# Chapter 8
## The performance measurement matrix

### Chapter learning objectives:

<table>
<thead>
<tr>
<th>Lead</th>
<th>Component</th>
<th>Indicative syllabus content</th>
</tr>
</thead>
</table>
| D.1 Evaluate the tools and techniques of strategy implementation. | (a) Evaluate alternative models of strategic performance measurement in a range of business contexts. | • Alternative strategic business unit (SBU) performance measures, including shareholder value added (SVA) and economic value added (EVA).  
• Alternative models of measuring strategic performance (e.g. the Balanced Scorecard (BSC) and the performance pyramid as strategic evaluation tools). |
| (b) Recommend solutions to problems in strategic performance measurement | | • Setting appropriate strategic targets through the use of a range of non-financial measures of strategic performance and their interaction with financial ones.  
• Evaluation of strategic targets through the development of critical success factors (CSFs).  
• Linking CSFs to Key Performance Indicators (KPIs) and corporate strategy and their use as a basis for defining an organisation’s information needs.  
• Effective communication of strategic performance targets, including the need to drive strategic performance through stretch targets and promotion of exceptional performance.  
• The role of the Chartered Management Accountant in the process of strategic performance evaluation. |
1. **The performance measurement mix**

This is important for two reasons:

1. It enables the management to identify whether the strategy is having the desired effect on the organisation’s output.
2. Setting performance targets is a way of communicating targets to staff and other key stakeholders that indicate the organisation’s priorities. This way, rewards can also be linked to the achievement of these measures.

2. **Critical success factors and their link to performance measurement**

One useful way of generating a performance measurement mix for the organisation is to identify “Critical Success Factors” that are determined by the strategy.

Critical success factors are a limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organisation.

- CSFs tie into the organisation’s overall strategy.
- The CSF would then be translated into “Key Performance Indicators” (KPIs).

Note: KPIs are specific, measurable targets that can be used to assess whether the CSFs have been achieved.

A strong performance measurement mix is likely to reflect CSFs and KPIs identified by the organisation, as they are the key areas in which the organisation needs to do well in order to outperform its rivals. This is the key issue for most businesses.

**Key points:**

Whatever the organisation chooses as its performance measurement mix:

- It will need to be monitored going forward.
- Management will need to ensure that information systems are put in place to collect data to allow performance in these areas to be monitored on an ongoing basis.
- Along with the organisation’s KPIs, the performance measurement mix is likely to cover a wide range of criteria – both financial and non-financial.

**Changes to the performance measurement mix**

When changing the performance measurement mix, management needs to be aware of the following points:

- Too many changes may lead to indicator overload, confusing employees about what the company wants to do.
• If something is included as part of the performance measurement mix, the importance of that item is being highlighted to staff.

• If a measure is dropped from the mix, you are communicating to staff that this item is no longer needed.

3. Financial and Non-financial measures

Financial performance measures

Financial performance measures concentrate on the profit made by the business and the assets used to generate those profits.

<table>
<thead>
<tr>
<th>Financial Performance Indicators</th>
<th>Formula</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales margin/Gross Profit margin</td>
<td>( \frac{\text{Revenue} - \text{Cost of Sales}}{\text{Revenue}} \times 100 )</td>
<td>Focuses on the profitability of the business trading account</td>
</tr>
<tr>
<td>Net profit margin</td>
<td>( \frac{\text{Profit before Interest &amp; Tax}}{\text{Turnover}} \times 100 )</td>
<td>Focuses on the profitability of the business in both trading and its net operating expenses</td>
</tr>
<tr>
<td>Return on capital employed</td>
<td>( \frac{\text{Profit before Interest &amp; Tax}}{\text{Capital Employed}} \times 100 )</td>
<td>Measures the profitability of a business or division against the assets utilised in the business</td>
</tr>
</tbody>
</table>

Capital employed = Shareholder funds + Long-term debt

Advantages of financial performance measures | Disadvantages of financial performance measures
--- | ---
Culturally expected | Inflation distortion
Focus on financial objectives | Lead to suboptimal and short-termist behaviour
Comparable across companies | Lack of comparability
Cheap | Understood by the select few – trained accountants and managers
Established framework for preparation in many cases | Subjectivity can exist in calculation – depreciation and amortisation
Tend to focus on resource generation and so survival in the long-term |
Non-financial performance measures

Businesses need to focus on the factors that actually cause profits to be earned – non-financial measures. If the performance in these areas began to fall, it would not be long before the financial performance measures would also deteriorate.

