The Balanced Scorecard: Strategic-Based Control
The Balanced Scorecard: Strategic-Based Control

Copyright © 2014 by DELTACPE LLC

All rights reserved. No part of this course may be reproduced in any form or by any means, without permission in writing from the publisher.

The author is not engaged by this text or any accompanying lecture or electronic media in the rendering of legal, tax, accounting, or similar professional services. While the legal, tax, and accounting issues discussed in this material have been reviewed with sources believed to be reliable, concepts discussed can be affected by changes in the law or in the interpretation of such laws since this text was printed. For that reason, the accuracy and completeness of this information and the author’s opinions based thereon cannot be guaranteed. In addition, state or local tax laws and procedural rules may have a material impact on the general discussion. As a result, the strategies suggested may not be suitable for every individual. Before taking any action, all references and citations should be checked and updated accordingly.

This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional service. If legal advice or other expert advice is required, the services of a competent professional person should be sought.

—From a Declaration of Principles jointly adopted by a committee of the American Bar Association and a Committee of Publishers and Associations.

All numerical values in this course are examples subject to change. The current values may vary and may not be valid in the present economic environment.
Course Description

The Balanced Scorecard (BSC) is a strategic-based responsibility accounting system that converts an organization’s mission and strategy into operational objectives and measures for four perspectives: the financial perspective, the customer perspective, the internal process perspective, and the learning and growth perspective. The course addresses the main features of the Balanced Scorecard and its implementation. Presented are several notable case studies that implemented and applied the BSC.

Field of Study
Accounting

Level of Knowledge
Overview

Prerequisite
None

Advanced Preparation
None
# Table of Contents

The Balanced Scorecard: Strategic-Based Control .................................................................1

Learning Objectives ................................................................................................................1

Activity-Based Versus Strategic-Based Responsibility Accounting .........................................2

Assigning Responsibility .........................................................................................................2

Establishing Performance Metrics ........................................................................................3

KPIs and Evaluation ................................................................................................................3

Assigning Rewards ..................................................................................................................3

Basic Concepts of the Balanced Scorecard ............................................................................3

Financial Perspective: Objectives and KPIs ................................................................ .......7

Customer Perspective: Objectives and Measures .................................................................8

Review Questions – Section 1 ...............................................................................................10

Internal business process Perspective: Objectives and KPIs ..............................................12

Learning and Growth Perspective: Objectives and KPIs .....................................................15

Scorecard for a Biotechnology Firm .....................................................................................18

Applying the Balanced Scorecard to a School District .........................................................19

Scorecard for a Consumer Products Firm ...........................................................................20

The Balanced Scorecard and United Parcel Service ..............................................................21

Balanced Scorecard and Nonprofits ......................................................................................21

Web Resources ....................................................................................................................22

Strategic Alignment ..............................................................................................................22

Linking KPIs to Strategy .......................................................................................................23

Sustainability and Performance Evaluation ............................................................................25

Implementing a Balanced Scorecard ....................................................................................25
The Balanced Scorecard: Strategic-Based Control

Learning Objectives

After studying this course you will be able to:

1. Recognize key attributes of a strategic-based responsibility accounting systems.
2. Identify the basic characteristics and outcome measurements of the Balanced Scorecard.
3. Identify operational objectives and Key Performance Indicators (KPIs) for each perspective.
4. Recognize how the Balanced Scorecard links measures to strategy.

In today’s world there is no need to say that competitive edge cannot be gained only by excellent management of physical and financial assets. The ability of a company to mobilize and exploit its tangible or invisible assets has become far more decisive than investing and managing physical, tangible assets. In other words, the success of a company no longer depends upon production facilities, financial capital and ownership, but more upon intangible assets.

Intangible assets are defined as the assets that are not physical in nature such as intellectual property, trade secrets, pricing formulas, customer lists, business plans, recipes, and so on. Intangible assets are of great importance because they enable a company to distinguish itself from competitors by:

- Developing customer relationships that retain the loyalty of existing customers;
- Introducing innovative products and services desired by targeted customer segments;
- Producing customized high-quality products and services at low cost and with short lead times;
- Mobilizing employee skills and motivation for continuous improvements in process capabilities, quality, and response times;
- Deploying information technology, data bases, and systems

By taking the importance of intangible assets, it makes much more sense to say that these traditional financial systems should be expanded to incorporate the valuation of a company’s intangible assets. And right at this point, a model developed by Robert S. Kaplan and David P. Norton comes into scene, the Balanced Scorecard.

The Balanced Scorecard (BSC) is a strategic performance management system that permits an organization to create a strategic focus by translating an organization’s strategy into operational objectives and performance measures for four different perspectives: the financial perspective, the customer perspective, the internal
business process perspective, and the learning and growth (infrastructure) perspective. A strategic performance management system can assume different forms, the most common being that of the Balanced Scorecard. \textit{Strategy} is defined as choosing the market and customer segments the business unit intends to serve, identifying the critical internal and business processes that the unit must excel at to deliver the value propositions to customers in the targeted market segments, and selecting the individual and organizational capabilities required for the internal, customer, and financial objectives.

\section*{Activity-Based Versus Strategic-Based Responsibility Accounting}

Activity-based responsibility accounting represents a significant change in how responsibility is assigned, measured, and evaluated. The activity-based system added a process perspective to the financial perspective of the functional-based accounting system. In effect, responsibility accounting changed from a one-dimensional system to a two-dimensional system and from a control system to a \textit{performance management system}.

The responsibility accounting model is defined by four essential elements:

1. Assigning responsibility
2. Establishing performance measures or benchmarks
3. Evaluating performance
4. Assigning rewards.

Continuous improvement (CI) efforts associated with responsibility accounting in an activity-based environment are often fragmented and they fail to connect with the organization’s overall mission and strategy. \textit{Directed continuous improvement} requires managers to carefully specify a mission and strategy for their organization and identify the objectives, performance measures, and initiatives necessary to accomplish this overall mission and strategy.

\section*{Assigning Responsibility}

Effective management control requires performance measurement and feedback. This process affects allocation of resources to organizational subunits. It also affects decisions about managers’ compensation, advancement, and future assignments. Furthermore, evaluating their performance serves to motivate managers to optimize the measures in the performance evaluation model. However, that model may be inconsistent with the organization’s model for managerial decision making.

The strategic-based responsibility accounting system adds direction to improvement efforts by tying responsibility to the firm’s strategy. Ideally, all individuals in the organization should understand the organization’s strategy and know how their specific responsibilities support achievement of the strategy.
Establishing Performance Metrics

With the strategic-based approach, performance measures or key performance indicators, KPI for short) must be integrated so that they are mutually consistent and reinforcing. The performance measures must be balanced and linked to the organization’s strategy. When the measures selected are balanced between lag measures and lead measures, between objective measures and subjective measures, between financial measures and nonfinancial measures, and between external measures and internal measures, the KPIs are considered to be balanced.

- **Lag measures** are outcome measures or measures of results from past efforts (e.g., customer profitability). **Lead Measures** or performance drivers are factors that drive future performance (e.g., hours of employee training).
- **Objective measures** are those that can be readily quantified and verified (e.g., market share). **Subjective measures** are less quantifiable and more judgmental in nature (e.g., employee capabilities).
- **Financial measures** are those expressed in monetary terms (e.g., cost per unit). **Nonfinancial measures** are measured in nonmonetary units (e.g., number of unsatisfied customers).
- **External measures** are those that relate to customers and shareholders (e.g., customer satisfaction and return on investment). **Internal measures** relate to the processes and capabilities that create value for customers and shareholders (e.g., internal business process efficiency and employee satisfaction).

KPIs and Evaluation

In a strategic-based system, customer and learning and growth perspectives are included in the KPIs and evaluation. Additional measures such as customer satisfaction, customer retention, employee capabilities, and revenue growth from new customers and new products should be included.

Performance evaluation should drive organizational change. **Stretch targets** are targets that are set at levels, that, if achieved will transform the organization in three to five years. The measures used as stretch targets should be linked by causal relationships, and the targets are set through a consensus of everyone in the organization.

Assigning Rewards

Assigning rewards in a strategic-based system is much like assigning rewards in an activity-based system. The reward system must be linked to the performance measures. In order for the Balanced Scorecard to be effective, compensation must be tied to the scorecard measures. Team-based rewards present another set of difficulties.

Basic Concepts of the Balanced Scorecard

A problem with just assessing performance with financial measures like profit, RO, residual income, and
Economic Value Added (EVA) is that the financial measures are "backward looking." In other words, today's financial measures tell you about the accomplishments and failures of the past. An approach to performance measurement that also focuses on what managers are doing today to create future shareholder value is the Balanced Scorecard.

The trend in managerial performance evaluation is the Balanced Scorecard approach. Multiple measures of performance permit a determination as to whether a manager is achieving certain objectives at the expense of others that may be equally or more important. These measures may be financial or nonfinancial.

Essentially, a Balanced Scorecard is a set of performance measures constructed for four dimensions of performance. As indicated in Exhibits 1 and 2, the dimensions are financial, customer, internal business processes, and learning and growth. Having financial measures is critical even if they are backward looking. After all, they have a great effect on the evaluation of the company by shareholders and creditors. Customer measures examine the company's success in meeting customer expectations. Internal business process measures examine the company's success in improving critical business processes. And learning and growth measures examine the company's success in improving its ability to adapt, innovate, and grow. The customer, internal business processes, and learning and growth measures are generally thought to be predictive of future success (i.e., they are not backward looking).

A variety of potential measures for each dimension of a Balanced Scorecard are indicated in Exhibit 1.

The Balanced Scorecard suggests that an organization should be viewed from four different perspectives;

- The Financial perspective—How do we look to shareholders?
- The Customer perspective—How do customers see us?
- The Internal business processes perspective—What must we excel at?
- The Learning and Growth perspective—Can we continue to improve and create value?

These four perspectives allow the companies to measure how their business units create value for current and future customers and how they must enhance internal capabilities and the investment in people, systems, and procedures necessary to improve future performance. Companies that adopt the balanced scorecard develop specific objectives they want to achieve within each of the four perspectives. These objectives are critical to the company's overall success.

The scorecard development process helps better align daily work with overall company vision, mission and goals. More and more high performance companies are developing measurements for their work in order to gauge their progress and improve business. Properly utilizing the scorecard can also help these companies measure key activities in such areas as:

- Tracking performance against established strategic goals as required by the Government Performance and Results Act.
- Collecting data that are useful in monitoring customer satisfaction, employee morale, and organizational learning along with the more traditional financial management measures.
- Identifying the work activities that add value to the organization.
- Incorporating data from customers, employees, learning and growth, and financial growth perspectives.
- Obtaining a balanced view of the present and future performance of the organization.
In most companies, the scorecard process starts with development of an overall corporate scorecard. Then, individual divisions and departments develop their own, which feed into the main corporate scorecard.

As mentioned earlier, companies use **key performance indicators (KPIs)**, which are summary performance metrics, to assess how well a company is achieving its goals. For example, the company could use “average customer satisfaction rating” as a KPI to measure the company’s ability to please customers. "Number of warranty claims" could be used to measure the company’s ability to produce quality products.

KPIs are continually measured, and are reported on a **performance scorecard** or **performance dashboard**, a report that allows managers to visually monitor and focus on managing the company’s key activities and strategies as well as business risks. Short-term and long-term targets for each KPI should also be displayed on the dashboard or scorecard so that managers can determine whether the company is improving and moving towards each objective, or whether new strategies need to be developed. To focus attention on the most critical elements to success and to prevent information overload, management should use only a few KPIs for each balanced scorecard perspective.

