Professional Level – Essentials Module

Business Analysis

September/December 2016 – Sample Questions

Time allowed: 3 hours 15 minutes

This question 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 question paper until instructed by the supervisor.

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

Paper P3

Think Ahead ACCA

The Association of Chartered Certified Accountants

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

1 Introduction

Man Lal relaxed in business class as the aircraft skimmed across the Uril Mountains. Generally he considered himself a contented man. He had successfully built his company, Ling, to be the largest light bulb manufacturing company in the world, with global revenues of $750m. From its factories in Lindisztan it supplied a worldwide market for LED (light emitting diodes) light bulbs. Lal congratulated himself on the fact that he had quickly spotted the potential of LED light bulbs and had entered large-scale production whilst his rivals were still focusing their production on candescent and halogen bulbs. The world now realised that LED light bulbs provided a cheaper, more energy efficient, greener solution than all of its alternatives. To that end, many countries had passed legislation requiring domestic and business consumers to replace candescent light bulbs with greener equivalents. In fact, he was on his way right now to Skod, a country which had passed efficient lighting legislation which, from 2017, banned the use of candescent bulbs in commercial premises and outlawed their production and importation after that date. Domestic consumers were expected to replace their candescent bulbs with newer technology as their bulbs failed. Man Lal confidently expected that LED would be, for many, the newer technology of choice.

The visit to Skod was of great significance to Man Lal because it was here that he did his business studies degree at Skodmore University. Indeed, he was due to give a lecture to the staff and students of the university the following day and he felt great personal pride in returning to describe the extent of his success and the fulfilment of his personal ambitions. He was also planning to visit a company called Flick which Ling was considering acquiring. This would be a new growth method for Ling. Up to now its worldwide expansion had been achieved by establishing wholly owned distribution companies in each targeted country. All production had remained in Lindisztan. However, for various reasons, Ling was now considering entering the Skod market by acquiring one of its light bulb producers, Flick.

In fact, remembering this brought a slight frown across Man Lal's face. To help fund his global expansion, he had sold 49% of Ling to institutional investors. These institutional investors required growth and high dividends and he was having difficulty meeting their demands. There was now very little growth in the domestic Lindisztan market and the distribution approach used to expand into foreign countries was taking a long time to mature. The investors were demanding quicker growth and acquisitions appeared to promise this. Despite paying high dividends over the last few years, the company still had significant retained profits and this was another issue for the institutional shareholders. They felt that this money should be used to promote growth and have agreed to a $400m acquisition fund. So, thought Man Lal, what better place to start those acquisitions than Skod, the place where I studied as a poor overseas student so many years ago. However, he had to admit to himself, he was still much happier with organic growth through setting up his own distribution companies. Ling had made a few acquisitions in Lindisztan, but had never bought a foreign company and he was worried about the risk of failure.

Turbulence buffeted the aircraft as it made its final descent into the capital of Skod. To distract himself, Man Lal picked up the latest copy of *Lighting Tomorrow*, the research magazine of the light bulb industry. He skim read an article on tubular daylight lighting which promised to reduce the need for electric lighting by introducing more daylight into a building. Effective daylighting (it said) is achieved through the strategic placement of skylights and windows, as well as lighting controls which monitor available daylight and respond as needed to decrease or increase electric lighting. Perhaps I need to look into this, thought Man Lal.

At the airport, Man Lal took a taxi to his hotel. He could not help but notice that Skod was not as neat and tidy as it used to be. A lot of shops and buildings had been closed down and there was graffiti across many buildings and bridges. 'Skod for Skodders', said one, 'Skod jobs for Skod people', said another. Man Lal remembered now that the Skod nationalist movement had become increasingly popular. He mentioned this to the taxi driver. 'Yes', he said, 'Most people are fed up with Skod being pushed around by the International Financing Consortium (IFC), we want prosperity and jobs for people who grew up here.'

Slightly unnerved, Man Lal, checked in at the hotel. He switched on the television. He watched with interest as Niklas Perch, the newly elected nationalist leader of the Skod government, outlined his plans for the future.