<table>
<thead>
<tr>
<th>Advantages of non-financial performance measures</th>
<th>Disadvantages of non-financial performance measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wider view</td>
<td>Some can be difficult to calculate</td>
</tr>
<tr>
<td>Easier to calculate</td>
<td>Subjectivity exists in design, interpretation and calculation</td>
</tr>
<tr>
<td>Easier to understand</td>
<td>Can lead to indicator overload</td>
</tr>
<tr>
<td>Not distorted by inflation</td>
<td>Costly</td>
</tr>
<tr>
<td>Can emphasise broad spectrum of management</td>
<td>Culture clash implications</td>
</tr>
<tr>
<td>Positive motivational implications</td>
<td>Constant changes require constant monitoring</td>
</tr>
</tbody>
</table>

4. The Balanced Scorecard – Kaplan and Norton

The aim of the balanced scorecard is to provide a broad range of both financial and non-financial measures designed to reflect the complexity and diversity of business circumstances.
It is a powerful tool that assists in the running of an organisation. Gains in one area need to be considered in conjunction with the losses that may arise in other areas and vice versa.

The manager’s view is then broadened, and the tendency to concentrate on one measure is reduced or hopefully removed.

Explanation:

• The balanced scorecard is an approach to the provision of information to management to assist strategic policy formulation and achievement.

• Emphasises the need to provide the user with a set of information that addresses all relevant issues of performance in an objective and unbiased fashion.

• The information provided includes both financial and non-financial elements and covers areas such as profitability, customer satisfaction, internal efficiency and innovation.

• It was a response to traditional performance measurement, which had tended to focus on a narrow range of performance measures and caused management to adopt a short-term focus.

Strategy mapping – implementing the balanced scorecard effectively

• This was developed by Kaplan and Norton as an extension to the balanced scorecard.

• The purpose was to make implementation of the scorecard more successful.

The steps involved are:

1. Identify the overriding objective of the organization.

2. Determine the main way the organisation will create value, given its overriding objectives.

3. Identify strategic objectives to support this – financial perspective.

4. Clarify customer-oriented strategies supporting the overall strategy = customer perspective.

5. Identify how internal processes will support strategies = internal perspective.

6. Identify skills and competences needed to support strategies = learning and growth perspectives.
Note to remember:

The strategy map helps the organisation to clarify, describe and communicate the strategy and objectives, both within the organisation and to external stakeholders, by presenting the key relationships between the overall objective and the supporting strategy and objectives in one diagram.

Difficulties:

- Organisations have often found it difficult to translate the corporate vision into behaviours and actions that achieve the key corporate objectives
- In practice, many employees do not understand the organisation’s strategy, and systems such as performance management and budgeting are not linked to strategy.

Benefits and drawbacks of the balanced scorecard

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoids management reliance on short termist or incomplete financial measures.</td>
<td>Does not provide a single overall view of performance.</td>
</tr>
<tr>
<td>Identification of non-financial measures helps management to identify problems earlier.</td>
<td>There is no clear relationship between the balanced scorecard and shareholder analysis.</td>
</tr>
<tr>
<td>Ensures that divisions develop success measures for their divisions that are related to the overall corporate goals of the organisation.</td>
<td>Measures may give conflicting signals and confuse management.</td>
</tr>
<tr>
<td>Can assist stakeholders in evaluating the firm if measures are communicated externally.</td>
<td>A substantial shift in corporate culture is often required in order to implement it.</td>
</tr>
</tbody>
</table>
5. The Performance Pyramid

The Performance Pyramid Framework – Lynch & Cross

- A model to understand and define the links between objectives and performance measures at different levels in the organisation.
- Designed to ensure that the activities of every department, system and business unit support the overall vision of the organisation.

*Explanation:*

The top of the pyramid: vision through which the organisation describes how it will achieve long-term success and competitive advantage.

The second level: the business unit that includes the critical success factors in terms of the market-related measures and financial measures that need to be achieved to meet the organisation's overall measures.

The third level: the business operating system, which includes measures relating to internal control systems and processes that are needed to meet the needs of the customers.

The lowest level of the pyramid: departments and work centres include the day-to-day operational measures that can be used to monitor the status of the level three measures.
The left-hand side of the pyramid contains measures:

- That have external focus and
- Are predominantly non-financial

The right-hand side of the pyramid has measures that

- Focus on the internal efficiency of the organisation and
- Are predominantly financial

- Objectives cascade down through the organisation, while measures and information flow from the bottom up.
- It tends to concentrate on two groups of stakeholders – shareholders and customers.
- It is necessary to ensure that measures are included that relate to other stakeholders as well.