**Exhibit 1**

Four Perspectives of the Balanced Scorecard
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
<th>KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial</strong></td>
<td>Is the company achieving its financial goals?</td>
<td>Operating income</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Return on assets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Residual income or economic value added (EVA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Return on equity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Profit margin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cost variances</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sales growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cash flow from operations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduction of administrative expense</td>
</tr>
<tr>
<td><strong>Customer</strong></td>
<td>Is the company meeting customer expectations?</td>
<td>Customer satisfaction scores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customer retention rates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>New customer acquisition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market share</td>
</tr>
<tr>
<td></td>
<td></td>
<td>On-time delivery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time to fill orders</td>
</tr>
<tr>
<td><strong>Internal Business Processes</strong></td>
<td>Is the company improving critical internal processes?</td>
<td>Defect rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of suppliers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Material turnover</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent of practical capacity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percentage of jobs completed on time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of new contacts from advertising</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fuel usage efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of “re-servicings.”</td>
</tr>
<tr>
<td><strong>Learning and Growth</strong></td>
<td>Is the company improving its ability to innovate?</td>
<td>Amount spent on employee training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employee satisfaction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employee retention or turnover</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hours of training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of new products</td>
</tr>
<tr>
<td></td>
<td></td>
<td>New product sales as a percent of total sales</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of patents</td>
</tr>
</tbody>
</table>
We now consider each of the perspectives and how they are linked together. We will also present some of the more commonly used KPIs.

All the perspectives are described at great depth below.

**Financial Perspective: Objectives and KPIs**

The *financial perspective* establishes the long- and short-term financial performance objectives. The financial perspective is concerned with the global financial consequences of the other three perspectives. Thus, the objectives and KPIs of the other perspectives must be linked to the financial objectives. The financial perspective has three strategic themes: revenue growth and mix, cost reduction/productivity improvement, and asset utilization/investment strategy. The three themes are constrained by the need for managers to manage risk.

1. *Revenue growth and mix* refers to the expansion of product and service offerings, reaching new customers and markets, changing the product and service mix through higher value added offerings, and pricing products and services. The most common revenue growth measure would be sales growth rates and market share for targeted regions, markets, and customers.

2. *Cost reduction/productivity improvement* refers to efforts to decrease the direct costs of products and services, reduce indirect costs, and share common resources with other business units.

3. *Asset utilization/investment strategy* refers to the managers’ attempt to reduce the working capital levels required to support a given volume and mix of business.

**Summary Of Objectives And KPIs:**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue Growth and Mix:</strong></td>
<td></td>
</tr>
<tr>
<td>Increase the number of new</td>
<td>Percentage of revenue from new</td>
</tr>
<tr>
<td>products</td>
<td>products</td>
</tr>
<tr>
<td>Create new applications</td>
<td>Percentage of revenue from new</td>
</tr>
<tr>
<td></td>
<td>applications</td>
</tr>
<tr>
<td>Develop new customers and</td>
<td>Percentage of revenue from new</td>
</tr>
<tr>
<td>markers</td>
<td>sources</td>
</tr>
<tr>
<td>Adopt a new pricing strategy</td>
<td>Product and customer profitability</td>
</tr>
<tr>
<td><strong>Cost Reduction/Productivity Improvement:</strong></td>
<td></td>
</tr>
<tr>
<td>Reduce unit product cost</td>
<td>Unit product cost</td>
</tr>
<tr>
<td>Reduce unit customer cost</td>
<td>Unit customer cost</td>
</tr>
<tr>
<td>Reduce distribution channel</td>
<td>Cost per distribution channel</td>
</tr>
<tr>
<td>cost</td>
<td></td>
</tr>
<tr>
<td><strong>Asset Utilization/Investment Strategy:</strong></td>
<td></td>
</tr>
<tr>
<td>Improve asset utilization</td>
<td>Return on investment</td>
</tr>
<tr>
<td></td>
<td>Residual income (RI) or Economic Value Added (EVA)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Customer Perspective: Objectives and Measures

The customer perspective is the source of the revenue component for the financial objectives. This perspective defines and selects the customer and market segments in which the company chooses to compete. Failure to deliver the right kinds of products and services to the targeted customers means revenue will not be generated.

Once the customers and segments are defined, then core objectives and KPIs are developed which will be common across all organizations. There are five key core objectives:

1. *Market share* reflects the proportion of business in a given market that a company sells. Once the targeted customer group or market segment has been defined then measuring market share becomes too straightforward.
2. *Customer acquisition* measures the rate at which a company attracts or wins new customers or business. Customer acquisition could be measured by either the number of new customers or the total sales to new customers in targeted segments.
3. *Customer retention* tracks the rate at which a company retains or maintains ongoing relationships with its customers. Besides this, many companies measure customer loyalty by the percentage growth of business with existing customers.
4. *Customer satisfaction* assesses the satisfaction level of customers. It provides feedback on how well a company is doing. The more satisfied a company’s customers are, the more likely the company is doing well.
5. *Customer profitability* measures the net profit of a customer, or a segment, after allowing for the unique expenses required to support that customer.

As can be seen from Exhibit 4, all the core measures are interrelated, so companies can deliver superior value to their customers if they place great emphasis on them.

Exhibit 4
Core Measures Of Customer Perspective
In addition to the core KPIs and objectives, KPIs are needed that drive the creation of *customer value* and, thus, drive the core outcomes. Customer value is the difference between realization and sacrifice, where realization is what the customer receives and sacrifice is what is given up.

**Summary Of Objectives And KPIs:**

**Customer Perspective**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core:</strong></td>
<td></td>
</tr>
<tr>
<td>Increase market share</td>
<td>Market share (percentage of market)</td>
</tr>
<tr>
<td>Increase customer retention</td>
<td>Percentage growth of business from &lt;Misting customers</td>
</tr>
<tr>
<td>Increase customer acquisition</td>
<td>Percentage of repeating customers</td>
</tr>
<tr>
<td>Increase customer acquisition</td>
<td>Number of new customers</td>
</tr>
<tr>
<td>Increase customer satisfaction</td>
<td>Ratings from customer surveys</td>
</tr>
<tr>
<td>Increase customer profitability</td>
<td>Customer profitability</td>
</tr>
<tr>
<td><strong>Performance Value:</strong></td>
<td></td>
</tr>
<tr>
<td>Decrease price</td>
<td>Price</td>
</tr>
<tr>
<td>Decrease post purchase costs</td>
<td>Postpurche costs</td>
</tr>
<tr>
<td>Improve product functionality</td>
<td>Ratings from customer surveys</td>
</tr>
<tr>
<td>Improve product quality</td>
<td>Percentage of returns</td>
</tr>
<tr>
<td>Increase delivery reliability</td>
<td>On-time delivery percentage</td>
</tr>
<tr>
<td>Increase delivery reliability</td>
<td>Aging schedule</td>
</tr>
<tr>
<td>Improve product image and reputation</td>
<td>Ratings from customer surveys</td>
</tr>
</tbody>
</table>
Review Questions – Section 1

1. An organization’s managerial decision-making model for capital budgeting is based on the net present value of discounted cash flows. The same organization’s managerial performance evaluation model is based on annual divisional return on investment. Which of the following is true?

A. Divisional managers are likely to maximize the measures in the performance evaluation model.
B. Divisional managers are likely to maximize the measures in the decision-making model.
C. The manager has an incentive to accept a project with a positive net present value that initially has a negative effect on net income.
D. The use of models with different criteria promotes goal congruence.

2. The balanced scorecard provides an action plan for achieving competitive success by focusing management attention on critical success factors. Which one of the following is NOT one of the perspectives on the business into which key performance indicators (KPIs) are commonly grouped in the balanced scorecard?

A. Competitor business strategies.
B. Financial performance.
C. Internal business processes.
D. Employee innovation and learning.

3. Using the balanced scorecard approach, an organization evaluates managerial performance based on

A. A single ultimate measure of operating results, such as residual income.
B. Multiple financial and nonfinancial measures.
C. Multiple nonfinancial measures only.
D. Multiple financial measures only.

4. Which of the following balanced scorecard perspectives examines a company’s success in targeted market segments?

A. Financial.
B. Internal business process.
C. Customer.
D. Learning and growth.

5. On a balanced scorecard, which of the following is NOT a customer satisfaction measure?

A. Market share.
B. Economic value added (EVA).
C. Speed of delivery.
D. Customer retention.
Internal business process Perspective: Objectives and KPIs

Processes are the means for creating customer and shareholder value. Thus, the process perspective entails the identification of the processes needed to achieve customer and financial objectives. To provide the framework needed for this perspective, a process value chain is defined. The process value chain is made up of three processes: the innovation process, the operations process, and the postsales process.

In the innovation process, the company reaches the emerging needs of the customers, and then creates the products or services that will satisfy those needs.

In the second process namely operations process, the existing products or services are produced and delivered to customers. Operational excellence and cost reduction have been always the number 1 issue for companies, but the Balanced Scorecard assumes that operational excellence can be only one component in an entire value chain model.

Post sale service process is the last step of the entire value chain model, and in this step companies offer service to the customers after the original sale or delivery of a product or service. The post sale services vary greatly in according to the nature of a company’s business.


Exhibit 5
The Value Chain Model

<table>
<thead>
<tr>
<th>INNOVATION</th>
<th>OPERATIONS</th>
<th>POSTSALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the Market</td>
<td>Create the Product or Service</td>
<td>Build the Products/ Services</td>
</tr>
</tbody>
</table>

Common process time measures are cycle time, velocity, and manufacturing cycle efficiency (MCE).

Cycle Time and Velocity: The time it takes a company to respond to a customer order is referred to as responsiveness. Cycle time and velocity are two operational measures of responsiveness. Cycle time (manufacturing) is the length of time it takes to produce a unit of output from the time materials are received (starting point of the cycle) until the good is delivered to finished goods inventory (finishing point of the cycle). Thus, cycle time is the time required to produce a product (time/units produced). Velocity is the number of units of output that can be produced in a given period of time (units produced/time). Although cycle time has been defined for the operations process, it is defined in a similar way for innovation and postsales service processes. For example, how long does it take to create a new product and introduce it to the market? Or, how long does it take to resolve a customer complaint (from start to finish)?
Incentives can be used to encourage operational managers to reduce manufacturing cycle time or to increase velocity, thus improving delivery performance. A natural way to accomplish this objective is to tie product costs to cycle time and reward operational managers for reducing product costs. For example, in a JIT firm, cell conversion costs can be assigned to products on the basis of the time that it takes a product to move through the cell. Using the theoretical productive time available for a period (in minutes), a value-added standard cost per minute can be computed.

$$\text{Standard cost per minute} = \frac{\text{Cell conversion costs}}{\text{Minutes available}}$$

To obtain the conversion cost per unit, this standard cost per minute is multiplied by the actual cycle time used to produce the units during the period. By comparing the unit cost computed using the actual cycle time with the unit cost possible using the theoretical or optimal cycle time, a manager can assess the potential for improvement. Note that the more time it takes a product to move through the cell, the greater the unit product cost. With incentives to reduce product cost, this approach to product costing encourages operational managers and cell workers to find ways to decrease cycle time or increase velocity.

**EXAMPLE 1**

An example will illustrate these concepts. Assume that a company has the following data for one of its manufacturing cells:

- Theoretical velocity: 40 units per hour
- Productive minutes available (per year): 1,200,000
- Annual conversion costs: $4,800,000
- Actual velocity: 30 units per hour

The actual and theoretical conversion costs per unit are shown below. Notice that the per-unit conversion cost can be reduced from $8 to $6 by decreasing cycle time from four minutes per unit to one and one-half minutes per unit (or increasing velocity from 30 units per hour to 40 units per hour). At the same time, the objective of improving delivery performance is achieved.

