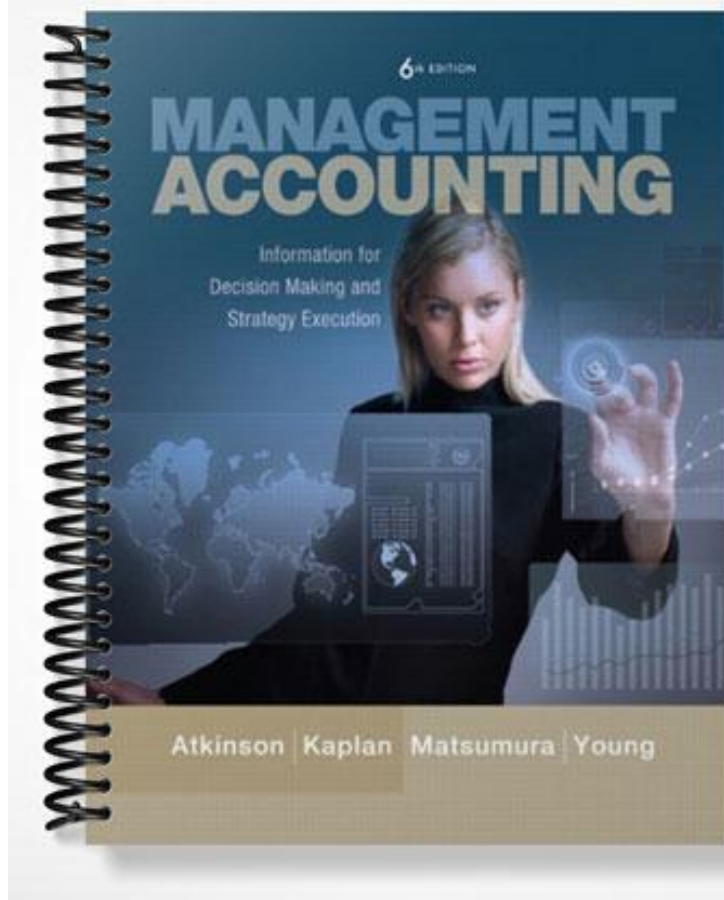
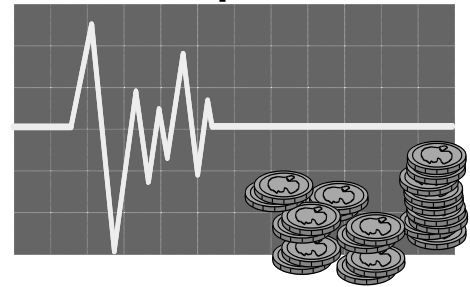


SOLUTIONS MANUAL



The Balanced Scorecard and Strategy Map

Chapter 2



QUESTIONS

- 2-1** Financial performance measures, such as operating income and return on investment, indicate whether the company's strategy and its implementation are increasing shareholder value. However, financial measures tend to be lagging indicators of the strategy. Firms monitor nonfinancial measures to understand whether they are building or destroying their capabilities—with customers, processes, employees, and systems—for future growth and profitability. Key nonfinancial measures are leading indicators of financial performance, in the sense that improvements in these indicators should lead to better financial performance in the future, while decreases in the nonfinancial indicators (such as customer satisfaction and loyalty, process quality, and employee motivation) generally predict decreased future financial performance.
- 2-2** A Balanced Scorecard is a systematic approach to performance measurement that translates an organization's strategy into clear objectives, measures, and targets. The Balanced Scorecard integrates an appropriate mix of short- and long-term financial and non-financial performance measures used across the organization, based on the organization's strategy.
- 2-3** The four measurement perspectives in the Balanced Scorecard are (1) financial, (2) customer, (3) process, and (4) learning and growth.
- 2-4** Increasingly, in order to succeed, organizations are relying on competitive advantage created from their intangible assets, such as loyal customers, high-quality operating and innovation processes, employee skills and motivation, data bases and information systems, and organization culture. The growing importance of intangible assets complements the growing interest in the Balanced Scorecard because the Balanced Scorecard helps

organizations measure, and therefore, manage the performance of their intangible, knowledge-based, assets. With the Balanced Scorecard measurement system, companies continue to track financial results but they also monitor, with nonfinancial measures, whether they are building or destroying their capabilities—with customers, processes, employees, and systems—and how the company is managing intangible assets to create future growth and profitability. The Balanced Scorecard provides a framework for describing how intangible and tangible assets (such as property, plant, equipment, and inventory) will be combined to create value for the organization.

- 2-5** The two essential components of a good strategy are (1) a clear statement of the company's *advantage* in the competitive marketplace—what it does or plans to do differently, better, or uniquely compared to competitors; and (2) the *scope* for the strategy—where the company intends to compete most aggressively, such as targeted customer segments, technologies employed, geographic locations served, or product line breadth.
- 2-6** First, it creates a competitive advantage by positioning the company in its external environment where its internal resources and capabilities deliver something to its customers better than or different from its competitors. Second, having a clear strategy provides clear guidance for where internal resources should be allocated and enables all organizational units and employees to make decisions and implement policies that are consistent with achieving and sustaining the company's competitive advantage in the marketplace.
- 2-7** A strategy map identifies linkages among essential elements for the organization's strategy. That is, a strategy map provides a comprehensive visual representation of the linkages among objectives in the four perspectives of the Balanced Scorecard. For example, employees' process improvement skills (learning and growth perspective) drive process quality and process cycle time (process perspective), which in turn leads to on-time delivery and customer loyalty (customer perspective), ultimately leading to a higher return on investment (financial perspective). This example shows how an entire chain of cause-and-effect relationships can be described to interconnect objectives (and their measures) in each of the four perspectives.

