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## ACCA

## Paper P5

## Advanced Performance Management June 2012

Final Assessment - Answers

To gain maximum benefit, do not refer to these answers until you have completed the final assessment questions and submitted them for marking.
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## Key answer tips

## 1 Reading time

- $\quad$ The 15 minutes reading time can be used to read the paper, make notes and plan the answer. This can only be done on the question paper and not the answer booklet.
- $\quad$ Start by skim reading the paper, making brief notes about the questions and choosing which section $B$ questions to complete.
- Then decide which order to tackle the questions in. Complete your best question first and worse question last.
- $\quad$ The remainder of the time should be spent reading the questions in detail and making answer plans.


## 2 Questions

- Split your time between the four questions. It may sound obvious but few candidates will do this. One of the key reasons for failing is that candidates do not get to the end of the paper.
- Attempt all parts of the question. Again, this may sound obvious but you may be tempted to spend ages on the bits that you like and live in denial of the bits that you don't like! There will always be easy marks available and you may just pick up the vital one or two marks needed to pass.
- The questions will be based around a scenario. You must refer back to this scenario in your answer.
- The questions will be drawn from a wide range of syllabus areas.


## 3 Approach to answers

- The examiner has so far set very fair exams. There have been no tricks and requirements have been clear.
- The low pass rates seem to indicate that many candidates are ignoring his objectives. Do not spend all your time on the calculations. Plenty of question practise means that you should be able to work through the calculations to time. Remember that your answers don't have to be perfect. If you are not sure, you should take a guess, put a number in and move on. Any workings should be clearly referenced.
- You must complete the written parts. You should plan your answer to ensure you have enough relevant points and an appropriate structure. A brief intro, use of sub-headings with concise points and a quick conclusion seems to do the trick. There is no indicative marking scheme but one mark per point seems to be the norm. Students must make use of the scenario in their answer and may be expected to have some knowledge are real world issues.
- There may be a small number of presentation marks available, e.g. if the question asks for a report structure. Make sure that your answer is structured appropriately - these are easy marks to pick up.


## 1 THE GROVE

(a) The Grove: Budgeted Profit and Loss Statement for year to 30 November 20X4
\$
One-Day Guest Pass Spa Revenue:-
Type 1 guests $=204,400 \times 1.1 \times 0.7 \times 0.4 \times \$ 220 \times 1.05=14,542,651$
Type 2 guests $=204,400 \times 1.1 \times 0.7 \times 0.2 \times \$ 190 \times 1.05=\quad 6,279,781$
Type 3 guests $=204,400 \times 1.1 \times 0.7 \times 0.4 \times \$ 150 \times 1.05=9,915,444$
Two-Day Guest Pass Spa Revenue:-
Type 1 guests $=204,400 \times 1.1 \times 0.3 \times 0.4 \times \$ 352 \times 1.05=\quad 9,972,104$
Type 2 guests $=204,400 \times 1.1 \times 0.3 \times 0.2 \times \$ 304 \times 1.05=\quad 4,306,136$
Type 3 guests $=204,400 \times 1.1 \times 0.3 \times 0.4 \times \$ 240 \times 1.05=\quad 6,799,162$
Hotel Revenue $=200 \times 0.6 \times \$ 200 \times 1.04 \times 365$ days $=\quad 9,110,400$

Total Revenue
60,925,678

Spa Operating Costs:-
Salaries $=15,432,233 \times 1.1 \times 1.05=$
Cleaning $=(4,576,742 \times 1.1 \times 0.25 \times 1.05)+(4,576,742 \times 0.75 \times 1.05)=$
Catering $=(5,774,394 \times 1.1 \times 0.8 \times 1.05)+(5,774,394 \times 0.2 \times 1.05)=$
Other $=(8,744,952 \times 1.1 \times 0.4 \times 1.05)+(8,744,952 \times 0.6 \times 1.05)=$
Hotel Operating Costs $=6,061,464 \times 1.04=$
$(6,303,923)$

Total Operating Costs
$(45,151,638)$

## Total Budgeted Profit

(b) A two-way data table shows the results of combinations of different values of two key variables. In this case, the table enables the management of The Grove to view the net profit or loss for each of a range of combinations of number of guest spa days and hotel occupancy.

