

Chapter Seventeen

Strategic management accounting and the Balanced Scorecard

Learning objectives

After studying Chapter 17, you should be able to:

- 1 Define the concepts of strategy and strategic management accounting
- 2 Understand the impact of corporate strategy on management accounting
- 3 See how strategy requires extra information on competitors, suppliers and technologies
- 4 Understand some basic strategic models and their relationship with management accounting techniques such as NPV
- 5 Examine the impact of lean technologies and benchmarking
- 6 Understand how a balanced scorecard fits together and how it supports a company's strategy
- 7 Consider the impact of emergent strategies and organizational learning on management accounting and control



What is strategic management accounting?

learning objective

1



The term strategic management accounting (SMA) has been used to describe the process of 'provision and analysis of management accounting data about a business and its competitors for use in developing and monitoring business strategy'.¹ We may illustrate the basic ideas of SMA by looking at one of the leading retailers in the United Kingdom, Tesco, which has tailored its key performance indicators to the economics of its business. For example, rather than maximise EVA, Tesco has realised that its main fixed assets are its stores. With this type of **asset base**, the company aims to reduce the cost of building good quality new stores through strategic partnering with construction companies. In order to check its market positioning, the company is constantly monitoring the prices of its merchandise relative to the prices charged by its main competitors. As well as promoting customer loyalty, it uses its store card as a database for targeting the specific needs of individual customers as revealed through their purchase patterns. It also keeps a close eye on non-financial indicators such as the length of queues at the check-outs.

Tesco's approach in linking its goals and its management information systems demonstrates many of the principles of SMA. The company has decided how it is going to compete, reviewed its internal and external operations and chosen key performance indicators that enable it to monitor the development of its chosen business model. The search for data is driven by decision needs rather than by what is simply easily available or fashionable (such as EVA).

learning objective

2



Traditionally, management accounting is presented as a matter of fitting cost systems to particular business environments and technological tasks. As we saw in Chapters three and four, process or job costing systems are applied according to batch sizes and the nature of the product. **Strategic choice** means that companies can choose which industries and products they want to compete in but it also means that different companies in the *same* industry may decide to adopt different strategies with quite different implications for management accounting and control. For example, a company's strategy may determine whether management will be concentrating on a tight control of costs, maintaining quality or generating new product ideas. Furthermore, as more and more reliance is placed on bought-in goods and services, a higher proportion of costs are generated by a firm's suppliers, which suggests that major improvements in cost, quality and innovation are potentially available through the effective management of the firm's supply chain. Overall, the main distinguishing feature of strategic as opposed to traditional management accounting is the recognition that managers may have some freedom to choose which industry they operate in, which technology is used and how the organization is structured. Thus rather than passively adapting to given competitive, technological and organizational circumstances, strategic management accounting helps managers make choices through information support.

SMA is also concerned with the implementation of chosen strategies setting up control systems that drive through the chosen strategies. For example, if a company wishes to pursue a low cost strategy then traditional budgetary control may help implementation. However, few companies compete on price alone so additional performance measures may be non-financial, such as delivery or queuing time.

Finally, in some businesses, strategy is seen as involving **organizational learning** rather than as a top-down, centralized process. In this business model, management accounting may be used as part of an interactive communication

process both within the organization and between the organization and its customers and suppliers.

In many instances, strategic management accounting may involve new applications of existing approaches rather than new techniques. For example, strategic management accounting that attempts to measure competitors' or suppliers' costs may well use the same sort of techniques that we have already covered in the earlier parts of the book. Yet the context of the cost analysis will be different because strategic management seeks to establish *relative* market positions and *relative* costs. Indeed, an awareness of competitive conditions is the main distinguishing feature of strategic compared with more traditional management accounting.

The chapter will begin by explaining how the most basic form of strategic management accounting focuses on provision and analysis of management accounting data about business and its competitors in order to monitor and develop business options. While traditional management accounting focuses on analysis of *existing* activities, with SMA there is a concern that performance indicators should be relative with a continuous recognition of rivalry with competitors. For example, market share has intrinsic value because a high market share may reflect weaker competition. As in a game of chess, there is a need not only to develop your own strategy but also to understand the strategy of your opponent.

Some basic techniques of strategic management accounting

SMA has an orientation towards the firm's environment. The relevant environment may be in its value chain, that is, its 'upstream' relations with suppliers and 'downstream' relations with its customers. The other relevant environment is its competitive position relative to both existing and potential competitors. Its competitive position will not just depend on price but on a **marketing mix**.

Sometimes SMA will use existing information and sometimes new information will be sought. For example, the increased emphasis on marketing may involve the use of techniques such as **attribute costing** that costs product attributes that appeal to customers, using brand value as a basis for managerial decisions and measuring the costs of quality. The competitive position is monitored through competitor cost assessment through estimates of competitors costs based on an appraisal of facilities, technology, economies of scale, market share, volume, unit costs, and return on sales. Strategic management accounting is also concerned with

learning
objective

3



Focus on current practice

Price may be seen as one element in a marketing mix together with product, promotion and place. With a service such as eating out in a restaurant other factors may include people, process and physical ambience (such as the restaurant décor). Pricing should be part of an overall strategy so that all the elements of the marketing mix reinforce and support each other. Pricing strategies will be influenced by considering the life-cycle of the product together with the reaction of competitors.*

* Pricing Strategies – an overview. CIMA technical briefing, August, 2001.

the long-run through the use of target and **life-cycle costing**² that looks at the costs incurred throughout the life of a product as it goes through various stages such as development and full production.

learning
objective

4



FORWARD-LOOKING DECISIONS: SMA AND NET PRESENT VALUE (NPV)

Given the forward looking nature of SMA, there would seem to be a potential overlap with the techniques of capital budgeting which also claims to be forward looking and decision-oriented. As we have seen in Chapter 10, the recommended technique of NPV attempts to evaluate different choices by comparing them on the basis of discounted cash flows. Yet while its techniques are not incompatible with strategy, it is important to understand the strengths and weaknesses of the NPV model when applied in a strategic context. In this chapter, we will now review two examples of SMA taken from the management accounting literature that have used NPV in different ways. The first example, *Stapylton*,³ effectively shows how SMA produces new data that can inform choices that are eventually made on the basis of an NPV-type of comparison. The second, *Mavis Machines*, compares decision-making using a discounted cash-flow model with an approach that draws more explicitly on the ideas of corporate strategy, showing some potential limitations of the discounted cash-flow model.

Stapylton: SMA as strategic intelligence

Stapylton operates in the hygiene and cleaning materials industry. The company produces a branded product in a sector where the major competitor is called Lynnfields. Although in the long term Stapylton has lost market share against the own-label products of the supermarkets, it recently saw a small increase in market share whilst maintaining a 5 per cent premium in the selling price. Managers received monthly reports from a national market research agency which were supplemented by the company's own weekly survey. Although the company did not have a precise measure of price elasticity (see Chapter 15) the company was aware that its volumes and market share were sensitive to quite small changes in price.

The company had managed to hide its price premium by using a smaller 400ml container against the more general 500ml size, enabling it to charge a shelf price that was 16 per cent lower than Lynnfields' product. Hearing that Lynnfields was also proposing to introduce a 400ml container and that some supermarkets were beginning to ask for price cuts, Stapylton's management team considered how it might respond to this competitive threat in the longer term. The possible responses included:

- exploring the possibilities for cost savings through increased efficiency
- maintaining the quality premium of their product through an advertising campaign
- introducing a substantial long-term price reduction

The analysis of the various responses triggered a demand for more data, notably on:

- how Stapylton's own costs were related to efficiency and volume changes
- how Lynnfield might react to a Stapylton policy change
- how advertising and price changes would affect financial performance

SOURCES OF STRATEGIC INFORMATION While the internal costs were obtained by sharpening up existing efficiency reviews, the assessment of the competitor involved a more explicit collection of strategic management accounting information. Thus, in order to assess the basis for Lynnfields' own pricing policy, Stapylton sought to estimate Lynnfields' cost structures and identify its market

stance. The collection of cost intelligence was aided because the two companies had many processes in common as they both supplied own-label customers and used the same raw material suppliers. Brokers' analyses of the industry and Lynnfields' own accounts were also scrutinised. Overall, Stapylton had some idea of how their competitor's prime and fixed costs would respond to different sales volumes.

Price and advertising information was obtained from the marketing executives by asking them to quantify the effect on sales volumes of different levels of advertising or different prices cuts. Armed with the data on sales volumes, the management accountants in Stapylton were able to put together a set of options in quantifiable form as shown in Exhibit 17.1. The company compared the four options by estimating cash flows over a five-year period and discounting them using a 22.5 per cent discount rate. The strategy that gave the highest NPV was the low media/price premium forgone option in Table 3.

SMA AND THE IMPACT OF THE CORPORATE STRATEGY LITERATURE So far we have seen how SMA involves analysing the competition in order to review possible strategic options. In the Stapylton example, the NPV model was used as decision tool in order to distinguish between the various options. Yet both the choice of strategic options and the ongoing search for strategic information may be informed by a variety of corporate strategy models. In short, a further development of SMA integrates the more outward and forward-looking aspects of the strategic intelligence approach with some well-known models of strategic choice.

Some strategic choice models involve deciding on a company's market position. For example, following Miles and Snow,⁴ should the company be a **defender** concentrating on reducing costs and/or improving quality, a **prospector** continually searching for market opportunities or an analyser which combines the defender and prospector positions? Or, following Michael Porter,⁵ should the company concentrate on **cost leadership** (aiming to be the lowest-cost producer in an industry) or **product differentiation** (maintain a price premium based on superior product quality). Porter's argument is that companies should avoid being 'stuck in the middle', that is, trying to follow both strategies at the same time. The implications for management accounting of these positional strategies may be that a company that seeks cost leadership may use standard costing with flexible budgets for manufacturing cost control. With product cost being the key input to pricing decisions, it may also analyse costs of competitors in order to review its positioning. If the company is a differentiator then traditional costing may be less important, and more attention is paid to new product development and marketing expenditures.

Porter's generic strategy model may be linked to another of his innovations, the concept of the **value chain**. The value chain,⁶ which is illustrated in Exhibit 17.2, consists of the major business functions that add value to a company's products and services. All these functions, from research and development through product design, manufacturing, marketing, distribution and customer service, are required to bring a product or service to the customer and generate revenues.

With value-chain analysis, the aim is to find linkages between value-creating activities, which result in lower costs and/or enhanced differentiation. John Shank's *strategic cost management* approach shows how Porter's ideas on strategic positioning and gaining competitive advantage can impact on management accounting. Shank advocates a cost-driver analysis, which suggests that costs are driven by **structural** and **executional** factors. Structural drivers consider factors such as scale, scope, experience, technology, and complexity, while executional drivers include factors such as work force involvement, quality management capacity utilisation, plant lay-out efficiency, product configuration effectiveness, and exploitation of linkages.

exhibit

17.1

Table 1 No media campaign

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Sales quantity	1180	1000	1000	1000	1000	1000
	£	£	£	£	£	£
Price/unit	10.2	9.8	9.8	9.8	9.8	9.8
Revenue	12,036	9800	9800	9800	9800	9800
Unit cost	6.3	6.3	6.3	6.3	6.3	6.3
Attributable cost	<u>7434</u>	<u>6300</u>	<u>6300</u>	<u>6300</u>	<u>6300</u>	<u>6399</u>
Contribution	<u>4602</u>	<u>3500</u>	<u>3500</u>	<u>3500</u>	<u>3500</u>	<u>3500</u>
Media expenditure	0	0	0	0	0	0
Working capital	<u>-1050</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1050</u>
Annual cash flow	<u>3552</u>	3500	<u>3500</u>	<u>3500</u>	<u>3500</u>	<u>4550</u>
NPV						13,849.15
Discount rate		0.225				

Table 2 High media campaign

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Sales quantity	1180	1180	1180	1180	1180	1180
	£	£	£	£	£	£
Price/unit	10.2	10.2	10.2	10.2	10.2	10.2
Revenue	12,036	12,036	12,036	12,036	12,036	12,036
Unit cost	6.3	6.3	6.3	6.3	6.3	6.3
Attributable cost	<u>7434</u>	<u>7434</u>	<u>7434</u>	<u>7434</u>	<u>7434</u>	<u>7434</u>
Contribution	<u>4602</u>	<u>4602</u>	<u>4602</u>	<u>4602</u>	<u>4602</u>	<u>4602</u>
Media expenditure	0	1000	1000	1000	1000	1000
Working capital	<u>-1239</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1239</u>
Annual cash flow	<u>3363</u>	<u>3602</u>	<u>3602</u>	<u>3602</u>	<u>3602</u>	<u>4841</u>
NPV						14,017.66
Discount rate		0.225				

Strategic cost management

According to Shank, the conventional NPV approach follows four steps:

- 1 Identifying spending proposals
- 2 Quantitative analysis of incremental cash flows
- 3 Qualitative issues that cannot be fitted into NPV are then treated in *ad hoc* manner
- 4 Decision – Yes/No.

