Strategic Professional – Options

Advanced Performance Management

Wednesday 5 September 2018

APM ACCA

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 – BOTH questions are compulsory and MUST be attempted

Present Value and Annuity Tables are on pages 10 and 11.

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

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

Paper APM

Think Ahead

ACCA

The Association of Chartered Certified Accountants

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The question paper begins on page 3.

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

1 Fearties: Company background

Fearties Security (Fearties) is a business, owned and run by the Feartie family, which provides security personnel for other businesses (e.g. factory guards and security staff at large public events, for example, music concerts). The business has grown along with the market for outsourcing of security personnel roles and Fearties is one of the largest of such service providers in Beeland.

The Feartie family has always managed the business to increase profits without excessive risk-taking. Most of the family are financially dependent on the business through their pay and dividends. The founder of the business was an accountant and it has become a family tradition that the chief executive officer (CEO) would always have an accounting background. As a result, the performance reporting has always focused on financial results.

Recent events

A new generation of the family has risen to power with a goal of increasing growth by expanding Fearties' operations into different countries, using its existing reputation for reliability. The newly appointed CEO has recognised that the choice of key performance indicators (KPIs) may not be suited to the current business environment, where the company is facing various issues:

– changing government regulation with most customer-facing Fearties staff now required to hold a certificate showing they are aware of the relevant laws and health and safety procedures regarding their duties. Indeed, this factor is a reason for the growth of outsourcing to Fearties;

– difficulty in recruitment and retention as the pay for customer-facing staff is low by Beeland's standards (even though Fearties provides full training for them);

– legal difficulties arising from claims of Fearties staff being too aggressive in the pursuit of their duties.

The CEO has asked you to prepare a report to the board on the following performance management matters for Fearties and has provided you with information in Appendix 1 and Appendix 2 which may help you with the first two tasks:

Existing KPIs and introduction of the balanced scorecard

The CEO is considering the introduction of a balanced scorecard approach and wants an evaluation of whether the existing key performance indicators cover the financial perspective for the board. She has provided you with a draft copy of the most recent board report to illustrate current reporting (Appendix 1). This draft has been prepared quickly by a junior accountant and the CEO believes that there is an error in the return on capital employed calculation which you should correct. She then requires reasoned recommendations for two indicators within each of the remaining three perspectives (customer, internal business process and innovation and learning). These indicators should address the issues facing the business.

Use of customer surveys

In the past, the board has resisted the introduction of customer surveys due to worries about the ability to measure performance using this method. The CEO is aware that many of the new indicators from the introduction of the balanced scorecard are likely to be non-financial. Therefore, she has asked that you evaluate for the board the problems associated with measuring and managing performance using non-financial performance indicators (NFPIs) at Fearties, using customer surveys as an illustration.

Management style

Given these changes, there may have to be changes to the management style at Fearties. Therefore, the CEO also wants your assessment of the existing management style at Fearties and a justified recommendation for an appropriate approach. She has been taught about Hopwood's styles of using budget information (budget-constrained, profit-conscious, non-accounting) and so wants a brief definition of these prior to your assessment and recommendation.

Human resources management: targets and appraisals

Finally, given the issues facing Fearties noted above, the board will need advice on how to align human resource management with the organisation's strategy. The current appraisal system consists of an annual appraisal meeting between the individual and their line manager and then, a discussion of the targets for that individual (which are all financial, based on the projections for the next financial year), followed by an explanation of their bonus payment based on the previously agreed targets. For this part of your report, the CEO believes that you should consider the

management setting of targets in the light of the move to using a balanced scorecard. This should be followed by a discussion of how these targets might be used within the appraisal system. At this stage, no changes to the reward system (basic pay plus an annual bonus) at Fearties are desired.

It is now 1 September 20X8.

