

Strategic Professional – Options

Advanced Performance Management (APM)

Wednesday 4 March 2020



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.

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 Company information

Achilty Retail (Achilty) is a stock exchange listed business which sells a range of clothes from a website to consumers in Beeland. Achilty started as a chain of clothing shops but has slowly transitioned into a website only business, and sold its last physical shop recently.

Achilty's mission is 'to deliver long-term returns to shareholders through a combination of sustainable growth in earnings per share and payment of cash dividends'. This mission will be achieved by the following subsidiary objectives:

- Improving product ranges;
- Increasing the number of customers and their individual spend;
- Focusing on customer service; and
- Improving profitability by efficient cost control in purchasing and inventory management.

The board feels that while performance has been good compared to other retailers in general, it is lagging behind the growth of the online retail clothing sector. It is felt that many of the systems and processes have yet to adjust to the new reality of web-only business. As a result, the chief executive officer (CEO) has been reviewing the business in order to identify areas for improvement. She has focused on current performance reporting and the more effective use of the data which Achilty collects.

Current performance reporting

At a recent board meeting, there was a debate as to whether performance towards this mission and its subsidiary objectives are being usefully measured. The director raising the concern believed that any fault might lie in the board's performance report for annual strategic review, although the CEO is fairly happy with the report. Therefore, the CEO wants a full evaluation of the current performance report (see Appendix 1 for the most recent example) in light of this debate and also, more generally, in terms of the best practice for reporting performance. There is no need to suggest new indicators.

Other proposed performance indicators

At this board meeting and as a result of the disagreement about performance reporting, a number of new performance indicators were discussed. The CEO wants an assessment of these indicators, including their calculation if that is possible from the information supplied, and also, whether and how they link to the mission and subsidiary objectives. The indicators and additional information are given in Appendix 2.

Role of the management accountant

The CEO recently introduced a new enterprise resource planning system (ERPS). This system will provide a single database, operating across the whole organisation, to replace systems which have been built up in each function around Achilty's basic website. The functions, for example, purchasing, warehousing and fulfilment, and sales and marketing, will now all work on a common technology platform. Her plan is to move more decision making to individual managers of cross-functional teams who will work on all aspects of a given selection of product lines, such as women's or sports clothing. For example, purchasing will now liaise more closely with sales and marketing in order to ensure that the best possible and most profitable product range is available. It is hoped that this will reduce the number of senior managers and so flatten the organisational hierarchy.

The CEO has been reading about the work of Burns and Scapens. She would like you to explain how you see the role of the management accountant changing in the current business environment both broadly and with specific application of the three drivers of change identified by Burns and Scapens to Achilty.

Data warehouse

In order to catch up with the rest of the online retail sector, the CEO believes that the key step will be to effectively use the vast amount of customer data which the website collects. In a further step forward in the use of information technology at Achilty, she plans to create a data warehouse and use its information to help to achieve the objectives of Achilty. The data warehouse will collect data from customer activities on the website and also, from social media. Given the \$50m cost, she wants an assessment of the opportunities and risks which such an expensive system would present.

Required:

It is now 1 September 20X5.

Write a report to the chief executive officer (CEO) of Achilty to respond to her instructions for work on the following areas:

- (i) **Current performance reporting.** (15 marks)
- (ii) **Other proposed performance indicators.** (8 marks)
- (iii) **The changing role of the management accountant.** (12 marks)
- (iv) **The opportunities and risks of introducing a new data warehouse.** (11 marks)

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

(50 marks)

Appendix 1

Strategic performance report for Achilty for year ended 30 June 20X5

Financial performance by product area

	Women	Men	Children	Sports	Total	Total	Change on previous year
	20X5	20X5	20X5	20X5	20X5	20X4	
	\$m	\$m	\$m	\$m	\$m	\$m	
Revenue	85.1	53.2	42.5	31.9	212.7	192.6	10.40%
Gross profit	44.6	25.6	23.3	16.4	109.9	106.7	3.00%
Operating costs:							
Staff costs					45.3	44.1	2.70%
Marketing					17.8	17.8	0.00%
Other operating costs					27.6	25.6	7.80%
Operating profit					19.2	19.2	0.00%
Earnings per share (cents)					24.8	24.8	0.00%
Dividend paid per share (cents)					2.5	2.5	0.00%
Customer response							
Number of customer accounts ('000s)					1,014	973	4.20%
Percentage of customer accounts with at least one purchase in the year					58%	61%	-4.90%
Average spend per customer purchase (\$)					122.3	108.4	12.80%
Internal processes							
Deliveries within promised deadline					97%	97%	0.00%
Number of product lines sold					2,104	2,107	-0.10%

Commentary:

Overall performance is satisfactory as the business has maintained its earnings per share and dividend.