In capital budgeting/investment appraisal approaches, Step 1 is hardly analysed since the investment proposals just appear out of thin air. Step 2 gets a great deal of attention with elaborate considerations of relevant cash flows and sophisticated treatments of risk. Step 3 is a 'step-child' concerned with 'soft-issues' that cannot be handled in Step 2. Step 4, the decision, generally flows out of Step 2.

Table 3 Low media (premium foregone)

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Sales quantity	1180	1180	1180	1120	1060	1000
	£	£	£	£	£	£
Price/unit	10.2	9.8	9.8	9.8	9.8	9.8
Revenue	12,036	11,564	11,564	11,976	10,388	9800
Unit cost	6.3	6.3	6.3	6.3	6.3	6.3
Attributable cost	<u>7434</u>	<u>7434</u>	<u>7434</u>	<u>7056</u>	<u>6678</u>	<u>6300</u>
Contribution	4602	4130	4130	3920	3710	3500
Media expenditure	0	700	500	0	0	0
Working capital	-1239	0	-63	-63	-63	1050
Annual cash flow	<u>3363</u>	<u>3430</u>	<u>3693</u>	<u>3983</u>	<u>3772</u>	<u>4550</u>
NPV						14,115.60
Discount rate		0.225				

Table 4 Low media (volume reduced)

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Sales quantity	1180	1000	1000	1000	1000	1000
	£	£	£	£	£	£
Price/unit	10.2	10.2	10.2	10.07	9.94	9.8
Revenue	12,036	10,200	10,200	10,070	9940	9800
Unit cost	6.3	6.3	6.3	6.3	6.3	6.3
Attributable cost	<u>7434</u>	<u>6300</u>	<u>6300</u>	<u>6300</u>	<u>6300</u>	<u>6300</u>
Contribution	4602	3900	3900	3700	3640	3500
Media expenditure	0	700	500	0	0	0
Working capital	-1050	0	0	0	0	1050
Annual cash flow	<u>3552</u>	<u>3200</u>	<u>3400</u>	<u>3770</u>	<u>3640</u>	<u>4550</u>
NPV						13,746.66
Discount rate		0.225				

Stapylton 1990: The strategic optionsRickwood *et al.* 1990**Business functions making up the value chain**

Shank⁷ argues that the finance framework sets up strategic problems in a misleading way and argues that pure NPV analysis misses the richness of real business problems and is often set up to rationalize a prior decision. He illustrates the point with a case study, Mavis Machines.

exhibit

17.3

Net Investment

Purchase price		\$680,000
Less:		
Trade-in value of old machines		(240,000)
Tax saving from trade-in (46%)		(108,000)
Book value	476,000	
Selling price	<u>240,000</u>	
Loss on resale	236,000	
Investment tax credit (10%)		(68,000)
Net		\$263,400

Annual cash savings

Labour – six operators (3/shift × 2 shifts) × \$20,800 each		\$124,800
Factory space savings (no difference in cash flows)		0
Other cash savings (supplies, maintenance and power)		20,000
Total, pre-tax		\$144,800
Less additional taxes (46%)		(60,600)
Cash saved – pretax	144,800	
Additional depreciation	<u>(13,000)*</u>	
Additional taxable income	131,800	
Annual after tax cash savings		\$84,200
(ignoring inflation in savings in future years)		

* Old depreciation = $\$590 - \$20/15 = \$38,000$

New depreciation = $\$680 - \$68/12 = \$51,000$

Difference = \$13,000

Summary of cash flows*

Period 0 (263,400) 12 year IRR = 32 + %, real
 Periods 1–12 \$84,200

*Ignoring the minor impact from the lost salvage values in year 12.

Summary of the quantitative analysis of the modernization project

Shank, 1996, p. 189

The Mavis machines case

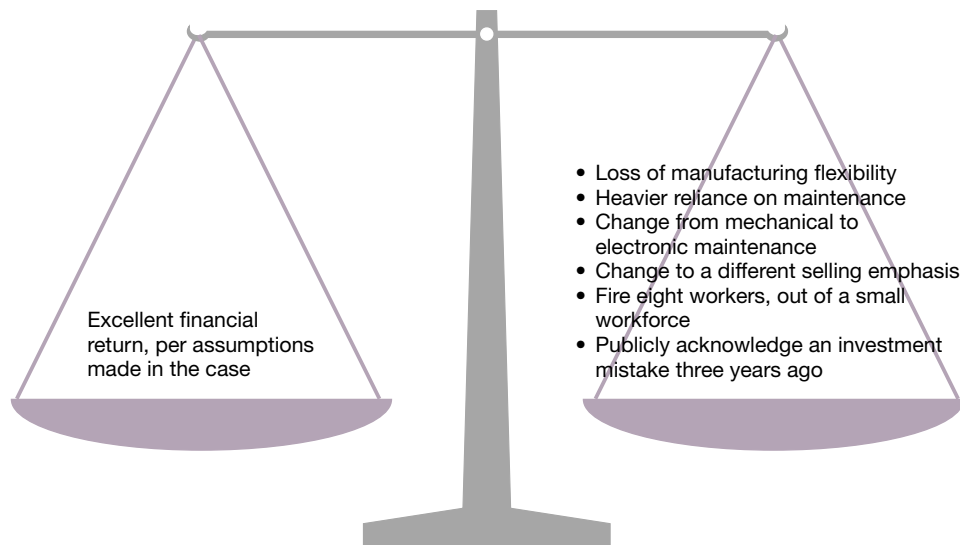
Mavis Machine shop is a small metal working company producing drill bits for oil exploration. At present, the shop has four large manual lathes each operated by a skilled worker. The question facing the Managing Director of Mavis Machines is whether the company should install a numerically controlled lathe to replace all manual lathes. The numerical lathe would require only one operator but with different skills in computerized automation.

The decision can be set up using an NPV model and produces a very high rate of internal rate of return, as shown in Exhibit 17.3.

The main cash savings stem from the need for fewer workers. However, other significant savings can be made in the net cost of the initial investment because of the healthy trade-in value of the relatively modern manual lathes. Indeed, 60 per

exhibit

17.4



The strategic calculus for the proposal

cent of the attractiveness of the project comes from the scrap value of the old machines, which suggests that the previous replacement decision might have been faulty. In an NPV approach other factors such as *flexibility*, *marketing* and *corporate image* are treated in rather an *ad hoc* manner.

An alternative strategic approach suggests a different perspective on the choice, as when explicit strategic models are used to explore the issue then the emphasis on a positive NPV in the financial analysis is eclipsed by other factors. Competitive analysis suggests that as a small machine shop, Mavis is best positioned as a *niche* player rather than a cost leader. The manual lathes and the skilled operators give it more product flexibility and greater security than one numerical lathe. Its strength lies in its flexibility to vary its products and sources of raw material. Value chain analysis suggested that it would lose both buyer and seller power because it would be more dependent only on those suppliers that could meet stringent quality requirements and would be more dependent on a single customer. There were also questions concerning the ease of maintenance of the new machine and the likely impact that firing eight workers out of a small workforce would have on morale and the firm's local reputation. From a strategic perspective, the calculus can be summed up in Exhibit 17.4.

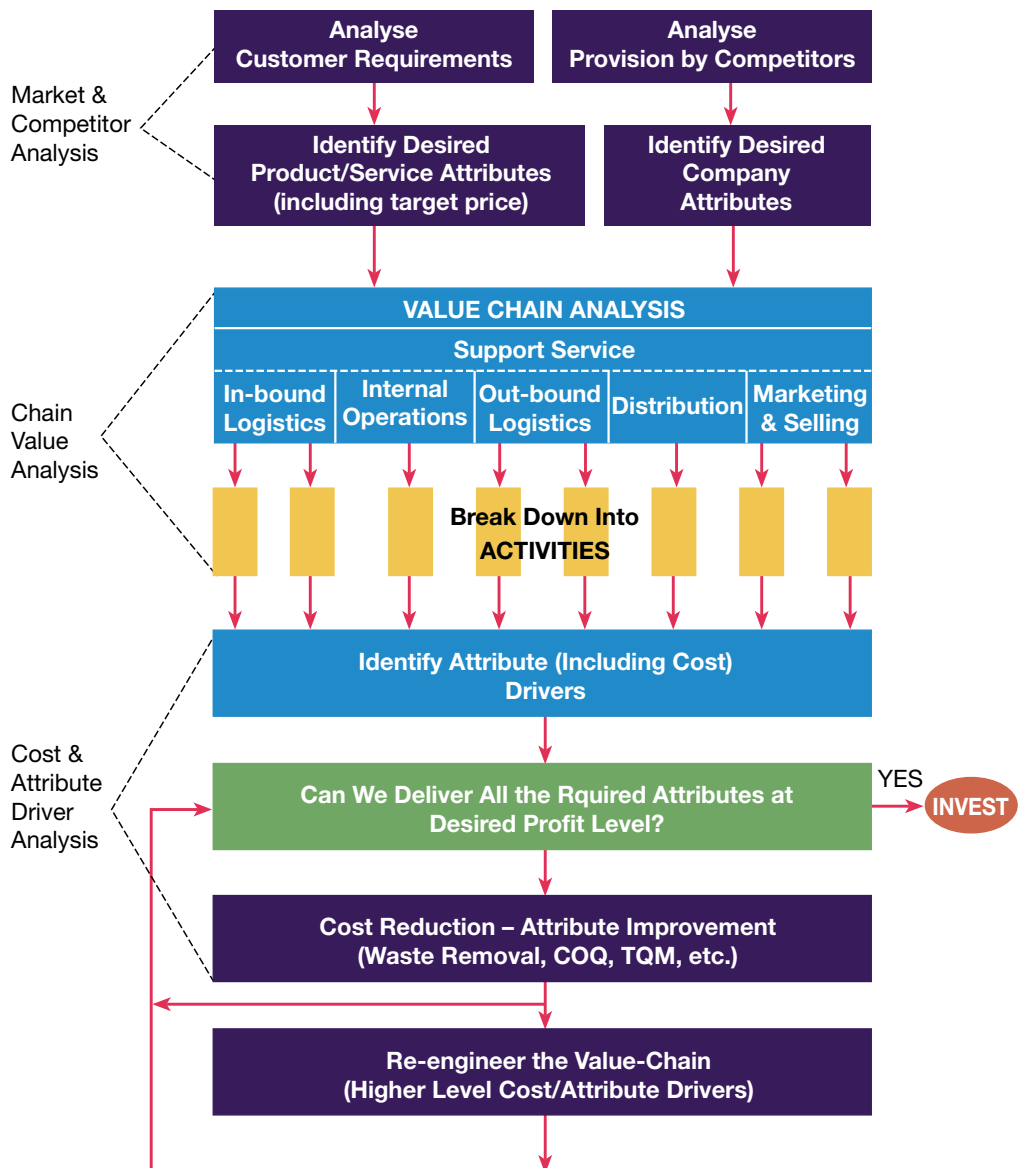
NPV and strategic decision making: an iterative model

Does the criticism of NPV by Shank and others mean that the material in Chapter 10 is of limited relevance for strategic decisions? Not according to Tomkins and Carr⁸, who suggest that strategic investment decisions may be modelled to include both financial and strategic analysis as shown in Exhibit 17.5. They suggest that a three-dimensional process is followed:

- 1 The firm decides which markets to be in, by assessing both customer requirements and the relative ability of rivals to meet them. The firm will generate a number of investment possibilities based on product attributes related to volume of sales.

exhibit

17.5



A systematic formal analysis for strategic investment decisions

- 2 Analysis of the value chain to assess the means by which the attributes of the product can be delivered. This analysis will review possible suppliers and distributors as part of an iterative process to check on performance throughout the whole product life cycle.
- 3 The first two steps may then be modelled in terms of a cost and attribute driver analysis to see if the attributes can be delivered at an acceptable profit. The process is iterative in that a first assessment may suggest unacceptable low levels of profitability. The next assessment may then consider whether the profitability can be improved through piecemeal cost savings or whether existing delivery systems must be changed more radically through process re-engineering. Tomkins and Carr call this search for improvement, a process of 'probing' that uses discounted cash flow analysis but which also draws on an array of market, technological and other data.

Strategy as collision: lean enterprises and business process re-engineering

learning objective

5



It could be argued that strategic positioning models were appropriate in the 1970s and 80s but that recently firms face a more hectic form of competition where they cannot choose a generic strategy that tries to avoid head-on competition. According to Cooper⁹ the emerging **lean enterprises** do not just compete, they *collide*. Lean enterprises are faced with increasingly sophisticated *lean customers* who can shop around to get best package. The world-wide web has increased the power of the consumer to acquire product knowledge and shop around for the best deal. New technology also means customers can 'do it for themselves' whether it is buying air tickets or choosing a new car. Many products such as cars, refrigerators, computers, and video players have matured. Competition between firms has increased due to falling trade barriers. It is easier to enter a market and easier to start-up with new forms of venture capital and more accessible technology.