Required:

Write a report to the board of Fearties to:

(i) Respond to the chief executive officer's (CEO) request for work on the existing key performance indicators (KPIs) and the introduction of the balanced scorecard. (20 marks)

(ii) Evaluate the problems associated with measuring and managing performance using non-financial performance indicators at Fearties, using customer surveys as an illustration. (8 marks)

(iii) Using Hopwood's styles, assess the existing management style at Fearties and recommend an appropriate approach. (10 marks)

(iv) Advise Fearties on the management setting of targets and how they should be used in the appraisal system. (8 marks)

Professional marks will be awarded for the format, style and structure of the discussion of your answer. (4 marks)

(50 marks)

Appendix 1

Key performance indicators

	20X8 $m	20X7 $m
Revenue	686	659
Operating profit	36	34
Cash flow from operating activities	64	64
Dividends paid	14	13
Return on capital employed	21·1%	20·4%

Appendix 2

Other information:

Fearties Security
Year ended 30 June 20X8

Profit information

	20X8	20X7
	$m	$m
Revenue	686	659
Operating profit	36	34
Profit after tax	20	19
Assets and liabilities		
Non-current assets	54	51
Current assets	213	211
Current liabilities	151	148
Non-current liabilities	21	21
Net assets	95	93
Equity	95	93

Dividend history

	$m
20X8	14
20X7	13
20X6	13
20X5	13
20X4	11
20X3	10

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Section B – BOTH questions are compulsory and MUST be attempted

2 Freeze: Company information

Freeze is listed on the small Kayland stock exchange and supplies construction services to the oil exploration industry in Kayland. Demand for Freeze's services broadly relates directly to the world oil price. A recent fall in the world oil price has led to several corporate failures in the oil exploration industry as the exploration of new oil fields becomes unprofitable. In April 20X8, a major oil spill led to widespread environmental damage in Kayland. An initial investigation has indicated that the cause of the oil spill may be due to the incorrect installation of machinery by Freeze.

Quantitative failure model: the K Score

The K Score is a quantitative model used for predicting whether Freeze is at risk of corporate failure. The K Score model was developed by correlating recent historic data on financial ratios of all companies listed on the Kayland stock exchange with the incidence of subsequent corporate failure. The method of calculation of the K Score is shown in Appendix 1.

Corporate failure indicators and comparator information

A colleague of yours, who is an academic working in a Kayland university, has suggested that operational gearing and financial gearing[1] are the two most important indicators of corporate failure in the industry in which Freeze operates. To demonstrate this, she has introduced you to Thor, which is a privately-owned company based in Jayland. Thor provides similar services to Freeze in both the Kayland and Jayland oil exploration industries. Thor reports its financial results in Jayland dollars (J$). An economic recession has recently begun in Jayland.

Extracts from the publicly available accounts of Freeze and Thor for the year ended 31 December 20X7 are both shown in Appendix 2. For comparison purposes, both extracts are in K$.

[1] Financial gearing is defined as (preference share capital + long-term debt)/total equity.

Required:

(a) Evaluate the usefulness of the quantitative K Score model in predicting the corporate failure of Freeze and Thor. (11 marks)

(b) Using only Freeze's K Score for the year ended 31 December 20X7, assess whether Freeze is at risk of corporate failure. (5 marks)

(c) Evaluate your colleague's comments on the most important indicators of corporate failure in Freeze's industry, and using these indicators assess whether Freeze is more or less likely to suffer corporate failure than Thor. (9 marks)

(25 marks)

Appendix 1

Calculation of the K Score[1]

$K\ Score = 2.5K_1 + 5.0K_2 + 0.1K_3 + 1.9K_4$

Score	Definition
K_1	Net current assets/total assets
K_2	Profit before interest and tax/total assets
K_3	Market value of ordinary shares[2]/book value of non-current liabilities
K_4	Retained earnings/total assets

Notes:

[1] A K Score of 2 or less indicates that corporate failure is highly likely, whereas a score of 5 or above indicates that corporate failure is unlikely. Scores of between 2 and 5 are in the 'grey area', where further analysis is required to determine the likelihood of corporate failure.

[2] The average price of Freeze ordinary shares on the Kayland stock exchange during the year ended 31 December 20X7 was $10·60.

Appendix 2

Extracts from the management accounts of Freeze and Thor

Extract from the statement of profit or loss for the year ended 31 December 20X7

	Freeze	Thor
	K$'000	K$'000
Sales revenue	5,995	7,395
Variable costs	(4,150)	(2,435)
Contribution	1,845	4,960
Fixed costs	(1,100)	(4,055)
Profit before interest and tax (PBIT)	745	905