### Actual Conversion Cost per Unit

<table>
<thead>
<tr>
<th>Standard cost per minute</th>
<th>Actual cycle time</th>
<th>Actual conversion cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4,800,000/1,200,000 = $4 per minute</td>
<td>60 minutes/30 units = 2 minutes per unit</td>
<td>$4 \times 2 = $8 per unit</td>
</tr>
</tbody>
</table>

### Theoretical Conversion Cost per Unit

- Theoretical cycle time = 60 minutes/40 units = 1.5 minutes per unit
- Ideal conversion cost = $4 \times 1.5 = $6 per unit
**Manufacturing Cycle Efficiency (MCE)** Another time-based operational measure calculates manufacturing cycle efficiency (MCE) as follows:

\[
\text{MCE} = \frac{\text{Processing time}}{\text{Processing time} + \text{Move Time} + \text{Inspection Time} + \text{Wait time}}
\]

where processing time is the time it takes to convert materials into a finished good. The other activities and their times are viewed as wasteful (nonvalue-added), and the goal is to reduce those times to zero. If this is accomplished, the value of MCE would be 1.0. As MCE improves (moves toward 1.0), cycle time decreases. Furthermore, since the only way MCE can improve is by decreasing waste, cost reduction must also follow.

**EXAMPLE 2**

To illustrate MCE, let’s use the data from Example 1. The actual cycle time is 2.0 minutes, and the theoretical cycle time is 1.5 minutes. Thus, the time wasted is 0.50 minute (2.0 - 1.5), and MCE is computed as follows:

\[
\text{MCE} = \frac{2.0}{2.5} = 0.80
\]

Actually, this is a fairly efficient process, as measured by MCE. Many manufacturing companies have MCEs less than 0.05.

**Summary of Objectives And KPIs:**

**Internal Business Process Perspective**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Innovation:</strong></td>
<td></td>
</tr>
<tr>
<td>Increase the number of new products</td>
<td>Number of new products vs. planned</td>
</tr>
<tr>
<td>Increase proprietary products</td>
<td>Percentage revenue from proprietary products</td>
</tr>
<tr>
<td>Decrease new product development time</td>
<td>Time to market (from start to finish)</td>
</tr>
<tr>
<td><strong>Operations:</strong></td>
<td></td>
</tr>
<tr>
<td>Increase process quality</td>
<td>Quality costs</td>
</tr>
<tr>
<td></td>
<td>Output yields</td>
</tr>
<tr>
<td></td>
<td>Percentage of defective units</td>
</tr>
<tr>
<td>Increase process efficiency</td>
<td>Unit cost trends</td>
</tr>
<tr>
<td></td>
<td>Output/input(s)</td>
</tr>
<tr>
<td></td>
<td>Cycle time and velocity</td>
</tr>
<tr>
<td></td>
<td>Manufacturing cycle efficiency (MCE)</td>
</tr>
<tr>
<td><strong>Postsale Service:</strong></td>
<td></td>
</tr>
<tr>
<td>Increase service quality</td>
<td>First-pass yields</td>
</tr>
<tr>
<td>Increase service efficiency</td>
<td>Costs trends</td>
</tr>
</tbody>
</table>
Learning and Growth Perspective: Objectives and KPIs

In a knowledge-worker company, people are the main resource and in today’s world, it is necessary for knowledge workers to be in continuous learning mode. In this perspective of the Balanced Scorecard, the infrastructure that a company is supposed to build to create long-term growth and improvement is identified. It asks the question, “Can we continue to improve and create value?”

The other three perspectives of the Balanced Scorecard; namely financial, internal business processes and customer perspectives will reveal large gaps between the existing capabilities of people, systems, and procedures and what will be required to achieve breakthrough performance. In order to bridge these gaps, companies should invest in improving their employees, modifying information technology, and so on.

The Balanced Scorecard addresses the importance of investing for the future rather than just investing in traditional areas such as new equipment and new product research and development. This model assumes that equipment and R&D investments are unlikely to be sufficient by themselves only; therefore companies must invest in their employees who are the backbone of a company.

The learning and growth (infrastructure) perspective is the source of the capabilities that enable the accomplishment of the other three perspectives’ objectives. This perspective has three major objectives: increasing employee capabilities; increasing motivation, empowerment, and alignment; and increasing information systems capabilities.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase employee capabilities</td>
<td>Employee satisfaction ratings</td>
</tr>
<tr>
<td></td>
<td>Employee turnover percentages</td>
</tr>
<tr>
<td></td>
<td>Employee productivity (revenue/employee)</td>
</tr>
<tr>
<td></td>
<td>Hours of training</td>
</tr>
<tr>
<td></td>
<td>Strategic job coverage ratio (percentage of critical job requirements filled)</td>
</tr>
<tr>
<td>Increase motivation and alignment</td>
<td>Suggestions per employee</td>
</tr>
<tr>
<td></td>
<td>Suggestions implemented per employee</td>
</tr>
<tr>
<td>Increase information systems capabilities</td>
<td>Percentage of processes with real-time feedback capabilities</td>
</tr>
<tr>
<td></td>
<td>Percentage of customer-facing employees with online access to customer and product information</td>
</tr>
</tbody>
</table>

After reviewing these KPIs, note how "balance" is achieved:
- Performance is assessed across a balanced set of dimensions (financial, customer, internal processes, and innovation).
- Quantitative measures (e.g., number of defects) are balanced with qualitative measures (e.g., ratings of customer satisfaction).
- There is a balance of backward-looking measures (e.g., financial measures like growth in sales) and forward-looking measures (e.g., number of new patents as an innovation measure).

**Note:**

The balance scorecard works for any type of business, private or public, for profit or nonprofit, and size of the business, small or large. The balanced scorecard measures or KPI, however, vary with a company’s strategy and industry.

Exhibit 6 lists examples of performance indicators for each Balanced Scorecard dimension across a wide range of industries.

### Exhibit 6
Examples of Balanced Scorecard Measures by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Financial Dimension</th>
<th>Customer Dimension</th>
<th>Internal Business Process Dimension</th>
<th>Learning and Growth Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airlines</td>
<td>Return on assets</td>
<td>Frequent flier program participation rates</td>
<td>Percentage of on-time takeoffs and arrivals</td>
<td>Labor contract length</td>
</tr>
<tr>
<td>Consumer retail banks</td>
<td>Ratio of assets to debt</td>
<td>Number of new accounts opened</td>
<td>Number of new branches</td>
<td>Hours of employee training completed</td>
</tr>
<tr>
<td>Accounting, consulting, and law firms</td>
<td>Profit margin</td>
<td>Client retention rate</td>
<td>Percentage of projects completed on time</td>
<td>Certification and education levels of professionals</td>
</tr>
<tr>
<td>Computer manufacturers</td>
<td>Sales growth from new products</td>
<td>Number of corporate customers</td>
<td>Number of product defects</td>
<td>Percentage of factory employees who completed quality control training</td>
</tr>
<tr>
<td>Supermarkets</td>
<td>Inventory turnover</td>
<td>Customer satisfaction</td>
<td>Product spoilage rates</td>
<td>Employee turnover rates</td>
</tr>
</tbody>
</table>
# Scorecard for a Biotechnology Firm

<table>
<thead>
<tr>
<th>Strategic Objectives</th>
<th>Performance Measures</th>
</tr>
</thead>
</table>
| **Financial Perspective** | Percent increase in revenue of top line products  
  Growth  
  Profitability  
  Industry leadership  
  Return on equity; earnings per share  
  Market share |
| **Customer Perspective Outcome:** | Percent of sales from new products  
  New products  
  Early purchase of seasonal products  
  Percent of sales recorded by early purchase date |
| **Leading:** | Percent of customers who pay early  
  Early payment  
  Product quality  
  Customer satisfaction  
  Product performance vs. industry quality standards  
  Customer satisfaction surveys |
| **Internal business processes Perspective**  
  **Service-after-Sale:** | Percent of error-free invoices  
  Accurate invoices |
| **Operations:** | Unit cost vs. competitors  
  Low-cost producer  
  Reduce inventory  
  Inventory as percent of sales |
| **Innovation:** | Number of actual introduction vs. target  
  New products  
  New active ingredients  
  Proprietary positions  
  Number of new ingredients identified by research program  
  Number of patents that create exclusive marketing rights |
| **Learning and Growth Perspective Outcome:** | Average employee years with company  
  Employee retention  
  Employee satisfaction  
  Employee satisfaction surveys |
| **Leadership:** | Training costs invested per employee; percent of employees participating annually in training  
  Employee capabilities  
  Organizational structure capabilities  
  Average weekly hours in teamwork settings; survey of effective teamwork |
Applying the Balanced Scorecard to a School District

Knowlton School District is currently developing a balanced scorecard to be used by all the schools in the district (K-12). At a meeting with all of the principals in the Knowlton School District, the following objectives were created for each of the five categories shown on the next page. (Note the balanced scorecard categories can and should be adjusted to suit the specific needs of the organization.) There are many different measures that can be used. Here are some possible measures.

<table>
<thead>
<tr>
<th>Goal Areas</th>
<th>Objectives</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student Achievement</td>
<td>Student mastery of curriculum</td>
<td>▪ Proficiency tests in various subjects</td>
</tr>
<tr>
<td></td>
<td>Nationally competitive students</td>
<td>▪ Retention rates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Drop-out rates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ SAT scores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ AP Exam scores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Enrollment in college-credit courses</td>
</tr>
<tr>
<td>2. Customer Satisfaction</td>
<td>Safe and enriching school</td>
<td>▪ Absenteeism and tardy rates</td>
</tr>
<tr>
<td></td>
<td>Environment</td>
<td>▪ Participation in extracurricular activities</td>
</tr>
<tr>
<td></td>
<td>Parent satisfaction</td>
<td>▪ Perception of safety (student surveys)</td>
</tr>
<tr>
<td></td>
<td>Community involvement</td>
<td>▪ Scores on parent surveys</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Number of parent complaints</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Total volunteer hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Dollars donated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Number of business partners</td>
</tr>
<tr>
<td>3. Instructional and</td>
<td>Effective instruction</td>
<td>▪ % of students in summer school</td>
</tr>
<tr>
<td>Administrative Processes</td>
<td>Safe and efficient transportation</td>
<td>▪ % of teachers certified in special programs</td>
</tr>
<tr>
<td></td>
<td>Well-maintained facilities</td>
<td>▪ % of teachers using technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Accidents per million miles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ On-time bus delivery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Accidents per student days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Scores on inspection reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Level of backlogged maintenance reports</td>
</tr>
<tr>
<td>4. Staff Learning and</td>
<td>Competent staff</td>
<td>▪ % of teachers with 7+ years of experience</td>
</tr>
<tr>
<td>Growth</td>
<td>Staff satisfaction</td>
<td>▪ % of teachers with advanced degrees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ % of board-certified teachers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Absenteeism rates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Percentage of teachers retiring early</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Scores on teacher surveys</td>
</tr>
<tr>
<td>5. Financial Performance</td>
<td>Sound fiscal management</td>
<td>▪ Revenue variances of actual to budget</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Expense variances of actual to budget</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Fund balances</td>
</tr>
</tbody>
</table>
Scorecard for a Consumer Products Firm