Lean enterprises have to be technologically up to date and must have full product line. Differentiation and cost leadership strategies are less viable because costs are already very low and new products can be introduced very quickly. Lean enterprises do not have a chance to create sustainable competitive advantage but can only seek repeatedly to create temporary advantages. Rather than avoiding competition by strategic positioning, they seek it out, working on the *survival triplet* based on product *price*, *quality* (conformance), and *functionality* (meeting customer specifications). Lean enterprises are also able to cope with low volume production and attack niche producers. Lean enterprises rely on close relations with innovating suppliers who all work in regional clusters that increase overall rate of technological diffusion. Quality becomes a hygiene factor and the firms' survival zones are very narrow.

Cost management is vital but it must include feedforward features such as target costing and value engineering (see Chapter 16) as well as feedback features such as kaizen costing (see Chapter 19). Cost management depends on competitive environment (affects product mix), the maturity of technology (managing the cost of future products) and the length of product life cycle (managing the cost of existing products). The lean enterprise may be created from scratch or a re-engineered version from an existing company. In Chapter 19, we will look at the process of re-engineering and the lean enterprise in more detail.

Modelling and monitoring strategy: the BSC and other non-financial measures

learning objective

6



We will now consider a very influential model, the balanced score-card, that may be used by firms to develop, implement and control strategy through a balanced use of financial and non-financial indicators. Rather than focus on an individual strategic investment, the balanced score-card is concerned with the maintenance of an outward- and forward-looking stance on a continuous and routine basis through a systematic process of monitoring and reporting on a variety of different performance dimensions.

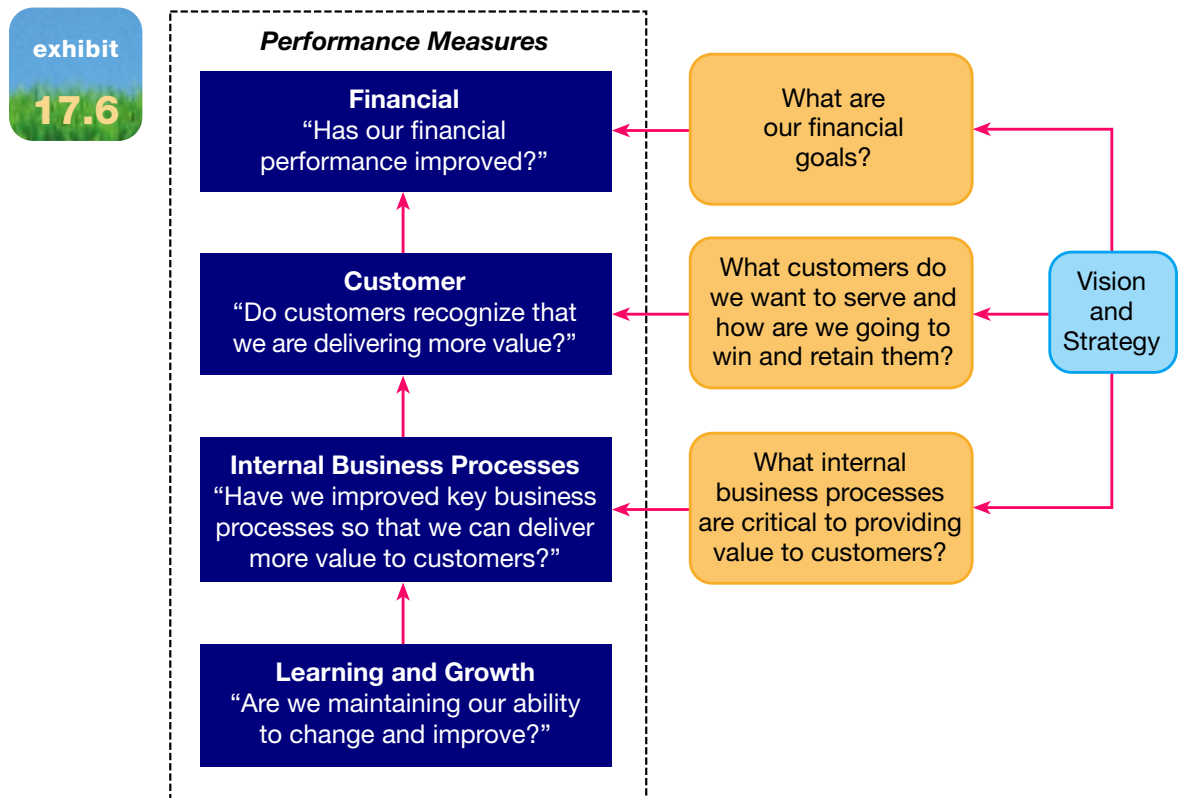
A **balanced scorecard** consists of an integrated set of performance measures that are derived from the company's strategy and that support the company's strategy throughout the organization.^{10,11} A strategy is essentially a theory about how to achieve the organization's goals. For example, low-cost European carriers such as Easyjet,¹² Ryanair and Go have copied South Western Airline's strategy of offering passengers low prices and fun on short-haul jet service. The low prices

result from the absence of costly frills such as meals, assigned seating and interline baggage checking. The fun is provided by flight attendants who go out of their way to entertain passengers with their antics. This is an interesting strategy. Southwestern Airlines consciously hires people who have a sense of humour and who enjoy their work. Hiring and retaining such employees probably costs no more – and may cost less – than retaining grumpy flight attendants who view their jobs as a chore. Southwestern Airlines' strategy is to build loyal customers through a combination of 'fun' – which does not cost anything to provide – and low prices that are possible because of the lack of costly frills offered by competing airlines. The theory is that low prices and fun will lead to loyal customers, which, in combination with low costs, will lead to high profits. So far, this theory has worked.

Under the balanced scorecard approach, top management translates its strategy into performance measures that employees can understand and can do something about. For example, the amount of time passengers have to wait in line to have their baggage checked might be a performance measure for the supervisor in charge of the Southwestern Airlines check-in counter at the Phoenix airport. This performance measure is easily understood by the supervisor, and can be improved by the supervisor's actions.

Common characteristics of balanced scorecards

Performance measures used in the balanced scorecard approach tend to fall into the four groups illustrated in Exhibit 17.6: financial, customer, internal business processes, and learning and growth. Internal business processes are what the



From strategy to performance measures: the balanced scorecard

company does in an attempt to satisfy customers. For example, in a manufacturing company, assembling a product is an internal business process. In an airline, handling baggage is an internal business process. The basic idea is that learning is necessary to improve internal business processes; improving business processes is necessary to improve customer satisfaction; and improving customer satisfaction is necessary to improve financial results.

Note that the emphasis in Exhibit 17.6 is on improvement – not on just attaining some specific objective such as profits of £10 million. In the balanced scorecard approach, continual improvement is encouraged. In many industries, this is a matter of survival. If an organization does not continually improve, it will eventually lose out to competitors that do.

Financial performance measures appear at the top of Exhibit 17.6. Ultimately, most companies exist to provide financial rewards to owners. There are exceptions. Some companies – for example, The Body Shop – may have loftier goals, such as providing environmentally friendly products to consumers. However, even nonprofit organizations must generate enough financial resources to stay in operation.

Ordinarily, top managers are responsible for the financial performance measures – not lower level managers. The supervisor in charge of checking in passengers can be held responsible for how long passengers have to queue. However, this supervisor cannot reasonably be held responsible for the entire company's profit. That is the responsibility of the airline's top managers.

Exhibit 17.7 lists some examples of performance measures that can be found on the balanced scorecards of companies. However, few companies, if any, would use all of these performance measures, and almost all companies would add other performance measures. Managers should carefully select the performance measures for their company's balanced scorecard, keeping the following points in mind. First and foremost, the performance measures should be consistent with, and follow from, the company's strategy. If the performance measures are not consistent with

Focus on current practice

Customer satisfaction can be measured in a variety of ways. Every month Hershey Foods Corporation mails a one-page survey to a sample of its customers (i.e. food distributors, wholesalers and supermarket chains). The survey asks customers to rate Hershey on a number of characteristics including the following:

- Courtesy, speed, and accuracy of customer service personnel
- Quality of Hershey's carriers
- Delivery dependability
- Completeness of shipments
- Condition of products when delivered
- Speed and accuracy of Hershey's invoicing.

Customers are asked to rate Hershey in comparison with their very best suppliers, not just Hershey's direct competitors. 'Whenever we see a "poorer than" rating, the customer gets a follow-up phone call from the manager of the customer service centre. This call probes for more information about the problem. Once the manager has additional information, he or she involves others in the company who can help rectify the situation. We then thank the customer for the information, explain how we will correct it, and ask them to let us know if things change.'¹³

exhibit

17.7

Customer Perspective	
Performance Measure	Desired Change
Customer satisfaction as measured by survey results	+
Number of customer complaints	-
Market share	+
Product returns as a percentage of sales	-
Percentage of customers retained from last period	+
Number of new customers	+

Internal Business Processes Perspective	
Performance Measure	Desired Change
Percentage of sales from new products	+
Time to introduce new products to market	-
Percentage of customer calls answered within 20 seconds	+
On-time deliveries as a percentage of all deliveries	+
Work in process inventory as a percentage of sales	-
Unfavourable standard cost variances	-
Defect-free units as a percentage of completed units	+
Delivery cycle time*	-
Throughput time*	-
Manufacturing cycle efficiency*	+
Quality costs †	-
Setup time	-
Time from call by customer to repair of product	-
Percent of customer complaints settled on first contact	+
Time to settle a customer claim	-

Learning and Growth Perspective	
Performance Measure	Desired Change
Suggestions per employee	+
Value-added employee ‡	+
Employee turnover	-
Hours of in-house training per employee	+

*Explained later in this chapter.

†See Appendix B, cost of quality, at the back of the text.

‡Value-added is revenue less externally purchased materials, supplies and services.

Examples of performance measures for balanced scorecards

the company's strategy, people will find themselves working at cross-purposes. Second, the scorecard should not have too many performance measures. This can lead to a lack of focus and confusion.

While the entire organization will have an overall balanced scorecard, each responsible individual will have his or her own personal scorecard as well. This scorecard should consist of items the individual can personally influence that relate directly to the performance measures on the overall balanced scorecard. The performance measures on this personal scorecard should not be overly influenced by actions taken by others in the company or by events that are outside of the individual's control.

With those broad principles in mind, we will now take a look at how a company's strategy affects its balanced scorecard.

A COMPANY'S STRATEGY AND THE BALANCED SCORECARD Returning to the performance measures in Exhibit 17.6, each company must decide which customers to target and what internal business processes are crucial to attracting and retaining those customers. Different companies, having different strategies, will target different customers with different kinds of products and services. Take the car industry as an example. BMW stresses engineering and handling; Volvo, safety; Jaguar, luxury detailing; and Toyota, reliability. Because of these differences in emphases, a one-size-fits-all approach to performance measurement will not work even within this one industry. Performance measures must be tailored to the specific strategy of each company.

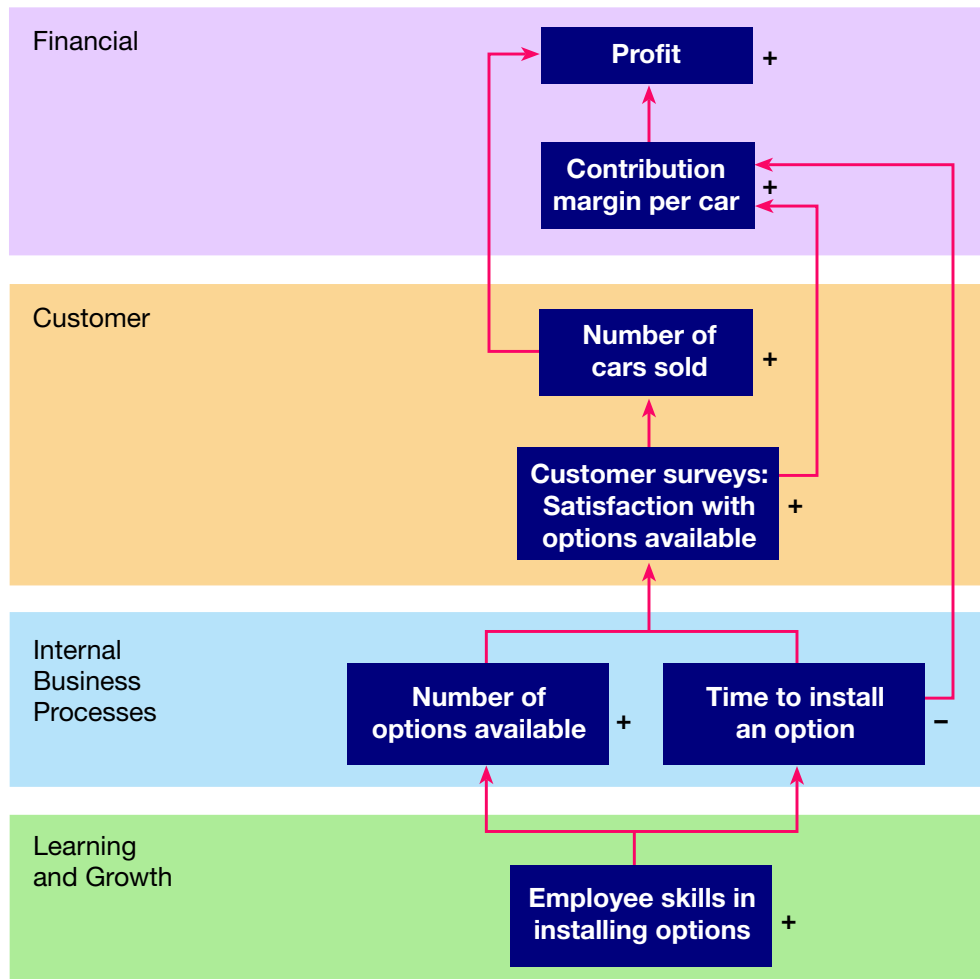
Suppose, for example, that Jaguar's strategy is to offer distinctive, richly finished luxury automobiles to wealthy individuals who prize handcrafted, individualized products. Part of Jaguar's strategy might be to create such a large number of options for details, such as leather seats, interior and exterior colour combinations, and wooden dashboards, that each car becomes virtually one of a kind. For example, instead of just offering tan or blue leather seats in standard cowhide, the company may offer customers the choice of an almost infinite palate of colours in any of a number of different exotic leathers. For such a system to work effectively, Jaguar would have to be able to deliver a completely customized car within a reasonable amount of time – and without incurring more cost for this customization than the customer is willing to pay. Exhibit 17.7 suggests how Jaguar might reflect this strategy in its balanced scorecard.