Statement of financial position at 31 December 20X7*

	Freeze		Thor	
	K$'000	K$'000	K$'000	K$'000
Assets				
Non-current assets		1,971		2,147
Current assets				
Inventory	234		102	
Receivables	1,930	2,164	1,720	1,822
Total assets		4,135		3,969
Equity and liabilities				
Equity				
Ordinary shares ($1)		500		600
Other components of equity (share premium)		335		93
Retained earnings		2,300		2,250
		3,135		2,943
Liabilities				
Non-current liabilities				
Bank loan	75		25	
Debentures	190		120	
5% preference shares	90	355	237	382
Current liabilities				
Trade payables	500		505	
Bank overdraft	145	645	139	644
Total equity and liabilities		4,135		3,969

*The statement of financial position was approved by the board on 31 March 20X8

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3 Jolt: Company information

Jolt manufactures high quality swimwear and cycling clothing in its only factory, which employs 1,000 manufacturing staff and 200 support staff. Its products are used by both amateur and professional sports players in its home country. Jolt is known for its high ethical standards towards its workers, suppliers and the environment, and has voluntarily published a corporate sustainability report for many years.

Jolt is organised into traditional functional departments such as procurement, finance and sales, most of which have their own unreliable spreadsheet-based systems for planning and reporting. As a result, Jolt often fails to produce accurate, timely and consistent data to monitor its own performance, which contributes to failures in achieving the performance targets set by its retail customers.

Developments in Jolt's market

Jolt's market is seasonal and competitive. Retailers, who are Jolt's customers, for both swimwear and cycling clothing have two key demands: they want lower prices to pass on to consumers and they also require suppliers to meet performance targets relating to lead times and quality.

To help them comply with the retailers' demands, Jolt's competitors have closed down all of their own manufacturing facilities and outsourced all production to overseas suppliers, who have much larger factories and lower costs. To mitigate the cost of shipping goods over long distances, Jolt's competitors have invested in sophisticated software to consolidate orders so that each shipping container is completely full before despatch from their suppliers. Purchase invoice processing is also automated by the integration of information systems into the suppliers' bespoke systems.

Business process re-engineering proposal

In order to reduce costs, it has been proposed to outsource the manufacture of swimwear, which is 50% of Jolt's total output, to a supplier 17,000 km away. A comparison of the cost of manufacturing and the cost of outsourcing swimwear is given in Appendix 1.

This will mean that staff from Jolt's functional departments will reorganise into multi-disciplinary teams, each serving major customer accounts. Each team will perform all aspects of account management from taking sales orders and procurement through to arranging shipping and after sales service. Team members dealing with customers will work in Jolt's home country, while those managing quality and supplier audits will work close to the manufacturing site. Teams will be given greater autonomy to set selling prices to reflect market conditions. Many support staff will work in unfamiliar roles, or be offered new jobs overseas after the reorganisation.

A consultant has advised Jolt that the outsourcing and reorganisation proposal has characteristics of re-engineered processes, and could be described as business process re-engineering (BPR). She advised that, as well as evaluating how BPR will improve its business performance in meeting its customers' demands and requirements, Jolt should take into account any development in information systems which may be required, as well as the ethical aspects of the proposed changes.

Required:

(a) Evaluate how the BPR proposal could improve Jolt's performance in relation to its retail customers' two key demands. (11 marks)

(b) Advise Jolt on the development of its information systems which would be required for the BPR proposal to deliver performance improvements. (6 marks)

(c) Assess the potential impact of Jolt's high ethical standards on the BPR proposal and consequently on business performance. (8 marks)

(25 marks)

Appendix 1

Comparison of the average cost of manufacturing and outsourcing swimwear production

	Manufacturing	Outsourcing
Average cost per unit	**$**	**$**[1]
Materials cost	1·85	–
Labour cost	2·20	–
Factory overhead	0·95	–
Purchase cost from supplier[2]	–	3·50
Total	5·00	3·50

Notes

1. Purchase cost of outsourced products is translated into $ from the supplier's home currency.
2. In addition to the purchase cost from the supplier, Jolt must pay for shipping costs at the rate of $5,000 for each large, standard sized shipping container, regardless of the number of units in it. Each container holds 10,000 units when fully loaded.
3. Due to changes in international trade tariffs expected in the near future, swimwear imports into Jolt's home country will be subject to 10% import duty on the cost of imports excluding shipping costs.

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Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·914	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·350	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·368	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·255	10·575	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·134	11·348	10·635	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·004	12·106	11·296	10·563	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·865	12·849	11·938	11·118	10·380	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

End of Question Paper