A spreadsheet data table tabulates the results of sensitivity analysis - i.e. the outcome values when one or two values are changed. The use of a data table enables the management of The Grove to quickly assess the impact on profitability of changes in the number of guest spa days or in the level of hotel occupancy.

This table indicates to management that for a net loss of $\$ 510,670$ to occur within the year to 30 November 20X4, not only would the number of guest spa have to decrease by $15 \%$ but also hotel occupancy would have to fall to $40 \%$ (by about $33.33 \%$ of the previous year's level).

The best possible outcome is a profit of $\$ 28,649,968$ which would arise if guest days increased by $30 \%$ and the hotel occupancy rate also increased to $75 \%$ from 60\%.

Most decisions are quite complex, involving a range of different input values. The management of The Grove can perform 'what-if' analysis, which will improve the quality of decision-making within the organisation.
(c) (i) The range of possible outcomes using the probability estimates given in the question and the values contained within Appendix 1 are shown in the following table together with the expected value of net profit.

| \% change in spa guest days | Probability | Hotel occupancy | Probability | Combined probability | Net profit | Expected value of net profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | \$ | \$ |
| +20\% | 0.20 | 75\% | 0.10 | 0.020 | 23,350,804 | 467,016 |
|  |  | 60\% | 0.60 | 0.120 | 21,073,204 | 2,528,784 |
|  |  | 45\% | 0.30 | 0.060 | 18,795,604 | 1,127,736 |
| +10\% | 0.60 | 75\% | 0.10 | 0.060 | 18,051,640 | 1,083,098 |
|  |  | 60\% | 0.60 | 0.360 | 15,774,040 | 5,678,654 |
|  |  | 45\% | 0.30 | 0.180 | 13,496,440 | 2,429,359 |
| -5\% | 0.20 | 75\% | 0.10 | 0.020 | 10,102,894 | 202,058 |
|  |  | 60\% | 0.60 | 0.120 | 7,825,294 | 939,035 |
|  |  | 45\% | 0.30 | 0.060 | 5,547,694 | 332,862 |
|  |  |  |  | 1.000 |  | 14,788,602 |

(ii) The use of expected values takes into account the relative likelihood of each of the possible outcomes occurring. The expected value of $\$ 14,788,602$ is not one of the potential outcomes in the table, but is the weighted average of those outcomes. The use of expected values by the management of The Grove implies that they have a risk-neutral attitude. A risk neutral decision-maker will ignore the variability in the range of potential outcomes and will be concerned only with the expected value of outcomes.
(d) The management of The Grove could choose from the following list of criteria relating to service quality. As required by the question, a measure and mechanism for measurement is also provided.

- Appearance - the appearance of staff reflects the image of the hotel.
- Responsiveness - staff responsiveness assumes critical significance in the hotel industry. The time taken to deal with queries by reception staff.
- Comfort - room facilities such as air-conditioning, tea/coffee-making and cold drinks facilities.
- Availability - the in-room availability of office facilities such as e-mail, facsimile and access to photocopying.
- Cleanliness - the cleanliness of all facilities within the hotel.
- $\quad$ Safety measures - the frequency of inspections made regarding safety equipment within the hotel and compliance with legislation.

