

Professional Level – Essentials Module

# Business Analysis

Monday 8 December 2014



**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 P3

**ACCA**

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

### **1 Roam Group Co**

Roam Group Co (The Roam Group) was formed in 2009 when the owners of Stuart Roam Road Transport decided to create a group structure to facilitate the acquisition of companies. The CEO of The Roam Group is Sir John Watt, a highly experienced businessman and he has a financial director and an operations director to assist him. The objectives of The Roam Group is to acquire companies which fit well with its existing companies, which would benefit from being part of the Group and which would also bring benefits to companies already in the Group. The Roam Group is a very lean operation. Besides the three full-time directors, it only has two full-time administrative employees. There are currently three operating companies in the Group: Stuart Roam Road Transport, Stuart Roam Warehousing and Stuart Roam Rail. The managing directors of all three operating companies also sit on the board of The Roam Group. Each of these operating companies has significant autonomy within the Group.

The Roam Group, like all the operating companies in the Group, has the majority of its shares owned by the Roam family. Financial information for the operating companies is given in Table One. The Roam Group and its operating companies are all based in the country of Meeland.

#### **Stuart Roam Road Transport**

Stuart Roam Road Transport (SRRT) was founded in 1955 by Stuart Roam. It has grown to be the largest road freight company in Meeland, with over 2,000 trucks. It specialises in the haulage of consumer food and drink and it has significant contracts with most of the large supermarket chains. There are no toll roads in Meeland. Taxes for roads are levied through a fuel tax and an annual road fund licence. The managing director of SRRT is Stuart Roam junior, who was originally employed by his father as a driver. He still drives a truck for one day every month, so that 'he never loses touch with the business'. SRRT's distinctive red and white trucks are seen all over the country, and all carry the company's catchphrase 'All roads lead to Roam'. They have attracted a fan club, whose members spot the trucks on the road and record their movements on a dedicated internet site. These so-called 'New-Roamantics' have themselves become famous and, partly as a result of this, Stuart Roam has become a household name and is the most recognisable brand in the road transport industry. To maintain a modern fleet, SRRT replaces its trucks every three years. It wants to ensure that they are reliable, efficient and that they project a modern image which is attractive to their customers.

#### **Stuart Roam Warehousing**

The growth of company outsourcing and consumer internet purchasing made it increasingly clear that SRRT's customers wanted an integrated transport and storage solution. The Roam Group acquired a number of warehouses from its customers who wished to divest themselves of this part of their operations. In 2009, it consolidated these, together with a number of small warehousing companies it had acquired, into a company called Stuart Roam Warehousing (SRW). The 2010 figures shown in Table One represent the first year that the company traded in its current form. Nationwide, it owns 4 million square metres of warehousing, with its warehouses painted red and white and prominently displaying the Stuart Roam logo. The warehouses are efficient and highly automated. However, development land for warehouses is getting more difficult to find and acquisition costs of the land are also increasing. The average price for warehouse development land in Meeland is now \$20,000 per hectare. A hectare is 10,000 square metres.

#### **Stuart Roam Rail**

Increasing fuel costs, increasing road congestion and concern about the environmental consequences of road transport caused The Roam Group to look at opportunities offered by rail transport.

In 2010 The Roam Group purchased the Freight Direct Rail Company (FDRC). FDRC was formed in 2000 when the government of Meeland privatised the rail freight business. FDRC had struggled to survive in a business dominated by two large companies who shared the lucrative bulk freight contracts (coal, iron ore and oil) between them. The FDRC board welcomed The Roam Group acquisition and the locomotives were quickly painted in the red and white corporate colours and FDRC was renamed Stuart Roam Rail. However, despite experienced managers being transferred into the company from other companies in the Group, Stuart Roam Rail (like FDRC) has struggled to make a significant impact in the rail freight sector. Most of its customers are at locations which are not directly accessible by rail. Furthermore, the lucrative bulk rail freight contracts (coal, iron ore and oil) are in products which companies within The Roam Group have no experience in. It is still unclear whether the movement of consumer food and drink to multiple locations (The Roam Group's core business) is suited to rail transport. Furthermore, it has also been

difficult for The Roam Group's senior management to understand the culture and economics of the rail freight business. The railway tracks, which are still owned by the state, are subject to very close control and monitoring and Stuart Roam Rail's use of these tracks is directly charged. There has also been a failure to recognise that train driving requires far greater skills and training than truck driving.