If the balanced scorecard is correctly constructed, the performance measures should be linked together on a cause-and-effect basis. Each link can then be read as a hypothesis in the form 'If we improve this performance measure, then this other performance measure should also improve.' Starting from the bottom of Exhibit 17.8, we can read the links between performance measures as follows. If employees acquire the skills to install new options more effectively, then the company can offer more options and the options can be installed in less time. If more options are available and they are installed in less time, then customer surveys should show greater satisfaction with the range of options available. If customer satisfaction improves, then the number of cars sold should increase. In addition, if customer satisfaction improves, the company should be able to maintain or increase its selling prices, and if the time to install options decreases, the costs of installing the options should decrease. Together, this should result in an increase in the contribution margin per car. If the contribution margin per car increases and more cars are sold, the result should be an increase in profits.

In essence, the balanced scorecard articulates a theory of how the company can attain its desired outcomes (financial, in this case) by taking concrete actions. While the strategy laid out in Exhibit 17.8 seems plausible, it should be regarded as only a theory that should be discarded if it proves to be invalid. For example, if the company succeeds in increasing the number of options available and in decreasing

exhibit

17.8



A possible strategy at Jajuar and the balanced scorecard

the time required to install options and yet there is no increase in customer satisfaction, the number of cars sold, the contribution margin per car, or profits, the strategy would have to be reconsidered. One of the advantages of the balanced scorecard is that it continually tests the theories underlying management's strategy. If a strategy is not working, it should become evident when some of the predicted effects (i.e. more car sales) do not occur. Without this feedback, management may drift on indefinitely with an ineffective strategy based on faulty assumptions.

ADVANTAGES OF TIMELY AND GRAPHIC FEEDBACK Whatever performance measures are used, they should be reported on a frequent and timely basis. For example, data about defects should be reported to the responsible managers at least once a day so that action can quickly be taken if an unusual number of defects occurs. In the most advanced companies, any defect is reported immediately, and its cause is tracked down before any more defects can occur. Another common characteristic of the performance measures under the balanced scorecard approach is that managers focus on trends in the performance measures over time. The emphasis is on progress and improvement rather than on meeting any specific standard.

For tracking trends and improvement over time, graphic displays are often far more informative than rows or columns of numbers. Consider, for example, the

problem of passengers who reserve seats but do not show up to buy their tickets. Because of these 'no-show' passengers, airlines routinely overbook popular flights. The airlines gamble that there will be enough no-shows that no passenger will be bumped from the flight. Sometimes airlines lose this gamble. This results in the airline incurring substantial additional costs either to pay passengers with reservations to give them up or to house and feed excess passengers until suitable replacement flights can be found. Because of these costs (and the ill will created among passengers), airlines carefully monitor the percentage of overbooked seats that actually turn out to be a problem and result in a passenger being bumped from a flight. Suppose, for example, that an airline has recorded the following data over the last 20 weeks:

Bumped passengers per hundred overbooked seats

Week	Percentage
1	7.1
2	6.5
3	6.7
4	7.2
5	7.0
6	7.3
7	6.7
8	6.5
9	6.2
10	5.8
11	6.4
12	6.3
13	6.7
14	5.8
15	6.6
16	6.6
17	6.9
18	7.1
19	7.4
20	7.8

These data are plotted in Exhibit 17.9. Note how much easier it is to spot trends and unusual points when the data is plotted than when it is displayed in the form of a table. In particular, the worrisome increase in bumped passengers over the final seven weeks is very evident in the plotted data.

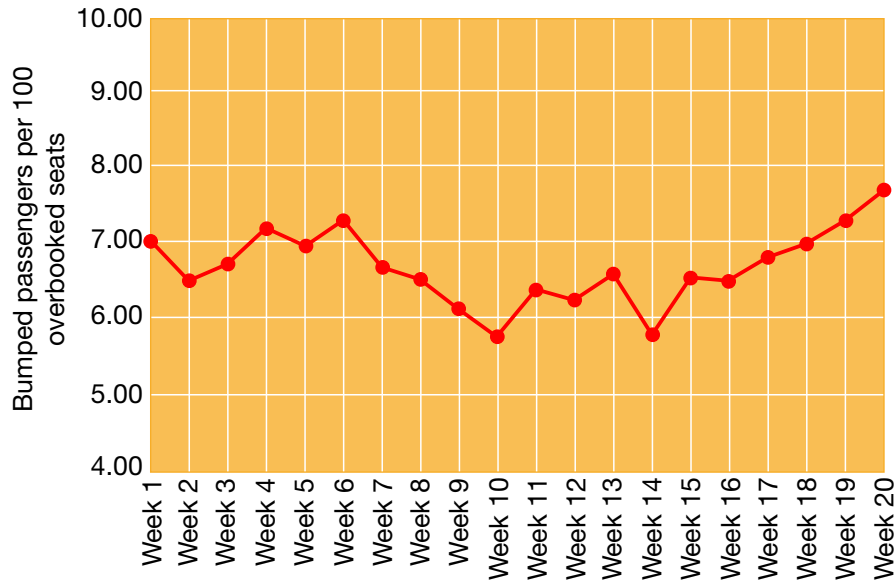
SOME MEASURES OF INTERNAL BUSINESS PROCESS PERFORMANCE

Most of the performance measures listed in Exhibit 17.7 are self-explanatory. However, three are not – **delivery cycle time**, **throughput time** and **manufacturing cycle efficiency** (MCE). These three important performance measures are discussed next.

DELIVERY CYCLE TIME The amount of time between when an order is received from a customer to when the completed order is shipped is called delivery cycle time. This time is clearly a key concern to many customers, who would like the delivery cycle time to be as short as possible. Cutting the delivery cycle time may give a company a key competitive advantage – and may be necessary for survival – and therefore many companies would include this performance measure on their balanced scorecard.

exhibit

17.9



The number of passengers bumped per hundred overbooked seats

THROUGHPUT (MANUFACTURING CYCLE) TIME The amount of time required to turn raw materials into completed products is called throughput time, or manufacturing cycle time. The relationship between the delivery cycle time and the throughput (manufacturing cycle) time is illustrated in Exhibit 17.10.

Note that, as shown in Exhibit 17.10, the throughput time, or manufacturing cycle time, is made up of process time, inspection time, move time, and queue time. Process time is the amount of time in which work is actually done on the product. Inspection time is the amount of time spent ensuring that the product is not defective. Move time is the time required to move materials or partially completed products from workstation to workstation. Queue time is the amount of time a product spends waiting to be worked on, to be moved, to be inspected, or in storage waiting to be shipped.

As shown at the bottom of Exhibit 17.10, the only one of these four activities that adds value to the product is process time. The other three activities – inspecting, moving, and queueing – add no value and should be eliminated as much as possible.

MANUFACTURING CYCLE EFFICIENCY (MCE) Through concerted efforts to eliminate the non-value-added activities of inspecting, moving and queueing, some companies have reduced their throughput time to only a fraction of previous levels. In turn, this has helped to reduce the delivery cycle time from months to only weeks or hours. The throughput time, which is considered to be a key measure in delivery performance, can be put into better perspective by computing the manufacturing cycle efficiency (MCE). The MCE is computed by relating the value-added time to the throughput time. The formula is as follows:

$$\text{MCE} = \frac{\text{Value-added time}}{\text{Throughput (manufacturing cycle) time}}$$

If the MCE is less than 1, then non-value-added time is present in the production process. An MCE of 0.5, for example, would mean that half of the total production time consisted of inspection, moving and similar non-value-added

activities. In many manufacturing companies, the MCE is less than 0.1 (10 per cent), which means that 90 per cent of the time a unit is in process is spent on activities that do not add value to the product. By monitoring the MCE, companies are able to reduce non-value-added activities and thus get products into the hands of customers more quickly and at a lower cost.

To provide a numeric example of these measures, assume the following data for Novex Company:

Novex Company keeps careful track of the time relating to orders and their production. During the most recent quarter, the following average times were recorded for each unit or order:

Days

Wait time	17.0
Inspection time	0.4
Process time	2.0
Move time	0.6
Queue time	5.0
Goods are shipped as soon as production is completed.	

- REQUIRED**
- 1 Compute the throughput time, or velocity of production.
 - 2 Compute the manufacturing cycle efficiency (MCE).
 - 3 What percentage of the production time is spent in non-value-added activities?
 - 4 Compute the delivery cycle time.

- SOLUTION**
- 1 Throughput time = Process time + Inspection time + Move time + Queue time

$$= 2.0 \text{ days} + 0.4 \text{ days} + 0.6 \text{ days} + 5.0 \text{ days}$$

$$= 8.0 \text{ days}$$
 - 2 Only process time represents value-added time; therefore, the computation of the MCE would be as follows:

$$\begin{aligned} \text{MCE} &= \frac{\text{Value-added time, 2.0 days}}{\text{Throughput time, 8.0 days}} \\ &= 0.25 \end{aligned}$$

Thus, once put into production, a typical unit is actually being worked on only 25 per cent of the time.

- 3 Since the MCE is 25%, the complement of this figure, or 75% of the total production time, is spent in non-value-added activities.
 Delivery cycle time = Wait time + Throughput time

$$= 17.0 \text{ days} + 8.0 \text{ days}$$

$$= 25.0 \text{ days}$$

We would like to emphasize a few points concerning the balanced scorecard. First, the balanced scorecard should be tailored to the company's strategy; each company's balanced scorecard should be unique. The examples given in this chapter are just that – examples. They should not be interpreted as general templates to be fitted to each company. Second, the balanced scorecard reflects a particular strategy, or theory, about how a company can further its objectives by taking specific actions. The theory should be viewed as tentative and subject to change if the actions do not in fact lead to attaining the company's financial and other goals. If the theory (i.e. strategy) changes, then the performance measures on the balanced scorecard should also change. The balanced scorecard should be viewed as a dynamic system that evolves as the company's strategy evolves.^{15,16}

Focus on current practice

Banks ordinarily require three to four weeks to approve an application for a mortgage loan on a house. The application form includes the individual's employment history, income, and financial assets and liabilities. Personnel at the bank check credit references and review the entire application before granting the loan. A manager at one bank wondered why this process takes so long and asked employees to keep track of how much time they actually worked on processing an application. He discovered that processing an application took on average 26 days, but only about 15 minutes of this time was actual work. All of the rest of the time the application was waiting in someone's in-tray. The manufacturing cycle efficiency (MCE) was therefore only 0.0004 (15 minutes/[26 days × 24 hours per day × 60 minutes per hour]). By redesigning and automating the process, the cycle time was cut down to 15 minutes and the MCE rose to 1.0. Loan applicants can now have a cup of coffee while waiting for approval.¹⁴

Strategy as an emergent process: interactive control systems and the learning organization

learning objective

7



The balanced scorecard fits in with a more sophisticated view that sees strategy as an emergent process and which is less a top-down, keep-on-track approach to organizational control. The organization is seen as engaged in a learning process both through internal communication and through contact with its customers and suppliers. The balanced scorecard can facilitate this learning process as can other techniques such as **benchmarking** (see Chapter 19) through a consciously interactive relationship between performance indicators and management action.¹⁷

In a learning system, information is used to encourage debate up and down organizations. Rather than being the product of a 'central plan', strategy is seen as a more emergent process¹⁸ linking up strategy with tactics. The aim of management accounting in this approach to strategy is to aid the development of **double-loop learning**. In contrast with a single-loop control model such as standard costing, which simply requires conformance to existing policies, double-loop learning constantly questions both standards and policies. Another source of learning comes from benchmarking against the best practices in other organizations. Benchmarking may be based on cost performance (see Chapter 8 for ABM examples) or on processes to improve quality (see Chapter 18). The key to successful bench marking is to adopt a learning orientation rather than the blame culture that can sometimes develop from a league-table approach.