'We are committed to a return to prosperity', he said. 'To achieve this we have to make some short-term adjustments which may be unpopular with our trading partners. We are currently considering the imposition of import taxes as a way of protecting our home industry. We wish to create a protected commercial environment here in Skod in which our companies can prosper.

‘We must also ask our citizens to continue with their energy saving measures. As you know, the government has agreed that all street lighting will be turned off from 2300 hours to 0500 hours. I have also decreed that all government offices must proactively embrace energy saving lighting and heating. In the same way, I expect our citizens to look at ways of saving money and energy.

‘The government also recognises that the country continues to be in a recession, and that disposable income is falling for all people. However, I cannot condone the recent demonstrations against, and boycott of, foreign goods and food products. We must rebuild our country peacefully and legally. I would ask all citizens to support me in this.’

Just then, the air conditioning failed and the television went off. Another energy failure in Skod. There were three further failures that night. The hotel manager apologised to Man Lal in the morning. ‘I am sorry’, he said ‘but despite higher energy prices, this is an increasing feature of life in Skod.’

Skod electric light bulb industry

All electric light bulbs are largely made out of glass and metal and this is likely to remain the same in the foreseeable future. In Skod, 90% of glass is produced by three companies. However, for all of these three companies, light bulb manufacturers are unimportant customers. Most glass manufacture goes to the construction industry, light bulb manufacturers take less than 0·5% of the country’s glass production. Metal manufacture in Skod is dominated by one company, OmniMetal. Most metal is sold to the automobile industry. Light bulb manufacturers take less than 0·1% of OmniMetal’s production. However, the quality of glass and metal required by the light bulb manufacturers is quite standard, so switching between suppliers is, in theory, relatively easy. Light bulb manufacture takes place in factories which require substantial initial investment and have no obvious alternative use.

In Skod, light bulbs are low cost commodity products which are replaced infrequently by domestic consumers. Commercial consumers change their light bulbs a little more often and some businesses have recently switched all their bulbs to LED to save energy, reduce costs in the long term and to reflect their aspirations as ‘green businesses’. There is very little brand awareness in the light bulb market and all the light bulbs have to fit the standard sockets used in the country.

Electric light bulb manufacture in Skod is dominated by the five companies listed in Table One. Two years ago a large American light bulb manufacturer, Krysal, attempted to enter the market. The five dominant companies in the industry reacted to this by cutting prices, running marketing campaigns which emphasised the benefits to the country of home-based production and lobbying supermarket groups to not stock products produced by the new entrant. Krysal withdrew from the market after six months. When not focused on fighting new entrants, the five main competitors are regularly involved in price cutting, disruption of competitors’ distribution channels and aggressive marketing.

Company	Revenue (2015)	Revenue (2010)
Voltface	$85m	$80m
LiteWorld	$80m	$80m
Flick	$70m	$65m
ABC	$65m	$60m
L2L	$60m	$60m
Other companies	$140m	$145m
Total	**$500m**	**$490m**

Table One: Skod-based light bulb manufacturers

The products produced by the Skod light bulb industry are largely sold through supermarket groups (50%), household product superstores (30%) and large electrical chains (10%). The rest of the production is sold through small shops, except for a tiny percentage of production (less than 1%) which is sold directly to large organisations, such as government departments. However, light bulbs do not constitute a large sales item for any of these distribution channels. In fact, in a recent report, light bulb sales were one of the products which contributed less than 0·1% of a major supermarket’s revenue.

The light bulb companies in Skod have largely focused on candescent (60% of production) and halogen (30% of production) technologies. Man Lal intends to fund the updating of the production facilities at Flick to allow the production of LED lights, alongside the continued production of candescent and halogen light bulbs. He wants to achieve this before domestic competitors in Skod gear up their own LED light bulb production. He believes that Ling’s competencies in LED manufacture will give Flick a head start. Initial discussions with Flick suggest that the company is open to acquisition and a bid price has been agreed which is acceptable to both parties. Financial information for Flick and the Skod light bulb industry as a whole is shown in Appendix One.