However, on the positive side, Stuart Roam Rail has developed an innovative mini-container system which can easily transfer goods between trucks and trains and it also effectively uses warehouse space. Furthermore, most of the supermarkets, attracted by a green image, are very supportive of the rail initiative and wish to be associated with it.

	2013		2012		2011		2010		2009	
	Roam	Industry								
Stuart Roam Road Transport										
Revenue	575	2,050	565	2,025	550	2,015	520	2,050	500	2,000
Operating profit	10·80%	9·98%	10·75%	9·95%	10·80%	9·93%	10·45%	9·50%	10·25%	9·57%
ROCE	12·25%	11·50%	12·15%	11·45%	12·05%	11·45%	11·95%	11·30%	11·95%	11·35%
Stuart Roam Warehousing										
Revenue	315	3,200	275	3,010	270	3,050	255	2,950	250	2,850
Operating profit	14·55%	14·50%	14·25%	14·15%	14·20%	14·25%	14·00%	14·25%	13·85%	14·15%
ROCE	14·50%	14·15%	14·25%	14·10%	14·15%	14·10%	13·95%	13·90%	13·95%	13·85%
Stuart Roam Rail										
Revenue	112	3,150	110	3,000	105	2,850	105	2,650	105	2,500
Operating profit	4·75%	12·45%	4·50%	12·35%	4·85%	12·25%	4·95%	12·75%	5·15%	12·85%
ROCE	3·50%	8·75%	3·65%	8·55%	3·75%	8·55%	3·85%	8·35%	3·85%	8·25%

**Table One: Financial data for operating companies in The Roam Group.**

The performance of the company is shown under the columns headed Roam. Industry figures (provided by Freight Line International) are shown under the columns headed Industry. Operating profit and ROCE figures are averages for the industry while revenue figures are totals. All revenue figures are in \$million.

**Note 1:** Stuart Roam Warehousing first traded in 2010. The 2009 figure is compiled from companies which were consolidated into Stuart Roam Warehousing.

**Note 2:** Stuart Roam Rail was formed after the takeover of FDRC. 2011 was the first reporting period for Stuart Roam Rail. The 2009 and 2010 figures are for FDRC.

**Note 3:** The standard payment terms in Meeland is payment within 30 days of the invoice date.

### Godiva airport

The Godiva airport is situated on the outskirts of Boleyn town where SRRT already has three transport depots and warehouses. The airport occupies a site of 450 hectares and it has two tarmac runways, four hangers and a small terminal/flying club facility. The airfield is exclusively used by private flyers and two flying clubs. The airport is adjacent to the motorway which connects North and South Meeland. Financial information for Godiva airport is given in Table Two.

**All figures in \$000s****Assets****Non-current assets**

Property, plant and equipment	6,000
Goodwill	250
Total non-current assets	<u>6,250</u>

**Current assets**

Inventory	550
Trade receivables	80
Cash	370
Total current assets	<u>1,000</u>

<b>Total assets</b>	<u><u>7,250</u></u>
---------------------	---------------------

**Equity and liabilities**

Share capital	2,550
Retained earnings	250
Total equity	<u>2,800</u>

**Non-current liabilities**

Long-term borrowings	<u>4,050</u>
----------------------	--------------

**Current liabilities**

Trade payables	120
Short-term borrowings	250
Current tax payable	30
Total current liabilities	<u>400</u>

Total liabilities	<u>4,450</u>
-------------------	--------------

<b>Total equity and liabilities</b>	<u><u>7,250</u></u>
-------------------------------------	---------------------

**Statement of profit or loss**

Revenue	975
Cost of sales	<u>(700)</u>
Gross profit	275
Administrative expenses	(125)
Finance costs	<u>(100)</u>
Profit before tax	50
Tax expense	<u>(10)</u>
Profit for the period	<u><u>40</u></u>

**Table Two: Godiva airport – extracts from financial statements – 2013**

The Roam Group has recently issued the following press release from Sir John Watt:

*The Roam Group is pleased to announce that it has signed an initial agreement to purchase Godiva airport from the Godiva Airport Company for the sum of \$7m, funded from retained profits from within the Group. We see this as a natural extension of our transport capabilities. Road, rail and air have long been complementary forms of transport and we are pleased to be able to offer our customers all three, using our innovative mini-container system as an effective transshipment method between transport modes. We also hope to attract a no-frills airline to the airport, encouraged by low landing fees and a population of over 150,000 people living within 20 miles of the airport. Godiva Airport Company will become an operating company within The Roam Group, and renamed Stuart Roam Air.*

In a critical article on the proposed airport acquisition in the financial press, an independent aviation consultant has provided national performance statistics for airports of a similar size and type to Godiva airport (see Table Three).

Operating profit margin	Return on Capital Employed	Current ratio	Acid test ratio	Gearing ratio
17.5%	8.5%	2.25	1.50	40%

**Table Three: Average national performance figures for medium-sized light aviation airports: 2013**

He has also cast doubt on Sir John Watt's statement about attracting a no-frills airline to the airport. He says that a local regional population of at least 500,000 people is required to make such a service attractive. He believes that the population of the Boleyn area is much too small to make passenger services economical.

**Required:**

**(a) Write an independent report which:**

**(i) Evaluates the current performance and contribution of each of the three current operating companies in The Roam Group portfolio and assesses their relative significance in its future strategy. (21 marks)**

**(ii) Evaluates the proposed acquisition of Godiva airport. (15 marks)**

Professional marks will be allocated in part (a) for the clarity, structure, logical flow and appropriate tone of your answer. (4 marks)

**(b) A Business Analysis research student has suggested that Stuart Roam Road Transport (SRRT) pursues a hybrid strategy of offering a price lower than its competitors, whilst simultaneously attempting to achieve differentiation.**

**Required:**

**Discuss how both elements of this route to competitive advantage (price and differentiation) might be achieved by Stuart Roam Road Transport. (10 marks)**

**(50 marks)**

**Section B – TWO questions ONLY to be attempted**

2 Stella Electronics (SE) owns a chain of electrical retail stores throughout the country of Arborium. The company sells to the general public through its stores and website. It has outsourced three areas of a business process to Terra Call Generale (TCG), a call centre specialist based overseas. They handle, on behalf of SE, the following calls:

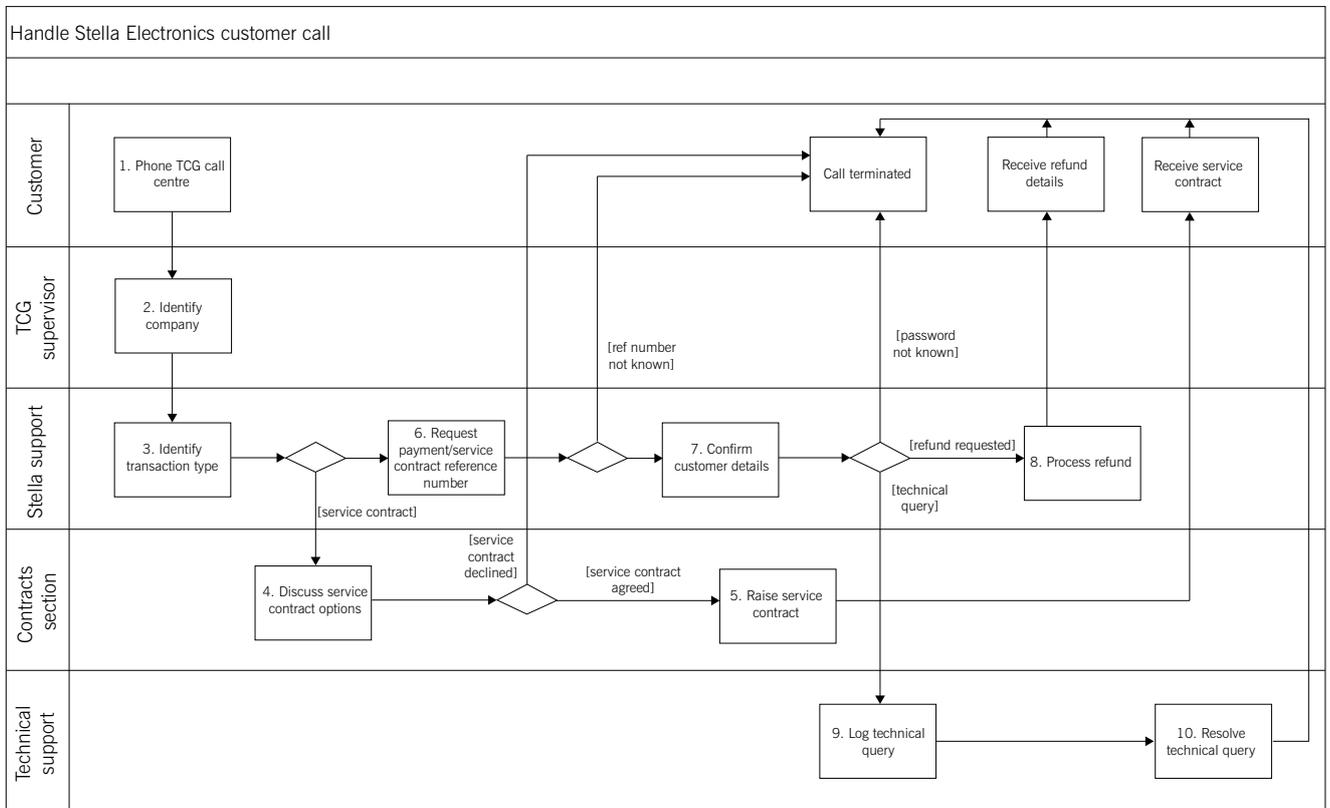
- Customers requesting service contracts
- Customers requesting refunds for goods purchased from the SE website
- Customers with technical queries about the products they have bought.