Sometimes a company will change its strategy unintentionally, whereby successive adaptations to changing markets, competitive position and technology leads to a new organizational identity, a new realization of where the company's core competences¹⁹ actually lie. The company's accounting system may sometimes play a role in shaping a new emergent strategy, as the following case illustrates.

Focus on current practice

Newtech²⁰ is a small Danish electronics manufacturer specializing in the sale of alarms to a variety of customers in industry and public and private sectors. Its alarms systems are very high tech and innovative – to such an extent that the firm could determine what customers could expect or what is technically feasible. Newtech's competitive advantage was based on rapid innovation through new technologies such as infrared, thermostatic and molecular sensors. But the rapid rate of technological change created new challenges with much shorter product life cycles. Furthermore, the firm could not have expertise in all these areas. Their response was to use their suppliers' expertise. They identified two groups of suppliers:

- 1 Producers of standard components,
- 2 Suppliers with whom they developed new products.

Since the outsourcing led to feelings of loss of control, the company introduced target costing because it seemed to offer a way of regaining control. In addition, Newtech's purchasing budget took on a new prominence: 'The purchasing budget came to play a symbolic role in inter-organizational management controls. Thus, New tech created a sense of financial urgency in the production and development work. The purchasing budget specified how Newtech drew on other firms' development competencies and related them to its own situation.'

Another feature of target costing – functional analysis – encouraged systematic discussion between Newtech and suppliers. There was an unintended outcome to the outsourcing strategy. The functional analysis redefined what Newtech was about in terms of technology, strategy and organization. The company began to see itself as a 'technology coordinator' rather than a 'technology developer', as before. Newtech managed at a distance and used the techniques of functional analysis and purchase budgeting to add its specialized market knowledge to the development process.

Some obstacles to SMA

Strategic management accounting has not become a branded technique widely marketed by consultants in the same way as ABC,²¹ EVA and BSC. One reason may be that many companies are already responding to business challenges by following the principles that comprise SMA without a conscious adoption of an SMA package.²² A more serious problem may be that traditionally management accountants have a *performance* rather than a *learning* orientation. Thus, rather than look for new data (outside the organization and traditional accounting systems) and fearing failure, management accountants stick to the familiar.²³ To accountants, the familiar usually means financial data.²⁴ Furthermore, although the data for SMA may be held in different functional areas of the organization (such as marketing), there may be a reluctance to share with other functional areas such as management accounting. In short, the data for SMA is usually available somewhere, the difficulty is pulling it together in an organizational context. One advantage of the BSC is that it offers a neat format for integrating financial and non-financial data.

Summary

We have seen how strategic management accounting has evolved from the collection of competitor information to attempts to match management accounting systems with an organization's strategic position. As competition has become tougher and strategic positions seem harder to sustain, the managerial emphasis has shifted to supporting the lean enterprise. More generally we have argued that cost and financial data alone cannot capture all the characteristics of competitive choice and, with the balanced score-card, we have a management accounting system that supports an organization's strategy with a variety of financial and non-financial performance indicators. As competitive advantage becomes based on the development of corporate knowledge rather than the simple ownership of tangible assets, we may use the balanced score-card as a flexible model that can help the organization learn from its customers and suppliers.

A balanced scorecard consists of an integrated system of performance measures that are derived from and support the company's strategy. Different companies will have different balanced scorecards because they have different strategies. A well-constructed balanced scorecard provides a means for guiding the company and also provides feedback concerning the effectiveness of the company's strategy. We may also use benchmarking in order to learn from successful operations in a variety of organizations in both the same and in different industries. Strategy may evolve or emerge as the organization uses double-loop learning to respond to new threats and opportunities.

Key terms for review

Attribute costing costing the product attributes that appeal to customers (p. 153);

Balanced scorecard an integrated set of performance measures that is derived from and supports the organization's strategy (p. 161).

Benchmarking making comparisons against best practice in other organizations (p. 170).

Cost leadership aiming to be the lowest cost producer in an industry (p. 155).

Defender a company which concentrates on reducing costs and/or improving quality in existing markets/products (p. 155).

Delivery cycle time The amount of time required from receipt of an order from a customer to shipment of the completed goods (p. 167).

Double-loop learning constantly questions both standards and policies rather than just keeps on track (p. 170).

Executorial drivers cost factors such as work force involvement, quality management capacity utilisation, plant lay-out efficiency, product configuration effectiveness, and exploitation of linkages (p. 155).

Lean enterprises do not have a chance to create sustainable competitive advantage but can only repeatedly seek to create temporary advantages (p. 161).

Life cycle costing analyses costs incurred throughout the life of a product from development through to full production (p. 154).

Manufacturing cycle efficiency (MCE) Process (value-added) time as a percentage of throughput time (p. 167).

Marketing mix price is one element in product competitiveness together with product, promotion and place (p. 153).

Organizational learning In this business model, management accounting may be used as part of an interactive communication process both within

the organization and between the organization and its customers and suppliers (p. 152).

Product differentiation aims to maintain a price premium based on superior product quality (p. 155).

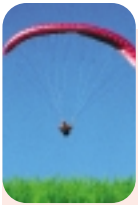
Prospector a company that is continually searching for market opportunities (p. 155).

Strategic choice choosing not only which industries and products to compete in but also how a company plans to compete (p. 152).

Structural drivers are factors such as scale, scope, experience, technology, and complexity (p. 155).

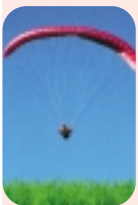
Throughput time the amount of time required to turn raw materials into completed products (p. 167).

Value chain consists of the major business functions that add value to a company's products and services (p. 155).



Questions

- 17-1** Why is market share an important indicator to monitor?
- 17-2** What aspects of a competitor's costs should be analysed in a strategic assessment?
- 17-3** What sources are useful for strategic intelligence gathering?
- 17-4** What is the difference between a prospector and a defender company?
- 17-5** What is the difference between a cost leader and a product differentiator?
- 17-6** What are the three steps/dimensions that combine financial and strategic analysis as proposed by Tomkins and Carr?
- 17-7** What are the implications of the 'strategy as collision' model?
- 17-8** Why does the balanced scorecard include financial performance measures as well as measures of how well internal business processes are doing?
- 17-9** What is the difference between the delivery cycle time and the throughput time? What four elements make up the throughput time? Into what two classes can these four elements be placed?
- 17-10** If a company has a manufacturing cycle efficiency (MCE) of less than 1, what does it mean? How would you interpret an MCE of 0.40?
- 17-11** How can a balanced scorecard aid organisational learning?
- 17-12** Which views of strategy would you expect to provoke the most resistance from the 'traditional' management accountants?

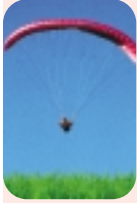


Exercises

E17-1 Interpreting the Scores on the Balanced Scorecard A balanced scorecard involves many different measures of performance ranging from the company's net income to the amount of time a customer must queue. How does a manager looking at a balanced scorecard know whether a particular score is good or bad? If a customer waits on average 30 seconds, is that good or bad? Is a net income of £10 million good or bad? CorVu Corporation is one of a number of companies that have developed balanced scorecard software. The company discusses the problem of interpreting performance measures on its web site www.corvu.com/papers/bsc.htm. Another software developer, Ergometrics, shows how balanced scorecard data can be visually displayed in the form of gauges on its web site www.ergometrics.com.

REQUIRED

- 1 Explain how CorVu Corporation computes its normalized scores.
- 2 Indicate how each of the Key Performance Indicators (KPIs) in CorVu Corporation's example could be displayed as gauges.
- 3 Suggest alternative methods for normalizing scores that might be useful to managers. Your alternatives should allow managers to tell at a glance whether performance is good or bad and improving or deteriorating.



Problems

P17-1 Use of quantitative techniques and non-financial indicators

PMF plc is a long-established public transport operator that provides a commuter transit link between an airport and the centre of a large city.

The following data has been taken from the sales records of PMF plc for the last two years:

Quarter	Number of passengers carried	
	Year 1	Year 2
1	15,620	34,100
2	15,640	29,920
3	16,950	29,550
4	34,840	56,680

The trend equation for the number of passengers carried has been found to be

$$x = 10,000 + 4,200q$$

where x = number of passengers carried per quarter

and q = time period (year 1 quarter 1: $q = 1$)

(year 1 quarter 2: $q = 2$)

(year 2 quarter 1: $q = 5$)

Based on data collected over the last two years, PMF plc has found that its quarterly costs have the following relationships with the number of passengers carried:

Cost item	Relationship
Premises costs	$y = 260,000$
Premises staff	$y = 65,000 + 0.5x$
Power	$y = 13,000 + 4x$
Transit staff	$y = 32,000 + 3x$
Other	$y = 9,100 + x$

where y = the cost per quarter (£),

and x = number of passengers per quarter.

REQUIRED

- 1 Using the trend equation for the number of passengers carried and the multiplicative (proportional) time series model, determine the expected number of passengers to be carried in the third quarter of year 3. (7 marks)
- 2 Explain why you think that the equation for the Transit staff cost is in the form
 $y = 32,000 + 3x$. (3 marks)

- 3 Using your answer to 1 and the cost relationships equations, calculate for each cost item and in total, the costs expected to be incurred in the third quarter of year 3. *(3 marks)*
- 4 Explain briefly why there may be differences between the actual data for the third quarter of year 3 and the values you have predicted. *(5 marks)*
- 5 Prepare a report, addressed to the Board of Directors of PMF plc, that briefly explains the following in the context of measuring the **effectiveness** of the transport service:
 - why the company should consider the use of non-financial performance measures;
 - three non-financial performance measures that could be used. *(7 marks)*

(Total = 25 marks)

CIMA Management Accounting–Performance Management
November 2001

P17-2 Strategic analysis.

M-HK provides a passenger ferry service between two large cities separated by the mouth of a major river. The ferries are frequent, well-supported by passengers and cover the distance between the cities in one hour. M-HK also transports passengers and goods by water ferry to other cities located on the river mouth. There are other ferry operators providing services between each of these locations besides M-HK.

REQUIRED

- 1 Explain what strategic information is required by M-HK's management in respect of customer demand, competition, competitiveness, and finance in order to plan its future ferry services. *(10 marks)*
- 2 Using the information in your answer to part 1, discuss how M-HK's Chartered Management Accountant should provide reports to M-HK's senior management for operational and strategic planning purposes. *(15 marks)*

(Total = 25 marks)

CIMA Management Accounting–Business Strategy,
May 2001

P17-3 Strategic analysis

R is a large high-class hotel situated in a thriving city. It is part of a worldwide hotel group owned by a large number of shareholders. The majority of the shares are held by individuals, each holding a small number; the rest are owned by financial institutions. The hotel provides full amenities, including a heated swimming pool, as well as the normal facilities of bars, restaurants and good-quality accommodation. There are many other hotels in the city which all compete with R. The city in which R is situated is old and attracts many foreign visitors, particularly in its summer season.

REQUIRED

- 1 State the main stakeholders with whom relationships need to be established and maintained by the management of R. Explain why it is important that relationships are developed and maintained with each of these stakeholders. *(10 marks)*

- 2 Explain how the management of R should carry out a benchmarking exercise on its services, and recommend ways in which the outcomes should be evaluated. (15 marks)

Note: Do NOT describe different methods of benchmarking in answering this question.

(Total = 25 marks)

CIMA Management Accounting–Business Strategy, May 2001

P17–4 Strategic management accounting

The Y Corporation is based in the USA. It was founded in the early part of the last century when Mr Y produced cartoon films. These soon proved very popular as a form of family entertainment and the characters in the films became household names. The Corporation established a theme park (based around the film characters) in the southern USA, where there was a warm and mainly dry climate. The theme park, known as Y-land, proved to be an immediate success, attracting millions of visitors each year. A whole range of family entertainment flourished, based on the original theme of the cartoon characters. These included shops, restaurants, hotels and amusement rides.

Following the success of Y-land in the USA, the directors of the Corporation established another Y theme park based in Northern Europe. The rationale behind this was that although many Europeans visited Y-land in the USA, the cost of travel made visiting the attraction very expensive. The directors believed that establishing a Y-land in Northern Europe would enable European people to visit the attraction without incurring high travel expenses. Y-land Europe was built in a highly-populated area of Northern Europe which is easily accessible. A factor which differentiates Y-land Europe from the theme park in the USA is that it is located in a region which is frequently affected by rain and it does not enjoy a guaranteed warm climate.