Customer surveys would be an appropriate mechanism for measurement of each of the foregoing measures with the exception of safety which management should measure by inspection of internal records.
(e) Management could consider taking some of the following actions in order to maintain and improve the profitability of The Grove:

- The current structure regarding the use of the spa facilities is limited to the sale of either one-day or two-day guest passes. A wider choice of options might encourage a larger number of guests to use the spa facilities. For example, guests may prefer to be able to pay separately for individual treatments or for the use of the facilities and members might welcome the opportunity to purchase annual passes which would allow them to use the spa facilities at any time during the year. Consideration could also be given to discounted 'twilight' passes for evening guests. This would help maintain the number of guests throughout any given day since the late arrival of such guests would offset those who left after spending the morning and afternoon at the spa.
- It may be possible to increase the level of hotel occupancy. For example, guests could be offered a discounted room during the hotels' quiet periods or guests could purchase a spa package which would allow them to spend a weekend at the hotel with full use of the spa facilities but for a discounted price.
- The company is expected to incur total operating costs amounting to $\$ 45,151,638$ during the year to 30 November 20X4. Management should give consideration to instituting a formal programme of cost reduction. The focus of such a programme is upon the need to reduce costs below the previously accepted norm whilst simultaneously avoiding a reduction in either quality or effectiveness. If The Grove has a 'loose culture' regarding cost-consciousness, there may well be scope for significant savings to be achieved.
- It is noticeable that the company does not have any revenues from advertising. The Grove is well positioned to raise such revenues from those organisations wishing to advertise their goods and services to the customers that visit The Grove.
(f) The distinguishing feature of Strategic Management Accounting (SMA) is that it considers the relationship of the organisation with its external business environment. It focuses attention on suppliers, customers and competitive rivals. For a long time there have been criticisms of the information provided by management accountants as having an inward-looking perspective.

Information may be quantitative or qualitative in nature, and some information will be of a non-financial nature.

## Possible benefits

The development of a strategic management accounting system could provide extremely valuable additional information for use by the management of The Grove. This value lies in the fact that the information is forward-looking and should focus on the organisation and its external business environment. Such information will therefore focus on potential issues of importance to the stakeholders of the organisation, in particular, its suppliers, customers and competitive rivals.

When management implement a chosen strategy they are seeking to derive a sustainable competitive advantage, and this process will be aided by the information gathered within a strategic management accounting system.

Virtually all organisations are subject to environmental change and in this respect The Grove is no exception.

Thus it is critical that all aspects of a business are monitored so that a holistic approach is taken when strategic plans are being developed.

The strategic management accounting system should be capable of coping with changes that can and will inevitably occur in a dynamic business environment. Hence it is crucial that changes such as the emergence of a new competitor, are detected and reflected within strategic plans at the earliest opportunity.

If implemented, it is vital that a strategic management accounting system provides information that is relevant and reliable therefore enabling the management of The Grove to make correct decisions. This is critical to any business given that decisions of a strategic nature affect the entire organisation and are generally irreversible in the short-term, and quite often long term. Thus managers throughout The Grove should receive information that will enable them to take the right options thereby improving the overall position of the organisation. In this regard it is essential the managers be provided with information which relates to every aspect of The Grove and looks at its position relative to the entire industry in which it operates. This will enable due consideration to be given, not only to the strengths and weaknesses of The Grove, but also to the opportunities and threats facing it.

There is no doubt that a strategic management accounting system, by providing information that facilitates better planning, control and decision making would make a major contribution to the longer term development of The Grove


## 2 ELEGANT HOTELS

(a) The salary package initiated by the new management team has had some unforeseen side effects. Although high bed occupancy rate appears to be a reasonable measure of effectiveness it has led to a series of consequences.

A significant number of bookings are sold through a late booking Internet-based agency. The scenario explicitly mentions lastsecondhotels.com, but it is likely that the company also sells through other agencies. All such bookings are normally at a discounted price. People are attracted to these sites by the low price they offer and the savings that can be made on the published price. Firstly, a commission has to be paid to the agency, so eroding the price even further.

There is some evidence in the published comments about selling to groups: 'Full of school children on a trip ... will not be using this chain again'. Selling to groups is a good way of selling beds because effectively one booking sells many beds. However, groups may be disruptive to other guests, particularly if it is a group of schoolchildren. This also again suggests discounted prices, with guests who are unlikely to use some of the premium services on offer, such as the restaurant.

