Chapter 2

The Balanced Scorecard and Strategy Map

After completing this chapter, you will be able to:

1. Explain why both financial and nonfinancial measures are required to evaluate and manage a company's strategy.
2. Understand how a Balanced Scorecard can represent cause-and-effect hypotheses of a company's strategy across financial, customer, process, and learning and growth perspectives.
3. Explain why a clear strategy is vital for a company.
4. Appreciate the role for a strategy map to translate a strategy into financial, customer, process, and learning and growth objectives.
5. Select measures for the strategic objectives in the four perspectives of a company's Balanced Scorecard and strategy map.
6. Extend the Balanced Scorecard framework to nonprofit and public-sector organizations.
7. Recognize problems that companies may experience when implementing the Balanced Scorecard and suggest ways to overcome them.

Pioneer Petroleum

Pioneer Petroleum was the U.S. marketing and refining division of a large global petroleum company. It operated five refineries and had more than 7,000 branded gasoline stations around the United States, which sold about 25 million gallons of gasoline per day. Historically, Pioneer marketed a full range of products and services. It did, however, match the prices of discount stations operating near a Pioneer station so that it would not lose market share. Pioneer's CEO Brian Roberts had recently learned that Pioneer was the least profitable marketing and refining company in the United States. He decided to turn around the company by implementing a strategy based on a marketing study that had revealed five

Time-sensitive customers prefer self-service gasoline stations.
Alamy Images

distinct consumer segments among the gasoline-buying public (see Exhibit 2-1).

Pioneer's executives saw that price-sensitive consumers constituted only 20% of all U.S. gasoline purchasers. Another segment, Homebodies, had little loyalty to any brand or station. But three segments wanted more than a commodity purchase. After considerable discussion, Pioneer decided on a strategy to offer a superior buying experience to the three top-tier segments: Road Warriors, True Blues, and Generation F3. Also, it would no longer seek to attract price-sensitive consumers by lowering prices to compete with discount gasoline stations.

Exhibit 2-1
Pioneer's Five Gasoline-Buyer Segments

Road Warriors (16%)	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, will sometimes wash their cars at the carwash.
True Blues (16%)	Usually men and women with moderate to high incomes who are loyal to a brand and sometimes to a particular station; frequently buy premium gasoline and pay in cash.
Generation F3 (27%)	(F3—fuel, food, and fast) Upwardly mobile 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.
Homebodies (21%)	Usually homemakers who shuttle their children around during the day and use whatever gasoline station is based in town or along their route of travel.
Price Shoppers (20%)	Generally aren't loyal to either a brand or a particular station, and rarely buy the premium line; frequently on tight budgets; the focus of attention of marketing efforts of gasoline companies for years.

Roberts faced the challenge of realigning Pioneer to the new customer-focused strategy. The realignment could not be done just at the top. It had to take place at the grass roots. For its strategy to succeed, Pioneer would have to make *everyone* aware of the strategy and accountable for its success. A survey had revealed that employees felt internal reporting requirements, administrative processes, and top-down policies were stifling creativity and innovation. Relationships with customers were adversarial, and people were working narrowly to enhance the reported results of their individual, functional units. Roberts expressed the problem as follows:

> I am accountable for a large organization, spread over a large geographic area. At the end of the day, success comes from individuals at the frontline of operations. You've got an operator at a refinery, sitting in front of a computer screen controlling a process unit at 3 A.M. on Sunday morning when management is not around. My fate is determined by that person's attitude, whether that person is paying attention. Thirty seconds of inattention at the wrong time can shut down that refinery, stopping production. If you're going to drive the business you have to drive it down to that individual who is at the frontline, making the decision.

Pioneer had operated for decades with a centralized structure, organized by functions, such as purchasing, supply chain, manufacturing (refining), distribution, and marketing. Only two people, Roberts and his executive vice president, among Pioneer's 7,000 employees had accountability for a profit and loss statement. Managers of a refinery, pipeline, or distribution facility were responsible for achieving cost targets, while managers of sales districts had to meet revenue targets. To create a more agile organization, Roberts decentralized Pioneer into 17 strategic business units (including regional gasoline sales districts and specialized product units, such as for jet fuels and lubricants) that would be closer to customers. Each business unit would have its own profit and loss accountability. Roberts now faced the problem of how to upgrade the skills of the newly appointed business unit heads who had all grown up within a structured, top-down functional organization:

> We were taking people who had spent their whole professional lives as managers in a big functional organization, and we were asking them to become the leaders of entrepreneurial profit-making businesses, some with up to $1 billion in assets. How were we going to get them out of their historic area of functional expertise to think strategically, as general managers of profit-oriented businesses?

Roberts believed that a major impediment to change was the company's historic focus on achieving short-term financial performance:

> The financial metrics gave us a controller's mentality, reviewing the past, not guiding the future. I wanted metrics that could communicate what we wanted to be so that everyone in the organization could understand and implement our strategy. We needed metrics that could link our planning process to actions, to encourage people to do the things that the organization was now committed to accomplishing.