- 2-8** Once the company's vision, mission, and strategy have been established, the senior management team selects performance measurements to provide the needed specificity that makes vision, mission, and strategy statements actionable for all employees. Companies generally start their Balanced Scorecard project by building a strategy map that contains the word statements of their strategic objectives in the four perspectives and the linkages among them. The process of building a Balanced Scorecard should start with word statements, called *objectives* that describe what the company is attempting to accomplish. Objectives concisely express actions and may express the means and the desired results. An example of an objective for the financial perspective might be to increase revenues through expanded sales to existing customers. *Measures* describe how success in achieving an objective will be determined. A measure should be specific in order to provide clear focus for the objective. An example of a measure for the objective above might be to measure the percent increase in sales to existing customers each month. *Targets* establish the level of performance or rate of improvement required for a given measure. For example, a target could be a two percent increase in sales each month to existing customers.
- 2-9** The two basic approaches to improving a company's financial performance are (1) productivity improvements and (2) revenue growth.
- 2-10** Companies can generate additional revenues by (1) deepening relationships with existing customers by selling additional products or services, or (2) by introducing new products, selling products or services to new customers, or by expanding into new markets.
- 2-11** Productivity improvements can be achieved in two ways: (1) reducing costs by lowering direct and indirect expenses, and (2) utilizing financial and physical assets more efficiently to reduce the working and fixed capital needed to support a given level of business.
- 2-12** Virtually all organizations try to improve in terms of customer satisfaction, customer retention, customer profitability, and market share, but improvements in these measures do not necessarily constitute a strategy. The measures must be linked to a company's strategy in order to align the enterprise around successful execution of the strategy. For example, a strategy often identifies specific customer segments that a company is targeting for growth and profitability, in order to achieve the organization's financial objectives. Then the measures (customer satisfaction, customer retention, customer profitability and market share) must be applied to the customer segments in which they choose to compete.

- 2-13** A value proposition defines the company's strategy by specifying the unique mix of product performance, price, quality, availability, ease of purchase, service, relationship, and image that an organization offers its targeted group of customers in order to meet customers' needs better or differently from its competitors. The *low-total-cost* value proposition is used by companies such as Target (<http://www.target.com>), Southwest Airlines, Dell Computers, and Wal-Mart. The objectives of this value proposition emphasize attractive prices (relative to competitors), excellent and consistent quality for the product attributes offered, good selection, short lead times, and ease of purchase. McDonald's, for example, is inexpensive, serves food of consistent taste and quality, and serves customers quickly.
- 2-14** The *product-leadership* value proposition is followed by companies such as Tektronix (which designs and produces measurement and monitoring instrumentation, <http://www.tek.com>), Apple, Mercedes, and Intel. This value proposition emphasizes particular features and functionalities of the products that leading-edge customers place value in and are willing to pay more to receive. Specific measures include speed, accuracy, size, power consumption, design or other performance characteristics that exceed the performance of competing products and that are valued by important customer segments. It is important to be first-to-market when using the product innovation and leadership value proposition.
- 2-15** The *customer-solutions* value proposition is followed by companies such as Home Depot (<http://www.homedepot.com>), whose salespersons can teach customers how to use the products they buy at the store, Goldman Sachs, and IBM. This value proposition focuses on making customers feel that the company understands them and is capable of providing them with customized products and/or services tailored to their needs and preferences. Certain objectives that are stressed include completeness of the solution, exceptional service both before and after the sale, and the quality of the relationship between the company and its customers.
- 2-16** The Balanced Scorecard is helpful in identifying critical processes because it forces the company to determine the means by which it will produce and deliver the value propositions for customers and achieve the productivity improvements for the financial objectives. Furthermore, the Balanced Scorecard includes objectives and measures to evaluate performance on these critical processes.

- 2-17** An organization will want to include measures that monitor customers' perspectives on processes, even if workers often have little control over the measure. To illustrate, airlines will likely track on-time arrivals and departures at each airport because these measures are important to customers. In this example, the process perspective should contain objectives that are controllable by employees, but perhaps not completely, since an individual employee or department may control only one component of a process. Employees can influence on-time departure but weather conditions might disrupt an otherwise orderly process. To achieve desired ground turnaround time, multiple processes must operate efficiently: cleaning, refueling, and servicing the plane, loading drinks and food, handling luggage, and boarding passengers. If delays occur in any of these processes, the plane's departure may be delayed. Thus, the Balanced Scorecard may include a common metric for several different employee groups, none of which can completely determine performance on the metric. Moreover, performance improvement may involve teamwork across processes.
- 2-18** The four categories of processes that are useful in developing the process perspective measures are (1) Operations management processes, (2) Customer management processes, (3) Innovation processes, and (4) Regulatory and social processes.
- 2-19** Operations management processes are the basic, day-to-day processes that produce products and services and deliver them to customers. Some typical objectives for operations management processes are (1) achieve superior supplier capability, (2) improve the cost, quality and cycle times of operating processes, (3) improve asset utilization and (4) deliver goods and services responsively to customers.
- 2-20** Customer management processes expand and deepen relationships with targeted customers. Three important objectives for customer management processes are (1) Acquire new customers, (2) Satisfy and retain existing customers, and (3) Generate growth with customers.
- 2-21** Innovation processes develop new products, processes, and services, often enabling the company to penetrate new markets and customers segments. Also, successful innovation drives customer acquisition, loyalty, and growth, which lead to enhanced operating margins.

- 2-22** Managing innovation involves two important subprocesses. They are (1) Developing innovative products and services, and (2) Achieving excellence in research and development processes.
- 2-23** Regulatory and social processes promote meeting or exceeding standards established by regulations and facilitate achievement of desired social objectives. Companies manage and report their regulatory and social performance along a number of critical dimensions. These include (1) Environment, (2) Health and safety, (3) Employment practices, and (4) Community investment.
- 2-24** In developing their Balanced Scorecard, managers identify which of the process objectives and measures are the most important for their strategies. Companies following a product leadership strategy would stress excellence in their innovation processes. Companies following a low-total-cost strategy must excel at operations management processes. Companies following a customer-solutions strategy will emphasize their customer management processes
- 2-25** Typically, the financial benefits from improving processes occur within different time frames. Cost savings from improvements in *operational processes* deliver quick benefits (within 6 to 12 months) to productivity objectives in the financial perspective. Revenue growth from enhancing *customer relationships* accrues in the intermediate term (12 to 24 months). *Innovation processes* generally take longer to produce customer and revenue and margin improvements (24 to 48 months). The benefits from *regulatory and social processes* also typically take longer to capture as companies avoid litigation and shutdowns and enhance their image as employers and suppliers of choice in all communities in which they operate.
- 2-26** The three components of the learning and growth perspective are human resources, information technology, and organizational culture and alignment.
- 2-27** The following are desirable characteristics for a Balanced Scorecard measure:
- **Meaningful:** It is a valid indicator of the underlying strategic objective.
 - **Available:** The measure already exists in our data base or can be obtained without excessive cost.

- Understandable: People can quickly interpret levels and changes in the measure.
- Actionable: The measure can be influenced by the actions and initiatives the organization undertakes.
- Simple: You can explain the measure in one or two sentences.
- Timely: You can obtain the measure at an appropriate frequency and without excessive delay.