Revenue is up by 10.4% on the previous year.

The number of customer accounts and average spend per purchase have increased in the year.

Deliveries to customers continue to be made within promised deadlines to a significant extent.

Appendix 2

Other proposed performance indicators:

1. Return on capital employed (ROCE)
2. Total shareholder return (TSR), which comes from share price change and dividend yield
3. Inventory days
4. Receivables days

Supplementary information for Achilty:

	20X5 \$m	20X4 \$m
Assets and liabilities		
Non-current assets	54	52
Current assets		
Inventory	8·7	7·9
Receivables	1·6	1·5
Cash	0	0
	10·3	9·4
Current liabilities	15·5	14
Non-current liabilities	21	22
Net assets	27·8	25·4
Equity	27·8	25·4

Section B – BOTH questions are compulsory and MUST be attempted

2 Company information

Totaig manufactures high quality and innovative small electrical appliances such as hairdryers and vacuum cleaners. All of the board of directors, who are the strategic decision makers, have always worked in the business and are members of the Totaig family. Most of the operational managers joined as factory workers when the business started and have taken on more responsibilities as the business has grown.

Totaig has basic and outdated IT systems for a business of its complexity and has always used traditional financial performance measures such as return on investment (ROI) and operating profit margin.

Totaig has historically had few competitors and the directors have focused on improving financial results from one year to the next, with little long-term planning. A number of overseas competitors have, however, recently entered Totaig's market. It is estimated that, within one year, these competitors will be able to produce at a similar unit cost to Totaig and that within three to five years, the quality of the competitors' products will be comparable to the current quality of Totaig's products. Totaig may have to invest heavily in product development and make acquisitions in the future in order to compete effectively.

Value based management (VBM)

A consultant has recently told the directors that implementing VBM may help Totaig to respond to the increase in competition over the next one to five years. The consultant has defined VBM as 'the alignment of the business strategy, management processes and culture on maximising shareholder wealth by focusing on key drivers of value'. The directors have accepted this as a reasonable definition of VBM and most of them now agree that VBM would be useful, though others are not yet convinced.

The directors have, however, asked you for further advice on one aspect of the implementation of VBM at Totaig. At her recent presentation, the consultant presented a slide (Appendix 1) showing the four steps in implementing VBM. The directors want your advice on how to implement Step 2, which is defining performance targets. Your advice should focus on the following four areas:

1. Selection of appropriate measures and targets.
2. Timescales to which the targets should relate.
3. Management levels (strategic and operational) in the business to which the targets should relate.
4. Difficulties in measuring and managing performance using VBM.

Measuring value

The directors are unsure of a suitable financial performance indicator for them to use to measure whether Totaig is creating value. As an illustration, they have asked you to evaluate, by calculating economic value added (EVA™), whether Totaig has generated value for the year to 30 June 20X5. You should use the financial information given in Appendix 2, and advise on the difficulties of using EVA™ as a performance indicator at Totaig.

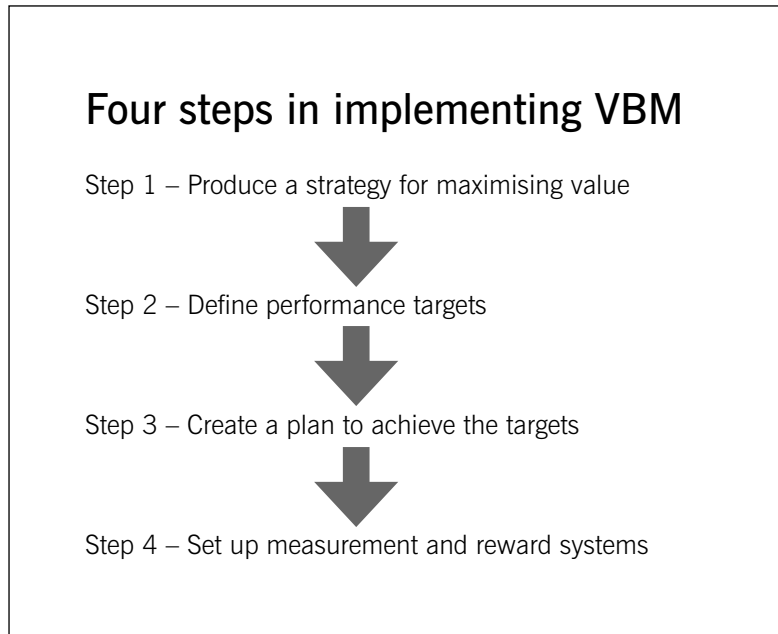
Required:

It is now 1 September 20X5.