Roberts struggled with how he could change the performance measurement framework at Pioneer into one that would be better aligned with its new strategy and organizational structure.

Companies use performance measurement systems to perform multiple roles:

- Communicate the company's strategic objectives.
- Motivate employees to help the company achieve its strategic objectives.
- Evaluate the performance of managers, employees, and operating units.
- Help managers allocate resources to the most productive and profitable opportunities.
- Provide feedback on whether the company is making progress in improving processes and meeting the expectations of customers and shareholders.

The challenge is to find the right mix of financial and nonfinancial measures to perform these multiple tasks. Throughout the 19th and 20th centuries, companies like Pioneer Petroleum used only financial metrics to measure their performance. Financial control systems, which we will describe later in the book (Chapter 11), relied on metrics such as operating income and return on investment (ROI) to motivate and evaluate performance. These financial metrics were adequate when the primary assets that generated a company's income and value were physical assets, such as property, plant, equipment, and inventory, and financial assets, including cash, marketable securities, and investments. By the end of the 20th century, however, firms could no longer create value only through their physical and financial assets. They needed to create value through their intangible assets—customer loyalty and relationships, efficient and high-quality operating processes, new products and services, employee skills and motivation, databases and information systems, and, most intangible of all, organizational culture.

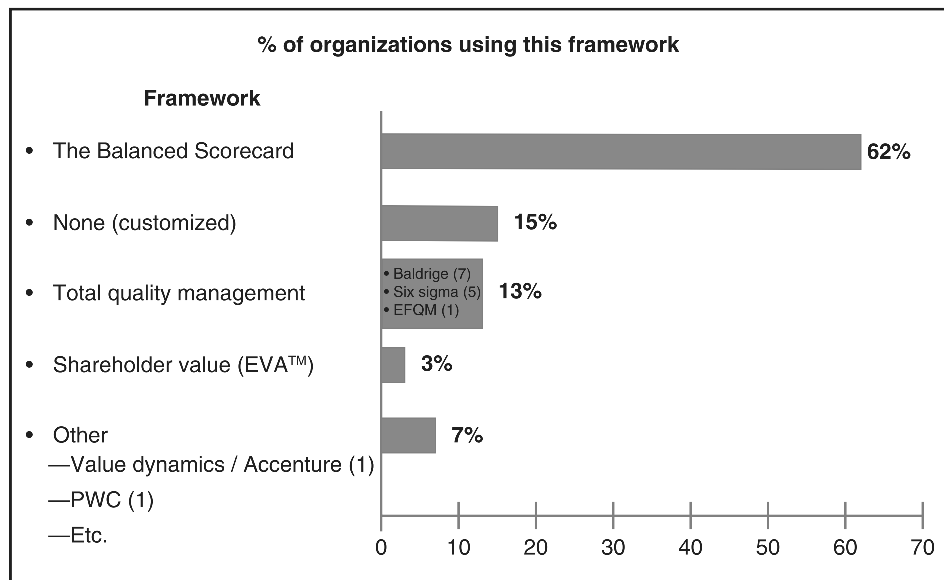
With these changes in the factors driving competitive success, financial measures become insufficient for measuring and managing company performance. Consider a company that spends money in the current period to enhance its intangible assets through the following actions:

- Upgrading the skills and motivation of employees.
- Expanding the data captured and shared about processes, customers, and suppliers.
- Accelerating new products through the research and development pipeline.
- Improving the quality and speed of production, distribution, and service processes.
- Enhancing trusted relationships with profitable customers and low-cost suppliers.

All of these actions help to create value for the company. But the financial system treats the spending on such actions as *expenses* of the current period. Thus the company's reported profitability and financial performance decrease during a period when it has actually increased the value of its intangible assets. Or consider the converse situation in which a company cuts back drastically on its spending to train employees, enhance information systems, improve operating processes, develop new products, and build customer loyalty. As such spending declines, reported income and ROI increases, at just the time when the company has likely become less valuable because of the depreciation of its competitive capabilities. Clearly, the financial reports fail to reflect the changes in value that occur when a company either enhances or destroys the value of its intangible assets.

A fundamental principle underlying management accounting is that measurement must support the company's strategy and operations. Some claim "if you don't measure it, you can't manage and improve it." If companies are to get better at managing and improving the value created from their intangible assets, they need a measurement system designed for these types of assets. Several frameworks have been proposed for

Exhibit 2-2
Performance Measurement Frameworks



Source: R. Lawson, D. Desroches, and T. Hatch, *Scorecard Best Practices: Design, Implementation, and Evaluation* (New York: Wiley, 2008).

expanded performance measurement,[1] including those introduced by national and international quality management programs such as the Malcolm Baldrige National Quality Program for performance excellence[2] and the EFQM Excellence model.[3] Among all of the various proposals for improving companies' performance measurement systems, the management accounting system based on the **Balanced Scorecard (BSC)** has become the most widely adopted around the world (see data presented in Exhibit 2-2). The Balanced Scorecard provides a framework that continues to measure financial outcomes but supplements these with nonfinancial measures derived from the company's strategy. And, the BSC is not restricted to private-sector companies; many nonprofits and public sector entities have also adopted this framework to manage their creation of social value (as we will describe later in this chapter).