2-28 Because financial success is not their primary objective, nonprofit and government organizations (NPGOs) cannot use the standard architecture of the Balanced Scorecard strategy map where financial objectives are the ultimate, high-level outcomes to be achieved. NPGOs generally place an objective related to their *social impact* and *mission*, such as reducing poverty, school dropout rates, incidence or consequences from particular diseases, or eliminating discrimination, at the top of their scorecard and strategy map. A nonprofit or public sector agency's mission represents the accountability between it and society, as well as the rationale for its existence and ongoing support.

2-29 Building and embedding a new measurement and management system into an organization is complicated and susceptible to at least the following four common pitfalls described in the chapter: (1) Senior management is not committed; (2) Scorecard responsibilities don't filter down; (3) The solution is over-designed, or the scorecard is treated as a one-time event; and (4) The Balanced Scorecard is treated as a systems or consulting project. An additional pitfall is for one senior manager to try to build the scorecard alone.

EXERCISES

2-30 Wal-Mart is a company that uses the *low-total-cost* value proposition. The objectives of this value proposition emphasize attractive prices (relative to competitors), excellent and consistent quality for the product attributes offered, good selection, short lead times and ease of purchase. Possible measures for Wal-Mart include the following:

- (1) Financial: Return on investment, profit, change in yearly profit, cost of purchasing items, inventory turnover.
- (2) Customer: Market share, customer satisfaction in targeted segments such as price-sensitive customers, customer satisfaction and/or market share for Wal-Mart branded products, stockout rates, price indexes compared to competitors, return rates due to defective products.

- (3) Process: Cost of purchasing as a percentage of total purchase price, lead time for suppliers to replenish customer purchases, distribution cost per unit, supplier defect rates, percent suppliers that operate automatically for continuous replenishment, checkout speed.
- (4) Learning and growth: Employee satisfaction measured by a survey, employee retention, percent of suppliers linked electronically to point of sale terminals, number of employee suggestions for cost reduction or improved customer service, employee culture survey for continuous improvement.

2-31 Mercedes uses the *product-leadership* value proposition, which emphasizes particular features and functionalities of the products that leading-edge customers place value in and are willing to pay more to receive. Specific measures include speed, accuracy, size, power consumption, design or other performance characteristics that exceed the performance of competing products and that are valued by important customer segments. It is important to be first-to-market when using the product innovation and leadership value proposition. Possible measures for Mercedes include the following:

- (1) Financial: Economic value added, change in yearly profit, gross margin per vehicle sold, benchmarked against competitors.
- (2) Customer: Market share and customer satisfaction in targeted segments (such as high discretionary income customers), customer retention, peer review of new product introductions compared to competitors, ratings of specific driving attributes—power, handling, comfort, convenience, brand image, quality performance in customer surveys, such as J.D. Power and Consumer Reports.
- (3) Process: Time spent with focus groups to learn about knowledgeable customer preferences, product development lead time, peer review of new products in product development pipeline, number of new models or features introduced each year.
- (4) Learning and growth: Employee satisfaction measured by a survey, key employee retention, employee skill coverage (such as scientists and engineers with leading-edge knowledge of powertrain, suspension, aerodynamics, etc.), availability of information systems for virtual prototyping and dynamic simulation of new vehicles, employee survey for culture of creativity and innovation.

2-32 Nordstrom, an upscale retailer uses the *customer-solutions* value proposition, which focuses on making customers feel that the company understands them and is capable of providing them with customized

products and/or services tailored to their needs. Objectives that are stressed include completeness of the solution, exceptional service both before and after the sale, and the quality of the relationship between the company and its customers. Nordstrom's sales force is legendary for its customer service. (See case 3-70 for more information on Nordstrom.) Possible measures for Nordstrom include the following:

- (1) Financial: Return on investment, change in yearly profit per store, profit margins on merchandise, inventory turnover.
- (2) Customer: Market share in target segments, percent of customers who return for more purchases, percent of customers' "wardrobes" supplied by Nordstrom, average number of items sold per customer visit, number of referrals from delighted customers, customer lifetime profitability, percent of sales from loyal customers.
- (3) Process: Length of time elapsed between the time a customer's desired item arrives in a store and the customer is contacted, percent of customers whose preferences are entered into Nordstrom's database, employees' sales per hour (salesperson's knowledge of customer's preferences should facilitate quick sales), stockout rate, sales dollars per square foot, checkout speed.
- (4) Learning and growth: Employee satisfaction measured by a survey, key employee retention, percent of salespersons with more than two years of Nordstrom experience, percent of salespersons using the Nordstrom customer relationship management (CRM) system, culture survey on customer focus, survey on employee alignment to Nordstrom's values and mission.

2-33 (a) Increase employees' process improvement skills →

Decrease process defects → Decrease cost of serving customers

Decrease process defects → Increase customer satisfaction → Increase revenues

Increase revenues and decrease cost of serving customers → Increase profit

(b) Reduce turnover of key design personnel →

Decrease product development time from idea to market →

Increase number of products that are first on the market →

Increase number of new customers →

Increase revenues → Increase profit

- (c) Increase employees' customer relationships skill levels →
Increase customer satisfaction with employees' assistance →
Increase number of products cross-sold to customers →
Increase revenues

- 2-34** The statement is incorrect. In the process perspective of the Balanced Scorecard, there are four groupings. The fourth grouping, regulatory and social processes, includes measures on environmental performance and employee health and safety. Examples of key measures found in this grouping include (1) number of environmental incidents, (2) energy and resource consumption, (3) number of OSHA recordable cases per 100 employees, and (4) lost workdays per 100 employees or per 200,000 hours worked. Also, if environmental and social issues are especially important to a company, some actually introduce a fifth perspective, located near the process perspective in the strategy map, to highlight objectives and measures of the company's performance for the environment and in the communities in which it operates.
- 2-35** It is indeed possible for an organization to focus on 20 to 30 different measures in the Balanced Scorecard. The key is that the measures are not independent of each other. If the measures were independent of each other, they would be too difficult for an organization and its employees to absorb. However, a properly constructed Balanced Scorecard provides the instrumentation for a single strategy. Companies can then formulate and communicate this strategy with an integrated system of 20 to 30 measures that identify the cause-and-effect relationship among the critical variables.
- 2-36** This statement is incorrect. The individual is assuming that identifying key performance indicators and classifying them into the four scorecard perspectives constitutes a Balanced Scorecard. While these key performance indicators are worthy of attention, they do not reflect a company's strategy. Cause-and-effect relationships must be specified so the measures correspond to objectives that relate to the organization's strategy. As stated in the chapter, a good test is whether one can understand the strategy by looking only at the strategy map and scorecard. Note also that the list of key performance indicators does not explicitly include indicators for processes.
- 2-37** Although this scorecard is more balanced than its previous one, which used only a single financial measure, it is easy to identify the major gaps in the measurement set. The 4P scorecard has no customer measures and only a single measure each in the process and learning and growth perspectives.