The business process for handling these calls is given in Figure 1.

SE is currently reviewing the renewal of the TCG contract in the light of customer complaints about:

- The time taken to complete a query
- The frustration caused by the need to provide a reference number and password
- The problem of understanding the accents of the people in the call centre.

Unemployment is rising in Arborium and there is increased resistance to services being outsourced and offshored to companies such as TCG. SE is aware of the growing hostility of customers to such arrangements.



**Figure 1: Business process for handling a Stella Electronics customer call**

**Call centre processing (TCG) – to be read in conjunction with Figure 1**

1. The process is initiated by a customer phoning the TCG call centre.
2. TCG offers call centre services to a number of companies. The supervisor asks the customer which company they are phoning about. Calls for SE are routed to Stella support. Calls for other companies are routed to other support teams (not shown here).
3. The TCG support operator asks the customer what their call is about. Three transaction types are possible.
4. Callers who wish to discuss a service contract are passed immediately to the contracts section. Service contract options are discussed and if the caller decides to buy a service contract, then this is raised in the next activity in the process (5: Raise service contract).

5. Raise service contract and details are emailed to the customer. If the caller decides not to have a service contract, then the call is terminated.
6. For all other transaction types, Stella support asks the customer for their payment reference number or service contract reference number. If the customer cannot supply either of these, then the call is terminated. If the reference number is provided, then the support team member enters it into the computer system.
7. The computer system retrieves customer details and these are confirmed by the support team member with the customer. These details include a password which the customer has to give. Failure to give the correct password leads to the call being terminated.
8. If the password is correct and the customer requires a purchase refund, then the refund is processed and details emailed to the customer and the call is terminated.
9. If the password is correct and the customer has a technical query, then the call is passed to technical support who log and then resolve (process 10) the query before terminating the call.

**Further information:**

- TCG provides a 24 hour/7 days per week service. There are 600 calls per 24 hours from SE customers.
- 60% are technical queries, 25% are requests for refunds and 15% are for service contracts.
- 30% of customers do not know their payment/service reference number.
- 5% of customers who do know their payment/service reference number are unable to remember their password.
- TCG charges SE \$1 for every call they take (so, typically \$600 per day).
- TCG has ten staff dedicated to SE: six in technical support, one in the contracts section and three in SE support.
- SE has calculated that it would cost \$50 to employ one equivalent employee in Arborium for an eight hour shift.