Basing a bonus on a percentage occupancy figure often invites the manipulation of the data to meet that target. Clearly, the hotels have tried in a number of ways to fill beds. However, another way to meet the target is to reduce the denominator; how many beds are available every night. There is evidence in the scenario that hotel managers have declared bedrooms unfit for use or claimed that they are being used for other purposes. Monitoring the number of beds actually available would be quite difficult.

Attracting guests through agencies, group bookings and other discounted methods may attract the sort of customer who is unwilling to spend money on other services in the hotel. There is plenty of evidence of this from the quotes given on the web site. For example, 'cheap, but don't eat there. The price for breakfast was extortionate'. The achievement of the net profit figure is undermined by a combination of cheap room prices and an unwillingness to use services once the guest is there. The hotels might be more profitable if guests were willing to consume food and drink on the premises once they had arrived.

Given the discounted room rates, managers need to cut costs even more if they are to achieve any sort of net profit.

Evidence from the scenario suggests that they are doing this by:

- Hiring cheaper, less competent staff 'The serving staff were uncommunicative. Staff were more interested in talking to each other than to the customers.' 'The staff were surly and uncommunicative'.
- Using poorer quality products 'Restaurant food was very expensive and of poor quality'.
- Reducing capital investment 'No internet connections in the rooms or public areas, very disappointing'.
- Reducing operational costs 'The bath was cracked and the windows were dirty. Cheap, but badly in need of a clean'.
- Over-charging for food and drink 'Food was expensive and dull'.

In effect, the two measures in the bonus scheme are incompatible. The largest part of the bonus is from high occupancy levels. Consequently managers focus on this, using a number of ways to achieve high occupancy.

However, discounting room rates means that the profit margin is being eroded. The only way for managers to make their secondary bonus is to further cut costs by employing cheap labour, suppliers and products. This has to be reinforced by reducing expenditure on maintaining or improving the current infrastructure of the hotel. Unfortunately, not only is this not working (guests are not using the restaurant), but traditional higher spending clients are not staying any more, put off by their fellow guests and the evident lack of investment. 'Much worse than last time we visited it. It used to be such a lovely hotel'.

So, in conclusion, the reward system initiated by the new management team may achieve the occupancy targets but it will not achieve the profitability targets. The scheme needs to be re-thought.

Furthermore, most reward schemes have elements of fixed salary, grouprelated performance pay and individual-related performance pay. In the context of Elegant Hotels, the group could be conceived as the hotel chain, or as the employees working in each hotel. It appears that much of the manager's salary is determined by individual-related performance pay. The achievement of the required performance is largely in his or her control because he or she has the authority to cut bedroom rates (to achieve occupancy targets) and to cut costs (to achieve net profit margins). This means that individual managers may financially benefit but the overall performance of the hotel group suffers as a result of customers being unwilling to stay in future at other hotels in the chain. From a different group perspective, the poor performance of the group of employees delivering the service in the hotel is also not reflected in the manager's pay. So, hiring and managing unhelpful, incompetent staff has no adverse effect on the manager's eventual reward. Not only is the basis of the manager's reward system flawed, but so is the balance between individual elements. The company might benefit from reducing the individual performance element and introducing elements based on the performance of the hotel group as a whole and on the performance of the hotel staff as a whole.
(b) Define

This stage is about defining the customer, their Critical to Quality (CTQ) issues, and the core business processes involved. One of the key issues here is to define who the customers are, what their requirements are for products and services, and what their expectations are. This is a key issue for Elegant Hotels because the scenario does not really consider customers at all. Profitability and efficiency appear to be the main objectives of the hotels, not servicing customer needs. The customer quotes give some guide to what customers actually want: Internet connections, peace and quiet, helpful staff, good quality food, a good night's sleep. The business process should be about fulfilling these expectations, not about filling rooms and improving margins.

## Measure

Measuring is about setting appropriate performance measures for the core business process. Elegant Hotels is currently measuring the wrong things. Measures should probably be centred around customer satisfaction. A data collection plan will have to be developed for the core business process. Data may be collected directly through customer questionnaire analysis and, less directly, through other measures such as frequency of re-booking with the chain.