This KPI scorecard has no role for information technology (strange for a financial service organization), no linkages from its process measure (quality certification) to a customer value proposition or to a customer outcome, no linkage from the learning and growth measure (diverse workforce) to improving its process metric (as achieving quality certification), no linkage from a customer measure to a financial outcome and no linkage from a process measure to a financial outcome.

- 2-38** There are three main differences between a Balanced Scorecard for a nonprofit or governmental organization (NPGO) and a for-profit organization. First, financial success is not the primary objective of NPGOs. Therefore, financial objectives are not the high-level outcomes to be achieved at the top of the strategy map and Balanced Scorecard. Instead, a long-term mission objective such as reducing poverty, improving education, or increasing health is identified as the high-level primary objective. Second, the customer framework is different due to different classes of customers. In the case of NPGOs, there are donors and taxpayers who pay for the service, and there are citizens and beneficiaries who receive the service. This dual-customer perspective must be considered when developing the strategy map and the Balanced Scorecard. Finally, many NPGOs do not have a clear strategy. To apply the Balanced Scorecard, an NPGO's thinking must shift from what it plans to do (activities) to what it intends to accomplish (outcomes).
- 2-39** The Balanced Scorecard is both a performance measurement system and a management system. The Balanced Scorecard was originally developed to improve performance measurement by incorporating nonfinancial drivers of performance, in addition to the usual financial performance measures. Once the basic system was in place, managers realized that measurement not only has consequences for reporting on the past, but also creates focus for the future. The Balanced Scorecard helps communicate the strategy, including objectives, measures, and targets, to all organizational units and employees, thus serving also as a management system. The strategy map illustrates the causal relationships among the strategic objectives across the four Balanced Scorecard perspectives.

PROBLEMS

- 2-40** Since Pioneer produced mostly commodity products (gasoline, heating oil, jet fuel), it could not recover in higher prices, any higher costs or inefficiencies incurred in its basic manufacturing and distribution operations. The differentiation, for Pioneer's new strategy, occurred at the

gasoline station, not in its refineries, pipelines, distribution terminals, or trucking operations. Little that happened prior to the final point of purchase created a differentiated product from the consumer's perspective. 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, Pioneer's basic operating processes had to achieve operational excellence. Having several measures in the process perspective for cost reduction, fixed asset productivity, and yield improvements signaled this important set of process objectives.

2-41 (a) Infosys' most important assets are customer relationships (especially with its new strategy), innovation, and employee recruitment and capabilities. These are intangible assets that are not measured well by financial statements alone. Infosys has evolved a continuing series of new strategies (body shop, outsourcer, IT service provider, and transformational partner). It needed a system to clearly define each new strategy to align employees and to monitor ongoing performance. An appropriately designed and implemented Balanced Scorecard is highly effective at helping companies manage intangible assets consistent with the company's strategy. Furthermore, the Balanced Scorecard can help management effectively communicate new strategies throughout the company.

(b) Possible customer measures for Infosys include the following:

- 1) Customer loyalty (% repeat business)
- 2) Growth in customer revenues year over year
- 3) Number of customers with more than \$25 (or \$50) million in annual billings
- 4) % of key customers' IT spending
- 5) Market share among competitive IT service providers (Accenture, IBM, Wipro, etc.)

(c) Possible employee measures for Infosys include the following:

- 1) Number of new hires from top schools
- 2) Acceptance rate of job offers
- 3) Employee satisfaction (and retention)
- 4) Measures of employee capabilities and skills in new technologies

2-42 Teach for America (TFA) can use its strategy map and scorecard in the following ways:

- Fund raising: The clear representation of TFA's mission and strategy should help it solicit funds from foundations or other donors who want to invest in the TFA strategy and mission.
- Communication: TFA can explain the strategy map to all its employees and corps members so that everyone understands the overall objectives of TFA and how they can contribute to achieving these objectives.
- Link to Operations: TFA can identify which processes are most important for achieving its strategy, and focus more attention to improving those strategic processes.
- Governance: TFA now has a performance contract to attract Board members, have the Board approve the strategy, and hold the management team accountable for executing the strategy.
- Recruiting: TFA can attract new employees with a clear statement of what it is trying to accomplish, where the new employee “fits” within the mission and strategy, and how the employee could contribute to the success of the strategy.
- Internal resource allocation: The Balanced Scorecard can help management ensure that TFA’s resources (people and money) and initiatives are aligned, in a balanced way, across the organization’s multiple objectives.

2-43 The discussion should begin by specifying the organization’s objectives and how the manager contributes to achieving those objectives. This provides a framework for the ensuing discussion. Presumably the primary objective for a fast food restaurant is profitability, which becomes the primary objective in the Balanced Scorecard system. The response should identify reasonable customer expectations regarding service, quality, and cost, and should specify performance measures that reflect how the manager contributes to each of these. The response should identify how employees affect performance on the primary objective and how the manager’s activities affect employees’ performance. For example, while the manager may have no control over wages or general employment conditions, through general management practices the manager contributes to the general level of employee satisfaction. The manager is likely to have little interaction with suppliers since in most fast food operations the head office handles these relationships. Similarly, while the corporate office handles most important community initiatives, the local manager can contribute by participating in community activities—for example, by sponsoring various youth activities. Therefore, the Balanced Scorecard should include operational, customer, employee, and community measures thought to influence profitability. Such measures might include costs, waste, and customer wait time.

2-44 The first step in this exercise is to identify what we have referred to as the school's owners—either the state or the trustees, depending on whether the university is privately or publicly funded, and their primary objectives. This is an important step because it defines the basis for evaluating the school's other choices. The next step is to identify the school's other stakeholders. Presumably, this would include customers (students), employees (faculty and staff), suppliers (part-time instructors and other outsiders), and the community.

The next step is to identify the primary strategy that the school has chosen to compete for students. This defines not only the proposed relationship with students, but also the relationships with other stakeholders, particularly employees, that the school needs to pursue. The last step is to build a Balanced Scorecard that reflects the school's strategic choices and the relationships that it has negotiated with its other relevant stakeholders.

