said that he felt relatively secure about it. 'Students are attracted to Ecoba because they know I will be teaching a particular module. I suppose I could be substituted by a cheaper lecturer but the students would soon complain that they had been misled.' Mike had also worked as a sub-contractor for CATalyst but no longer did so because he found that a booking could be cancelled at short notice if full-time staff became available. 'Gillian Vari (the MD of Ecoba) is much more transparent and straightforward in her treatment of sub-contract staff. The only problem is the time it takes to pay our invoices. We are always complaining about that.'

The 'big three' are recognised and established brands in the industry. Although the 'big three' are competitors there does appear to be a degree of mutual tolerance of each other. For example, they appear to have co-ordinated their response to the attempted entry of Megatrain into the industry. Three of the directors of Batrain used to work as lecturers for CATalyst and Gillian Vari (the MD of Ecoba) was a director of the company that spawned CATalyst. Mike Wilson has lectured for all of the 'big three' providers. However, there are also, approximately, twenty other providers in the industry in Erewhon (accounting for 20% of the total industry revenue).

##### **Students and providers**

The fees of 60% of students are paid for by their employers. There are around 15 major corporate clients who place significant contracts for certification training with providers. Most (but not all) of these are placed with the 'big three'. CATalyst is particularly strong in managing these contracts, setting up dedicated training sessions and a personalised website to support each contract. However, there is increasing evidence that providers are being played off against each other by the major corporate customers who are seeking to drive down costs. One of the large insurance

companies recently moved all of its training to Ecoba after several years of using CATalyst as its sole provider. Another large customer has also recently moved their training contract to Ecoba because they were impressed by the 'named' lecturers that Ecoba used. Interestingly, in a new move for the industry, WAC, a major supplier of business analysis consultancy services, recently bought one of the smaller business analysis training providers and thus is now able to deliver all of its business analysis training in-house for its own staff.

Business Analysis certification in Erewhon is administered by the EloBA (Erewhon Institute of Business Analysts) which sets the examination. There is no requirement for students to attend a certified training course. In fact 40% of students prepare themselves for the examinations using self-study. One of the smaller BACTI providers has gained some success by offering a blended learning solution that combines tutor support with e-learning modules. Interestingly, the 'big three' all appear to acknowledge the possibilities of e-learning but do not promote it. All three have invested money in specially designed training venues and so they seem committed, at least in the short term, to their classroom-based model.

EloBA runs a certification scheme for providers of training. This operates at three levels; bronze, silver and gold. The 'big three' all have the highest level of certification (gold). Xenon recognises that gold certification offers a significant competitive advantage and that it will take any new entrant more than one year to achieve this level of certification.

**Ecoba Ltd: background**

Ecoba is a private limited company. As well as being its managing director and majority shareholder, Gillian Vari is the only full-time lecturer. Mike Wilson told Xenon that Gillian is averse to employing full-time lecturing staff because 'they have to be paid if courses do not run and also during the long vacations'. Her policy appears to be to minimise overhead training and administrative costs. This may contribute to the slow payment of lecturers. Mike Wilson did comment that the 'full-time administrative staff seem to be under increasing pressure'.

Figure 1 provides comparative data for CATalyst and Batrain. Financial information for Ecoba is presented in Figure 2.

**Figure One: Financial Analysis (all 2008)**

	<b>CATalyst</b>	<b>Batrain</b>
Revenue	\$35,000,000	\$25,000,000
Cost of sales as a percentage of revenue	65%	63%
Average payables settlement period	65 days	60 days
Average receivables settlement period	30 days	35 days
Sales revenue to capital employed	3.36	3.19
Gross profit margin	35%	37%
Net profit margin	6%	8%
Liquidity ratio	0.92	0.93
Gearing ratio	30%	25%
Interest cover ratio	3.25	4.75

**Figure Two: Financial Analysis: Ecoba Ltd**  
**(All figures in \$000)**

*Extract from the statement of financial position*

	<b>2008</b>	<b>2007</b>
Assets		
Non-current assets		
Intangible assets	5,800	5,200
Property, plant, equipment	500	520
Total	6,300	5,720
Current assets		
Inventories	70	90
Trade receivables	4,300	3,000
Cash and cash equivalents	2,100	1,500
Total	6,470	4,590
Total assets	12,770	10,310
Current liabilities		
Trade payables	6,900	4,920
Current tax payable	20	15
Total	6,920	4,935
Non-current liabilities		
Long-term borrowings	200	225
Total	7,120	5,160
Equity		
Share capital	5,100	5,100
Retained earnings	550	50
Total equity and liabilities	12,770	10,310

*Extract from the statement of comprehensive income*

Revenue	22,000	17,000
Cost of sales	(17,500)	(13,750)
Gross profit	4,500	3,250
Overhead expenses	(3,500)	(2,500)
Profit before tax and finance costs	1,000	750
Finance costs	(20)	(20)
Profit before tax	980	730
Tax expense	(30)	(25)
Profit for the year	950	705

**Required:**

- (a) Xenon usually analyses an industry using Porter's five forces framework.