- (a) Advise the directors on the implementation of Step 2 of VBM as requested. (15 marks)
- (b) Evaluate both whether Totaig has created value and the difficulties of using EVA™ as a performance indicator at Totaig. (10 marks)

(25 marks)

Appendix 1



Appendix 2

Income statement for the year to 30 June 20X5

	\$'000
Operating profit	10,000
Interest expense	(1,500)
	<hr/>
Profit before tax	8,500
Tax at 22%	(1,870)
	<hr/>
Profit after tax	6,630

Notes:

1. During the year, \$450,000 of advertising cost which will generate sales in future periods was expensed to the income statement.
2. The allowance for doubtful debts at the end of the period was \$300,000, a reduction of \$200,000 from the beginning of the period.
3. The capital employed at the beginning of the period was \$88,944,000.
4. Totaig's after-tax weighted average cost of capital (WACC) is currently 9%. The company is financed by a mixture of equity and fixed and floating rate loans.
5. The directors are considering changing Totaig's policies for the depreciation of non-current assets for the year ending 30 June 20X6.

3 Company information

Coruisk is a clothing manufacturer in Teeland which produces a range of dresses which it sells to Ericht. The range of dresses are the only products which Coruisk produces and Ericht is its only customer.

Ericht is a well-known retailer in Teeland. Ericht has recently been affected by changes in consumer purchasing preferences to buying clothes online and, as a result, is keen to reduce its inventory holding as a way of reducing its costs. Ericht is also finding that it has an excess of goods which it has to discount as consumer tastes appear to change more quickly than in the past.

Current purchasing policy

Coruisk currently obtains its raw material from four suppliers. Each of these suppliers operates differently in terms of the processes and procedures which they adopt in trading with Coruisk. Coruisk has been agreeable to this, as the quality of the raw material supplied has generally been acceptable.

More recently, however, Coruisk has found reason to question the accuracy and quality of the raw material delivered from one supplier. Additionally, another supplier now only despatches material to Coruisk in full-load quantities as it wishes to optimise the use of its delivery vehicles.

Current production methods

The performance metric at Coruisk for production efficiency is the number of dresses produced per period. Coruisk's method of production is to produce individual dresses in long production runs which has helped in maximising output.

Staff working in the production department have their bonus based on this metric. Goods which have not been produced to the required standard have traditionally been rejected at the end of the production process. Coruisk's production control manager has indicated to you that the current production methods have been successful, as the company only has 5% of its goods returned from Ericht due to poor quality.

JIT and costs of quality

Ericht would like to move to a just-in-time (JIT) system of purchasing its goods from Coruisk. The board of Coruisk has asked you for help, as a management consultant, to advise it as to how the company may have to change its approach to the areas of purchasing and production to prepare itself for producing to JIT principles.

The chief executive officer (CEO) does not believe that the company will encounter any problems in adapting to Ericht's requirements and has told you: 'we have very good quality control practices and procedures in place and are confident that we are consistently supplying goods which are required at an acceptable price and at high quality. Our practice of testing goods at the final stage of production, and before they leave the factory, supports this.'

Coruisk's CEO has also made available to you a list of costs which she believes address all relevant costs of quality. These costs are detailed in Appendix 1. The headings for a cost of quality report are also supplied in this appendix. She indicated that some of these costs have never been measured before and have been given financial values to help you give advice. She also told you that Coruisk's current revenue is \$4.5 million.

Required:

It is now 1 September 20X5.

- (a) **Assess the changes which Coruisk will have to make in the areas of purchasing and production in order to supply goods to Ericht on a JIT basis.** (13 marks)
- (b) **Prepare a cost of quality report for Coruisk based on the information in Appendix 1 and comment on potential quality cost changes in light of the proposed move to JIT.** (12 marks)

(25 marks)

Appendix 1

CEO's estimates of quality related costs

	\$'000
Estimated costs of handling complaints from Ericht	135
Material costs	2,000
Scrap (cannot be reworked)	58
Quality control supervisor's salary (employed full time)	35
Rework cost	72
Machine downtime	38
Product recalls and cost of goods returned	180
Labour cost of production	800
Quality audit	2
Foregone contribution from lost sales (estimated)*	85
Routine maintenance	8

Cost of quality report headings

Costs of conformance:

Prevention costs

Appraisal costs

Costs of non-conformance:

Internal failure costs

External failure costs

* The foregone contribution from lost sales is an estimate made by the CEO of potential sales lost to Ericht due to problems related to production and delivery experienced by Coruisk.

Present Value Table

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

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

		<i>Discount rate (r)</i>									
<i>Periods</i>											
(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

<i>Discount rate (r)</i>											
<i>Periods</i>											
(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