For example, suppose that the school is publicly funded and has as its mandate to educate students so they can fill jobs and provide an economic contribution to the community. In this setting, we could specify that the school's primary objective is to prepare students for jobs in which they will make an economic contribution within the constraints of the school's budget. Therefore, cost and effectiveness issues will be important parts of the Balanced Scorecard. However, the Balanced Scorecard should reflect the other stakeholders, particularly faculty who are responsible for designing and delivering the educational programs, staff who provide the infrastructure within which the education process takes place, and the community that funds the university and, ultimately, decides its fate.

The performance measurement choices will reflect the mandate (strategy) and primary objective, as well as what each stakeholder group provides to, and expects to receive from, the university. For example, students provide tuition fees and, through their numbers, continued state funding. In return, students expect to receive an education that allows them to pursue their chosen careers. Measuring what students receive in this setting may be difficult. For example, measuring success by the average starting salary of students is both a crude and short-run measure. However, perhaps it is the best available. Measuring faculty contribution to achieving the primary objective could be approximated by teaching evaluations and research publications. However, this too is a crude measure of the faculty's contribution to providing students with what they need at the most

reasonable cost. This particular setting provides a good basis for discussion because it deals with a situation that most students will understand, but which raises important and difficult issues about choosing objectives, both primary and secondary, and how to measure performance on those objectives.

- 2-45** For government and nonprofit agencies, financial systems that budget expenses and monitor and control actual spending provide information about whether the agency overspent its budgeted or authorized amount. However, the financial systems do not provide useful information about whether the agency has achieved its mission because for such agencies, success is not measured in financial terms. Success should be measured in outcomes achieved. This requires the agency to have a clear definition of its mission and its targeted customer base. With such a mission and a specified targeted set of constituencies, it can then formulate objectives and measures to motivate and focus employees towards achieving organizational objectives. Ex post, the agency can measure the outcomes from its activities to see whether it has delivered on its mission and objectives.

A Balanced Scorecard for a government or nonprofit agency can still have a financial perspective. This would allow for measurement of operating expenses as a targeted percentage of total funds raised or disbursed. For nonprofits, the financial perspective could also include measurement of funds raised relative to targets, and increases in contributions per donor.

The customer perspective would represent objectives and measures for either the specific beneficiaries of the agency or the donors who provide funds for the agency. Consider a group like the Nature Conservancy or the Sierra Club. From the perspective of donors to these organizations (the customers), objectives could relate to acres preserved and species protected. For United Way organizations, objectives could relate to improvements in the local community served by agencies supported by United Way. So one would need to think about objectives and measures for both the providers of funds to the organization (taxpayers or donors—which is one defining characteristic of “customers”) and the recipients of the services provided by the organization (another defining characteristic of a “customer”).

The process perspective would represent the objectives and measures for the business processes required to meet the objectives of donors (or taxpayers) and beneficiaries. Such objectives could include high quality delivery of

services, speedy and zero defect responses to donors and beneficiaries, innovative services for recipients, and recognition of donors and volunteers.

The learning and growth perspective typically, as with private sector companies, would include objectives and measures relating to improving the skills and motivation of employees, delegating greater decision-making to employees, and improving access to information about donors, beneficiaries, and volunteers.

- 2-46** The company's approach may not produce a comprehensive Balanced Scorecard because it will not necessarily specify cause-and-effect relationships with measures and objectives that relate to the organization's strategy. Moreover, the existing measures may not span the four Balanced Scorecard perspectives or represent the company's strategy. The company's view of the Balanced Scorecard seems limited to using the existing performance measures.
- 2-47** This approach may encounter multiple common pitfalls. First, the senior management team should be actively involved in order to articulate the organization's strategy, make decisions necessary for an effective strategy, and develop their emotional commitment to the strategy and implementation of the ensuing Balanced Scorecard. Otherwise, the head of the information technology group may not fully understand the company's strategy, mission, and objectives. Second, the head of the information technology group may attempt to build the scorecard alone rather than with the entire management team, making implementation and acceptance of the Balanced Scorecard difficult. The Balanced Scorecard would likely be far less complete, useful, and accepted than if the entire management team had participated in its development. Third, the company may face problems common when development of the Balanced Scorecard is treated as a systems project. In addition to the potential problems already mentioned, the information technology group may focus on the data-gathering aspects of the performance measurement system and developing an executive information system so that executives can access any data they want, rather than focusing on the key data for monitoring and implementing the strategy. Finally, the IT executive may not have the interpersonal and organizational skills to be an effective project leader for an interdisciplinary project (though she or he might indeed have those skills). Consequently, the Balanced Scorecard may not include a structured strategy map with cause-and-effect linkages among strategic performance measures.

CASES

- 2-48 (a)** The principal advantage of linking compensation to a Balanced Scorecard is the alignment of incentives with the organizational goals represented in the Balanced Scorecard. Monetary rewards often provide very strong motivation to focus on the scorecard measures. This is an example of “extrinsic motivation” in which people work towards outcomes for which they are explicitly rewarded. The Balanced Scorecard can also provide “intrinsic motivation.” Employees, once they learn about the company’s strategy and how they can contribute to that strategy, will strive to help the organization achieve its strategic objectives because they want to take pride in working for a successful organization.

One concern in linking compensation to a Balanced Scorecard is whether the measures are sensible. Another is to ensure that reliable data collection processes exist for each measure used in the compensation function, and that the measures are not easily manipulated. Top management must try to anticipate whether managers might choose actions that are undesirable for the organization but that have a beneficial effect on scorecard measures. To alleviate these concerns, organizations may delay linking compensation to Balanced Scorecard measures for six months to a year after the scorecard’s initial implementation to gain confidence in the measures and data collection processes. The organizations must be cautious, during the initial trial period, that the existing or temporary compensation scheme does not encourage a focus on only a narrow set of measures, such as short-term financial performance.

Another concern is how to design compensation based on multiple objectives. Assigning weights to individual objectives allows considerable incentive compensation to be paid when a business unit performs well on some objectives even if the business unit performs quite poorly on other objectives. Companies can instead award incentive compensation only if a specified minimum threshold is met on all, or a subset, of crucial objectives. Typically, a minimum financial hurdle is specified, such as 5% return on sales or 6% return on capital, before any bonus will be paid. This ensures that bonuses are not paid when the company is experiencing financial difficulties.

- (b) M&R had a very detailed plan developed around the four Balanced Scorecard perspectives, with numerous metrics across the perspectives. Assigning percentage weights that determined how much the achieved balanced scorecard measures would contribute to the bonus pool suggests that the system was very balanced. Assigning degrees of difficulty to achieving targets provided incentives for managers to set stretch targets rather than easily achievable targets, knowing that if they missed a stretch target slightly, they would still receive an award that was higher than a manager who just met a much more easily achievable target. Because the performance factors underwent review by peers, upper management, and the employees subject to performance evaluation based on the performance factors, everyone concerned could have confidence that the performance factors were reasonable and comparable across different units. Note that all salaried employees in M&R's Natural Business Units had compensation linked to performance on Balanced Scorecard measures.