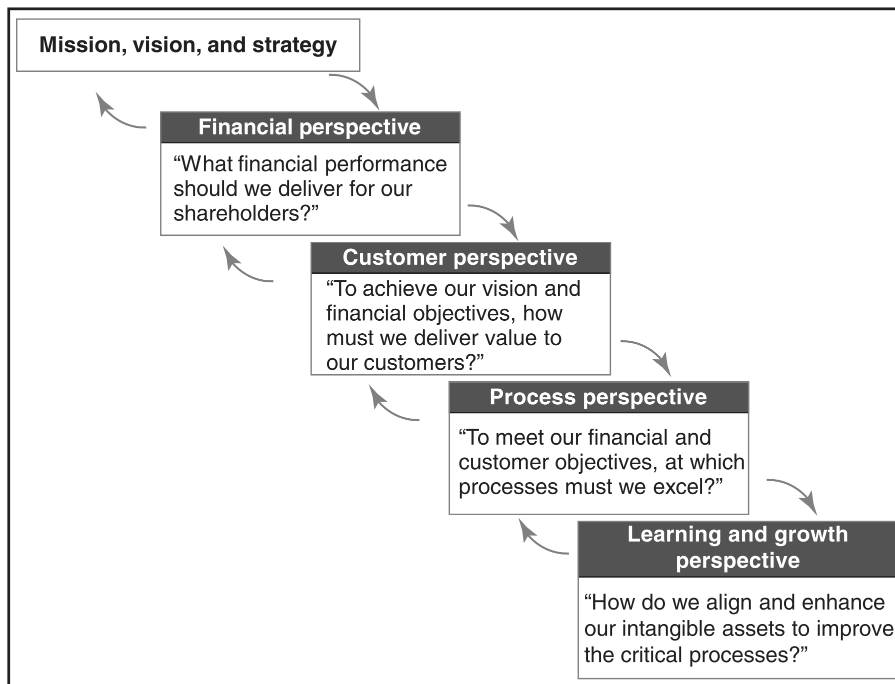
The Balanced Scorecard

The Balanced Scorecard (see Exhibit 2-3) measures organizational performance across four different but linked perspectives that are derived from the organization's mission, vision, and strategy. The four perspectives address the following fundamental questions:

- *Financial*—How is success measured by our shareholders?
- *Customer*—How do we create value for our customers?

[1] References on organizational performance measurement include Richard L. Lynch and Kelvin F. Cross, *Measure Up! How to Measure Corporate Performance* (Cambridge, Mass.: Blackwell Business, 1995); Robert S. Kaplan and David P. Norton, *The Balanced Scorecard: Translating Strategy into Action* (Cambridge, Mass.: Harvard Business School Press, 1996); and Andy Neely, *Business Performance Measurement: Theory and Practice* (Cambridge, UK: Cambridge University Press, 2002).
[2] NIST: Malcolm Baldrige Excellence Program home page, retrieved November 20, 2010 from http://www.nist.gov/baldrige/
[3] The EFQM Excellence Model home page, retrieved November 20, 2010 from http://www.efqm.org

Exhibit 2-3
The Four Perspectives of the Balanced Scorecard



- *Process*—At which processes must we excel to meet our customer and shareholder expectations?
- *Learning and growth*—What employee capabilities, information systems, and organizational capabilities do we need to continually improve our processes and customer relationships?[4]

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—for future growth and profitability. Financial measures tend to be lagging indicators of the strategy; they report the financial impact of decisions made in the current and prior periods. The nonfinancial measures in the three other BSC perspectives are leading indicators. 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.

As a simple example of the cause-and-effect linkages across Balanced Scorecard measures, consider the partial scorecard produced by a small manufacturing company. This company's strategy is to win business by producing low-cost, high-quality products, and delivering them on time to its customers (see Exhibit 2-4). The company's financial objective, shown in the **financial perspective**, is to increase its return on equity (ROE; net income divided by book value). The company expects to generate increased revenues for improving its ROE financial measure by retaining and expanding sales to existing customers. Therefore, it has a customer loyalty objective in its **customer perspective**, which it measures by (1) percentage of repeat

[4] Most organizations implementing the BSC have found four to be the right number for describing their strategy. Some organizations have added a fifth perspective to highlight particularly important aspects of their strategy, such as suppliers, employees, community involvement, or, for nonprofit organizations, social impact. Using fewer than four typically sacrifices metrics that are critical for the strategy.