Maker of Small Home Appliances

<table>
<thead>
<tr>
<th>Strategic Objectives</th>
<th>Performance Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Financial Perspective</em></td>
<td></td>
</tr>
<tr>
<td>• Increase Profitability</td>
<td>• ROI</td>
</tr>
<tr>
<td>• Increase new customers and markets</td>
<td>• Revenue from new sources</td>
</tr>
<tr>
<td>• Reduce unit cost</td>
<td>• Unit cost</td>
</tr>
</tbody>
</table>

| Customer Perspective Outcome:                    |                                       |
| • Increase customer acquisition                   | • New Customers                       |
| • Increase customer satisfaction                   | • Survey ratings                      |
| • Increase market share                           | • Market share                        |
| • Improve product quality                         | • Returns                             |
| • Improve image and reputation                    | • Survey ratings                      |

| Process:                                         |                                       |
| • Improve process quality                        | • Quality costs                       |
| • Increase quality of purchased parts             | • Percentage of defective units       |
| • Redesign time                                   | • Engineering hours                   |

| Learning and Growth Perspective Outcome:         |                                       |
| • Increase employee capabilities                  | • Training hours                      |
| • Increase motivation                             | • Suggestions received and implemented|
| • Improve information system capabilities         | • On-time report percentage           |
The Balanced Scorecard and United Parcel Service

United Parcel Service (UPS) delivers over 5.4 billion packages a year in over 200 countries. To achieve such astonishing volume, UPS employs over 425,000 people and flies more than 1,900 flight segments each day into 800 airports around the world. How does management successfully guide the actions of all of these employees? First, it divides—or decentralizes—the company into three segments: domestic packaging, international packaging, and nonpackaging services (such as supply chain and logistics). It further breaks each packaging segment into geographic regions and each region into. Management gives each district man authority to make his or her district. Because top management wants to every employee to know how his or her day-to-day job contributes to the company's goals, it implemented the balanced scorecard system, for communicating strategy to all district managers and employees. Management can also use the balanced scorecard to measure whether each district is meeting its goals and to assess where changes should be made. According to one UPS executive, "The balanced scorecard provided a road map—the shared vision of our future goals—with action elements that let everyone contributes to our success." Has the balanced scorecard helped UPS become an industry leader? In 2008, Fortune rated UPS as the "World's Most Admired Company in its Industry" for the tenth consecutive year. Year after year, UPS continues to win awards in the areas of E-commerce, technology, business excellence, and corporate citizenship.

Balanced Scorecard and Nonprofits

Wendy Kopp founded Teach for America (TFA) in 1989, based on her undergraduate honors thesis at Princeton. Her vision was to ensure that one day all children in this nation would have the opportunity to attain an excellent education. TFA recruited a national teacher corps drawn from talented, highly motivated graduating seniors who committed to teach for two years in urban and rural public schools. TFA's strategy was based on an explicit model of social change in which corps members played two roles. First, they would improve the educational experience and life experiences of existing students through their two-year teaching positions. Second, they would influence fundamental educational reform throughout their lives through their career and voluntary activities. As TFA scaled to become a nationwide enterprise, it created a Balanced Scorecard to reflect its strategy. TFA chose to modify the standard nonprofit template by labeling and sequencing its five perspectives as social impact, constituent, operating processes, financial, and organizational capacity. The social impact perspective contained two high-level objectives: improving the educational performance of today's students and enhancing the educational opportunities for tomorrow's students. For the second objective, TFA created a new metric by reviewing annually the career paths of alumni to determine how they were affecting social change; for example, running for public office, working in public policy, entering school or district leadership, being a truly outstanding classroom teacher, or publishing articles and books about improving education in low-income communities.

Source: www.teachforamerica.org.
Web Resources

There are numerous Web resources that you can log on to learn more about the balanced scorecard and performance evaluations. For example, managers frequently look to industry “best practices” or examples of successful implementations at other firms when developing measurement programs. The following list below provides valuable resources for evaluating performance and business decision making across a wide range of industries.

- **The Balanced Scorecard Institute** ([www.balancedscorecard.org](http://www.balancedscorecard.org)). The Balanced Scorecard Institute is an independent educational institute that provides training and guidance to assist government agencies and companies in applying best practices in balanced scorecard (BSC) and performance measurement for strategic management and transformation. Their website provides background information about implementing the balanced scorecard and the proper selection of nonfinancial measures. It also provides several examples of past successes.

- **American Productivity and Quality Center** ([www.apqc.org](http://www.apqc.org)). The American Productivity & Quality Center (APQC), an internationally recognized nonprofit organization, provides expertise in benchmarking and best practices research. APQC helps organizations adapt to rapidly changing environments, build new and better ways to work, and succeed in a competitive marketplace. It has a membership of over 450 prestigious global firms including 3M, AT&T, Cisco Systems, and Ernst & Young. The objective of this collaborative center is to “Understand how innovative organizations create succession management programs to identify and cultivate potential leaders who will provide a sustainable business advantage.” The Best Practices and Free Resources links lead to many useful resources.

- **Management Help** ([www.managementhelp.org](http://www.managementhelp.org)). This website offers a robust “library” of decision-making tools and library resources. The site offers many resources on such topics as strategic planning, performance measurement, employee development, and make-or-outsource decisions. It also includes online discussion groups, decision-making guidance, and free reference material.

- There are numerous private consultants and training Websites, such as [www.ap-institute.com](http://www.ap-institute.com), [www.BalancedScorecard.net](http://www.BalancedScorecard.net), and [www.managersPitStop.com](http://www.managersPitStop.com), that allow you to have access to white papers, case studies, and free Balance Scorecard review.

**BSC SOFTWARE**

There are numerous software and its web-bases service such as Scoreboard ([www.tntstrategy.com](http://www.tntstrategy.com)), and Balanced Scorecard Module ([www.StrategyMapScorecard.com](http://www.StrategyMapScorecard.com)).

**Strategic Alignment**

The Balanced Scorecard is designed to bring about change. In order for change to occur, the following must take place:
1. Employees must be fully informed of the strategy so that they will accept and agree to the strategic efforts of the organization.

2. Employees must share ownership for the objectives, KPIs, targets, and initiatives.

3. Resources must be allocated to support the strategy.

**Linking KPIs to Strategy**

The Balanced Scorecard is a collection of critical performance measures that have some special qualities including:

1. Performance measures should be derived from an entity’s strategy.

2. Performance measures should be chosen so that they are balanced between outcome and lead measures.

3. All scorecard measures should be linked by cause-and-effect relationships.

This cause-and-effect relationship is vital to the success of the Balanced Scorecard. Cause-and-effect relationships are the means by which lead and lag measures are integrated and simultaneously serve as the mechanism for expressing and revealing the firm’s strategy.

A testable strategy can be defined as a set of linked objectives aimed at an overall goal. The testability of the strategy can be achieved by restating the strategy into a set of cause-and-effect hypotheses that are expressed by a sequence of if-then statements.

A strategy map is a diagram that is used to document the primary strategic goals being pursued by an organization or management team and can then be created based on the if-then statements developed. A strategy map is illustrated in Exhibit 7.

Perhaps the most important message associated with the cause-and-effect structure is that the viability of the strategy is testable. Strategic feedback is available that allows managers to test the reasonableness of the strategy.
Exhibit 7
Strategy Map

**Financial**
- Increase Sales
- Increase Profits

**Customer**
- Increase Market Share
- Increase Customer Satisfaction

**Process**
- Redesign Products
- Reduce Defective Units

**Learning & Growth**
- Quality Training

---

**StrATEGY MAP**

**Financial**
- Costs Decrease
- Profits Increase
- Revenues Increase

**Customer**
- Customer Satisfaction Increases
- Market Share Increases

**Process**
- Defects Decrease
- Redesign Process
- Supplier Selection

**Learning & Growth**
- Soldering Training
Sustainability and Performance Evaluation

Companies that embrace sustainability and social responsibility incorporate relevant KPIs in their performance evaluation system. Some companies will integrate sustainability-related KPIs into the four traditional balanced scorecard perspectives. For example, KPIs for each perspective might include the following:

- **Financial:** water cost, recycling revenues, waste disposal costs
- **Customer:** number of green products, percentage of products reclaimed after use
- **Internal business process:** energy consumption, water consumption, greenhouse gas emissions
- **Learning and Growth:** number of functions with environmental responsibilities, management attention to environmental issues

Other companies add a fifth perspective, "Sustainability," or even add a sixth perspective, "Community," to reflect triple bottom line goals. The Sustainability Perspective could include any of the examples given above, while the Community Perspective might include:

- **Community:** percentage of profit donated to local schools and organizations, percentage of materials sourced locally, product safety ratings, number of hours devoted to local volunteering

KPIs relating to sustainability and social responsibility should be objective and measurable, with both short-term and long-term targets specified. A long-term outlook is especially important regarding sustainability, since most operational changes related to sustainability require substantial investment in the short-run that should result in cost savings in the long-run (for example, investing in a fleet of delivery trucks that run on alternative fuels). Baseline measurements should also be taken at the time the targets are adopted, so that managers can determine whether improvements are being made.

The environmental performance metrics also serve as a way for corporations to report their journey towards sustainability to stakeholders. For example, many companies, including Campbell Soup Company, now publish an annual Corporate Responsibility Report in addition to their annual financial report. This report details the company's environmental goals and summarizes the company's progress towards them.

Implementing a Balanced Scorecard

The development and implementation of a comprehensive balanced scorecard requires active support and participation by senior management. This involvement will in turn ensure the cooperation of lower-level managers in the identification of objectives, appropriate measures, targeted results, and methods of achieving the results. The following should be noted:

1. The scorecard should contain measures at the detail level that permits everyone to understand how his/her efforts affect the firm's results.
2. The scorecard and the strategy it represents must be communicated to all managers and used as a basis for compensation decisions.
3. The scorecard should include lagging indicators (such as output and financial measures) and leading indicators (such as certain nonfinancial measures). The latter should be used only if they are predictors of ultimate financial performance.

4. The scorecard should permit a determination of whether certain objectives are being achieved at the expense of others. For example, reduced spending on customer service may improve short-term financial results at a significant cost suggested by a long-term decline in customer satisfaction measures.

**Note:** The following are problems in implementation of the balanced scorecard approach:

1) Using too many measures, with a consequent loss of focus on KPIs.
2) Failing to evaluate personnel on nonfinancial as well as financial measures.
3) Including measures that will not have long-term financial benefits.
4) Not understanding that subjective measures (such as customer satisfaction) are imprecise.
5) Trying to achieve improvements in all areas at all times.
6) Not being aware that the hypothesized connection between nonfinancial measures and ultimate financial success may not continue to be true.

**Case Studies**

**Case study 1: Mobil Corporation**

Mobil and Exxon were two separate companies until late 1999. They entered into a merger in that year; however, they were competing against each other until that merger. Each company placed a singular imprint on the energy industry and on the dynamic era of world history. Mobil achieved industrywide profit leadership from 1995 up through this merge with Exxon, and became the most attractive company in the energy industry. However, prior to 1995, Mobil was having some problems regarding its performance. It ranked last among its industry peers, in 1992, in profitability, producing an unacceptably low return on investment, and so on. Then a question comes into play here, how did Mobil overcome these vital problems and become the market leader? In fact, the answer is very simple; by placing the BSC at the center of its management processes as of 1994 by the proposal of the new management team. Below, all perspectives of Mobil’s BSC are examined in detail.

**Financial Perspective**

Mobil started its scorecard by defining its high-level financial objective: to increase Return on Capital Employed (ROCE) from its current level of 7 percent to 12 percent within three years. The executives planned to improve Mobil’s high-level ROCE measure by using two financial themes: productivity and growth. The productivity theme consisted of cost reduction and asset intensity. Cost reduction, would be measured by operating cash expenses versus the industry, with the goal of being the industry cost leader. Asset productivity would enable Mobil to handle greater volumes from its growth strategy without expanding its asset base.