The use of three tiers of compensation—corporate, division, and business unit—aligns individual employees to areas where they can have the most impact (their department or business unit), as well as the broader organization (division and corporation). Employees will be motivated to contribute to performance outside the particular department or business unit where they work, yet still benefit from achievements by their own unit, where their efforts will likely have the largest impact.

The issues in part (a) also arise in M&R. In addition, the pros and cons of extrinsic motivation can be discussed. A concern with motivation that is primarily extrinsic is that individuals may exhibit less creativity and innovation in decision-making and problem solving than they would if they were also intrinsically motivated.

- 2-49** This question serves as a basis for discussing implementations of the Balanced Scorecard. This exercise has two objectives. The first objective is to provide students with an understanding of what organizations expect from a Balanced Scorecard. The second objective is to provide students with an illustration of the practical issues in choosing measurable primary and secondary objectives. The question asks the student to explore all facets of the implementation, including what measures are used, why they are used,

how the measures relate to organization strategy, and whether the Balanced Scorecard is internally consistent and rational.

2-50 The following descriptions are drawn from the University of Leeds' web site (<http://www.leeds.ac.uk>), including its strategy map at http://www.leeds.ac.uk/downloads/Strategy_map_aw.pdf and its Internationalisation Strategy statement at http://www.leeds.ac.uk/downloads/internationalisation_strategy.pdf (all accessed on June 25, 2010).

- (a) The University of Leeds' strategy is essentially a product leadership strategy that focuses on integrating world-class research, scholarship, and education.
- (b) Leeds is developing a distinctive ability to integrate world-class research, scholarship, and education that leads to its graduates and scholars making a major impact on global society. Leeds will accomplish this by partnering with its stakeholders, who include high-quality faculty, students, and alumni, as well as business, public, and third-sector partners. One of the unique aspects of Leeds' strategy is its international focus.
- (c) The University of Leeds already has a strong reputation and aims to be ranked among the top 50 universities in the world by 2015. Its strategy map lists four key themes:
 - Enhance our standing as an international university
 - Achieve an influential world-leading research profile
 - Inspire our students to develop their full potential
 - Increase our impact on a local to global scale

The university offers a broad range of courses, including courses in arts, biological and physical sciences, social sciences, education, law, engineering, business, and medicine. Leeds offers both undergraduate and graduate studies. The university draws a relatively large population of international students. In relation to achieving its world-leading research profile, Leeds has an intention to "Deliver international excellence in all our areas of research, with defined peaks of world-leading performance."

- (d) As an example, Leeds' internationalization strategy has three objectives,

shown below with relevant measures.

1. Embed internationalization into our core activities
 - a) % research funding from outside the UK
 - b) % of overseas staff and % of staff with overseas visiting professorships
 - c) % of students experiencing some form of overseas placement
 - d) Quality of international student experience
 - e) Number of students successfully completing Leeds degrees through transnational programmes
 - f) Diversity of international student population
 - g) Joint international publications per FTE
2. Create sustainable recruitment of high quality international students
 - a) Number of fulltime fee paying international students
 - b) International student market share by cohort
3. Develop and maintain high quality international strategic partnerships
 - a) Number of institutional international strategic partnerships

2-51 This case is an update of “City of Charlotte (A)” (Harvard Business School Case #9-199-036), which contains details on the early history of the City of Charlotte’s Balanced Scorecard, as well as the scorecard measures. Details also appear in Kaplan, R. S. and D. P. Norton, *The Balanced Scorecard: Translating Strategy into Action* (Harvard Business School Press: Boston, MA), 1996, 183-185.

This case illustrates how a government organization can adapt the typical Balanced Scorecard approach to implement its vision and mission. Instead of the financial perspective that appears the top of a for-profit firm's Balanced Scorecard, the City of Charlotte uses five focus areas, modified somewhat from the initial areas, at the top of its Balanced Scorecard. The City of Charlotte then uses four perspectives in the following order: customer (citizens), financial, process, and learning and growth.

The City of Charlotte's fiscal year 2010 report (page 35) at <http://charmeck.org/city/charlotte/Budget/Documents/FY2010%20Strategic%20Operating%20Plan.pdf> lists the objectives below for its four perspectives. Further details on objectives, measures, and targets are provided on subsequent pages of the fiscal year 2010 report.

Strategic focus	Community safety	Housing and neighborhood	Transportation	Environment	Economic development
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areas		development			
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City of Charlotte Balanced Scorecard

Perspective

Customer	Reduce crime	Strengthen neighborhoods	Provide safe, convenient transportation choices	Safeguard the environment	Promote economic opportunity
	Increase perception of safety				

Financial	Expand tax base and revenues	Deliver competitive services	Invest in infrastructure	Maintain AAA rating
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Process	Develop collaborative solutions	Enhance customer service	Optimize business processes
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Learning and growth	Promote learning and growth	Recruit and retain skilled, diverse workforce	Achieve positive employee climate
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The customer objectives support the five focus areas: community safety, housing and neighborhood development, transportation, environment, and economic development. As in the initial Balanced Scorecard, the financial objectives should enable the city to fund needed projects through taxes and credit availability. The process objectives help the city achieve its customer objectives cost-effectively, and the learning and growth objectives support the process, financial, and customer objectives.

2-52 Wells Fargo describes itself as follows in its company overview at <https://www.wellsfargo.com/downloads/pdf/about/wellsfargotoday.pdf> (June 19, 2010):

Wells Fargo & Company is a diversified financial services company providing banking, insurance, investments, mortgage, and consumer and commercial finance through more than 10,000 stores and 12,000 ATMs and the Internet (wellsfargo.com and wachovia.com) across North America and internationally.

Further, the website elaborates on Wells Fargo’s vision as follows:

We want to satisfy all our customers’ financial needs, help them succeed financially, be the premier provider of financial services in every one of our markets, and be known as one of America’s great companies.

The firm reported assets of \$1.2 trillion as of March 31, 2010.