Appendix One: Financial information for Flick and the Skod light bulb industry

Extract from financial statements

All figures in $millions

	Flick 2015	Skod industry totals 2015
Assets		
Non-current assets		
Property, plant, equipment	190	1,635
Goodwill	10	100
Total non-current assets	200	1,735
Current assets		
Inventory	45	200
Trade receivables	20	250
Cash and cash equivalents	35	115
Total current assets	100	565
Total assets	300	2,300
Equity and liabilities		
Share capital	150	1,000
Retained earnings	50	340
Non-current liabilities		
Long-term borrowings	70	750
Current liabilities		
Trade payables	29	200
Current tax payable	1	10
Total current liabilities	30	210
Total liabilities	100	960
Total equity and liabilities	300	2,300
Revenue	70·0	500·0
Cost of sales	(55·0)	(350·0)
Gross profit	15·0	150·0
Administrative expenses	(4·0)	(30·0)
Profit before tax and interest	11·0	120·0
Finance cost	(2·5)	(50·0)
Profit before tax	8·5	70·0
Tax expense	(1·0)	(12·0)
Profit for the period	7·5	58·0

Note: The Industry total column is for the Skod light bulb industry as a whole (including Flick).

Required:

(a) **Analyse the macro-environmental factors affecting the Skod light bulb industry using a PESTEL framework. Your analysis should reflect the fact that Ling might enter this industry directly by setting up a distribution company for its products or through the acquisition of Flick.** (7 marks)

(b) **Assess the attractiveness of the Skod light bulb industry using Porter's Five Forces framework.** (13 marks)

(c) Ling is considering entering the Skod light bulb industry by acquiring Flick.

Evaluate the potential acquisition of Flick by Ling from the perspectives of suitability and acceptability. (18 marks)

(d) The finance director of Ling is concerned that Ling has no expertise in acquiring foreign companies and he is advocating a strategic partnership with Flick instead.

Discuss the appropriateness of such an approach to facilitating Ling's proposed entry into the Skod light bulb market. (8 marks)

Professional marks are available in question 1 for the structure, coherence, style and clarity of your answer. (4 marks)

(50 marks)

Section B – TWO questions ONLY to be attempted

2 Webfilms was originally a film rental organisation, offering DVD rentals which were sent to customers and returned using parcel couriers. Webfilms enrolled members who paid a monthly fee and could rent as many films as they liked, receiving their next choice as soon as a previous film was returned. However, Webfilms found this model was not as successful as it had hoped. It struggled to gain a large customer base and high courier fees made it difficult for the company to make a reasonable profit.

The company underwent a radical strategic change and remodelled itself as an internet television network screening films and drama series. This service is now available in over 25 countries worldwide. All programmes are original and so have not been previously shown on any television channel in any country. The programmes are all produced by a creative team at Webfilms, headed by Paolo Butterfield, and all are only available in English. Members pay a monthly subscription charge and have access to unlimited viewing. Webfilms relies entirely on member subscriptions for funding as, to enhance the customer experience, its programmes do not carry advertising. Webfilms considers itself to be a focused differentiator, offering only programmes which it feels will attract a younger audience (the teens and twenties).

Until recently, Webfilms had no close competitors in this form of internet television. Indeed, it was the main substitute for traditional television channels, causing a downturn in that industry. However, its success has been noted and this has led to the emergence of a number of competitors in different countries. These competitors have recognised and capitalised on any perceived weakness of Webfilms. So, for example, some of them include programmes which are not in English and others also include popular programmes which have also been shown on other television channels. This means that customers need to only subscribe to one television service.

The CEO of Webfilms, who previously transformed the organisation from a postal to internet-based service, has recognised that strategic change is required in order for Webfilms to continue competing effectively in a dynamic market environment. Her proposal to the board included the following key points:

- The creation of a wider range of new programmes, including documentaries and current affairs programmes
- The inclusion of popular programmes which were created for one country's viewers being shown in other countries
- Broadening the types of programmes so that the company can appeal to all age ranges
- Introduction of on-screen advertisements to create another revenue stream
- Translation of the most popular programmes into languages other than English
- The introduction of new services including broadband provision and online gaming
- A focus on efficiency, using the existing customer base to expand and to gain economies of scale, before any new competitors can gain a large market share
- The drive for efficiency should not be at the cost of quality, allowing the company to operate a hybrid strategy

The CEO is keen to pursue a boundary-less organisational model. Three options are presented in her proposal:

Hollow – where *non-core processes* are outsourced to external providers.
Modular – a hollow organisation which outsources some elements of the *production process*.
Virtual – an organisation with no formal geographical structure, but operates through a series of linked IT systems, partnerships and collaborative agreements.