Mobil’s financial growth theme also consisted of two components. The first, volume growth, was for sales from its basic gasoline products to grow faster than the industry average. In addition to volume growth, Mobil wanted a higher proportion of its sales in its premium product grades. In other words, there are two measures
embedded in one component. The second component represented the opportunity to sell products other than gasoline to retail customers. An important component of Mobil’s growth theme was a customer-driven strategy built around sales of convenience store products. New revenue could also come from lubricants, oil changes, minor repairs, and common replacement parts.

Apparently, there was a clear risk that Mobil had to take. Productivity and growth together make companies confused and fall back to one dimensional behavior. Fortunately, Mobil’s BSC allowed it to define and to clarify this contradictory, to make the organization aware of the tradeoffs and to manage them.

Exhibit 8 below represents the financial perspective of Mobil’s BSC.

---

**Customer Perspective**

When the executives of Mobil met to discuss ways to develop a new profitable growth strategy, they expressed quite divergent views about why customers might be willing to pay a $0.06 to $0.10 per gallon premium to purchase Mobil gasoline.

The Gasoline Marketing Department conducted a survey which revealed that Mobil has five distinct consumer segments.

1. **Road Warriors**: Generally higher income, middle-aged men who drive 25,000 to 50,000 miles a year, buy premium gasoline with a credit card, purchase sandwiches and drinks from the convenience store, and will sometimes wash their cars at the carwash. (16%)

2. **True Blues**: Usually men and women with moderate to high level incomes who are loyal to a brand and sometimes to a particular station, frequently buy premium gasoline and pay in cash. (16%)
3. **Generation**: Fuel, food, and fast: Upward Mobil men and women-half under 25 years of age-who are constantly on the go, drive a lot and snack heavily from the convenience store. (27%)

4. **Homebodies**: Usually housewives who shuttle their children around during the day and use whatever gasoline station is based in town or along their route of travel. (21%)

5. **Price Shoppers**: Generally are not loyal to either a brand or a particular station, and rarely buy the premium line, frequently on tight budgets. (20%)

Mobil was now in a critical situation. It could compete for the price sensitive consumers, by lowering costs throughout its value chain, including at the gasoline station, so that it could be profitable even at the lowest prices charged to consumers.

Alternatively, Mobil could attempt to attract the first three segments by offering a superior buying experience. But it could not do both. In order to deliver superior buying experience, it would have to invest in larger stations, more gasoline pumps at each station, convenience stores, auxiliary car services, and training for station personnel. Such a policy would raise costs at the gasoline station and hinder company from making much more profits.

The other alternative for Mobil was that it could contemplate five different distribution systems to satisfy each segment. However this policy would be too expensive and complex to deploy. Taking all these alternatives into consideration, Mobil decided to target the first three segments and offer a great buying experience that would sustain premium prices, even for its commodity like products. After making this decision, Mobil conducted another market survey in order to find out what constitutes a great buying experience and the research revealed the followings:

- Immediate access to a gasoline pump
- Self-payment mechanisms at the pump
- Covered area for gasoline pumps
- One hundred percent availability of product, especially premium grades
- Clean restrooms
- Satisfactory exterior station appearance
- Safe, well lit station
- Convenience store, stocked with fresh, high quality merchandise
- Speedy purchase
- Ample parking spaces near convenience store
- Friendly employees
- Availability of minor car services.

Mobil summarized these attributes as offering customers “a fast, friendly serve.” But then, another problem came into play; how could all the attributes of the past, friendly serve buying experience be measured? In order to do that, Mobil decided to use mystery shoppers, so it hired an independent third party to send a mystery shopper to each Mobil station every month to purchase fuel and snack to evaluate the experience.

Additionally, Mobil realized that it did not consider the retailers or distributors as components of its strategy in the past. This old strategic view put Mobil and its dealers into a zero-sum-game. Therefore, Mobil decided to
include the dealers in its strategy and it turned out to be a win-win game rather than a zero-sum-game. Exhibit 9 summarizes the customer perspective of Mobil’s BSC.

### Exhibit 9
Customer Perspective of Mobil’s BSC

<table>
<thead>
<tr>
<th>Customer perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delight the Consumer</strong></td>
</tr>
<tr>
<td><strong>Basic</strong></td>
</tr>
<tr>
<td>Clean, safe, quality product, trusted brand</td>
</tr>
<tr>
<td><strong>Differentiators</strong></td>
</tr>
<tr>
<td>Speedy purchase, friendly helpful employees, recognize loyalty</td>
</tr>
<tr>
<td><strong>Win-Win Dealer Relations</strong></td>
</tr>
<tr>
<td>More Consumer Products</td>
</tr>
<tr>
<td>Help Develop Business Skills</td>
</tr>
</tbody>
</table>

### Internal Business Process Perspective
Mobil identified two important internal business processes:

- Develop new products and services
- Generate dealer profits from non-gasoline revenues.

The first objective signaled the desire to enhance the buying experience of consumers by developing new offerings at the gasoline station. The second objective supported both the win-win relationship with dealers and Mobil’s financial objectives. In addition to these processes, Mobil included several objectives and measures in its internal business process perspective for its basic refining and distribution operations. Measures for these operations stressed low cost, consistent quality, reductions of asset downtime, and the elimination of environmental, safety, and health-threatening incidents. Most of these measures related to cost reduction and productivity themes in the financial perspective.

One could question why a company following a differentiation strategy used so many internal measures relating to cost reduction and productivity. Because Mobil produced mostly commodity products, it could not use higher process to recover any higher costs or inefficiencies incurred in its basic manufacturing and distribution operations. The differentiation, for the new strategy, occurred at the gasoline station, not in its refineries, pipelines, or distribution terminals. If the basic operations of refining and distribution did not create a differentiated product or service, then any higher costs incurred in these processes could not be recovered in
the final selling price. Therefore, Mobil had to follow an operational excellence strategy in its basic operating processes. Exhibit 10 summarizes the internal business process perspective of Mobil’s BSC.

Exhibit 10
Internal Business Process Perspective

Learning and Growth Perspective

The final set of objectives provided the foundation for Mobil’s strategy: skills and motivation of its employees and the role for information technology. The project team identified three strategic objectives for the learning and growth perspective:

1. **Core Competencies and Skills**
   - Encourage and facilitate our people to gain a broader understanding of the marketing and refining business from end to end
   - Build the levels of skills and competencies necessary to execute our vision
   - Develop the leadership skills required to articulate the vision, promote integrated business thinking, and develop our people.

2. **Access to Strategic Information**
   - Develop the strategic information required to execute our strategies.

3. **Organizational Involvement**
   - Enable the achievement of our vision by promoting an understanding of our organizational strategy and by creating a climate in which our employees are motivated and empowered to strive toward that vision.
Exhibit 11 summarizes the learning and growth perspective of Mobil’s BSC, while Exhibit 12 presents strategic objectives and measures.

**Exhibit 11**
The Learning and Growth Perspective of Mobil’s BSC
## Exhibit 12  
### Mobil’s Balanced Scorecard

<table>
<thead>
<tr>
<th>Strategic Themes</th>
<th>Strategic Objectives</th>
<th>Strategic Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FINANCIAL</strong></td>
<td><strong>Financial Growth</strong></td>
<td><em>F1 Return on Capital employed</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>F2 Existing Asset Utilization</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>F3 Profitability</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>F4 Industry Cost Leader</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>F5 Profitable Growth</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CUSTOMER</strong></td>
<td><strong>Delight the Consumer</strong></td>
<td><em>C1 Continually Delight the Consumer</em></td>
</tr>
<tr>
<td></td>
<td><strong>Win-Win Dealer Relations</strong></td>
<td><em>C2 Build Win-Win Relations with Dealer</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INTERNAL</strong></td>
<td><strong>Build the Franchise</strong></td>
<td><em>I1 Innovative Products and Services</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>I2 Best in class Franchise Teams</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>I3 Refinery Performance</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>I4 Inventory Management</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>I5 Cost Leader</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>I6 On Spec, on time</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>I7 Improve EHS</em></td>
</tr>
<tr>
<td><strong>LEARNING/ GROWTH</strong></td>
<td><strong>Motivated Workforce</strong></td>
<td><em>L1 Climate for Action</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>L2 Core Competencies and Skills</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>L3 Access to Strategic Information</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Conclusion

In today’s highly competitive business environments, companies must find new ways to deliver superior value to their customers, to operate more efficiently, to create value for their shareholders, and to improve their abilities to innovate and learn. Additionally, companies should measure their processes and performances on a regular basis in order to see how well they are doing. Measuring performance has been of great importance for decades because;

- if companies cannot measure their processes, they cannot manage their processes;
- if they cannot manage their processes, they cannot change their processes for improvement and;

As can be seen, measuring performance is not the only ingredient for success. Companies should broaden their views and they should incorporate performance measurement and performance management. Among several tools that incorporate those two, Balanced Scorecard provides a more holistic approach by supplementing the traditional financial measures with three additional perspectives: customer, internal business processes, and learning and growth. Balanced Scorecard ensures that good performance in one area is not offset by poor performance elsewhere.

As stated above, there are some other tools for measuring and managing performance; then one may ask why companies would deploy Balanced Scorecard? Tracy K. Iseler of the US Department of Defense states that Balanced Scorecard avoids both faulty measurement and management processes which are described below;

<table>
<thead>
<tr>
<th>Faulty Measurement Processes</th>
<th>Faulty Management Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusively financial</td>
<td>Short term horizons</td>
</tr>
<tr>
<td>Focused on functional silos</td>
<td>Lack of ownership by management</td>
</tr>
<tr>
<td>Ignore customers/shareholders</td>
<td>Lack of comprehension by line employees</td>
</tr>
<tr>
<td>Only focus on lagging metrics</td>
<td>Conflicting rewards</td>
</tr>
<tr>
<td>Lack insight to causes</td>
<td>Unambitious targets</td>
</tr>
<tr>
<td>Obvious to competitors</td>
<td>Poor communication</td>
</tr>
<tr>
<td>Measurements do not focus on business value</td>
<td>Teamwork discouraged</td>
</tr>
</tbody>
</table>

When these faulty processes and so many enlightened companies such as Mobil, UPS, Chase Retail Bank, and Duke Hospital are taken into consideration, there is no need to further discuss the necessity of Balanced Scorecard.


Case Study 2: Tesco

Delivering Success: How Tesco Is Managing, Measuring and Maximizing Its Performance**

Tesco is one of the world’s most successful companies. This case study outlines how this world-leading retailer is managing, measuring and maximizing its performance. It describes the performance framework used to manage the business globally, outlines how the performance framework is being cascaded and communicated, and illustrates how Tesco is engaging its employees in performance management. In addition, it highlights Tesco’s approach to collecting the right data and its ability to turn this data into customer and business relevant decisions.

Introduction

Tesco has delivered impressive performance. Good performance and business success is underpinned by the right strategic objectives, which have to be communicated to all staff. However, even more critical are:

1. Making sure everyone in the company is actively engaged in trying to improve company performance – all the time.
2. Having the data and analytical skills to test ideas and turn insight into customer and business relevant actions.

This case study outlines Tesco’s performance management journey, which so far has been an extremely successful one.