**Required:**

- (a) **Evaluate the current process for handling SE's customer calls at TCG and suggest improvements to that process at TCG.** (15 marks)
- (b) **Discuss whether SE should continue outsourcing its customer call handling process to TCG or should it bring the process in-house.** (10 marks)

**(25 marks)**

- 3 This information was taken from an internal newsletter of The Knowledge Partnership LLP (TKP), a company which offers project and software consultancy work for clients based in Zeeland. The newsletter was dated 2 November 2014 and describes two projects currently being undertaken by the partnership.

#### **Project One**

In this project, one of our clients was just about to place a contract for a time recording system to help them monitor and estimate construction contracts when we were called in by the Finance Director. He was concerned about the company supplying the software package. 'They only have an annual revenue of \$5m', he said, 'and that worries me.' TKP analysed software companies operating in Zeeland. It found that 200 software companies were registered in Zeeland with annual revenues of between \$3m and \$10m. Of these, 20 went out of business last year. This compared to a 1% failure rate for software companies with revenues of more than \$100m per year. We presented this information to the client and suggested that this could cause a short-term support problem. The client immediately re-opened the procurement process. Eventually they bought a solution from a much larger well-known software supplier. It is a popular software solution, used in many larger companies.

The client has now asked us to help with the implementation of the package. A budget for the project has been agreed and has been documented in an agreed, signed-off, business case. The client has a policy of never re-visiting its business cases once they have been accepted; they see this as essential for effective cost control. We are currently working with the primary users of the software – account managers (using time and cost data to monitor contracts) and the project support office (using time and cost data to improve contract estimating) – to ensure that they can use the software effectively when it is implemented. We have also given 'drop in' briefing sessions for the client's employees who are entering the time and cost data analysed by the software. They already record this information on a legacy system and so all they will see is a bright new user interface, but we need to keep them informed about our implementation. We are also looking at data migration from the current legacy system. We think some of the current data might be of poor quality, so we have established a strategy for data cleansing (through offshore data input) if this problem materialises. We currently estimate that the project will go live in May 2015.

#### **Project Two**

In this project, the client is the developer of the iProjector, a tiny phone-size projector which is portable, easy to use and offers high definition projection. The client was concerned that their product is completely dependent on a specialist image-enhancing chip designed and produced by a small start-up technology company. They asked TKP to investigate this company. We confirmed their fears. The company has been trading for less than three years and it has a very inexperienced management team. We suggested that the client should establish an escrow agreement for design details of the chip and suggested a suitable third party to hold this agreement. We also suggested that significant stocks of the chip should be maintained. The client also asked TKP to look at establishing patents for the iProjector throughout the world. Again, using our customer contacts, we put them in touch with a company which specialises in this. We are currently engaged with the client in examining the risk that a major telephone producer will launch a competitive product with functionality and features similar to the iProjector.

The iProjector is due to be launched on 1 May 2015 and we have been engaged to give advice on the launch of the product. The launch has been heavily publicised, a prestigious venue booked and over 400 attendees are expected. TKP have arranged for many newspaper journalists to attend. The product is not quite finished, so although orders will be taken at the launch, the product is not expected to ship until June 2015.

#### **Further information:**

TKP only undertakes projects in the business culture which it understands and where it feels comfortable. Consequently, it does not undertake assignments outside Zeeland.

TKP has \$10,000,000 of consultant's liability insurance underwritten by Zeeland Insurance Group (ZIG).

**Required:**

- (a) Analyse how TKP itself and the two projects described in the scenario demonstrate the principles of effective risk management. (15 marks)
- (b) Describe the principle of the triple constraint (scope, time and cost) on projects and discuss its implications in the two projects described in the scenario. (10 marks)

**(25 marks)**

4 Noble Pets is one of four companies which dominate the pet food market in the country of Brellia. Between them, these four companies share 90% of the market. Noble Pets was established in 1930 in the market town of Milton. Its factory (plant) was updated in 1970 with new canning and labelling technology. However, further developments and expansion to the factory site were prevented by the rapid growth of housing in Milton. The factory, which was once on the edge of the town, is now surrounded by modern housing development. The town is also relatively remote from the motorway network which has been developed in Brellia since 1960. Trucks transporting goods in and out of the plant have to negotiate relatively minor rural roads and also have to pass through the town centre of Milton, which is often very congested. Furthermore, the large 44 tonne trucks which Noble Pets and its competitors use, wherever possible, to distribute cans of pet food to wholesalers and supermarket distribution centres are banned from the centre of the town. Thus distribution out of the Milton plant is undertaken with smaller 36 tonne trucks, which are less cost-effective. However, residents find even this size of truck too large, complaining that they keep them awake at night.