She further stated that it would be imperative to set **all** the new key points of the strategy in place as soon as possible, to be implemented on a pre-announced date, with a large marketing campaign to support it.

At a meeting with the creative director, Paolo Butterfield expressed concerns about many of the changes being suggested: 'This is an effective demotion for me and my team. Customers pay their monthly fees because they love what we do, and yet you want to change it. Why are we following the crowd, when our existing business model is successful?' The CEO responded, 'There is no demotion. You will still be responsible for the creative element, just not producing all the programmes. This will allow you to take a much more strategic view of what we show, where and in what language. Argue as much as you like, but this is going to happen, it's up to you whether you want to be involved in deciding how such change will take place.'

The meeting ended with some disharmony and a further meeting was arranged to determine which form of boundary-less working would be the most appropriate for Webfilms.

Required:

(a) Balogun and Hope Hailey developed a change model which examines the contextual features which can influence the success or failure of strategic change.

Assess how five of the internal contextual features defined in Balogun and Hope Hailey's model (time, scope, readiness, preservation and power) would influence the likely success or failure of the strategic change proposed by the CEO for Webfilms. (16 marks)

(b) **Discuss how the different models of boundary-less working (hollow, modular and virtual) might be used to deliver parts of the CEO's future strategy for Webfilms.** (9 marks)

(25 marks)

3 Retail World (RW) is a major international retail chain, selling groceries, clothing, electronic items, toiletries and homeware items. It has grown rapidly across a number of different countries, offering a broad product range to suit a wide range of customer segments. Growth has been through the expansion of existing stores, in addition to the opening of new stores.

The new finance director, whose background is in a non-retail environment, is keen to understand the sales trends of the organisation, as well as the industry, in order to help develop a strategy which can take advantage of these trends in the future. A business analyst has provided summarised internal sales data for this purpose. The company's IT systems are fully integrated and associated controls are rigorous, allowing the data to be manipulated in many ways. The analyst has provided time series analysis (Figure 1) and regression analysis (Figures 2 and 3). He wanted to explore the possibility of identifying different causal relationships, carrying out least squares regression analysis linking sales to both time (Figure 2) and number of stores in operation (Figure 3).

The number of stores has grown annually and the analyst believes that this is a better indicator of the expected future revenue than simply the passage of time. The average number of stores expected to be in operation in 2017 is 3,700 rising to 4,000 in 2018.

Figure 1 – Time series analysis

Year/quarter	Sales ($m)	Trend (T)	Deviation	Svar (1)	Res	Sadj (2)
2013 2	88					116·25
2013 3	110					121·38
2013 4	134	121·38	12·63	14·60	–1·98	119·40
2014 1	150	122·50	27·50	25·02	2·48	124·98
2014 2	95	123·25	–28·25	–28·25	0·00	123·25
2014 3	112	123·75	–11·75	–11·38	–0·38	123·38
2014 4	138	124·38	13·63	14·60	–0·98	123·40
2015 1	150	126·00	24·00	25·02	–1·02	124·98
2015 2	100	128·63	–28·63	–28·25	–0·38	128·25
2015 3	120	131·38	–11·38	–11·38	0·00	131·38
2015 4	151	134·00	17·00	14·60	2·40	136·40
2016 1	159	136·00	23·00	25·02	–2·02	133·98
2016 2	112					140·25
2016 3	124					135·38

Notes:

(1) Svar is the expected seasonal variation, calculated by averaging the variations of each quarter.
(2) Sadj is the sales total, adjusted for average seasonal variation.

Figure 2 – Least squares regression analysis (time)

An extract of the values used in the calculation of this is shown below. This illustrates the basis of the regression analysis. **All values** were used in the calculation of the least squares regression formula.