Exhibit 2-4
A Simple Balanced Scorecard of Linked Objectives and Measures

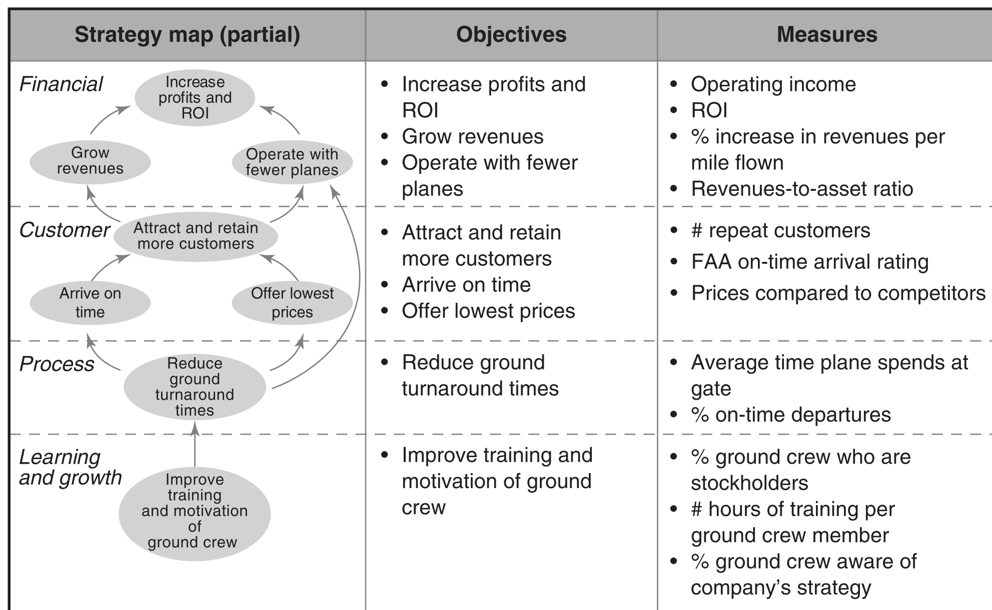
Strategy map of objectives	Objectives	Measures
Financial: Increase shareholder value	• Increase shareholder value	• Return on equity
Customer: Retain customers; Deliver products on time; Offer competitive prices	• Retain customers • Deliver products on time • Offer competitive prices	• Percentage of repeat customers • Growth in customers' sales • % deliveries made on time • Prices compared to competitors
Process: Reduce process cycle time; Improve process quality	• Reduce process cycle times • Improve process quality	• % improvement in cycle times • Product defect rates • Process yield improvement
Learning and growth: Develop employees' process improvement skills	• Develop employees' process improvement skills	• % employees trained and certified in process improvement capabilities

customers and (2) the growth in year-to-year sales with existing customers. The company's strategy is based on its belief that customers value on-time delivery of orders and low prices. Thus, improved on-time delivery performance and competitive prices are expected to lead to increased customer loyalty, which in turn will lead to higher financial performance. So the predictive metrics of customer loyalty and on-time delivery appear in the scorecard's customer perspective.

The financial and customer measures represent the "what" of strategy, that is, what the company wants to accomplish with its two most important external constituents: shareholders and customers. The **process perspective** describes "how" the strategy will be executed; it identifies the processes that are most important to meet the expectations of shareholders and customers. For example, short cycle times and high-quality production processes are necessary to achieve exceptional on-time delivery and low prices. Therefore, measures of quality, such as defect rates and yields, and of process cycle time—the time required to convert raw materials into finished products—are used as important process metrics. These are leading indicators for customer loyalty. Measures for the fourth perspective, learning and growth, arise from asking another "how" question: How will employees obtain the skills and knowledge to be able to improve the quality and cycle times of the company's production processes? The company recognizes that its production workers must be well trained in process improvement techniques. Therefore, the **learning and growth perspective** uses a measure of employees' capabilities to predict improvements in process quality and cycle times.

This simple example shows how an entire chain of cause-and-effect relationships among performance measures in the four Balanced Scorecard perspectives tells the story of the business unit's strategy. The scorecard's objectives and measures identify and make explicit the hypotheses about the cause-and-effect relationships between outcome measures (e.g., ROE and customer loyalty) in the financial and customer perspectives and the performance drivers (i.e., lead indicators) of those outcomes—such as zero defect processes, short cycle-time processes, and skilled, motivated employees—that are measured in the process and learning and growth perspectives.

Exhibit 2-5
Discount Airlines' Balanced Scorecard



Strategy map (partial)	Objectives	Measures
Financial: Increase profits and ROI; Grow revenues; Operate with fewer planes	• Increase profits and ROI • Grow revenues • Operate with fewer planes	• Operating income • ROI • % increase in revenues per mile flown • Revenues-to-asset ratio
Customer: Attract and retain more customers; Arrive on time; Offer lowest prices	• Attract and retain more customers • Arrive on time • Offer lowest prices	• # repeat customers • FAA on-time arrival rating • Prices compared to competitors
Process: Reduce ground turnaround times	• Reduce ground turnaround times	• Average time plane spends at gate • % on-time departures
Learning and growth: Improve training and motivation of ground crew	• Improve training and motivation of ground crew	• % ground crew who are stockholders • # hours of training per ground crew member • % ground crew aware of company's strategy

Exhibit 2-5 provides another example of performance measures linked across the Balanced Scorecard's four perspectives. Discount Airlines competes by offering low prices and on-time arrivals to its passengers. The diagram on the left side of Exhibit 2-5 shows the cause-and-effect relationships across the four perspectives that describe a key element of Discount's strategy: how it can make money even at low prices by being efficient and low cost in its operations. The high-level financial objective is to increase financial performance, which it measures by operating income and return on investment. Discount has identified two additional financial objectives—revenue growth and asset utilization (fewer planes)—that it believes will drive its high-level financial metrics. If Discount can get two extra flights per day from each airplane and flight crew, its most expensive resources, it can earn higher revenues without having to spend more on these resources.