Y-land Europe did not in fact attract the volume of visitors that were expected and almost went bankrupt before receiving a massive cash injection from a wealthy donor who took part shares in the theme park.

FURTHER STRATEGIC DEVELOPMENT The Y Corporation is now considering building another theme park, this time in a tropical area in the Far East. Y-land FE will be part-funded by the host government in the Far East, which will take a 60 per cent share in the park. The Y Corporation will fund the remaining 40 per cent. Profits and losses will be shared in direct proportion to the shareholding of each of the joint venture partners. It is believed that local tourism and related sectors of the entertainment industry will benefit from the development as the theme park will attract more visitors to the region. Similar to the other two Y-land theme parks, the development will include many facilities such as hotels, bars and restaurants as well as the entertainment attractions.

It will take **two years** to build Y-land FE before any paying visitors enter the park. The Y Corporation has based its estimates of visitors in the first year of operation (that is, after the two years of construction) on the following probabilities:

	Visitors	Probability
Optimistic	8 million	0.25
Most likely	3 million	0.50
Pessimistic	2 million	0.25

After the first year of operation, it is expected that the number of visitors will increase by 50 per cent in the next year. The Y Corporation directors consider that this number of visitors will be the maximum and after that the theme park will suffer a reduction in the number of visitors (marketing decay) of 5 per cent compound each year for the next two years. After two years, the directors expect the number of visitors each year to remain constant at this level. The host government believes that the theme park will create about 15,000 new jobs in the area through servicing the facilities. It expects the construction of the park to create about 5,000 jobs in addition to the 8,000 who will be employed in land reclamation and other necessary infrastructural work associated with the project.

COST AND REVENUE ESTIMATES It is expected that the overall capital cost of the theme park will be \$2,200 million. This sum will be spread evenly over the construction period and, for the purposes of calculation, the actual cash outflow may be assumed to arise at the end of each of the two years. The Y Corporation will be responsible for raising 40% of this sum.

In any year, the visitors are expected to be in the proportion of 40 per cent adults and 60 per cent children or people who will obtain a concession (reduction) on their entrance fees. For simplicity, the entrance charges will be set at a flat rate of \$50 for each adult and \$30 for each child or concession. There will be no further fees for entertainment after the entrance charge has been made to the visitor.

Past experience has shown that running expenses of the theme park show a certain level of consistency. In terms of labour, the costs follow the pattern of a 90 per cent learning curve which applies on average to every million visitors. This lasts for the first two years, after which the labour costs for each visitor become constant. The cost of labour at the time the park will open is expected to be \$3 for each visitor. The effects of this are that the cumulative average direct labour costs in the first year of operation (that is, year 3 of the project) are estimated to be \$972 million (after being multiplied by the number of expected visitors in that year). The cumulative average labour costs for both the first and second years of operation (that is, years 3 and 4 of the project) are expected to be \$2114 million (after being multiplied by the total number of visitors for the first two years of operation). After this point the learning effect is expected to cease.

The other direct costs, which are not subject to learning, can be assumed to be incurred at the rate of \$2 for each visitor. Attributable fixed running expenses are estimated to be \$100 million each year in cash terms. In addition, the Y Corporation expects that its joint venture with the host government will earn average net contribution of \$10 from the sale of souvenirs and refreshments and \$100 from accommodation charges for each adult, child or concessionary visitor each year.

The cost of capital for the whole project is expected to be 15 per cent.

SHAREHOLDER VALUE The Y Corporation believes that its main objective is to increase the wealth of its owners. The corporation requires a gross return on investment of 22 per cent after eight years of income generated from the venture. It has been recommended to the directors of the Y Corporation that the return is calculated by taking the net present value of the project after eight years of operation and dividing this by the gross initial undiscounted capital outlay of \$2,200 million.

Ignore taxation, inflation and variations due to exchange rates.

REQUIRED

- (a) (i) Produce a discounted cash flow (DCF) calculation for Y-land FE from the start of building work in the first year until eight years of cash inflows have been generated (that is, ten years in total), and calculate the return on investment in accordance with the method recommended. *(15 marks)*
- (ii) Analyse and critically appraise the DCF calculation and the resulting return on investment as defined by the method recommended to the directors of the Y Corporation, and advise the directors as to whether they should proceed with Y-land FE. You should consider financial and non-financial factors in providing your advice. *(15 marks)*
- (b) Discuss how the directors of the Y Corporation can use Shareholder Value Analysis to determine the development of its portfolio of products and services. *(10 marks)*

(Total = 40 marks)

(Abbreviated version from CIMA Management Accounting–Business Strategy, November 2001)

P17-5 Uncertainty, strategic management accounting

Lipo plc ('Lipo') manufactures labels for consumer goods. The company obtained a listing on the Alternative Investment Market in 1998, having been established in 1955.

BASIC LABELS Lipo's sole manufacturing site is in Newcastle in the north east of England. For many years the company produced only basic, low technology labels ('basic labels') for a range of consumer goods. It has a market share in the UK of about 3 per cent. These are mainly stick-on labels for plastic containers including those for soft drinks, detergents and food products. In common with its competitors, which are of similar size to Lipo, manufacturing takes place using low-tech machinery and a standardized process.

Historically, about half of the basic labels were sold in the UK and half overseas, mainly to the Far East. Selling prices are determined in sterling and are the same in all markets. The strength of sterling in recent years relative to most Far Eastern currencies, however, has caused the overseas market to decline significantly to around 25 per cent of total sales and, as a consequence, company profitability also fell.

Within the UK, sales have remained stable, being strongest in northern England and southern Scotland. Good relations have been developed with a wide ranging and loyal customer base.

HI-TECH LABELS The significant decline in Far Eastern markets forced the company to search for an additional product market. After some internal debate it was decided in 1998 to set up a separate division and heavily invest in new machinery to make high-tech security labels ('hi-tech labels') with embedded microchips. These could be used with a wide range of goods (including: electrical goods, motor vehicles and, even, animals) to prevent theft, but also to enable police to identify ownership if stolen goods are subsequently recovered.

Large scale investment was required as it is necessary to make large volumes for the production of hi-tech labels to be viable. The new investment is financed by borrowing and, as a result, the company has reached its debt capacity. Raising further equity finance is not currently feasible.

Lipo sells hi-tech labels only in the UK market. In contrast with basic labels, however, it competes against both small and large competitors.

Microchips are imported from a major international company based in Japan, as few other manufacturers can match their price. Recently, however, the Japanese company patented, and commenced production of, a second generation microchip for security labels. This new microchip significantly improves performance, but it also costs much more than the first generation microchip.

THE INDUSTRY BACKGROUND The labels industry has a number of small companies similar to Lipo, but there are also a few high volume producers, and some consumer goods manufacturers make their own labels in-house. The market tends to segment with the smaller companies making basic labels and selling to smaller manufacturers. Conversely, the large labelling companies sell good quality basic labels, but also high-tech labels, targeting larger manufacturers in each case.

The market for high-tech labels has grown very significantly in recent years at about 75 per cent per annum, as new applications and new technology have been developed. While the prices were initially high, greater production volumes have lowered both costs and prices over the past year. The increase in demand has also drawn in many new entrants to the industry. This means that the customers of high-tech labelling companies are constantly switching suppliers as competitive conditions change.

Draft profit and loss accounts for the year to 30 September 2001

		Basic labels £000		Hi-tech labels £000
Turnover		15,000		22,000
Variable manufacturing costs	4,500		5,000	
Fixed manufacturing costs	2,000		10,000	
Administration	3,000		4,000	
Selling costs	<u>1,000</u>		<u>2,750</u>	
		<u>10,500</u>		<u>21,750</u>
Operating profit		<u>4,500</u>		<u>250</u>

THE BOARD MEETING A board meeting was held to review the strategic direction of the company, and particularly to review hi-tech label production.

The director in charge of the Hi-Tech Division was enthusiastic. 'This division is the future. We started from nothing four years ago and we now have a much greater turnover than the Basic Labels Division. What is more, we have achieved 50 per cent growth in each of the last two years, and this year we won some major contracts at the expense of much larger competitors.'

The finance director commented 'Hi-Tech Division is certainly achieving growth and market share, but it is not generating any profit. It has cut prices to win contracts but winning a contract and making a profit on it are two different things.'

The director in charge of basic labels agreed: 'Hi-Tech Division has had all the investment recently. My division has had nothing. In short, the core business is being squeezed in favour of a new technique which can only compete in the market by cutting prices with the result that it makes no profit. In contrast, since the disastrous few years following currency devaluations in

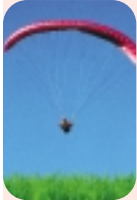
the Far East, our division has been quite stable in terms of both turnover and operating profit.'

REQUIREMENTS

- (a) So far as the information permits, evaluate the causes and consequences of environmental uncertainty in the labelling industry for:
- (i) Basic labels; and
 - (ii) Hi-tech labels. (10 marks)
- (b) As a strategic consultant write a memorandum to the board of Lipo which assesses each of the following issues in determining the *future* direction of the company:
- (i) Future development of Basic Labels Division;
 - (ii) Hi-tech security labels:
 - Competitor analysis
 - Pricing policy
 - Viability. (20 marks)

(Total = 30 marks)

ICAEW Business Management December 2001



Cases

C17-1 The Balanced Scorecard

Weierman Department Store is located in the downtown area of a medium-sized city in the American Midwest. While the store had been profitable for many years, it is facing increasing competition from large national chains that have set up stores in the city's suburbs. Recently the downtown area has been undergoing revitalization, and the owners of Weierman Department Store are somewhat optimistic that profitability can be restored.

In an attempt to accelerate the return to profitability, the management of Weierman Department Store is in the process of designing a balanced scorecard for the company. Management believes the company should focus on two key problems. First, customers are taking longer and longer to pay the bills they incur on the department store's charge card and they have far more bad debts than are normal for the industry. If this problem were solved, the company would have more cash to make much needed renovations. Investigation has revealed that much of the problem with late payments and unpaid bills is apparently due to disputed bills that are the result of incorrect charges on the customer bills. These incorrect charges usually occur because sales assistants enter data incorrectly on the charge account slip. Secondly, the company has been incurring large losses on unsold seasonal apparel. Such items are ordinarily resold at a loss to discount stores that specialize in such distress items.

The meeting in which the balanced scorecard approach was discussed was disorganized and ineffectively led – possibly because no one other than one of the vice presidents had read anything about how to put a balanced scorecard together. Nevertheless, a number of potential performance measures were suggested by various managers. These potential performance measures are listed below:

- Total sales revenue
- Percentage of salesclerks trained to correctly enter data on charge account slips
- Customer satisfaction with accuracy of charge account bills from monthly customer survey

- Sales per employee
- Travel expenses for buyers for trips to fashion shows
- Average age of accounts receivables
- Courtesy shown by junior staff members to senior staff members based on surveys of senior staff
- Unsold inventory at the end of the season as a percentage of total cost of sales
- Sales per square foot of floor space
- Percentage of suppliers making just-in-time deliveries
- Quality of food in the staff cafeteria based on staff surveys
- Written-off accounts receivables (bad debts) as a percentage of sales
- Percentage of charge account bills containing errors
- Percentage of employees who have attended the city's cultural diversity workshop
- Total profit
- Profit per employee.

REQUIRED

- 1 As someone with more knowledge of the balanced scorecard than almost anyone else in the company, you have been asked to build an integrated balanced scorecard. In your scorecard, use only performance measures suggested by the managers above. You do not have to use them all, but you should build a balanced scorecard that reveals a strategy for dealing with the problems with accounts receivable and with unsold merchandise. Construct the balanced scorecard following the format used in Exhibit 17.8. Do not be particularly concerned with whether a specific performance measure falls within the learning and growth, internal business process, customer or financial perspective. However, clearly show the causal links between the performance measures with arrows and whether the performance measures should show increases or decreases.
- 2 Assume that the company adopts your balanced scorecard. After operating for a year, there are improvements in some performance measures but not in others. What should management do next?
- 3 (a) Suppose that customers express greater satisfaction with the accuracy of their charge account bills but the performance measures for the average age of receivables and for bad debts do not improve. Explain why this might happen.
(b) Suppose that the performance measures for the average age of accounts receivable, bad debts, and unsold inventory improve, but total profits do not. Explain why this might happen. Assume in your answer that the explanation lies within the company.