## Analyse

Once collected, the data needs to be analysed to determine the root causes of defects and opportunities for improvement. Gaps will be identified between current performance and the target performance, defined in the measurement stage. It is likely that improvement opportunities will have to be prioritised. A better understanding of the process will also help identify sources of variation and allow them to be tackled. In the context of the inappropriate measures used at Elegant Hotels, no analysis of the results appears to have been undertaken. 'Improvement' opportunities have been initiated by local managers vested with responsibility for meeting the targets.

## Improve

This stage concerns the implementation and improvement of the target process (customer satisfaction) by designing solutions that fix current problems and prevent others from occurring. Improvements are required to achieve and exceed target performance. These improvements need to be carefully defined, explained and managed.

## Control

Finally, controls are necessary to keep the process on the new course and to avoid people reverting to the old ways. A monitoring plan needs to be developed, documented and implemented. Systems and structures need to be altered to institutionalise the changes. This may lead to changes in staffing, training and how people are rewarded. This, of course, is absolutely essential at Elegant Hotels where poorly thought-out incentive schemes have actually led to poorer performing hotels, particularly in delivering customer satisfaction.

| ACCA marking scheme |  |  |
| :--- | :--- | :---: |
|  |  | Marks |
| (a) | Up to 1 mark for each relevant point up to a maximum of |  |
| (b) | Up to 1 mark for an appropriate description of each stage <br> Up to 1 mark for its application to Elegant Hotels <br> 5 stages, giving up to a total of | 10 |

3 SPIRO
(a) (i) The divisional profit may be calculated as follows:

## Sales

External X
Inter-divisional X

Less: Variable costs
Cost of goods sold
Divisional expenses (X)

|  | $(\mathrm{X})$ |
| :--- | :---: |
| Controllable contribution | X |
| Less: Controllable divisional fixed costs | $-(\mathrm{X})$ |
|  |  |
| Controllable profit | X |
| Less: Head office costs | $-(\mathrm{X})$ |
| Net profit before tax | X |

Less: Controllable divisional fixed costs (X)

Controllable profit X
(ii) The various aspects of income and expenditure can be controlled by the divisional management to the extent to which they will be allowed under the level of autonomy given.
The transfer pricing policy of each division will be determined or affected by the degree of autonomy allowed. Marginal cost may represent the transfer price under a fully directed central pricing policy.
The Spiro Division's reported profit will therefore reduce owing to goods being transferred out, but increase owing to goods transferred in from other divisions.
The Spiro Division may increase reported profit where complete autonomy is given, by purchasing goods externally at a lower cost than the transfer price available.
This may not be the best action for the group, however, if spare capacity is in existence within the group's supplying divisions.
The degree of autonomy allowed will affect reported profit and the level of costs incurred.
Local purchasing agreements such as a just-in-time policy may reduce costs, which would not be possible if purchasing were arranged on a group basis from head office.
The apportionment of overheads will be based upon how the functions are centralised, and this will be influenced by the level of autonomy given.
The reported profit of the Spiro Division will obviously be affected by this.
(b) The transfer pricing general rule is as follows.

Transfer price $=$ Marginal variable cost + Any opportunity costs to the group
Any decisions made in relation to internal or external sales or purchases, when the general rule is applied, should be made from a financial point of view.

Applying this to the scenario given in the question:
In order to maximise corporate profits, Division B should purchase externally and Division A should sell externally.

The opportunity cost to the group, being the contribution of $\$ 7$, would be forgone if Division A transferred to Division B.

However, what if Division A had spare capacity of component Y?
The transfer price should then be set at the variable cost amount of \$18 and the component transferred.