The Building Block Model – Fitzgerald and Moon

<table>
<thead>
<tr>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial performance</td>
</tr>
<tr>
<td>Competitiveness</td>
</tr>
<tr>
<td>Quality of service</td>
</tr>
<tr>
<td>Flexibility</td>
</tr>
<tr>
<td>Resource utilisation</td>
</tr>
<tr>
<td>Innovation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership</td>
</tr>
<tr>
<td>Achievable</td>
</tr>
<tr>
<td>Equity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rewards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarity</td>
</tr>
<tr>
<td>Motivation</td>
</tr>
<tr>
<td>Controllability</td>
</tr>
</tbody>
</table>

Key Points:

- A framework for the design and analysis of performance management systems.
- First devised as a solution to performance measurement problems in service industries.
- Can also be applied to manufacturing and retail businesses to evaluate business performance.
- Financial performance and competitiveness were seen as the “results” and the others as “detriments” of success.
Fitzgerald and Moon suggested that these six dimensions could be used to generate the key performance measures that the business would need to monitor.

Analysis

Fitzgerald and Moon based their analysis on three building blocks:

**Building Block 1 – Dimensions:**

Goals of the business. Suitable measures should be developed to measure each performance dimension.

There are six dimensions in the building block model:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>CSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit</td>
<td>Successful financial performance and growth</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>Threat of loss of market share</td>
</tr>
<tr>
<td>Resource utilisation</td>
<td>Optimum use of scarce resources</td>
</tr>
<tr>
<td>Quality issues</td>
<td>Minimising defects and errors</td>
</tr>
<tr>
<td>Innovation</td>
<td>Product development</td>
</tr>
<tr>
<td>Flexibility</td>
<td>The ability to respond to changing needs</td>
</tr>
</tbody>
</table>

**Building Block 2 – Standards:**

- These are the measures used.
- To ensure success, it is vital that employees view standards as achievable and fair.
- It is also important that employees take ownership of them.

**Building Block 3 – Rewards:**

- Ensure that employees are motivated to meet the standards.
- Targets should be clear and linked to controllable factors.

6. **Benchmarking schemes**

“Benchmarking is the establishment, through data gathering, of targets and comparators through whose use relative levels of performance (and particular areas of underperformance) can be identified. Through adoption of identified best practices, it is hoped that performance will improve.” (CIMA Official Terminology)

**Purpose of benchmarking:**

- To help management understand how well the firm is carrying out its key activities.
• To help management to measure performance against that of successful organisations with similar operations, usually considered as “Best in Class”.

Types of benchmarking

Seber identifies three basic types of benchmarking:

**Internal:**

- Benchmarking with another branch or department of the organisation.
- Used where conformity of the service is the critical issue.
- Easily arranged, cheaper and culturally relevant.
- Unlikely to provide relevant solutions.

**Competitors:**

- Using a direct competitor that carries out the same or similar process.
- Aims at rendering the competing core competences as threshold.
- Relevant for the industry and market.

**Process or activity:**

- Focusing on similar processes in another company that is not a direct competitor.
- Looks for new, innovative ways to create advantage as well as solving threshold problems.
- Time-consuming and expensive.
- Resistance is likely to be lower, and it can provide a new basis for advantage.

**Prerequisites for benchmarking**

- Commitment from key executives from the outset
- Establishment of teams with a range of opinions and expertise
- A team to manage the project
- A team for site visits
- Budget allocation and training needed
- A formalised process
Problems

- A best practice company may not be willing to share their data
- What is best practice? – highly subjective
- Costly in terms of time and money
- Managers may become de-motivated if they are compared against a better-resourced rival.

7. Divisional performance

Divisional performance is measured by:
1. Economic value added (EVA)
2. Shareholder value analysis (SVA)
3. Triple bottom line

8. EVA & SVA

ECONOMIC VALUE ADDED (EVA)

Estimate of true economic profit after making corrective adjustments to GAAP accounting.

Formula

\[
\text{EVA} = \text{Conventional divisional profit measure} \pm \text{Adjustments for any divisional profit measures arising from using GAAP for ext reporting} - \text{Cost of charge on divisional assets}
\]

Adjustments:

- Adjustments are made to avoid the immediate write-off of value-building expenditures such as research and development, advertising expenditures or the purchase of goodwill.
- Adjustments are intended to produce a figure for capital employed, which is a more accurate reflection of the base upon which the shareholders expect their return to accrue, and to provide a profit after tax figure, which is a more realistic measure of the actual cash yield generated for shareholders from recurring business activities.
SHAREHOLDER VALUE ADDED (SVA)

- The main aim of an organisation is to add value to shareholder wealth.
- This can be defined in a variety of ways and results in a form of balanced scorecard being used.

Rappaport Model:

Rappaport suggested that future cash flows should be discounted at a suitable cost of capital and that shareholder value would be increased if this measure were to increase.

In order to maximise the future cash flows and reduce the cost of capital, he identified seven value drivers as listed below.