C17-2 Strategic management accounting

Bernard Mason has just been appointed as Commercial Manager of the Salchester Theatre. The theatre has just completed a disappointing year with low attendances, culminating in a loss of £57,000. Details of the financial position of Salchester Theatre are given in Table 1. The current Artistic Director had, until now, been responsible for both the commercial and creative activities of the theatre. Mason has been brought in to improve the financial health of the theatre. His previous experience has been in the financial function within the manufacturing industry, and more recently as a finance manager at the town's university. Bernard considers himself to be a man of culture and not just a hard, bottom-line oriented businessman. He has welcomed this challenge to improve the fortunes of Salchester Theatre. Salchester is situated about 50 miles from

London, has a population of about 200,000 people, and is home to one of the newer universities. The main sources of employment are in the commercial sector, including the headquarters of a large insurance company, and in the computing industry. There are also a significant number of commuters who travel daily to work in London. The theatre is reasonably modern, built in the early 1980s, and is located in the centre of town, having a seating capacity of 350. There is also a restaurant/coffee shop which is open throughout the day. However this facility is poorly supported and is only ever busy for pre-theatre meals in the evening. There is also a rehearsal stage which is adjacent to the theatre. The theatre employs 20 full-time actors and actresses and a stage crew of twelve – which includes set designers and builders, carpenters, electricians and painters. Ticket sales and administration are handled by two full-time employees. Much of the work done during performances is by the 'Friends of Salchester Theatre' – a small group of active volunteers, many of whom are retired. These people act as bar and restaurant staff. They deal with mailing lists and also collect tickets, show people to their seats, and sell ice cream and confectionery to the audience at the interval. The 20 actors and actresses are usually divided into two groups, each performing a play for three weeks. Whilst one group is performing, the other group is rehearsing for its next three week commitment. Occasionally when a larger cast is required, such as for a performance of Shakespeare, members of one group will supplement the other. In fact when requirements are for a large number of actors they are helped by volunteers from the drama department of the university. The theatre company operate for 42 weeks in a year. The theatre is closed for one week each year for refurbishment and decoration. The remaining nine weeks are used by touring companies for shows such as opera, ballet and musicals, the Christmas show targeted at young children for the holiday period, and by the local choral society for its concerts. The funding of the theatre is typical of many regional theatres. The Arts Council (a central government-funded body to support cultural activities throughout the country) provides an annual grant of £180,000, subject to the programme being artistically acceptable. The Arts Council aims to encourage both artistic and cultural development. The town council in Salchester provides another subsidy of £130,000 each year. They believe that the existence of a theatre in Salchester is valuable for a number of reasons. It provides both culture and entertainment for the population of Salchester. Furthermore it enhances the reputation of the town. This is thought to be particularly important in attracting students. The university has 8,000 students who provide valuable income to the town, including shopkeepers and providers of student accommodation. With increasing competition for students Salchester does not want to lose a potential attraction. In addition the university has a drama department and the theatre provides both resources and support to this department. Although there is only a nominal charge for this (about £5000 a year) the theatre does receive help from the graphics and advertising department of the university in the form of posters and publicity material, as well as tapes for local radio advertising.

The rest of the income has to be generated by the theatre itself. Box office receipts have been falling over the past three years and in the financial year just completed amounted to only £340,000.

Until last year ticket prices had been £8 for weekday performances (Monday–Thursday) and £10 for weekends (Fridays and Saturdays). In order to cut the deficit the prices have been increased to £10 for midweek and £12.50 for weekends. The strategy does not appear to have worked and the receipts have continued to fall.

Mason has decided that there must be a review of the theatre's operations. Attendances are continuing to fall. He has reviewed the productions over the past year and has discovered that on average attendances were less than a third of capacity. There were few shows which could be considered to be financially successful. The twice-yearly Shakespeare productions are always popular because the management wisely choose to perform the plays which are being used as the examination texts by the local schools. Naturally the local students take the opportunity to see these plays. The Christmas show is successful for about two weeks but unfortunately the performances are scheduled for three weeks. Some of the touring groups for opera and ballet are well supported but the cost of attracting these companies is very high and although the attendance is almost at capacity the revenue does not cover the operating costs. However the main problem appears to be with the resident theatre group. Their costs are escalating but they do not appear to be attracting the public to their productions.

Mason called a meeting with the various groups who have an interest in the theatre's future to look at alternative approaches for improving the situation. The outcome of this meeting has not resulted in an agreed plan of action for the future. The actors and actresses who are looking for challenging modern plays are suggesting that future programmes be more adventurous and modern. One of them said 'We need to educate the audience to accept more creative material. The old favourites are boring and provide no interest for us.' However this view has been totally rejected by the theatre supporters club who do most of the voluntary work. They are looking for an increase in established and popular plays with which the audience are familiar. They want comedies and easy-to-understand detective plays. This request has met with total opposition from the performers, who have said that this type of material is both uninteresting and unacceptable to them. Finally, the members of the local council, who appear to enjoy the privilege of free entry to the theatre as a result of their patronage, seem more concerned with attracting outside companies to the theatre. The presence of nationally known theatre groups and performers apparently enhances the town's reputation.

**Table 1 Financial Details of Salchester Theatre
(financial year September–August) (£000)**

	1996/97	1997/98	1998/99
Income			
Theatre Group	410.00	390.00	340.00
Touring Companies	118.00	120.00	140.00
Restaurant	31.00	36.00	32.00
Arts Council	180.00	180.00	180.00
Local Authority	130.00	130.00	130.00
University	5.00	5.00	5.00
Hire to Local Choral Groups	<u>3.50</u>	<u>3.50</u>	<u>4.00</u>
Total Income	877.50	864.50	831.00
Expenditure			
Wages and Salaries	500.00	520.00	550.00
Materials and Other Costs	100.00	103.00	120.00
Restaurant (food etc.)	28.50	30.00	35.00
Fixed Costs (rent, lighting, heating)	30.00	33.00	38.00
Cost of Touring Companies	110.00	115.00	145.00
Total Expenditure	<u>768.50</u>	<u>801.00</u>	<u>888.00</u>
Surplus/Deficit	<u>109.00</u>	<u>63.50</u>	<u>−57.00</u>

Bernard Mason is unhappy at this inability to agree a way to resolve the current unacceptable position. There has to be some agreed strategy if the theatre is to survive and yet most of the groups, who have a stake in the theatre, cannot reach an understanding. Unless a viable solution can be found and agreed upon, Salchester Theatre will have to close, just as have many other regional theatres. This job is going to be more difficult and challenging than Mason originally had thought.

REQUIRED

- (a) It appears that the stakeholders in the theatre cannot agree on a strategic direction to solve the financial problems. Mason believes that a mission statement for the theatre could draw the conflicting parties closer together. With reference to the problems of Salchester Theatre, identify the major characteristics of a good mission statement, and comment on the problems which Mason may experience in drawing up such a statement. (13 marks)
- (b) Evaluate the current position at Salchester Theatre and critically review the solutions which the various parties have suggested might improve the financial position of the theatre. (20 marks)
- (c) Discuss what actions Mason might take in order to correct the worrying deterioration in the financial position. (17 marks)

(Total = 50 marks)

ACCA Management and Strategy December 1999

C17-3 Strategic management accounting

Sports & Leisure Ltd (SL) is a private company which operates two private health and fitness clubs in Yorkshire.

THE COMPANY HISTORY SL was formed in 1986 by its two shareholders and directors, Mike Conn and Archie Moon, who opened the first fitness club in Toddmartin. This is a prosperous commuter town of about 25,000 people just outside Leeds. Mike and Archie had been physiotherapists with a major football club and had used savings and mortgaged their houses to finance their shares in the company. They took an active role in supervising club members and advertised their previous professional experience.

The Toddmartin leisure club prospered with growth stabilising over the past three years at the current level of about 1,000 members. Each member currently pays an annual subscription fee of £500. This has risen in excess of inflation for a number of years.

The success of the business was due to a number of factors. First, it is the only fitness club in the town; second, it has the personal day-to-day involvement of the owners, both of whom have a good local reputation; and, third, the staff has a good knowledge of health and fitness and is paid premium rates.

In order to expand further, SL opened a second fitness club in 1999 in Dingleddown, a town near Sheffield, of some 45,000 people, mainly in the low to middle income groups. It is about 30 miles from the Toddmartin club and adopted the same general approach and level of fees as in Toddmartin. Dingleddown has no other fitness clubs.

THE FITNESS CLUB INDUSTRY Health and fitness has experienced a significant increase in demand in the UK, with annual membership growth figures of over 10 per cent over recent years, despite an average increase in fees above

inflation. Currently, it is estimated that some 5 per cent of the UK population are members of fitness clubs, but membership is more concentrated in the higher income group.

On the supply side there are several major health and fitness chains which have a national reputation and are operated by subsidiaries of the major brewing and hotel groups. These tend to have the best equipment, largest memberships and highest fees. They are usually located in major cities.

There are also many smaller chains or single club organizations around the country. Market surveys suggest that there is still an undersupply with a potential to attain the US level of fitness club membership of 7 per cent of the total population.

STRATEGIC ISSUES The shareholders are concerned about two issues which developed this year.

1 Rival Competition at Toddmartin

A rival, medium-sized company, Premier Leisure Ltd, has announced that it is to open a new fitness club in Toddmartin in six months' time. It will use the latest equipment, in contrast to SL's facilities which are in need of some updating.

Premier Leisure Ltd will offer discounted membership fees for the first three months, but the long-term annual fees charged by Premier Leisure Ltd at existing clubs are around £450. This is possible as they operate with fewer and less qualified staff than SL.

2 Establishing the Dingledown Club

The performance of the Dingledown club is disappointing. The membership is growing, but more slowly than had been anticipated. The manager originally employed to run the club had focused more on operational activities and less on marketing and expanding membership. A replacement manager has recently been appointed. His remuneration package is yet to be decided but some incentive to expand membership, while maintaining the long term reputation, is being considered. Additionally, an approach has been made by a large industrial company, Filochem plc. It is offering to pay a lump sum of £50,000 if SL offers half-price membership to any of its employees and ex-employees joining over the next year. Initial estimates are that 250 people would join the club under this scheme. Filochem plc provides a significant amount of employment in the town, but recently it received adverse publicity having made some employees redundant.

DRAFT ACCOUNTS The directors prepared the following draft accounts for the year to 31 March 2001.

	Toddmartin £000	Dingledown £000	Total £000
Fitness Activities			
Fees	500	100	600
Fitness salaries	230	90	320
Net income	270	10	280
Overheads			
Lease rentals – building	50	50	100
Depreciation	15	20	35
Other	20	25	45
Net profit/(loss)	185	(85)	100

REQUIREMENTS

- (a) Analyse and justify the strategic position of each of SL's two fitness clubs according to their positions in the product life cycle and in the Boston Consulting Group Matrix. (6 marks)
- (b) Write a memorandum to the directors, as an external advisor, which assesses and advises upon each of the two strategic issues. In so doing use the following headings:
- 1 Competition at Toddmartin*
- (i) Competitive strategy, market segmentation and pricing
 - (ii) Long-term viability of two fitness clubs in Toddmartin
 - (iii) Determining the circumstances under which SL should exit the Toddmartin market (11 marks)
- 2 Establishing the Dingedown Club*
- (i) The relationship between costs, revenues and profitability
 - (ii) The Filochem contract
 - (iii) Marketing strategy and incentives (excluding Filochem)
 - (iv) Long term viability. (15 marks)

(Total = 32 marks)

ICAEW Business Management June 2001

C17-4 Strategic management accounting

Saxex plc (hereafter Saxex) is listed on the London Stock Exchange and is the largest jewellery retailer in the UK.

COMPANY PROFILE Saxex operates some 600 jewellery outlets in the UK. Products include: traditional jewellery of gold and gem stones, costume jewellery, watches, clocks, and silverware. Saxex's turnover makes up about 17 per cent of the UK jewellery market which is valued at around £2.7 billion per year. Its brand name, used in all outlets, is 'Jewel in the Crown' and is well recognized as a sign of good value and reasonable quality.

The company currently manufactures some jewellery from gold and rough gem stones, but it also buys in jewellery ready for sale. Given the volume of its purchases it obtains significant discounts from all types of supplier.

While the company is profitable, its rate of growth has slowed significantly in recent years. The major reasons for this are:

- 1 There is an outlet in every city and most major towns in the UK and Saxex has thus reached the point of market saturation.
- 2 The 'Jewel in the Crown' stores are essentially mid-market and this has not been a growth area for the industry in recent years. It is particularly susceptible to a downturn in the economy.

AN INDUSTRY PROFILE Jewellery in the UK is retailed through a variety of outlets including shops, mail order, jewellery counters in department stores, market stalls, and catalogue showrooms.

Retailers include large listed companies with many branches, smaller private companies (normally with a limited number of branches in a particular region) and independent single outlets. There is also a very wide range of quality and prices in the industry.

STRATEGIES FOR GROWTH The board of Saxex is considering two strategies to return the business to higher growth. The company does not have significant liquid resources and thus intends to use debt to finance strategic development.

Strategy A – Open a new, up-market jewellery division

The board is considering opening shops under a new name to sell up-market jewellery at a higher price and at a much greater profit margin than the existing business. As yet it is unsure whether to buy retailing space and create a new brand or to buy an existing up-market jewellery chain.