About Tesco

Tesco is an impressive company. The British-based international grocery and general merchandising retail group operates 4331 stores across 14 countries, employs 470,000 people, and in 2009 generated £59.4bn in sales. Tesco is the largest private sector employer in the United Kingdom, and is currently the third largest global retailer based on revenue and the second largest based on profit. Over the years the company has been transformed from a ‘pile it high, sell it cheap’ market trader to a world-leading retail group. While it originally specialized in food and drink, it now offers a wide range of products including clothing and consumer electronics and offers an increasing range of services such as telecoms, health, Internet, Insurance and financial services. In addition to its stores, Tesco has created a very successful online supermarket offering among other things groceries, home retailing, and music downloads. Even amidst the current global recession Tesco is performing extremely well with a 15.1% growth in annual sales and a 5.5% growth in profits.

Drivers of Success

What is leading to Tesco’s global success is that it gives customers what they want. Sir Terry Leahy, Tesco’s Chief Executive, puts it in simple terms when he says “Let me tell you a secret, the secret of successful retailing. It is this: never stop listening to your customers and giving them what they want.” Tesco makes it very clear that its philosophy, which is captured in the phrase “Every Little Helps” is more than just words or a marketing slogan. On its website it states:

Every Little Helps is behind everything we do. It is not just something we say, we really do mean it. Really.
Based around its Every Little Helps philosophy, Tesco has created two key values which are seen as their central code of conduct and the way it does business. They are: “No one tries harder for customers” and “Treat people how I like to be treated”.

**No one tries harder for customers**

The aim of this value is to instill a customer focus in everything people do. As part of this, Tesco aims to understand customers better than anyone else and therefore deliver unbeatable value and service.

**Treat people how I like to be treated**

Tesco wants its people to be well managed and to work in an environment that is based on trust and respect. The company has learnt over the years that well motivated and managed staff will give customers great service.

**The Performance Management Framework**

When Sir Terry Leahy joined Tesco as their chief executive he made it clear that in order to deliver on its strategy of growth the organization needed a clear direction, a map and a compass. The management team decided to create a performance management framework that would provide the map and outline the key strategic objectives of the company. Together with this it created key performance indicators (KPIs) to act as the compass enabling the organization to check whether it was on track or not. The main purpose of the performance management approach was to help steer the organization to success. Tesco decided to appropriately name its performance framework the **Corporate Steering Wheel**.

**The Corporate Steering Wheel**

Today, the Corporate Steering Wheel provides strategic focus by communicating what matters the most in a simple and easy to understand framework. It includes 20 corporate objectives across five perspectives. The perspectives are arranged in a circle around the central philosophy of “Every Little Helps” and the two values of “No one tries harder for customers” and “Treat people how I like to be treated”. Exhibit 13 shows the 2009 Corporate Steering Wheel with the following Objectives:

| Financial Perspective: | \- Grow Sales  
| \- Maximize Profit  
| \- Manage our Investment |
| Customer Perspective: | \- Earn lifetime loyalty  
| \- The aisles are clear  
| \- I can get what I want  
| \- The prices are good  
| \- I don’t queue  
| \- The staff are great |
| Community Perspective: | \- Be responsible, fair and honest  
| \- Be a good neighbor |
| Operations Perspective: | • We try to get it right first time  
• We deliver consistently every day  
• We make our jobs easier to do  
• We know how vital our jobs are  
• We always save time and money |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| People Perspective:      | • An opportunity to get on  
• An interesting job  
• A manager who helps me  
• To be treated with respect |

**Exhibit 13**  
Tesco’s Corporate Steering Wheel
Tesco’s CEO says that having objectives across these five perspectives allows Tesco to be balanced in its approach to performance. Today, the Steering Wheel creates a shared language, a shared way of thinking and a common blueprint for action.

Tesco maintains that throughout all our businesses across the world we measure our performance through the Steering Wheel, whether we work in distribution, head office or in stores. This helps maintain focus and balance in what counts to run each of our businesses successfully, be it wage costs or whether customers can get everything they want.

**Cascading and Communicating the Strategy**

Because the Steering Wheel captures the key strategic objectives of the company in one easy to understand picture, it is a powerful way of communicating strategy to all staff.

When the Steering Wheel was first introduced the company conducted a number of town hall meetings to explain the strategy. The chief executive insisted on conducting these meetings himself which were seen as a way to personally engage staff in the stores. It allowed Sir Terry Leahy to explain the strategy face-to-face and gave staff the chance to ask questions in an interactive way.

Tesco also produced little notes called ‘shopping lists’ to highlight the key strategic objectives for each perspective (Exhibit 14). These were handed out and printed as posters for the stores. Similar to real shopping lists, they act as reminders about what is important.

Today, every store and every company within the Tesco group has their own Steering Wheel to manage performance. This puts the people on the ground in control. The Steering Wheel has been translated into different languages to ensure it is used to engage frontline staff in all countries Tesco is operating in.

**Exhibit 14**

**Shopping Lists**

![Shopping Lists Image]
**Evolving the Performance Framework**

In order to stay relevant any performance framework needs to evolve with the organization and reflect the shifting priorities. Tesco has been able to change its Steering Wheel in line with a shift in strategic objectives. One of the more recent major evolutions has been to add the community perspective to the Steering Wheel. Tesco realized that issues such as climate change and the impact its presence has on the local community are important challenges. As part of its strategy it now draws up an annual community plan for each area it operates in.

Exhibit 15 illustrates an earlier version of Tesco’s Corporate Steering Wheel without the community perspective. The new community perspective has led to initiatives such as reducing the use of carrier bags by 50 percent, more locally sourced products and a reduction in the carbon footprint.

**Exhibit 15**
Earlier Version Steering Wheel
Making Strategy Everyone’s Job

Sir Terry Leahy not only pushed the implementation of the performance management framework, he also made another change which many would see as controversial: He closed the strategy department. His reason for this was that he did not want only one department or one leader who is seen as responsible for strategy and performance; he wanted thousands of leaders who live and understand strategy.

Engaging People in Performance

Sir Terry Leahy has no doubt that implementation matters, not just strategy. He maintains that training and education is essential to ensure people understand how they can contribute. To that end Tesco created a local Steering Wheel template for stores to engage staff, facilitate a local discussion and capture local challenges. The template (see Exhibit 16) asked what is good and not so good for each of the five perspectives and most importantly how individuals can help to improve it. This simple template engages people in performance and makes them think about how they can improve performance. In addition to capturing the ideas of front line staff it allows the store manager to write a message in the bottom field.

Exhibit 16
Tesco’s Corporate Steering Wheel Template
Creating a Performance Culture

Tesco wanted to establish a culture in which everybody feels responsible for performance. Where staff come up with new ideas and where they are allowed to challenge and improve performance. Sir Terry Leahy says that people mustn’t hold in knowledge and need to share thoughts and information and we have to take risks to be successful. This means we have to allow people to be wrong. We are not about box-ticking and being wrong with everyone else.

Measuring Performance – The Pragmatic Way

Tesco has many performance indicators but as Sir Terry Leahy says “The danger is to look at them in isolation and out of context. We try to put them into context and pay a lot of attention, regular attention, to the indicators that matter the most to our business”. Tesco’s philosophy is not to answer every conceivable question with their performance data but only those that help to answer the critical and most important questions.

Tesco always stressed it needed practical insights. Instead of building the largest database it could, pragmatism ruled and the goal was to build the smallest data storage that would give useful information. When it comes to performance data, managers talk about professionalism and not perfectionism. A good example is the fact that the company is happy to look at just a 10% sample of the data to identify key issues and then investigate it further using larger data sets for the questions that actually matter to customers and the business.

Having the right performance data and the ability to analyze that data are the keys to good management insights and evidence-based decision-making. They help to answer the ‘big’ questions and put performance data into context.

The Power of Analytics

The ability to collect and analyze data has transformed Tesco from a company that thinks it knows what customers want to one that has the knowledge and insights into what customers prefer and how these preferences keep shifting over time. Sir Terry Leahy states “We don’t spend a pound or dollar on a store without talking to our customers – They are the best management consultants.”

From Customer Data to Insights

An essential component of Tesco’s performance data is its customer knowledge. Back in 1994, Tesco introduced its loyalty program called Clubcard. However, while it was introduced as a loyalty scheme, the main premise underpinning the Clubcard was to gain insights to help Tesco improve the way it runs its business. Experts agree that loyalty schemes that are only used to target customers with discounts and offers are ultimately self-defeating. However, it was the potential to generate competitive advantage from the data that made senior leaders in the company back the idea.

Today, Tesco operates one of the most successful loyalty programs ever created. With over 14 million users the Clubcard scheme allows Tesco to collect detailed transaction information on two thirds of all shopping baskets processed at their tills.

For the scheme to remain useful, it was critical that Tesco was able to turn its data into customer knowledge it could act on.
Mastering the Data through Partnership

Many of Tesco’s competitors abandoned their loyalty card schemes and argued that analyzing all the data would be madness. When Tesco started with the clubcard scheme it decided to outsource the data analysis to Dunnhumby – a company that specializes in data analysis. Tesco realized it did not have the skills to systematically analyze mass data and therefore left it to Dunnhumby to develop the strategy for the data analysis. Later on Tesco decided to buy a 53% stake in this company.

Developing In-House Analytical Competencies

With the increasing realization that analytics are an important driver of success, Tesco realized that it needed to have in-house competencies to analyze customer and performance data. It created an internal team that was responsible for analyzing data and extracting insights. Tim Mason, Tesco’s marketing director and chairperson of Tesco.com explains: These people are geographers, statisticians who had spent a lot of time applying those skills to understanding how customers would behave. They could crunch through the stuff that came from the Clubcard, see the patterns in it and they could start to help the management of the point towards what should be done about it. They had to find the data, and present it in a way that makes the decisions stark, and clear.

Tesco ensures it maintains the ability to develop common sense responses. It aims to create processes which enable relevant insights to be used to improve the reality for customers.

Experiments as a Way of Life

In the same way Tesco is never making any changes unless talking to its customers, it also ensures it runs experiments to test ideas before implementing them on a wider scale. The performance data plays a vital role in this process and has enabled Tesco to take new ideas and offers to smaller groups of customers while using the remaining customers as control groups. This takes a lot of risk out of innovative ideas. In many ways the performance and customer data has become a powerful laboratory to test whether new ideas work or not. Tesco’s performance information, especially its Clubcard data, is not just about passively observing trends, it is a massive laboratory of customer behavior. When it was doing something wrong, it knew about it in days. When it was doing something right, it could implement it nationwide in weeks.

Tesco’s marketing director says: “As a company we have moved from being intuitive to being analytical. This is a much more complicated business than it used to be. We do not forget our intuition, but better data lead to better thinking, and our data give us the confidence to ask the right questions. You can have all the data you want, but the key is to use them to ask the right questions.”

For example, Tesco is now able to conduct experiments to understand whether new product lines, innovative offers and price reductions have the desired effects. Using its customer data allows Tesco to track the response immediately, which takes a lot of guesswork out of business decisions.

Conclusion

Tesco has demonstrated that keeping it simple can be a powerful approach to managing corporate performance. It has demonstrated three important aspects:

1. By keeping the performance framework simple and easy to understand it is able communicate what matters the most to everyone in the company.
2. By creating simple tools such as the Local Steering Wheel Template and the Shopping Lists it is able to engage people in performance and delegate responsibility for performance improvements to front line staff.

3. By not measuring everything it could and instead focusing only on the data that will provide relevant insights Tesco is able to deliver improvements that benefit customers and its business.


**Case Study 3: Toyota**

**Applying the Balanced Scorecard to an Automaker**

Toyota’s mission statement is to be the most successful and respected car company in America. This goal entails attracting and retaining customers by offering high-value products and services as well as providing the most satisfying ownership experience in America.