<table>
<thead>
<tr>
<th>Value drivers</th>
<th>Increase/reduce cash flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales growth rate</td>
<td>Increase</td>
</tr>
<tr>
<td>Life of the project</td>
<td>Increase</td>
</tr>
<tr>
<td>Operating profit margin</td>
<td>Increase</td>
</tr>
<tr>
<td>Working capital</td>
<td>Should be reduced</td>
</tr>
<tr>
<td>Cost of capital</td>
<td>Should be reduced</td>
</tr>
<tr>
<td>Asset investment</td>
<td>Should result in increased cash outflow</td>
</tr>
<tr>
<td>Taxation</td>
<td>Reduction in tax rate results in reduced cash outflow</td>
</tr>
</tbody>
</table>

Advantages and disadvantages of EVA/SVA approaches

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustments to profit mean greater focus on cash flow-based measures</td>
<td>Accounting data involves subjective provisions and estimates</td>
</tr>
<tr>
<td>It is consistent with NPV, so it should ensure better goal congruence</td>
<td>It ignores items that do not appear on the balance sheet</td>
</tr>
<tr>
<td>between divisional performance and maximising shareholder value</td>
<td>Confuses management, as they are seldom fully trained in its operation</td>
</tr>
<tr>
<td></td>
<td>Costly to maintain</td>
</tr>
<tr>
<td></td>
<td>Assumes value can be measured in money terms</td>
</tr>
<tr>
<td></td>
<td>Judgement involved by users in evaluation and selection of the cost of capital rate to be used</td>
</tr>
</tbody>
</table>
9. **Triple bottom line**

- The triple bottom line expands the traditional accountancy reporting system by looking at social and environmental performance.
- This can be used to help encourage each division and manager within the organisation to act in a socially responsible manner.

The model suggests measuring three areas:

1. **Profit** (economic prosperity) – the economic value created by the company.
2. **People** (social justice) – the fair and favourable business practices regarding labour and the wider community.
3. **Planet** (environmental quality) – the use of sustainable environmental practices and reduction of the environmental impact of the organization.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attracts ethically aware customers.</td>
<td>Difficult to quantify appropriate social and environmental measures.</td>
</tr>
<tr>
<td>Attracts better quality staff.</td>
<td>TBL reporting may create conflict as the benefits of any social and environmental actions that a business engages in are likely to emerge over the long term.</td>
</tr>
<tr>
<td>Cost reduction.</td>
<td></td>
</tr>
<tr>
<td>Reduces chances of government legislation.</td>
<td></td>
</tr>
</tbody>
</table>

10. **Transfer Pricing**

- In an organisation where SBU’s are trading with each other, it will be necessary to set transfer prices. These prices are often set by the corporate unit and can prove to be problem areas when assessing SBU performance.
- TPs that are set at marginal cost do not offer the SBU’s manager an incentive to supply, and they may choose to sell resources to outside parties who may pay a higher margin.
- Buying at marginal cost also give a misrepresented position, as performance appears to be better.
- In assessing managerial performance, it is usual to exclude TPs from the performance measurement systems on the grounds that they are not compatible.

11. **Communication**

Communication involves:

- Communicating the targets set and how they are measured.
- Identification of why the targets have been selected.
• Explaining to employees how they will personally be affected by achieving them.
• Getting feedback from employees about the appropriateness of the targets being set.

**Benefits:**

• Employees are more likely to buy into the performance measurement mix if they understand the reasons behind the performance targets set.
• An explanation of how performance is going to be measured will increase the likelihood that they will understand how to meet the targets being set.
• Explaining the impact of hitting or missing the target will ensure that the employee is aware of the advantages to them personally of conforming to the performance measurement mix.
• Getting feedback from employees can ensure that the targets set are achievable.

**Stretch targets:**

• Stretch targets are where the organisation sets goals for its employees that are possible but very difficult to meet.
• The employee is stretched, in that they have to perform extremely well in order to achieve the target.
• While stretch targets can work well to motivate staff to work hard, care has to be taken when setting them:
  - If employees see stretch targets as unachievable, it will be de-motivating.
  - A stretch target may encourage unethical or risk-taking behaviour.

### 12. Problems with performance measurement

Performance measurement brings up the following problems:

• How to coordinate different business units to achieve overall corporate goals.
• Goal congruence – management will be motivated to improve the performance of their local business unit at the expense of organisation at large.
• Whether or how the costs of the head office should be accounted for.
• How transfer prices should be set, as these effectively move profit from one division to another.
13. Chapter summary

The performance measurement matrix
Chapter 8

Strategy link
- CSFs / KPIs

Performance measurement mix

Models
- Balanced scorecard
- Performance pyramid
- Building block model

Benchmarking
- internal
- competitor
- process / activity

Divisional performance
- SVA
- EVA
- Triple Bottom Line
- Transfer pricing

Financial performance measures
- ratios
- concentrate on profit and assets

Non-financial performance measures
- wider view