Strategy B – Expand Overseas

Saxex is considering opening up further outlets in Europe under its existing brand name and selling its existing product range. It is unsure whether to buy existing overseas companies and re-brand them with the 'Jewel in the Crown' label or merely to buy retailing space.

REQUIREMENTS

- (a) Assume the following with respect to an existing outlet and a new outlet under *Strategy A*.

	Existing	Up-Market
Annual Fixed Costs	£240,000	£360,000
Expected sales volume	37,500	24,000
Average variable cost per item	£24	£36

Assume that existing outlets generate a contribution margin (i.e. contribution divided by sales) of 25 per cent.

Calculate the average price that the new up-market outlet must charge per item in order to earn the same overall profit as the existing outlet.

(5 marks)

- (b) Evaluate each of the proposed development strategies under the following headings:
- Marketing strategy
 - Risk
 - Growth by acquisition or by internal development; and conclusions.

Where appropriate, refer to relevant strategic models.

(23 marks)

(Total = 28 marks)

ICAEW Business Management September 2001

C17-5 Strategic management accounting

Alexander Simmonds is the founder and Managing Director of Playwell Ltd, a privately owned UK company specializing in making educational toys for young children and for children with special educational needs. These toys are robust and of simple construction made from high-quality materials, mainly wood, acquired from a local supplier. The main selling lines are building blocks of different shapes, sizes and colours, and toy trains and carriages (with no mechanical or electrical components). These simple toys are intended to stimulate the imagination of young children and to help them develop their visual and coordination abilities.

Alexander started the company in the early 1980s. He had initially made toys in his garage for his own children. He was soon persuaded to expand his activities and he had a ready demand for his products from friends and neighbours. In 1983 he was made redundant from his full-time job and he decided to put his redundancy money into setting up his own company. To his surprise the demand for his products grew at a faster rate than he had expected. There was an obvious gap in the market for simple, high-quality toys. Young children did

not appear to want the complex and high technology products which were expensively promoted on television and in magazines. The early success of the company was helped by being a low-cost operation. At the start, Alexander's sales were made on a direct basis, using no intermediaries. He promoted his products within a fifty mile radius using local newspapers; orders were shipped directly to the customers. Additionally the supplier of the materials provided Playwell with extended and low-cost credit until the final payment was made to the company for the completed toys. This arrangement has continued to the present time. Between 1983 and 1988 sales grew from a figure of £30,000 to almost £700,000. Net profit after tax was about 12 per cent.

Alexander's policy had been to reinvest these profits into the business. By 1988 he had moved out of his garage and had taken over a small factory in an industrial development area in a nearby town. Skilled labour was relatively easy to acquire. There was high unemployment in the area as a result of recent factory closures. By 1988 Alexander employed nearly 30 people in a range of jobs from design, manufacturing, sales, invoicing, and distribution. Labour turnover was, unsurprisingly, very low. The workers were very loyal and Alexander paid them competitive wages and provided them with above-average benefits, particularly attractive in an area where unemployment was still high. The firm continued to grow at a rate of about 20 per cent a year during the late 1980s and early 1990s. Although most of the sales were still marketed directly to the customer a significant proportion of sales were now made through one retailer who had a group of fifteen shops. This retailer sells products for young children, ranging through clothing, cots and prams as well as toys, and even currently, in 1999, this retailer still relies on Playwell for a significant amount of its toy purchases. About 40 per cent of the UK sales (excluding those to the special educational needs market) are currently made to this retailer. The target market for these shops is professional and middle-class parents who generally value quality above price.

As in any growing organisation Alexander now found himself moving away from a hands-on operation and becoming more concerned with future growth and strategy. By the end of 1994 Alexander decided to look at another market to generate increased growth in sales. Although sales were now almost £1.5 million a year and there were nearly 50 employees, the company now had the capacity to double its output. Fixed costs, including labour, accounted for 60 per cent of total costs and any future increase in sales ought to generate improved profit margins. This was important if the company was to prosper and grow and provide security for the workers in an area where employment opportunities were limited. The company was then looking for sales to increase by about 30 per cent a year. However such an increase could not easily be funded out of retained earnings. Playwell's past performance and conservative financial record was sufficiently attractive for the company's bank to be more than willing to extend its credit lines to provide the necessary working capital. The new area that Playwell was interested in was the development of toys designed for the 'special education needs' market. This term is generally used to refer to the education of children who have one or more physical, mental or emotional disabilities. Toys such as shaped building blocks, sponge balls, pegboards, and three-dimensional puzzles can all help children with disabilities to improve their visual perception, spatial awareness, memory, and muscle control. In addition there were other products such as balance boards and beams and disks, all made from high quality wood, which can help to coordinate mental and muscular activities. However it was likely that the method of marketing and distribution might have to be adapted. The new market segment was much more easily

identifiable and accessible. Databases of parents of children with special educational needs were readily available and it was possible to access the parents of these children via the specialist schools which these children attended. These schools were enthusiastic about Playwell's products but they alone could not support this new range of products. In fact part of Playwell's strategy was to distribute its products to these schools at very low prices in the hope that parents would then purchase these specialist toys for home use. This proved less easy than had been anticipated. First, parents of these children with special educational needs incurred many other expenses such as the additional costs of care. Furthermore, because of the increased care which these children usually required, one of the parents often had to stay at home or could only take on part-time work. Consequently the parents' discretionary income was significantly less. In addition, whereas the company had hoped that the teachers would recommend its products to the parents, it became apparent that teachers were not doing so, being worried that the parents would not have the expertise to use some of the equipment properly. As a result the revenues from this market were not as large as had been anticipated, particularly as the products' placement in the schools was seen initially as a loss-leader. Nevertheless sales of Playwell's core products (the non-specialist toys) were still gradually increasing (8% a year), but the momentum of earlier years was now not being maintained. By the beginning of 1997 Alexander decided that any future market expansion should be focused overseas, although he still intended to persevere with the 'special education' venture.

The company had acquired a good reputation within the United Kingdom and was operating in a growing niche market, in which Playwell was a significant participant. However the company now decided that exports were to be the favoured means of growth. In an effort to avoid high risks Alexander decided to concentrate his activities in Western Europe. There were a number of advantages to this strategy – the purchasing processes of both parents and children were thought to be similar to that of the domestic market, transportation costs were likely to be lower than sales to America or Asia, and being part of the European Union there would be no trade barriers. However after an initial period of success Playwell discovered that sales were not as easily achieved as they had been in the UK. First the major European countries of France, Germany and Italy were at different stages in the business cycle to the UK. Whilst the British economy was growing the continental ones were suffering from recession. Consequently the demand for products such as toys was not buoyant. Furthermore high interest rates within the UK resulted in a high level of the pound sterling against the Euro and other continental currencies, so making any exporting from the UK an expensive option. It appeared that price was now becoming a serious consideration in the customer's purchasing decision, particularly for a company with no strong overseas reputation. (Table 1 provides financial data for Playwell over the past few years.)

Alexander had now made two efforts to expand his business, neither of which could be judged as successful and he was now anxious to determine the future progress of the company.

REQUIRED

- (a) Alexander Simmonds appears to be the only person who is determining the objectives and strategic direction of Playwell plc. Identify any other parties who could have an interest in the success of this company. How might their goals be different to those of Alexander and to what extent would these differences be relevant?

(15 marks)

- (b) You have been retained as a business consultant by Alexander to provide impartial advice as to the future strategy which the company should adopt. Given its relative failure in its last two ventures provide a briefing paper recommending a strategy which Playwell should pursue in the next two to three years. You should support your recommendation with appropriate financial analysis and the use of suitable analytical models. (20 marks)
- (c) The exporting venture appears to have failed because of an inadequate knowledge of the market. Identify the main types of information concerning the company's business environment you would consider to be essential before committing the company to an export strategy, giving reasons to justify your selection. (15 marks)

(Total = 50 marks)

ACCA Management and Strategy, June 1999

Table 1

	£ million					
	1994	1995	1996	1997	1998	1999 (forecast)
Sales to general toy retailers – UK	1.50	1.62	1.75	1.89	2.04	2.20
Cost of sales	0.53	0.57	0.62	0.67	0.72	0.78
UK special needs toys sales		0.30	0.30	0.25	0.25	0.15
Cost of sales		0.14	0.14	0.11	0.11	0.07
Overseas sales				0.50	0.55	0.55
Cost of sales				0.30	0.33	0.33
Total sales	1.50	1.92	2.05	2.64	2.84	2.90
Fixed costs	0.65	0.95	1.00	1.25	1.40	1.40

Endnotes and further reading

- 1 Simmonds, K. 1981. 'Strategic management accounting', *Management Accounting*, 59(4), 26–29.
- 2 See Chapter 20 for a more detailed treatment of lifecycle costing.
- 3 Rickwood, C., Coates, J. and Stacey, R. 1990. 'Stapylton: strategic management accounting to gain competitive advantage', *Management Accounting Research*, 37–49.
- 4 Miles, R. and Snow, C. 1978. *Organizational Strategy, Structure, and Process*, New York, McGraw-Hill.
- 5 Porter, M., 1980. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, New York, Free Press.
- 6 Porter, M. 1985. *Competitive Advantage: Creating and Sustaining Superior Performance*, New York, Free Press.
- 7 Shank, J. 1996. 'Analyzing technology investments – from NPV to Strategic Cost Management', *Management Accounting Research*, 7, 185–197.
- 8 Tomkins, C and Carr, C. 1996. 'Reflections on the papers in this issue and a commentary on the state of Strategic Management Accounting', *Management Accounting Research*, 7: 271–80.
- 9 Cooper, R. 1996. 'Costing techniques to support corporate strategy: evidence from Japan', *Management Accounting Research*, 7: 219–46.
- 10 The balanced scorecard concept was developed by Robert Kaplan and David Norton. For further details, see their articles 'The Balanced Scorecard – Measures That Drive Performance', *Harvard Business Review*, January/February 1992, pp. 71–79; 'Using the Balanced Scorecard as a Strategic Management System', *Harvard Business Review*,

- January/February 1996, pp. 75–85; ‘Why Does a Business Need a Balanced Scorecard?’ *Journal of Cost Management*, May/June 1997, pp. 5–10; and their book *Translating Strategy into Action: The Balanced Scorecard* (Boston, MA: Harvard Business School Press, 1996).
- 11 In the 1960s, the French developed a concept similar to the balanced scorecard called *Tableau de Bord* or ‘dashboard’. For details, see Michel Lebas, ‘Managerial Accounting in France: Overview of Past Tradition and Current Practice’, *The European Accounting Review*, 1994, 3, no. 3, pp. 471–87; and Marc Epstein and Jean-François Manzoni, ‘The Balanced Scorecard and the *Tableau de Bord*: Translating Strategy into Action’.
 - 12 See Chapters 1 and 18 for another look at Easyjet.
 - 13 Justin Martin, ‘Are You as Good as You Think You Are?’ *Fortune*, 30 September 1996, pp. 94–99.
 - 14 Kaplan and Norton, *Translating Strategy into Action: The Balanced Scorecard*, pp. 118–19.
 - 15 For a critical evaluation of the BSC see Norreklit, H. 2000, ‘The balance on the balanced scorecard – a critical analysis of some of its assumptions’, *Management Accounting Research*, 11, pp. 65–88.
 - 16 The balanced scorecard is not just a for-profit system. See, e.g., its application in the Navy in Woodley, P. (2002). Shipshape, *Financial Management*, June, pp. 30–31.
 - 17 See especially, Simons, R. 1995, *Levers of Control*, Boston, Harvard Business School.
 - 18 Emergent strategy is especially associated with the work of Mintzberg. See Mintzberg, H, 1978, ‘Patterns in strategy formulation’, *Management Science*, 24(9), May, 934–48.
 - 19 See Prahalad, C.K. and Hamel, G. 1990. The core competences of the corporation, *Harvard Business Review*, May–June, 79–91.
 - 20 A real company but the name has been changed. See Mouritsen, J., Hansen, A. and Hansen, C.O. 2001, ‘Inter-organizational controls and organizational competencies: episodes around target cost management/functional analysis and open book accounting. *Management Accounting Research*, 12, 221–44.
 - 21 Bromwich, M. and Bhimani, A. 1994. *Management Accounting: Pathways to Progress*, London, CIMA publishing.
 - 22 Lord, B. 1996. Strategic management accounting: the emperor’s new clothes? *Management Accounting Research*, 7: 347–66.
 - 23 Coad, A. 1996. ‘Smart work and hard work: explicating a learning orientation in management accounting’, *Management Accounting Research*, 7, 387–408.
 - 24 Wilson, R.M.S, 1995. ‘Strategic management accounting’, in Ashton, D. Hopper, T. and Scapens, R.W. (eds.) *Issues in Management Accounting*, 2nd edition, Hemel Hempstead, Prentice-Hall, pp. 159–90.