In the 1990’s, Wells Fargo already had a reputation for innovation and cost management (“Wells Fargo Online Financial Services (A),” Harvard Business School Case #9-198-146, p. 2). The following table provides examples of measures, targets, and initiatives (actions) described in Wells Fargo’s 2002 Annual Report (pages 18-20, strategic initiatives), 2006 annual report (page 127), and web page—for example, (https://www.wellsfargo.com/com/commercial_banking/index), focusing on the process perspective and learning and growth perspective. Additional measures and initiatives are also provided.

	Measures	Targets	Initiatives
(1) Investments, brokerage, trust and insurance (satisfy customers’ financial needs)	Percentage of Wells Fargo’s profit.	Increase profit of these segments as a group to 25% of Wells Fargo’s profit.	Add more private bankers, license more bankers to sell mutual funds.
(2) Going for “gr-eight”! (cross-sell)	Number of products per customer	Increase average to 8.	Offer packages of products that save customers time and money. For example, the Homebuyers’ Package offers new mortgage customers a package of banking products that can save customers up to \$340 per year.
(3) Commercial bank of choice	Number of active online middle-market/large corporate customers;	Have more lead relationships than any other competitor in	Foster customer-focused culture and attitudes; provide training to relationship managers in specific target industries

	number of active online small business customers; Retention rate for high-value customers	every market we serve. 100%	(e.g., service, beverage, agribusiness, technology, healthcare, government, and environmental).
(4) Doing it right for the customer (be advocates for customers)	Proportion of customers lost per year	Cut proportion in half (to 1 in 10).	Foster customer-focused culture and attitudes.
(5) Banking with a mortgage	Percent of mortgage and home-equity customers in Wells Fargo's banking states who bank with Wells Fargo, and vice versa	100% cross-selling between banking customers and mortgage/home-equity customers	Initiative to migrate mortgage and home-equity customers to become Wells Fargo banking customers.
(6) Wells Fargo cards in every Wells Fargo wallet	Percent of bank customers who have a credit card or debit card with Wells Fargo	100% for each type of card	Cross-selling initiative to existing banking customers without Wells Fargo credit card.
(7) When, where, and how (match when, where, and how customers want to be served)	Ranking of online services; number of active online customers in various categories	#1 ranking	Integrate delivery channels to match when, where, and how customers want to be served. Some machines and web services have Spanish or Chinese language options.
(8) Information-based marketing (analyze and meet customer's needs)	Percentage of customers receiving personalized marketing messages	Offer right product at the right time to save customer time and money.	Deploy customer relationship management and data mining application packages.
(9) Be our customers' payments processor	Internet payments		

	business revenue and transaction volume		
(10) People as a competitive advantage	Percentage of key jobs staffed with people with requisite skills, knowledge, and training		Develop, reward, and recognize “team members”; build an inclusive workplace.

Development of a partial Balanced Scorecard for one of Wells Fargo’s segments appears in “Wells Fargo Online Financial Services (A),” Harvard Business School Case #9-198-146.

2-53 Chadwick, Inc.: The Balanced Scorecard (Abridged)¹, Harvard Business School Case (HBS Case **9-104-073**).

Substantive Issues Raised

Division managers at Chadwick had complained to the Controller about the continual pressure to meet short-term financial objectives. As a producer of consumer products and pharmaceuticals, divisions at Chadwick engaged in long-term projects with uncertain payoffs. Managers did not believe that using a single target, return on capital employed, linked current actions and efforts to longer term value creation.

The corporate controller has recently learned about the Balanced Scorecard. He presented the concept to the president and chief operating officer who then issued a call to all Chadwick division managers to develop a scorecard for their divisions. The divisional controller at the Norwalk division was given the task of heading the effort to formulate scorecard measures for the division.

¹ Copyright © 1997 by the President and Fellows of Harvard College. Harvard Business School teaching note 5-198-029. This teaching note was prepared by W. J. Bruns, Jr. as an aid to instructors in the classroom use of “Chadwick, Inc.: The Balanced Scorecard (Abridged),” Harvard Business School Case 9-104-073. Reprinted by permission of Harvard Business School. Additional notes appear in square brackets.

Pedagogical Objectives

A discussion of the Balanced Scorecard concept can focus on three objectives. First, the discussion should address questions about why financial measures are insufficient when they are used alone. Second, the discussion should question and review the concept of the Balanced Scorecard and its perspectives. Third, students should practice exploring linkages between objectives and measures on scorecard perspectives so that they can see how performance on one perspective supports or encourages achievement on others.

[For part (a), see the “Suggestions for Classroom Use” section. Also see textbook questions 2-1, 2-2, 2-3, 2-4, 2-7, 2-8 and 2-12, and exercises 2-36, 2-39, and 2-46.]

[(b) and (c)]

Opportunities for Student Analysis

Although the case is short, it provides a remarkable amount of information about Chadwick, Inc. and the Norwalk Division. Using this information, students are able to relate objectives and measures to scorecard perspectives. They can construct a scorecard by associating objectives and measures along each perspective and then putting these together into a proposed scorecard.

Some of the things they will consider include the following.

For the customer perspective. Customer retention, market share, number of new products released, key relationships with distributors and final customers, number of new applications suggested by customers, number of new applications suggested by salespeople, customers’ profits—how much do distributors earn, customer rankings through surveys.

For the process perspective list, consider the [value-creating] cycle of the business:

Identify unmet customer needs => explore compounds => test
compounds in laboratory [and] in field => gain government approval

[=> launch product] => release marketing, production, and distribution [market, produce, and distribute product].

Measures for the innovation part of the process perspective could include number of products in development, number of products in laboratory testing, number of products in test in field testing, number of products under review for government approval, average time in each stage of development cycle, the yield ratio moving from stage to stage in development cycle, number of new products released, [ratio of new product sales — first two years — to total development costs, and the following measures that could also be included in the learning and growth perspective: percentage of sales from new applications, number of fundamentally new compounds relative to extensions of existing applications, gross margin on new products, and number of suggestions from distributors and from customers.]

Manufacturing efficiencies, cost, quality, and distribution are candidates for the operations management processes. [The measures might include manufacturing cycle times, order lead times, on-time delivery percentages, inventory availability, and percentage of stockouts.]

For the learning and growth perspective. Percentage of sales from new applications, number of new applications compared to extensions of existing applications, gross margin on new products, number of suggestions from distributors, and number of suggestions from customers. [Possible employee-related measures include employee climate or attitude survey (relative to feelings of empowerment and decision-making autonomy), number of employees with requisite technical skills (including, perhaps, new bio-technology skills), number of employees with requisite commercial skills, and retention percentage of key employees.]