The company hopes to attract more passengers (and, therefore, revenues) by offering the lowest prices and the most reliable departure and arrival times in the industry. It reflects these objectives in the customer perspective and measures them by prices compared to competitors and by on-time departures and arrivals, again measured relative to industry competitors. A key process that contributes both to the on-time departure customer metric and the asset utilization financial metric is the ground-turnaround process. Discount uses two measures for this critical process: the average time its planes spend on the ground between flights and the percentage of flights that depart the gate on time. By reducing the time its planes spend on the ground, Discount enables its planes to depart on time (meeting a key customer expectation) and get better utilization of its most expensive resources—airplanes and flight crews—enabling Discount to earn profits even at prices that are the lowest in the industry (a key financial objective). In the learning and growth perspective, Discount has an objective to train and motivate ground crews for fast ground turnarounds, much like the training of the pit crew for a race car in the Indianapolis 500 that can change four tires in less than 15 seconds.

The various measures in Discount's Balanced Scorecard include its desired outcomes (the lagging indicators) in the financial and customer perspectives—high return on investment, increased revenues, lower cost per passenger mile

flown, and increased market share and customer satisfaction—as well as the drivers (lead indicators) of these outcomes in the process and learning and growth perspectives—fast turnaround times and enhanced employee capabilities and motivation.

This introduction to the Balanced Scorecard shows how a management accounting scorecard of financial and nonfinancial measures can represent the cause-and-effect hypotheses of a company's strategy.

Strategy

If companies are to develop a scorecard based on their strategies, they must be clear about what is meant by a **strategy**. A strategy accomplishes two principal functions. 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 that is 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.

Even though companies can select from among many strategies (we will describe three very different strategies later in the chapter), any good strategy should have two essential components[5]:

1. A clear statement of the company's *advantage* in the competitive marketplace, what it does or intends to do differently, better, or uniquely compared to competitors, and
2. The *scope* for the strategy, where the company intends to compete most aggressively, either for targeted customer segments, technologies employed, geographic locations served, or product line breadth.

Consider the advantage and scope for a discount airline, such as Southwest Airlines in the United States:

Advantage: Offer the speed of airline travel at the price, frequency, and reliability of cars, buses, and trains . . .
Scope: . . . to price-sensitive travelers who value convenient flights.

This brief statement tells you exactly how Southwest competed against the more established airlines, the customers it targeted to serve, and the benefits it strived to deliver to them.

As another example, consider the advantage and scope statement for the brokerage firm Edward Jones[6]:

Advantage: Provide trusted and convenient face-to-face financial advice . . .
Scope: . . . through a national network of one-financial-adviser offices to conservative individual investors who delegate their financial decisions.

[5] The strategy statement was introduced in M. Rukstad and D. Collis, "Can You Say What Your Strategy Is?" *Harvard Business Review* (April 2008).
[6] Example taken from Rukstad and Collis, "What Is Your Strategy?"

IN PRACTICE

Infosys Develops a Balanced Scorecard to Describe and Implement Its Strategy

Infosys was founded in India in 1981 by seven engineers as an IT "body shop"—a firm that deployed skilled IT labor to work, on a contract basis, for clients. Throughout the 1980s and 1990s, the programmer-for-hire business flourished along with the increased global demand for IT systems and maintenance. Infosys soon developed the capabilities it needed to become an outsourcer, executing IT projects for clients from its facilities in India. Its success in executing such complex projects led some clients to hire Infosys to manage software projects end to end, from project architecture to detailed programming. Within a decade, Infosys had shifted its operating model from supplying labor for one segment of a job to designing, managing, and delivering complete software projects.

In the early 2000s, Infosys expanded its portfolio of services beyond traditional IT outsourcing, to partnering with large global clients to transform their businesses through advanced IT products, services, and solutions. In 2005, the firm had only five contracts worth more than $50 million. By early 2008, it had 18 clients generating $50 million or more in revenue and six clients that were generating more than $100 million. These deals usually involved multiple services performed over several years.