The Milton plant is solely concerned with the production of moist pet food. Raw foodstuff and empty unlabelled cans are brought into the plant, where the foodstuff is cooked and put into cans which are then labelled and distributed to wholesalers or supermarket distribution centres. Many of these distribution centres, like Noble Pets' competitors, are now located on or near the motorway network. Although the recipe for the pet food is very similar to its competitors, Noble Pets has a reputation for producing a quality product. This quality has been promoted ever since the company's formation by clever marketing campaigns which stress the importance of giving your pet good food, and the superior nature of Noble Pets' products to its competitors. This has traditionally been supported by free fact guides and information promoting responsible pet ownership and nutrition. The company now has a website dedicated to giving advice and guidance. This advice appears to be unbiased, although recommended solutions to pet problems often involve Noble Pets' products.

Noble Pets is currently reviewing its operations and has asked external consultants to assess the Milton plant from a value chain perspective. It has provided the following table (Table One) to help in that analysis. Average figures for its competitors are also provided.

<b>Production cost of a six can pack of moist pet food</b>	<b>Milton Factory</b>	<b>Competitor A</b>	<b>Competitor B</b>	<b>Competitor C</b>
<b>All figures in \$</b>				
Raw foodstuff costs	0.10	0.10	0.09	0.15
Cost of cans	0.05	0.10	0.06	0.05
Direct labour costs	0.25	0.25	0.30	0.24
Production costs	0.30	0.25	0.20	0.26
Transport costs (good inward)	0.15	0.10	0.10	0.12
Transport costs (good outward)	0.10	0.05	0.05	0.08
<b>Sales price (to customer)</b>	<b>1.25</b>	<b>1.15</b>	<b>1.10</b>	<b>1.20</b>

**Table One: Direct costs of the Milton plant compared to major competitors**

Dry pet food is an alternative to moist pet food. It is packaged in bags and it is in the form of a biscuit. Many people who buy pet food prefer the dry food because it does not smell and can be left in the pet's bowl for longer. Noble Pets also produces dry pet food, but not at its Milton plant. It would like to reduce costs at Milton but it is concerned that the demand for moist pet food will not justify such investment. Consequently, it has also asked the consultants to look at the pet food market as a whole and to forecast demand for moist pet food for the next three years (2014, 2015 and 2016). It is aware that new technology is available (and is already being used by its competitors) which offers more efficient and reliable canning, but it is not sure that it is worth investing in.

The consultants have identified the following information provided by the Pet Food Industry Group.

Years	Year (x)	Moist pet food (000s tonnes) (y)	Dry pet food (000s tonnes)
2007	1	370	292
2008	2	350	307
2009	3	331	321
2010	4	325	329
2011	5	315	341
2012	6	310	351
2013	7	310	359

**Table Two: Production of pet food (2007–2013)**

A linear regression analysis has been conducted for the moist food production. Time (years) is represented as  $x$  (the independent variable) and moist pet food volume as  $y$ . The linear regression analysis has identified the following values of  $a$ ,  $b$  and  $r$  for the relationship between time and moist pet food production.

$a$	$b$	$r$
369.5714	-9.86	-0.94432

Noble Pets currently has a market share of 30% of the moist food market, a share which has remained unchanged since 2007. It has three sites. As well as the Milton plant it has two other plants. These two plants combined have an annual maximum capacity of 40,000 tonnes of moist pet food.

**Required:**

- (a) Evaluate the strengths and weaknesses of the Milton plant from the perspective of the primary activities of a value chain analysis. (15 marks)
- (b) (i) Analyse trends in the pet food industry; (5 marks)
- (ii) Forecast demand for moist pet food for the next three years, as required by Noble Pets, using the regression formula given and comment on the validity and implications of that forecast. (5 marks)

**(25 marks)**

**End of Question Paper**