For the financial perspective. Dollars and percent of spending on research and development, dollars and percent of spending on marketing, waste, and scrap, and return on capital employed (ROCE)

Students will put these objectives and their proposed measures together in different combinations. It is the difference between student proposals that generates a useful and productive class discussion. [The instructor can also ask the students to develop the cause-and-effect linkages between the measures in the different perspectives.]

Suggestions for Classroom Use

A productive way to begin the class discussion is to focus for a few minutes on why financial measures are not sufficient to direct managers' attention to what needs to be done. In some ways the power of financial measures is derived from the fact that managers can approach achievement by putting different combinations of inputs and outputs together. This assumes that managers know the relationships between the change in inputs and the outputs that will occur. A typical failing often cited for financial measures is that they encourage a short-term orientation and actions that may not be in the best interest of customers or long-term performance. [For example, investing in product research and development, or in developing new customer relationships, or in re-skilling employees, is risky since the desired outcomes do not necessarily follow from spending on the inputs. Consequently, managers may choose to increase their measured short-term financial performance by reducing spending on new product development and on enhancing customer relationships, or by not investing in employee development.]

By adding nonfinancial measures, the Balanced Scorecard provides leading indicators of long-term financial wealth creation and directs attention to specific areas consistent with improvement in long-term corporate performance. Properly selected, those measures teach managers what is expected of them and what is important for achievement of corporate goals. In constructing a balanced scorecard, the key is not to include all of the perspectives and measures that are possible, but, rather, just the right number to focus activities on what must be done by individuals in the organization for the organization as a whole to succeed.

Students should share their views on general impressions of a balanced scorecard. Why is each perspective important and separate from the others? They should also consider the nature of linkages between perspectives of the scorecard. During this discussion, it is useful to have the scorecard framework [a current version appears in Exhibit 2-6 in the textbook] in front of the class on a [PowerPoint slide], transparency, or chalkboard.

[The discussion can proceed in at least two ways. You can go perspective by perspective, encouraging students to generate measures for each perspective. This will undoubtedly lead to far more than five measures per perspective. After this brainstorming has been completed, indicate that

while all the measures might have merit for the company, it needs to focus on the critical few. Go through a voting process in which students are allowed to vote for, at most, three measures per perspective. You can take the votes on the measures quickly. Or you can list all the measures on flip charts (one per perspective) and give each student three green dots per perspective. They can then walk up to each chart and vote by placing their green dots next to their desired measures. You will usually see that a consensus exists for the most important 3 or 4 measures.]

[Alternatively, it] is useful to get two or three different student scorecards in front of the class. The differences are the subject of classroom discussion. In practice, companies experience differences not unlike those that will emerge during this discussion, and it is typical for the development of the scorecard to take some time. Robert Kaplan has estimated that the time to develop the first balanced scorecard in most organizations is somewhere between 4 and 6 months, and imbedding the balanced scorecard as a central part of management systems occurs over the next 18 to 24 months that follow.²

Once the nature of a balanced scorecard has been discussed, the discussion should turn to whether Greenfield and Wagner at the Norwalk Division of Chadwick, Inc. are off to a good start in developing a scorecard. Greenfield has quickly sketched out a business strategy. It provides some direction in building a balanced scorecard and is responsive to the needs of Norwalk. In constructing a scorecard, managers at Norwalk and students in the classroom exercise have to decide whether the focus of their measures should be on activities or on outcomes. Eventually, they will have to consider whether the measures are those that will generate commitment. [Finally, discussion can turn to how a Balanced Scorecard for Chadwick might differ from ones developed in its divisions, such as Norwalk, and what resolution should occur given potential conflicts between divisional scorecards and the corporate scorecard.]

This is not a class in which agreement needs to be total. It is sufficient students see that the balanced scorecard is a comprehensive approach to

² See evolution of the BSC management system for National Insurance described in R. S. Kaplan and D. P. Norton, "Using the Balanced Scorecard as a Strategic Management System," *Harvard Business Review* (January-February 1996), pp. 75-85, (HBR Reprint # 96107), or in Chapter 12 (pp. 272-292), "Implementing a Balanced Scorecard Management Program," in Kaplan and Norton, *The Balanced Scorecard: Translating Strategy into Action* (Boston: HBS Press, 1996).

objective setting and performance measurement. It succeeds where managers are committed to it and are willing to devote the time and effort necessary to create an effective scorecard and to implement the measures that are required. Without that commitment, organizations are likely to revert to simpler performance measurement systems and occasional attention to problem areas which develop on perspectives not included in the simple system.

2-54 Domestic Auto Parts, Harvard Business School Case (HBS Case **9-105-078**).

The case discussion can proceed perspective by perspective, working from the Financial through the Customer, Process, and Learning and Growth objectives. After developing a strategy map of objectives, encourage students to generate measures for each objective. If students generate a large number of measures per perspective, students can vote to determine which the critical few are. An example of a completed Balanced Scorecard and strategy map follow.

Domestic Auto Parts—Balanced Scorecard

Perspective	Objectives	Measures
Financial	Increase Return on Capital Employed	ROCE (12%)
	Reduce Unit Costs	% Productivity Improvement Gross Margin
	Increase Asset Utilization	Sales/Assets % Capacity Utilization (90%)
	Grow Revenue/Increase Market Share	% Revenue Growth (12%/yr.) Market Share (#1 or #2)
Customer	Deliver On-Time, On-Spec	OTD % Customer Defects>Returns
	Achieve Image of Trusted Supplier	Customer Retention Customer Ranking
	Enhance Customer Relationships	Key Customer Account Share
	Become Innovative Supplier	(\$/%) Sales New Products (\$/%) Sales New Technology Products
Process	Improve Maintenance Effectiveness	\$ Hours Unscheduled Downtime # Breakdowns/Incidents
	Improve Manufacturing Efficiency	PPM Defect Rates Cycle Time Changeover Time Cost/Unit
	Upgrade Equipment	% Gross Assets < 3 years old
	Improve Supplier Relationships	% Certified Suppliers Supplier OTD Supplier PPM Defect Rate Supplier Cost Reduction
	Understand Customer Needs	# Hours with Key Customers # Plans Jointly Developed with Customers # Customers Profiled
	Build Distribution Network	# New Distributors Units Sold Through Distributors
	Excel at Product Development	NPV of Product Pipeline Customer Rating of Pipeline Time-To-Market
Learning & Growth	Enhance Workforce Capabilities	Strategic Job Coverage # Cross-Trained Employees
	Leverage Information Technology	Customer Databases CRM Availability Process Improvement (JIT) Tools
	Build a Culture for Change	Employee Survey # Best Practices Shared

Strategy Map: Domestic Auto Parts