As part of the company's transformation from an IT body shop and outsourcer to a trusted transformational partner with large global corporations, the Infosys executive team developed a Balanced Scorecard to provide a comprehensive framework by which it could formulate, communicate, and monitor its strategy. Infosys's CEO explained the role that the BSC played in the company's recent growth:

> The BSC allows us to promote constant change through stretch goals. Since 2002, we have successfully steered the transformation of our company through various stages of its evolution using the Balanced Scorecard. We continue to take on new strategic challenges that require us to manage change. These challenges require us to better execute our strategies comprehensively across the Balanced Scorecard perspectives.

Source: F. Asis-Martinez, R. S. Kaplan, and K. Miller, "Infosys' Relationship Scorecard: Measuring Transformational Partnerships," HBS No. 1-108-006 (Boston: Harvard Business School Publishing, 2008).

Edward Jones' *advantage* is to become the preferred financial adviser to the conservative investor who is willing to follow the advice of a personal, professional counselor. It does not want to be the brokerage firm for the day trader or the do-it-yourself online investor. Its *scope* is the range of locations, typically in a customer's neighborhood, where it can supply an office with a single, self-supporting skilled financial adviser who builds relationships with his or her clients.

Balanced Scorecard Objectives, Measures, and Targets

A company should start its process of building a Balanced Scorecard by developing word statements of strategic **objectives** that describe what it is attempting to accomplish with its strategy. Once the company selects and defines its objectives for the four BSC perspectives, it can select measures for each objective. The measures represent a quantitative indicator of how performance on a strategic objective will be assessed. For example, the first two columns in Exhibits 2-4 and 2-5 contain the objectives in each perspective, which are typically written as action phrases—a verb followed by an object—and also may include the means and the desired results. Following are typical Balanced Scorecard objectives:

- Increase revenues through expanded sales to existing customers (*financial*).
- Offer complete solutions to our targeted customers (*customer*).

- Achieve excellence in order fulfillment through continuous improvements (*process*).
- Align employee incentives and rewards with the strategy (*learning and growth*).

However well companies write their strategic objectives, employees will still interpret and translate the words differently when they try to apply the objectives to their day-to-day jobs. Also, unless the objectives can be translated into measures, employees will not know what the status of the objective is today, and whether the company is getting closer or further away from achieving the objective. As stated earlier in the chapter, you can't manage what you don't measure.

Measures describe in more precise terms how success in achieving an objective will be determined. They reduce the ambiguity that is inherent in word statements. Take, for example, an objective to deliver a product or service to a customer on time. The definition of "on time" can differ between supplier and customer. A manufacturer may consider an item on time if it ships the item within a week of the delivery commitment date. A company like Toyota, however, which uses just-in-time production processes with essentially no materials or components inventory, considers an order to be on time only if it arrives within 1 hour of the scheduled delivery time. Toyota is not interested in whether the vendor shipped the item on time; it wants the item to arrive at its factory site on time. Only by specifying exactly how an objective, such as on-time delivery, is measured can a company eliminate ambiguity between suppliers and customers about the definition of "on time." The selected measure also provides a clear focus to employees on how their improvement efforts will be evaluated. Thus, measurement is a powerful tool for communicating clearly what the company means in its word statements of strategic objectives, mission, and vision.

Once the objectives have been translated into measures, managers select **targets** for each measure. A target establishes the level of performance or rate of improvement required for a measure. Targets should be set to represent excellent performance, much like the par scores on a golf course. The targets, if achieved, should position the company as one of the best performers in its industry. Even more important would be to choose targets that create distinctive value for customers and shareholders. Discount Airlines initially chose "30 minutes at the gate" and "90% on-time departures" as targets for its "fast ground turnaround" process measures. If achieved, such performance would be the best in the industry.

By comparing current performance to the target performance, employees and managers can determine whether the company is achieving its desired level of performance. Thus, performance measures serve multiple purposes: communication, clarification, motivation, feedback, and evaluation. Because performance measures play such important roles, they should be chosen carefully. The Balanced Scorecard framework enables managers to select objectives and measures, derived from their strategy, that are linked together in a chain of cause-and-effect relationships.

Creating a Strategy Map

Companies use a picture, called a **strategy map**, to illustrate the causal relationships among the strategic objectives across the four Balanced Scorecard perspectives. Developing a strategy map follows a logical progress. First, identify the

long-run financial objectives, the ultimate destination for the strategy. Then, in the customer perspective, select the targeted customers that will generate the revenues for the new strategy and the objectives for the value proposition offered to attract, retain, and grow the business with these customers. In the process perspective, select objectives that create and deliver the customer **value proposition** and also improve productivity and efficiency to improve financial performance measures. Finally, identify the employee skills, information needs, and company culture and alignment that will drive improvement in the critical processes.

A general template for constructing strategy maps is shown in Exhibit 2-6. We will work sequentially through the four Balanced Scorecard perspectives starting with financial at the top and concluding with the learning and growth objectives at the foundation. After describing how to choose objectives for the four perspectives, we provide a specific example of how Pioneer Petroleum, the company featured in the chapter-opening vignette, built its strategy map and Balanced Scorecard.