Year/quarter	quarter (x)	revenue (y)
2016 1	12	159
2016 2	13	112
2016 3	14	124

The least squares regression formula derived from **all data** was found to be:

Y = 110·93 + 1·81x   r = 0·33

Figure 3 – Least squares regression analysis (number of stores)

The values used in the calculation of this are shown below:

Year	stores (x)	average quarterly sales (y)
2013	2,400	111
2014	2,750	124
2015	3,200	130
2016	3,512	132

The least squares regression formula derived from this data was found to be:

$Y = 69{\cdot}50 + 0{\cdot}02x$ $\qquad$ $r = 0{\cdot}94$

The finance director was interested to receive the analysis, saying, 'We can use this to estimate what our revenues might be in the future, both quarterly and annually.' However, he also stated that it was not quite as useful as he would have hoped for, commenting, 'I have been hearing a lot about big data at industry meetings I have attended. I think we should investigate the ways in which we could use this, and the benefits we might hope to obtain from it.'

Required:

(a) Analyse the data given above in the time series analysis and least squares regression analysis (Figures 1, 2 and 3) and evaluate the appropriateness of each technique in forecasting future sales and developing strategic plans. (15 marks)

(b) Discuss how three 'Vs' of big data (volume, velocity and variety) could be used to enhance strategic development within RW. (10 marks)

(25 marks)

4 **Introduction**

Maratec is a bespoke furniture company, making unique pieces of furniture to clients' specifications. The products are manufactured using a combination of highly technical machinery and skilled craftsmen. Maratec's current clients are wealthy individuals who want a custom-built piece of furniture for their own homes. The company has one showroom where samples of bespoke pieces of furniture are displayed. These sample pieces are not for sale.

The company wishes to implement a planned growth strategy. To enable this, the company has increased its manufacturing capacity with the aim of selling to corporate clients such as hotels. Producing a greater number of bespoke pieces for the same client would deliver some economies of scale. The production manager claims this strategy would reduce set up times and increase procurement discounts, as raw materials would be bought in bulk.

Procurement

High quality materials are used in bespoke furniture manufacture and Maratec uses a specialist procurement company to source specific materials, such as high quality pieces of oak wood of given dimensions. This is an expensive method of procurement and can also delay production, as Maratec cannot confirm an order with the procurement company until a design is agreed with a client. As order to delivery time is already high, Maratec is keen to reduce this procurement time.

The production manager has suggested the implementation of e-procurement, to support planned business growth. He is considering moving to e-procurement, but is keen to ensure that such a move will not lead to a lower quality of raw materials. If e-procurement is adopted, the company will recruit a full-time procurement manager and cancel its agreement with the specialist procurement company.

Marketing

Until now, Maratec has relied predominantly on word-of-mouth marketing. Most new clients have commissioned pieces of furniture after seeing a bespoke piece in an existing client's home. High quality brochures are produced annually and are available on request. They are also placed on display at exhibitions and in the showroom. A new marketing manager has been recruited and has been tasked with analysing whether e-marketing could enhance the current marketing mix. The marketing manager has also identified the following issues:

Visualisation of the product – Because the products are bespoke, it is difficult for a client to visualise what the finished product will look like. This can sometimes lead to a failure to make a sale, as the customer is not sure what they are getting.

Pricing – As materials are not sourced until a design is agreed, it is difficult to provide accurate up-front prices. Maratec currently uses cost plus pricing, but the marketing manager understands that this may deter some clients.

Showroom – There is only one showroom and it is not considered worthwhile opening more as more pieces of furniture would have to be created especially to furnish it. Therefore it is not possible for many potential clients to see the quality of the furniture.

After-sale support

As there is no guaranteed delivery time for the products, Maratec provides production progress updates to their clients on request. When the client phones or emails, the production team photograph the work-in-progress and send the pictures to the client. The client can also visit the manufacturing plant to check on progress, but this requires prior arrangement due to legal health and safety requirements.

Maratec intends to remain a producer of bespoke furniture items. It does not wish to produce standard products or produce to inventory. The only non-commissioned pieces of furniture it produces are for display in the showroom.

Required:

(a) Evaluate the use of e-marketing at Maratec to enhance each of following five elements of the marketing mix: price, promotion, place, processes and physical evidence. (15 marks)

(b) Describe the principles of e-procurement and explain the benefits and risks to Maratec. (10 marks)

(25 marks)

End of Question Paper