This will maximise group profit, as B will purchase from A at a cost of $\$ 18$ rather than $\$ 22$ from an external source.

| ACCA marking scheme |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  | Marks |
| (a) (i) | Outline divisional profit statement: |  |  |
|  | Separate external and internal sales | 1 |  |
|  | Controllable contribution | 1 |  |
|  | Controllable profit | 1 |  |
|  | Head office costs | 1 |  |
|  | Divisional profit | 1 |  |
|  | Layout | 1 |  |
|  |  | - |  |
| Maximum |  |  | 5 |
|  | Award marks on merit for relevant p maximum of |  | 8 |
| (b) Ge | General TP principles | 2 |  |
|  | Application to Division A | 5 |  |
|  |  |  | 7 |
|  |  |  | - |
| Total |  |  | 20 |
|  |  |  | - |

## 4 FINANCIAL SCANDALS

(a) Discussion of the functions that organisational objectives should fulfil strategically

The acronym SMART could be used as this shows how objectives aid the business in following its business strategy, as follows:

- Specific
- Measurable
- Achievable
- Realistic
- Time-related

There are five main functions that objectives perform in the strategic functioning of an organisation.

Planning - Objectives must be put into tangible terms, meaning that the mission is translated into actionable terms. Providing the objectives are both formal and well explained then they should be capable of measurement.

Responsibility - In order to achieve objectives, tasks should be assigned to individuals, divisions, business units and functional areas. This will mean that these groups know exactly what is expected of them. In this way strategic objectives are converted into operational objectives, offering the opportunity for increased visibility of accountability and control.

Integration - Objectives communicate business priorities to managers. Clear objectives will mean that goal congruence is achieved.

Motivation - By letting managers participate in the objective setting process and also by making sure the objectives are consistent and worthwhile.

Evaluation - Objectives act as a measure of success of a business strategy. This is because shareholders and other stakeholder groups can look at performance reports and form an opinion as to whether the objectives are aiding the achievement of business strategy, by ensuring they are measured, corrected and controlled.

## The main disadvantages of using only profit-related performance measures

Often there is an emphasis on the profit figure for private companies; this should mean that profit-based measures are the most useful measures of company performance. An example of this would be when a shareholder reads the annual reports of a plc. However, profit-based measures should only be used alongside other measures, as the use of these measures to run a business on their own has a number of disadvantages, as follows:

- They are only a snapshot of a single point in time; as such they ignore trends and other factors that may be crucial for the business to succeed.
- Profit is an accounting measure, which can result in a different decision being made than if an economic approach were used. For example in the valuation of intangibles.
- Profit is open to manipulation by creative accounting, and can also be manipulated, for example in the case of profit-related bonuses.
- Profit does not really tie in very well with strategic thinking; longer term strategic thinking should use both financial and non-financial performance measures.
- They encourage short-term thinking, for example the annual profit figure in the financial reports. For example in training the best long-term policy would be investment but in the short term it costs money so would lower the profit figure.
- The profit measure does not consider the cash position of a business; there have been many instances where profitable companies have failed as a result of not having adequate liquidity.
- Profit-based measures cannot be used in all businesses, for example nonprofit making companies.
- To measure the performance of products/services measures like net profit are used; however, these ignore the capital assets used in the production of the goods/service. This means that the net assets are ignored. These should be considered, as there could be opportunity costs if the assets are not being managed properly or could be used better elsewhere. Also they represent cash if they were sold, especially in situations where cash is in short supply.
- Overall objectives will not be aligned. For example, a manager may pursue an increase in profit at the expense of other divisions within the organisation.
- Not all functions within an organisation are financial, for example marketing and HR. Functions such as these are often cost not profit centres, and so the profit measure is of little value to these departments.
- Shareholders are not the only stakeholders in an organisation. These other stakeholders may have little or no use for the profit measures as a measurement of performance.
- A conflict of objectives can occur as the short-term views of shareholders will sometimes conflict with the long-term plans for the company.
(b) Brief description of the balanced scorecard approach

The balanced scorecard approach developed by Kaplan and Norton $(1992,1996)$ has four categories of measurement, as follows:

1 Financial performance
2 Customer perspective
3 Internal business processes
4 Learning and growth


The balanced scorecard gives an outline to follow and is not intended to be followed exactly; instead prioritisation can be given to additional areas such as environmental and ethical concerns.