Financial Perspective

The Balanced Scorecard's financial perspective contains objectives and measures that represent the ultimate success measures for profit-seeking companies. Financial performance measures, such as operating income and return on investment, indicate whether the company's strategy and its implementation are increasing shareholder value. The company's financial performance improves through two basic approaches: *productivity improvements* and *revenue growth* (see Exhibit 2-7).

Exhibit 2-6
Strategy Map Describing How an Enterprise Creates Value for Shareholders and Customers

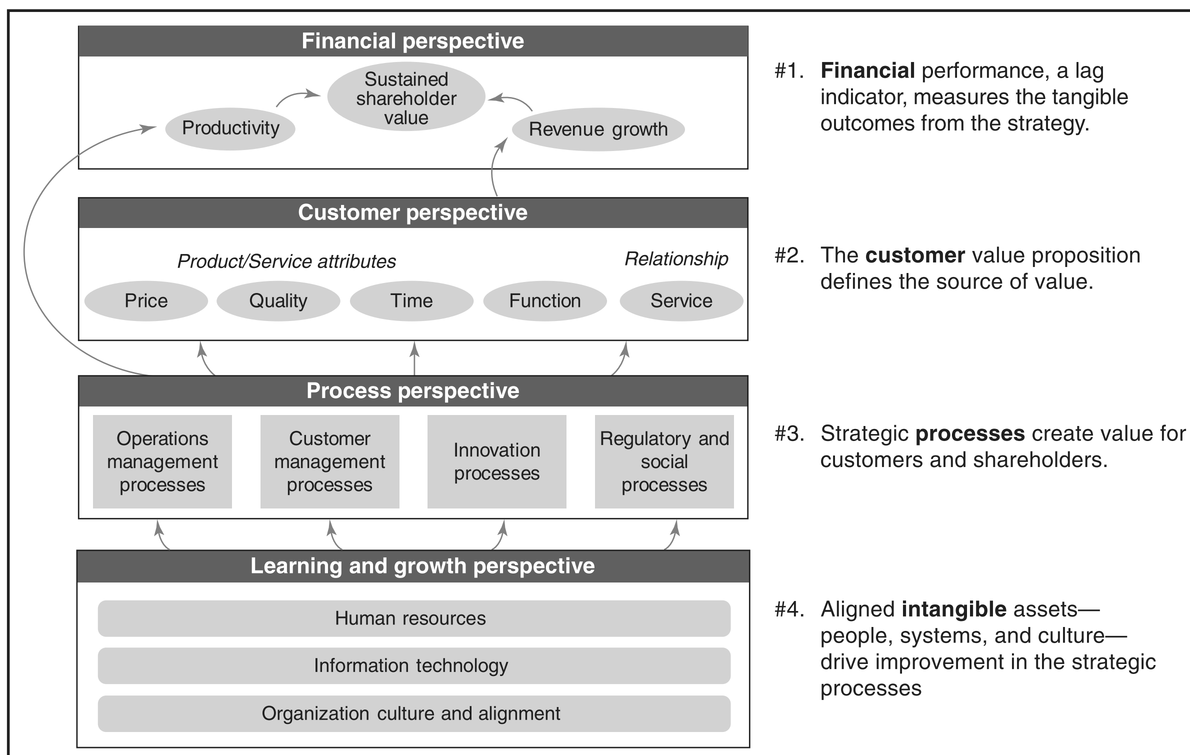
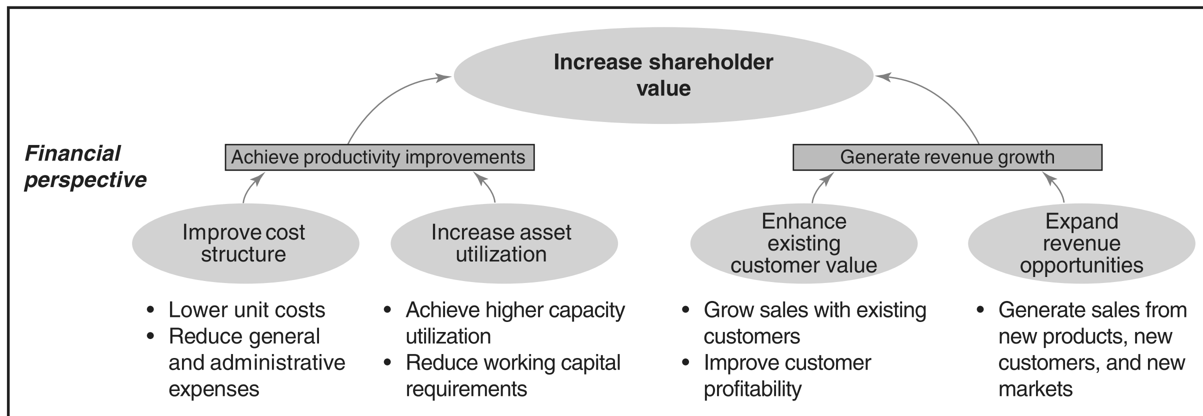


Exhibit 2-7
Financial Perspective Objectives



Productivity improvements have two components. First, companies reduce costs by lowering direct and indirect expenses. Such cost reductions enable a company to produce the same quantity of outputs while spending less on people, materials, energy, and supplies. Second, by utilizing their financial and physical assets more efficiently, companies reduce the working and fixed capital needed to support a given level of business. For example, companies can reduce the inventory levels required to support a given level of sales by implementing just-in-time production processes. They can support a higher level of sales with the same investment in plant and equipment by reducing unexpected shutdowns and unscheduled downtime on equipment.