To help achieve these aspirations, the management at Toyota has developed Corporate Scorecards which captured the strategic direction of the company and established how success will be measured. The Executive Committee and Officers collaborated to identify a set of business priorities. For each business priority, relevant measure and targets were established. While all of these business priorities are important, the top three business priorities were as follows:

- Expand sales to youth buyers
- Expand share of the truck, SUV and minivan market
- Become #1 in passenger car sales in the U.S.

To keep employees updated on the progress of the scorecards, Quarterly Business Update meetings were held with regularly updated Scorecard results. Toyota’s Scorecard results are a means to strongly encourage employees to develop initiatives and action plans to support the business priorities. Additionally, the Scorecard results are used to determine the company-performance portion of the bonus pool.

Toyota’s measure of its Corporate Scorecard for 2003 can be categorized into Operational, Internal business process, Financial and Stakeholders (Exhibit 17).

A. **Operational**

- Achieve overall Sales objective
- Achieve #1 Passenger car position
- Increase Light Truck sales
- Maintain Luxury SUV leadership
- Increase Parts & Accessories Sales
- Successful new model launch
- Support investment in Mexico
- Maintain strong sales momentum of Hybrid

**B. Internal business processes**
- Expand Sales & Service capacity
- Focus on completing major Technology Project

**C. Financial**
- Sustain high level of Profitability given a challenging market
- Control the growth of General Expenses
- Manage Workforce Cost

**D. Stakeholders**
- Sustain & improve commitment to Associate Development, D & I
- Improve Service Retention level to support customer satisfaction
- Improve Customer and Sales Satisfaction
- Maintain high level of Customer loyalty
- Sustain high level of Dealer Satisfaction

---

**Exhibit 17**
Toyota’s BSC

---

<table>
<thead>
<tr>
<th>OPERATIONAL</th>
<th>BUSINESS PRIORITIES</th>
<th>MEASURE</th>
<th>2003 RESULTS</th>
<th>2003 TARGET</th>
<th>SIGNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve overall Sales objective (Toyota=1.571K, Lexus=240K, Scion=13.8K)</td>
<td>Sales Volume</td>
<td>1.850K</td>
<td>1.825K*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achieve #1 Passenger Car position for Toyota sales (volume = 857.5K)</td>
<td>Passenger Car Segment</td>
<td>#1</td>
<td>#1*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase Toyota Light Truck sales (Light Truck = truck, SUV, minivan)</td>
<td>Market Share (LTV + EMV)</td>
<td>8.3%</td>
<td>8.5%*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintain LTV, EMV momentum for Lexus (volume = 119K)</td>
<td>Luxury SUV Segment</td>
<td>#1</td>
<td>#1*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase Parts &amp; Accessories Sales beyond U/O growth</td>
<td>Sales Growth (CY)</td>
<td>5.7%</td>
<td>5.7%**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support successful launch of Scion (volume = 13K)</td>
<td>Buyer % Under age of 35</td>
<td>49%</td>
<td>45%*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure introduction of leadership Toyota models (volume = 11.8K)</td>
<td>Launch Market-Appropriate Products</td>
<td>Launched 5 New Series By Year-End*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintain strong sales momentum of hybrid vehicles by supporting them delivered to customers</td>
<td>Prius - Hybrid Segment</td>
<td>#1</td>
<td>#1*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FINANCIAL*</th>
<th>BUSINESS PRIORITIES</th>
<th>MEASURE</th>
<th>2003 RESULTS</th>
<th>2003 TARGET</th>
<th>SIGNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain strong sales momentum of Hybrid</td>
<td>FCHV</td>
<td>On Track</td>
<td>Launch 4 FCHV*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

* Calendar Year-end target
** Fiscal Year-end target
*** Results through August 2003

Due to downward adjustment of Sales Plan, several 2003 Targets are impacted and highlighted in Red Font.
Corporate Scorecard Results

Toyota has successfully exceeded and met all targets set for 2003 with the exception of 3 measures in the Stakeholder targets.

Such major accomplishments for 2003 include:

- Achieving overall sales objective with all-time annual record sales
- Achieving #1 passenger car title, surpassing Ford and Chevy
- Exceeding light truck sales target
- Maintaining luxury SUV leadership, with Lexus as #1 Luxury SUV segment
- Successful launch of Scion brand

Future Outlook

In an effort to better align Toyota’s strategic and financial goals, the Executive Committee has agreed on 4 top Corporate Priorities for 2004. These priorities will serve as the basis for developing divisional financial plans as well as business goals for the upcoming year. The 4 Corporate Priorities approved by the Executive Committee are Quality, Customer Experience, Product and Readiness.

A. Quality
Protect and improve vehicle quality and leverage QDR image by maximizing performance and improve our ability to understand, communicate and influence Toyota affiliates.

B. Customer Experience

Continuing profitable growth in our customer base by improving customer sales and service satisfaction and protecting Lexus leadership. Additionally, Scion needs to provide customers the kind of experience that generates positive word of mouth advertising while also bringing new customers to the Toyota brand.

C. Product

All product launches are important as they support achieving key scorecard results. However, new models or major redesigns will be key to Toyota’s future success.

D. Readiness

Infrastructure in place to enable rapid, profitable growth and support customer, dealer and associate related goals. Such as in the areas of IT capacity, Organizational capability and Financial management.

Conclusion

Toyota has successfully implemented the Balanced Scorecard concept, and has benefited tremendously as seen from record sales and profits, improved customer loyalty, as well as increased employee contribution, commitment and morale. Similar to Toyota’s initiative on the Corporate Scorecard, other successful competitors utilize the Balanced Scorecard to develop their business strategy and plans as well.

Ford uses similar Scorecard concept to help direct their long-term and annual business planning activities. The Balanced Scorecard translates their vision and strategy into a comprehensive set of performance measures which includes defining the “what” and “who” of the business plan, the requirements of their action plans and execution, the framework for their vehicle line business plans, and setting targets.

It is inevitable that in today’s competitive era, a company’s measure of success should not be limited to its financial operations. Several non-financial drivers often impact the overall strategic performance of a company. A properly developed Scorecard should provide a balance of financial and operational measures and should align with the company’s strategic objectives. It is critical to a company’s success in today's competitive environment.
Case Study 4 - International Baccalaureate

Implementing a Performance Scorecard in a Global Organization: Creating a Roadmap for the International Baccalaureate

This case study outlines how the International Baccalaureate (IB) organization is managing the global implementation of a performance scorecard. The case study illustrates how it is creating a strategy map outlining a roadmap to global success as well as a heat map to highlight current priorities and performance levels. IB is using the roadmap to review, challenge and fine tune its strategy. It also shows how managers will be able to design relevant and meaningful key performance indicators to monitor and manage performance.

Introduction

With a life enhancing mission to create a better world through education, the International Baccalaureate (IB) has created a Roadmap to enable the organization to deliver to this powerful mission that reads: “The International Baccalaureate aims to develop a growing number of inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. To this end the organization works with schools, governments and international organizations to develop challenging programs of international education and rigorous assessment. These programs encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.

IB created the roadmap on realizing that its 2004 strategic plan was becoming outdated and was not being effectively communicated inside or outside the organization. Moreover there was recognition that success of the strategy was proving difficult to measure. With external facilitation from the Advanced Performance Institute, IB has identified the core competencies, key performance enablers and key resources that will enable it to deliver to its mission.

Together this strategic performance management framework is known as the roadmap within the organization. The Publishing team at the IB has already crafted its own version of the Strategy Map and Balanced Scorecard, which is part of IB’s goal to rollout the roadmap enterprise-wide. But as IB creates an enterprise-wide roadmap, it must do so against a backdrop of a significant reshaping of IB’s global and regional structure.

About the International Baccalaureate

Founded in 1968, the International Baccalaureate® (IB) is a non-profit educational foundation which offers high quality programs of international education to a worldwide community of schools.

A mission-focused organization

Such is the importance of the mission that enabling its delivery is a primary reason why people are attracted to join the organization (it has more than 500 employees worldwide, about 300 of whom are based in Wales, where its curriculum and assessment center is housed alongside many of the corporate support functions). There are more than 774,000 IB students (aged from 3-19) at 2,815 schools in 138 countries.
2004 Strategic Plan

Experiencing consistent growth of between 15 and 20% since its launch in 1968, IB shaped a strategic plan in 2004 that set out to address two key questions:

1. How can we ensure that the growth of the IB benefits schools and students worldwide, not just an economic elite who can most easily afford high-quality programs?
2. How can we sustain double-digit growth rates while maintaining the IB's reputation for quality and innovation?
3. With these questions as a guide, three major themes were identified within the strategic plan.

With these questions as a guide, three major themes were identified within the strategic plan.

1. Quality: Continuously improving the quality of IB’s programs
2. Access: Enabling more students to experience and benefit from an IB education, regardless of personal circumstances
3. Infrastructure: Building a highly effective and efficient infrastructure so that we can provide excellent service to students and schools

The plan sets out 28 actions that would be implemented over a five to ten year period to deliver to these themes. For example, within the Infrastructure theme a key activity would be:

An effective regional structure, which would involve reviewing the regional and sub-regional structures so that the organization could develop an increasing degree of regional autonomy and ensure the best use of resources given IB’s worldwide coverage.

Two further infrastructural actions focused on performance measurement, which set out to establish a series of key performance indicators (KPIs) for the delivery of defined services, to understand the most important aspects of service delivery and develop the capacity to collect data that would enable the measurement of performance. Amongst other achievements, this led to the creation of a rudimentary Balanced Scorecard of financial and non-financial KPIs.

Although there had been clear successes against the plan, by 2008, the plan was becoming somewhat dated and was not being communicated well, which meant that it wasn’t that well understood either inside or outside the organization. Within the IB, they began to witness a loss of clarity around what the strategic plan was or what they were trying to achieve. People could understand the mission, but the next level down was not particularly clear, and it was difficult to accurately gauge how well the organization was performing against the strategy.

Introducing a “Balanced Scorecard”

For the scorecard design and implementation to be successful, it was of paramount importance that the senior team bought into the concept, who agreed with the core scorecard message that is impossible to succeed with a Balanced Scorecard without the active support of the senior team (or at least influential members). Without that support, the idea would have been dead in the water. The senior leadership team has to own an organization’s strategy, so if they do not own the map then it would not work.
**Building a Roadmap**

With senior management buy-in secured, the draft Balanced Scorecard Strategy Map was built in the early months of 2009. An early decision was to not call it a Balanced Scorecard. “Many people might feel uncomfortable with the term,” says the company. “And we wanted to call it something that resonated with the business and that would not be viewed as a program that was separate from the everyday working of the organization,” she continues. “We certainly did not want people talking about “this thing” called the Balanced Scorecard.” At the moment the framework is called the Roadmap.

**Explaining the Roadmap**

IB’s current Strategy Map (Roadmap) is shown in Exhibit 18. As a mission-based organization, the mission statement sits atop the map. The mission is critical to the organization and it was important that everything on the Strategy Map supported that. The mission statement is fairly broad and philosophical, as to be expected from a global educational foundation, and so the board and senior team are presently working on a new five year vision that will enable a more practical and focused implementation of that mission. That the shaping of this vision is still going on is important to note, as the final outcome will be captured in the final Strategy Map.

The present map, therefore, and indeed accompanying Key Performance Questions (KPQs) and KPIs are very much work in progress. However, the company stresses that the existence of the Roadmap is already delivering tangible benefits to the organization. Without question the main benefit so far is that it has got everyone thinking about and talking about the IB strategy.