## Evaluation of how the balanced scorecard meets stakeholder needs

Stakeholders could include shareholders, other investors, management, employees, suppliers and customers. In addition there are many other parties that could be considered as stakeholders.

Companies will have a large number of different types of stakeholder, and one of the best ways to ensure that company performance is aligned to the needs of all of these is to use the balanced scorecard approach. Instead of trying to simply prioritise the most important stakeholders, this approach looks at other non-financial performance measures in addition to financial measures.

- The balanced scorecard (BSC) encourages communication between stakeholder groups, as it provides a means for individuals, divisions and groups to get involved in the development of activity measures.
- The BSC gives owners more control through the use of performance targets, which will include both qualitative and quantitative measures, so supporting other performance measures present within the business. This means that through feedback behaviours can be modified in a positive way.
- The BSC acts as a mechanism of converting stakeholder expectations into performance targets, for example converting objectives into measures.
- As the BSC encourages the development of measures relating to corporate goals, this means that communication of corporate strategy occurs both within the company and to external stakeholders.
- When a company uses the BSC it produces something unique to its business, reflecting the needs of its particular stakeholders.
- The BSC encourages stakeholders to focus on the strategy of the organisation; this means that they are in a position to make judgements on the effectiveness of this strategy. This means that stakeholders can form an opinion on the effectiveness of the firm, providing the results are reported externally.


## Evaluation of how the balanced scorecard helps in determining objectives

When determining objectives the BSC can help in a number of ways:

- It encourages managers to choose relevant measures that tie into their objectives. During the formulation stage many ideas will be made and the most relevant of these can be selected.
- The BSC will provide management with information, which they can use to review objectives, policy formulation and achievements. If used properly it will provide users with objective and unbiased information that can be used to address all relevant areas of performance.
- It forces consideration of the question: What does our strategy mean in practice?
- It means that financial and non-financial objectives can be considered at the same time, as although the non-financial objectives are important in the short term, the financial measures should always be considered, in order to keep stakeholders happy in the long and the short term.
- It encourages decision makers to think closely about many different areas of the organisation. These could be financial or non-financial, internal and external and short/medium and long term.
- It encourages the consideration of whether the organisational objectives are relevant, as it highlights factors that are crucial for the long-term success of the organisation.
- It can highlight conflicts between stakeholder groups and aids in resolving these differences.
- It encourages an holistic view, by ensuring all objectives and their measures are considered together. This will highlight areas that conflict, for example investment in training will have a short-term, negative effect on cash, but a positive effect in the long term. The BSC will mean these conflicts are highlighted and the correct course of action embarked upon.



## 5 OCHILPARK PLC

(a) (i) Cost analysis - 'Millennium' proposal

|  | $20 \times 0$ | $20 \times 1$ | $20 \times 2$ |
| :--- | :---: | :---: | :---: |
|  | $\$ \mathrm{~m}$ | $\$ \mathrm{~m}$ | $\$ \mathrm{~m}$ |
| Target cost - variable | 6.000 | 7.200 | 8.000 |
| - fixed | 2.000 | 2.000 | 2.500 |
| Internal failure cost | 1.600 | 0.920 | 0.525 |
| External failure cost | 2.000 | 1.104 | 0.525 |
| Appraisal cost | 0.500 | 0.500 | 0.500 |
| Prevention cost | 2.000 | 1.000 | 0.500 |
| Total cost | 14.100 | 12.724 | 12.550 |

(ii) Target cost is that which will provide the required return for the 'millennium' proposal. In order to achieve the target cost it is likely that Ochilpark plc will have to make some improvements over the current expected level of performance. This will include all areas in the cycle from product design to after-sales service to customers. The target variable cost is stated as $40 \%$ of sales.

The target fixed cost rises in $20 \times 2$ to $\$ 2.5 \mathrm{~m}$. This may represent a stepfunction increase due to increased activity. The cost gap between target cost and current expected cost levels might be analysed into internal and external failure costs.