**Using Porter's framework, analyse the business analysis certification industry (BACTI) in Erewhon and assess whether it is an attractive market for ABCL to enter.** (20 marks)

- (b) After considering Xenon's interim report, ABCL decided to enter the business analysis certification training industry (BACTI) in Erewhon through the acquisition of one of the three main providers. In March 2009 they asked Xenon to write a short report to evaluate Ecoba Ltd and to analyse whether it was the most appropriate and attractive of the three possible acquisition targets. You are a business analyst with Xenon and were given the task of writing this report.

**Write the requested short report evaluating Ecoba Ltd and analysing whether it was the most appropriate and attractive of the three possible acquisition targets for ABCL.** (16 marks)

**Professional marks will be awarded in part (b) for clarity and format of your report.** (4 marks)

- (c) In November 2009 ABCL acquired Ecoba Ltd. Gillian Vari agreed to stay on for two years to assist the management of the ownership transition. However, her business partner became seriously ill and ABCL have agreed, on compassionate terms, for her to leave the company immediately. ABCL, from experience, know that they must manage stakeholders very carefully during this transition stage.

**Identify the stakeholders in Ecoba Ltd and analyse how ABCL could successfully manage them during the ownership transition.** (10 marks)

**(50 marks)**

## Section B – TWO questions ONLY to be attempted

### 2 Introduction

IL (Independent Living) is a charity that provides living aids to help elderly and disabled people live independently in their own home. These aids include walkers, wheelchairs, walking frames, crutches, mobility scooters, bath lifts and bathroom and bedroom accessories.

IL aims to employ people who would find it difficult or impossible to work in a conventional office or factory. IL's charitable aim is to provide the opportunity for severely disabled people to 'work with dignity and achieve financial independence'. IL currently employs 200 severely disabled people and 25 able bodied people at its premises on an old disused airfield site. The former aircraft hangars have been turned into either production or storage facilities, all of which have been adapted for severely disabled people.

Smaller items (such as walking frames and crutches) are manufactured here. These are relatively unsophisticated products, manufactured from scrap metal bought from local scrap metal dealers and stored on-site. These products require no testing or training to use and they are packaged and stored after manufacture. IL uses its own lorry to make collections of scrap metal but the lorry is old, unreliable and will soon need replacing.

Larger and more complex items (such as mobility scooters and bath lifts) are bought in bulk from suppliers and stored in the hangars. Delivery of these items to IL is organised by their manufacturers. These products are stored until they are ordered.

When an order is received for such products, the product is unpacked and tested. An IL transfer logo is then applied and the product is re-packaged in the original packing material with an IL label attached. It is then dispatched to the customer. Some inventory is never ordered and last year IL had to write-off a significant amount of obsolete inventory.

All goods are sold at cost plus a margin to cover wages and administrative costs. Prices charged are the same whether goods are ordered over the web or by telephone. Customers can also make a further voluntary donation to help support IL if they wish to. About 30% of customers do make such a donation.

#### Ordering and marketing

IL markets its products by placing single-sided promotional leaflets in hospitals, doctors' surgeries and local social welfare departments. This leaflet provides information about IL and gives a direct phone number and a web address. Customers may purchase products by ringing IL directly or by ordering over their website. The website provides product information and photos of the products which are supplied by IL. It also has a secure payment facility. However, customers who ring IL directly have to discuss product requirements and potential purchases with sales staff over the phone. Each sales discussion takes, on average, ten minutes and only one in two contacts results in a sale. 20% of sales are through their website (up from 15% last year), but many of their customers are unfamiliar with the Internet and do not have access to it.

Goods are delivered to customers by a national courier service. Service and support for the bought-in products (mobility scooters, bath lifts) are supplied by the original manufacturer.

#### Commercial competitors

IL is finding it increasingly difficult to compete with commercial firms offering independent living aids. Last year, the charity made a deficit of \$160,000, and it had to sell some of its airfield land to cover this. Many of the commercial firms it is competing with have sophisticated sales and marketing operations and then arrange delivery to customers directly from manufacturers based in low labour cost countries.

#### Required:

IL fears for its future and has decided to review its value chain to see how it can achieve competitive advantage.

**(a) Analyse the primary activities of the value chain for the product range at IL.** (10 marks)

**(b) Evaluate what changes IL might consider to the primary activities in the value chain to improve their competitiveness, whilst continuing to meet their charitable objectives.** (15 marks)

**(25 marks)**

### 3 Branch rationalisation project

Four years ago Lowlands Bank acquired Doe Bank, one of its smaller rivals. Both had relatively large local branch bank networks and the newly merged bank (now called LDB) found that it now had duplicated branches in many towns. One year after the takeover was finalised, LDB set up a project to review the branch bank network and carry out a rationalisation that aimed to cut the number of branches by at least 20% and branch employment costs by at least 10%. It was agreed that the project should be completed in two years. There were to be no compulsory staff redundancies. All branch employment savings would have to be realised through voluntary redundancy and natural wastage.

LDB appointed its operations director, Len Peters as the sponsor of the project. The designated project manager was Glenys Hopkins, an experienced project manager who had worked for Lowlands Bank for over fifteen years. The project team consisted of six employees who formerly worked for Lowlands Bank and six employees who formerly worked for Doe Bank. They were seconded full-time to the project.