As shown in the exhibit, the IB mission is divided into two more specific outcomes: **increase impact of IB education** and **broaden IB influence**. Scrolling down the map, a set of core competencies has been defined that the organization believes it must master if it is to successfully deliver to its mission. These are arranged under three groupings: “delivering high quality operational services (such as “teacher development”), “managing our reputation: (essentially about “generating awareness” and “marketing of services”) and “developing a high quality continuum of educational programs”.
Delivering to the core competence is through a set of key performance enablers, such as relationships, innovation, and research. In turn these enablers are supported by key resources, such as “our people, competencies and our values”, “our IT systems,” and “our infrastructure”. Also at the base of the map can be found “finance.” As a nonprofit organization, the leaders of IB recognize that in essence it is more focused on the wise stewardship and allocation of financial resources than on making money. That said it has created a Strategy Map for the IB publishing team that has a financial perspective near the top of the map.

Review Questions – Section 2

6. Roberts, Inc., manufactures a product that experiences the following activities: Processing (three departments) = 18 hours, Moving (four moves) = 2 hours, Waiting time = 14 hours, Rework time = 26 hours. The MCE for the product is
   A. 0.31.
   B. 0.39.
   C. 0.53.
   D. 0.30.

7. At the beginning of 2x13, Smith Company installed a JIT purchasing and manufacturing system. The following information has been gathered about one of the company's products: Theoretical annual capacity = 4,000; Actual production = 3,600; Production hours available = 2,000; Actual cost per unit = $28. The theoretical velocity per hour is
   A. 1.8 per unit.
   B. 2.0 per unit.
   C. 0.5 per unit
   D. 0.55 per unit.

8. Which one of the following organizations is NOT related to the Balanced Scorecard and performance metrics?
   A. Management Help
   B. SCORE
   C. American Productivity and Quality Center
   D. The Balanced Scorecard Institute

9. _______________________ is a metric that should be included in a future Balance Scorecard (BSC), some argue.
   A. Internal business process.
   B. Customer.
   C. Community.
   D. Learning and growth.
Glossary

**Customer perspective** A Balanced Scorecard dimension that defines the customer and market segments in which the business will compete.

**Cycle time (manufacturing)** The length of time it takes to produce a unit of output from the time materials are received (starting point of the cycle) until the good is delivered to finished goods inventory (finishing point of the cycle).

**External measures** Measures that relate to *customers versus shareholders* (e.g., customer satisfaction and return on investment).

**Financial measures** Measures expressed in monetary terms

**Financial perspective** A Balanced Scorecard dimension that describes the financial consequences of actions taken in the other three perspectives.

**Internal business process perspective** A Balanced Scorecard dimension that describes the internal business process needed to provide value for customers and stakeholders.

**Internal measures** Those measures that relate to the *processes and capabilities* that create value for customers and shareholders (e.g., process efficiency and employee satisfaction).

**Lag measures** Outcome measures, measures of results from past efforts (e.g., customer profitability).

**Lead measures (performance drivers)** Factors that drive future performance (e.g., hours of employee training).

**Learning and growth perspective** A Balanced Scorecard dimension that defines the capabilities that an entity needs to create long-term growth and improvement.

**Nonfinancial measures** Nonmonetary units (e.g., cost per unit and number of dissatisfied customers).

**Objective measures** Measures that can be readily quantified and verified (e.g., market share)

**Performance dashboard** A report that allows managers to visually monitor and focus on managing the company's key activities and strategies as well as business risks.

**Strategy map** A diagram that is used to document the primary strategic goals being pursued by an organization or management team and can then be created based on the if-then statements developed.

**Subjective measures** Less quantifiable and more judgmental in nature (e.g., employee capabilities)

**The Balanced Scorecard** A strategic performance management system that permits an organization to create a strategic focus by *translating* an organization’s strategy into operational objectives and performance measures for four different perspectives: the financial perspective, the customer perspective, the internal business process perspective, and the learning and growth (infrastructure) perspective.

**Velocity** The number of units of output that can be produced in a given period of time (units produced/time).
Index

Balanced Scorecard, 4, 1, 3, 4, 5, 6, 12, 15, 16, 19, 21, 22, 23, 25, 32, 33, 42, 45, 46, 47, 48, 50, 51, 55
Customer perspective, 4, 51
Cycle time, 12, 14, 15, 51
External measures, 3, 51
Financial measures, 3, 51
Financial perspective, 4, 51
Growth perspective, 30, 31, 51, 54
Internal measures, 3, 51
Lag measures, 3, 51
Lead measures, 3, 51
Nonfinancial measures, 3, 51
Objective measures, 3, 51
Performance dashboard, 5, 51
Strategy map, 23, 51
Subjective measures, 3, 51
Velocity, 12, 51
Review Question Answers

Section 1

1. An organization’s managerial decision-making model for capital budgeting is based on the net present value of discounted cash flows. The same organization’s managerial performance evaluation model is based on annual divisional return on investment. Which of the following is true?

A. **Correct.** Effective management control requires performance measurement and feedback. This process affects allocation of resources to organizational subunits. It also affects decisions about managers' compensation, advancement, and future assignments. Furthermore, evaluating their performance serves to motivate managers to optimize the measures in the performance evaluation model. However, that model may be inconsistent with the organization's model for managerial decision making.

B. **Incorrect.** Self-interest provides an incentive to maximize the measures used in performance evaluation.

C. **Incorrect.** A manager evaluated on the basis of annual ROI has an interest in maximizing short-term net income, not long-term NPV.

D. **Incorrect.** The models should be synchronized so that the goals of the organization and the manager are congruent.

2. The balanced scorecard provides an action plan for achieving competitive success by focusing management attention on critical success factors. Which one of the following is NOT one of the perspectives on the business into which key performance indicators (KPIs) are commonly grouped in the balanced scorecard?

A. **Correct.** A typical balanced scorecard classifies objectives and KPIs into one of four perspectives on the business: financial, customer, internal business processes, and learning and growth.

B. **Incorrect.** Financial performance measures are among the tools used in a typical balanced scorecard.

C. **Incorrect.** A typical balanced scorecard contains Objectives and measures focused on internal business processes.

D. **Incorrect.** Employee innovation and learning is one of the perspectives on the business commonly used in a balanced scorecard.

3. Using the balanced scorecard approach, an organization evaluates managerial performance based on

A. **Incorrect.** The balanced scorecard approach uses multiple measures.

B. **Correct.** The trend in managerial performance evaluation is the balanced scorecard approach. Multiple measures of performance permit a determination as to whether a manager is achieving certain objectives at the expense of others that may be equally or more important. These measures may be financial or nonfinancial and usually include items in four categories: financial, customer, internal business processes, and learning and growth.
C. Incorrect. The balanced scorecard approach uses financial measures such as ROI, RI, and cash flows.
D. Incorrect. The balanced scorecard approach uses nonfinancial measures such as the customer, internal business processes, and learning and growth metrics.

4. Which of the following balanced scorecard perspectives examines a company’s success in targeted market segments?

A. Incorrect. The financial perspective addresses such balanced scorecard Key Performance Indicators (KPIs) as (1) sales, (2) fair value of the firm’s stock, profits, and (4) liquidity.
B. Incorrect. The balanced scorecard Key Performance Indicators (KPIs) for the internal business process perspective may include (1) quality, (2) productivity, (3) flexibility of response to changing conditions, (4) operating readiness, and (5) safety.
C. Correct. The balanced scorecard Key Performance Indicators (KPIs) for the customer perspective may include (1) customer satisfaction, (2) customer retention rate, (3) dealer and distributor relationships, (4) marketing and selling performance, (5) prompt delivery, and (6) quality. Thus, the customer perspective may use measures of sales trends, market share, and market share trends in particular market segments.
D. Incorrect. The balanced scorecard Key Performance Indicators (KPIs) for the learning and growth perspective may include (1) new product development, (2) promptness of introduction of new products, (3) human resource development, (4) morale, and (5) workforce competence.

5. On a balanced scorecard, which of the following is NOT a customer satisfaction measure?

A. Incorrect. Customer satisfaction measures include market share, although this can also be a measure of market performance.
B. Correct. Customer satisfaction measures include market share, retention, response time, speed of delivery, delivery performance, number of defects, and lead time. Economic value added, or EVA, is a profitability (financial) measure.
C. Incorrect. Customer satisfaction depends greatly on how fast delivery occurs, but this can also be a measure of operational efficiency.
D. Incorrect. Customer retention is one of the primary measures of customer satisfaction and critical to a company’s on-going success.

Section 2

6. Roberts, Inc., manufactures a product that experiences the following activities: Processing (three departments) = 18 hours, Moving (four moves) = 2 hours, Waiting time = 14 hours, Rework time = 26 hours. The MCE for the product is

A. Incorrect. The computation did not include moving time. \(\frac{18}{18 + 14 + 26} = 0.31\)
B. Incorrect. The computation did not include waiting time. \(\frac{18}{18 + 2 + 26} = 0.31\)
C. Incorrect. The computation did not include rework time. \( \frac{18}{18 + 2 + 14} = 0.31 \)

D. Correct. \( MCE = \frac{18}{18 + 2 + 14 + 26} = 0.30 \)

7. At the beginning of 2x13, Smith Company installed a JIT purchasing and manufacturing system. The following information has been gathered about one of the company's products: Theoretical annual capacity = 4,000; Actual production = 3,600; Production hours available = 2,000; Actual cost per unit = $28. The theoretical velocity per hour is

A. Incorrect. \( 1.8 = \frac{3,600}{2,000} \)

B. Correct. Theoretical capacity/ actual production = \( \frac{4,000}{2,000} = 2 \) per unit.

C. Incorrect. \( \frac{2,000}{4,000} = 0.5 \)

D. Incorrect. 0.55 is a nonsense number.

8. Which one of the following organizations is NOT related to the Balanced Scorecard and performance metrics?

A. Incorrect. This organization offers a robust “library” of decision-making tools and library resources. The site offers many resources on such topics as strategic planning, performance measurement, employee development, and make-or-outsource decisions. It also includes online discussion groups, decision-making guidance, and free reference material.

B. Correct. SCORE that stands for Service Corps of Retired Executives is a nation-wide volunteer organization of retired business executives and professionals to help small businesses in advice, counseling, and information and assistance.

C. Incorrect. The American Productivity & Quality Center (APQC), an internationally recognized nonprofit organization, provides expertise in benchmarking and best practices research. APQC helps organizations adapt to rapidly changing environments, build new and better ways to work, and succeed in a competitive marketplace. The objective of this collaborative center is to “Understand how innovative organizations create succession management programs to identify and cultivate potential leaders who will provide a sustainable business advantage.” The Best Practices and Free Resources links lead to many useful resources.

D. Incorrect. The Balanced Scorecard Institute is an independent educational institute that provides training and guidance to assist government agencies and companies in applying best practices in balanced scorecard (BSC) and performance measurement for strategic management and transformation. Their website provides background information about implementing the balanced scorecard and the proper selection of nonfinancial measures. It also provides several examples of past successes.

9. ________________________ is a metric that should be included in a future Balance Scorecard (BSC), some argue.

A. Incorrect. Internal business processes are the means for creating customer and shareholder value. Thus, the process perspective of BSC entails the identification of the processes needed to achieve customer and financial objectives.
B. Incorrect. The customer perspective of BSC is the source of the revenue component for the financial objectives.

C. **Correct.** Some companies add a fifth perspective, "Sustainability," or even add a sixth perspective, "Community," to reflect triple bottom line goals. The Community Perspective might include: percentage of profit donated to local schools and organizations, percentage of materials sourced locally, product safety ratings, number of hours devoted to local volunteering.

D. Incorrect. The learning and growth (infrastructure) perspective is the source of the capabilities that enable the accomplishment of the other three perspectives’ objectives of BSC.