Internal failure costs occur when work fails to meet the design quality standards and the failure is detected before transfer to the customer. Examples will include high levels of production losses or excessive machine idle time. External failure costs occur when the product fails to reach design quality standards and failure is not detected until after transfer to the customer. An example is the free replacement of defective product units returned by the customer. Internal failure costs are expected to fall from $20 \%$ of target cost in $20 \times 0$ to $5 \%$ of target in $20 \times 2$. External failure costs are expected to fall from $25 \%$ of target cost in 20x0 to $5 \%$ in $20 \times 2$.
Appraisal and prevention costs are incurred in an effort to reduce the incidence of internal and external failure costs in order that total cost may be brought closer to the target cost. Appraisal costs are those associated with the evaluation of costs and services in the cycle in order to ensure conformance with the agreed specification. Examples include checks on design and quality negotiation procedures with customers and checks that machines are performing to specified efficiency tolerances. Prevention costs are those associated with the implementation of actions to ensure that the company reaches the quality standards for the achievement of target cost. Examples include staff training costs or fees to consultants to improve operating procedures.
Appraisal costs are expected to remain at the level of $\$ 0.5 \mathrm{~m}$ over the three-year period $20 \times 0$ to 20X2. Prevention costs are expected to fall from $\$ 2 \mathrm{~m}$ in $20 \times 0$ to $\$ 0.5 \mathrm{~m}$ in 20X2. This may indicate, for example, a reduced requirement for staff training or consultancy services as improvements are achieved.
(b) (i) The marketing success of the proposal is linked to the achievement of customer satisfaction. The success will require an efficient business operating system for all aspects of the cycle from product design to aftersales service to customers. Improved quality and delivery should lead to improved customer satisfaction. Schedule 2.1 shows a number of quantitative measures of the expected measurement of these factors:

Quality is expected to improve. The percentage of production achieving design quality standards is expected to rise from $95 \%$ to $98 \%$ between 20X0 and 20X2. In the same period, returns from customers for replacement or rectification should fall from $3 \%$ to $0.5 \%$ and the cost of after-sales service should fall from $\$ 1.5 \mathrm{~m}$ to $\$ 1.0 \mathrm{~m}$.

Delivery efficiency improvement that is expected may be measured in terms of the increase in the percentage of goods achieving the planned delivery date. This percentage rises from 90\% in 20X0 to 99\% in 20X2.
(ii) The financial success of the proposal is linked to the achievement of high productivity. This should be helped through reduced cycle time and decreased levels of waste. Once again Schedule 2.1 shows a number of quantitative measures of these factors:
The average total cycle time from customer enquiry to delivery should fall from 6 weeks in 20X0 to 5 weeks in 20X2. This indicates both internal efficiency and external effectiveness.

Waste in the form of idle machine capacity is expected to fall from $10 \%$ to $2 \%$ between $20 X 0$ and 20X2. Also, component production scrap is expected to fall from $7.5 \%$ in $20 X 0$ to $2.5 \%$ in 20X2. These are both examples of ways in which improved productivity may be measured. Both will be linked to prevention and appraisal costs, which are intended to reduce the level of internal and external failure costs (as shown in part (a) of the answer).

| ACCA marking scheme |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (a) | (i) |  |  | Marks |
|  |  | Target variable cost | 1 |  |
|  |  | Internal/external failure cost ( $2 \times 1 / 2$ ) | 1 |  |
|  |  | Appraisal/prevention cost ( $2 \times 1 / 2$ ) | 1 |  |
|  |  | Overall layout and total per schedule 2.1 | 1 |  |
| (ii) |  |  |  | 4 |
|  |  | Cost classification meanings and examples ( $5 \times 1$ ) | 5 |  |
|  |  | Trend and inter-relationship | 3 |  |
| (b) | (i) |  | - | 8 |
|  |  | External effectiveness and quality | 2 |  |
|  |  | External effectiveness and delivery | 2 |  |
|  | (ii) | Internal efficiency and cycle time Internal efficiency and waste | 22 | 4 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Total |  |  |  | 4 |
|  |  |  |  | $\overline{20}$ |
|  |  |  |  | 20 |