#### Project issues and conclusion

During the project there were two major issues. The first concerned the precise terms of the voluntary redundancy arrangements. The terms of the offer were quickly specified by Len Peters. The second issue arose one year into the project and it concerned the amount of time it took to dispose of unwanted branches. The original project estimates had underestimated how long it would take to sell property the bank owned or to re-assign or terminate the leases for branches it rented. The project board overseeing the project agreed to the project manager's submission that the estimates had been too optimistic and they extended the project deadline for a further six months.

The project team completed the required changes one week before the rearranged deadline. Glenys Hopkins was able to confirm that the branch network had been cut by 23%. Six months later, in a benefits realisation review, she was also able to confirm that branch employment costs had been reduced by 12%. At a post-project review the project support office of the bank confirmed that they had changed their project estimating assumptions to reflect the experience of the project team.

#### Potential process initiatives

LDB is now ready to undertake three process initiatives in the Information Technology area. The IT departments and systems of the two banks are still separate. The three process initiatives under consideration are:

1. The integration of the two bespoke payroll systems currently operated by the two banks into one consolidated payroll system. This will save the costs of updating and maintaining two separate systems.
2. The updating of all personal desktop computer hardware and software to reflect contemporary technologies and the subsequent maintenance of that hardware. This will allow the desktop to be standardised and bring staff efficiency savings.
3. The bank has recently identified the need for a private personal banking service for wealthy customers. Processes, systems and software have to be developed to support this new service. High net worth customers have been identified by the bank as an important growth area.

The bank will consider three **solution options** for each initiative. These are outsourcing or software package solution or bespoke development.

#### Required:

- (a) The branch rationalisation was a successful project.

**Identify and analyse the elements of good project management that helped make the branch rationalisation project successful.** (12 marks)

- (b) The bank has identified three further desirable process initiatives (see above).

(i) **Explain, using Harmon's process-strategy matrix, how the complexity and strategic importance of process initiatives can be classified.** (4 marks)

(ii) **Recommend and justify a solution option for each of the three process initiatives.** (9 marks)

**(25 marks)**

#### 4 Introduction

WyAvionics (WyAv) specialises in the production of aircraft engine monitoring software. It is the responsibility of their software to continuously monitor engines and to send appropriate data, in real-time, to the cockpit. Information is presented to the pilot in the form of digital outputs and graphs. The software must also alert the pilot when the engine is performing outside pre-determined limits. Audible alarms warn the pilot of a potential failure of an engine.

WyAv produce their software directly for aircraft engine manufacturers. Versions of the software are produced for each engine. The software was first used ten years ago. A major upgrade was produced five years ago which made detailed changes to the way information was presented to the pilot. This was a result of government recommendations that were made arising from the loss of an aircraft where the pilot shut down the wrong engine. The software had reported correctly, but the pilot had confused data from the port and starboard engines and so mistakenly shut down the good engine and tried to land on the faulty engine, with fatal results. Since this time, WyAv have constantly striven to improve the usability of the software.

##### Development lifecycles

The requirements for the software are produced by the engine manufacturers. These requirements are usually (90% of the time) for delivering changes to established software solutions to reflect detailed changes in the design of an established engine. Software engineers at WyAv must evaluate the engine design changes and assess their impact on the software. Once these impacts have been agreed with the manufacturer (and a price and a delivery date for the upgraded software agreed), then detailed code design changes are specified and given to individual programming teams for development. All programming is done in pairs with one of the programmers reviewing the other's program code as it is produced. The programming team leader also inspects all code changes to ensure adherence to company standards. The software is extensively tested before it is released to the engine manufacturer. WyAv software engineers assist the manufacturers in further tests before the software is released for live use.

Occasionally (10% of the time) the software requirements are for a completely new engine. In this instance WyAv's software engineers are brought into the design much earlier to ensure that the monitoring software is an integral part of the total design. The construction of the software to meet the finalised requirements is developed, as much as possible, from tried and trusted software components already in use in established software. It is one of WyAv's objectives to develop well-tested reusable software components which can be used in as many systems as possible. As its CEO commented 'this increases speed to market, profitability and quality'.

The organisation uses a formal V model for developing new software and new versions of established software solutions. This is mandated by the aircraft manufacturers and the government of the country. A large sign dominates the software development area. It reads 'Quality is not optional – lives are at stake.' However, senior engineers within the company have recently voiced their concern that requirements from engine manufacturers are getting less specific. One experienced engineer commented that 'manufacturers are requesting costs and timescales before they themselves have finalised the engine design changes. I also notice that price reduction is a major issue. Three years ago nobody queried our prices. Nowadays, with the economic downturn, almost half of our price quotations are queried.'

##### Required:

- (a) **Identify the characteristics of software quality and explain the appropriateness of each characteristic to the engine monitoring software supplied by WyAv.** (12 marks)
- (b) WyAv uses a formal V model lifecycle for developing software.

**Explain the principles of the V model and evaluate its use in defining and testing changes to WyAv's established software solution.** (13 marks)

**(25 marks)**

**End of Question Paper**