Revenue growth also has two components. First, companies can generate more revenue and income from existing customers, such as by selling them additional products and services beyond the first product or service they purchase. For example, banks can attempt to get their checking account customers to also use the bank for credit cards, mortgages, and car loans. Second, companies generate additional revenues by introducing new products, selling to new customers, and expanding operations into new markets. For example, Amazon.com now sells CDs and electronic equipment, not just books, Staples sells to small businesses as well as retail customers, and Wal-Mart has expanded from its domestic U.S. base into international markets and added new formats at which customers can shop.

Exhibit 2-8 presents frequently used measures for the various financial objectives. Companies usually choose one measure for each objective, and may decide, based on their strategy, not to place all five possible financial objectives for their strategy map or scorecard.

Customer Perspective

The customer perspective should describe how a company intends to attract, retain, and deepen relationships with targeted customers by differentiating itself from competitors. The customer perspective reflects the heart of the strategy. It should contain specific objectives and measures for the strategy's "scope"—how is the company performing with its targeted customers. It also should represent the strategy's "advantage"— the unique combination of product features, services, and relationships it has selected to satisfy its customers' needs better than competitors can. Success in the customer perspective

Exhibit 2-8
Financial Objectives and Measures

Objectives	Measures
Increase shareholder value	• Return on capital employed (ROCE) • Economic value added • Market-to-book ratio
Improve cost structure	• Cost per unit, benchmarked against competitors • General, selling, and administrative expenses per unit of output or as % of sales
Increase asset utilization	• Sales/asset ratio • Inventory turnover ratio • % capacity utilization
Enhance existing customer value	• % growth in existing customers' business • % revenue growth
Expand revenue opportunities	• Revenue % from new products • Revenue % from new customers

should lead to improvement in the financial perspective objectives for growth in revenues and profits.

The customer perspective of the Balanced Scorecard typically includes one or two objectives for success with targeted customers. Examples of such objectives include the following:

- Achieve customer satisfaction and loyalty.
- Acquire new customers.
- Increase market share.
- Enhance customer profitability.

Exhibit 2-9 gives examples of typical measures that companies use to measure performance for these four common objectives.

Virtually all organizations, however, try to improve customer measures such as customer satisfaction and customer retention so these measures by themselves do not describe a strategy. They become associated with a strategy only when managers apply them to the customer segments in which they choose to compete (i.e., the *scope* of their strategy statement). A strategy typically identifies specific customer segments that the

Exhibit 2-9
Customer Outcome Objectives and Measures

Objectives	Measures
Achieve customer satisfaction and loyalty	• Customer satisfaction in targeted segments • % repeat customers • % growth in revenue from existing customers • Willingness to recommend
Acquire new customers	• # of new customers acquired • Cost per new customer acquired • % of sales to new customers
Improve market share	• Market share in targeted customer segments
Enhance customer profitability	• Number or percent of unprofitable customers

Discount stores, such as Wal-Mart, offer their customers everyday low prices, though often with limited variety and little consumer assistance.
Alamy Images

company has identified as its target audience for growth and profitability. For example, Wal-Mart appeals to price-sensitive customers who value the retailer's low prices.

Neiman Marcus, on the other hand, targets customers with high disposable incomes who are willing to pay more for high-end merchandise. Price-sensitive customers with low disposable income are not likely to be satisfied with the shopping experience at a Neiman Marcus store, whereas fashion-conscious consumers with high disposable incomes may be disappointed with the selection of clothing offered at Wal-Mart as well as the lack of amenities and salesperson attention they receive at this discounted retail outlet. Therefore, Wal-Mart should measure customer satisfaction, loyalty, and market share only with its price-sensitive customers, while Neiman Marcus would apply these same measures only to segments that feature customers with high disposable incomes. Similarly, Southwest Airlines would want to measure customer satisfaction and loyalty with price-sensitive passengers, whereas Lufthansa would be measuring its performance with business and first-class passengers.

Beyond identifying the segments for measuring these generic customer outcomes, a company must also identify the objectives and measures for the value proposition offered to its customers. The value proposition is the unique mix of product performance, price, quality, availability, ease of purchase, service, relationship, and image that a company offers its targeted group of customers. The value proposition represents the "advantage" of a company's strategy; it should communicate what it intends to deliver to its customers better or differently from competitors.

For example, companies as diverse as Southwest Airlines, Wal-Mart, McDonald's, and Toyota have been extremely successful by offering their customers the "best buy" or *lowest total cost* buying experience in their category. For many years, Dell Computers was the leading seller of personal computers by providing an easy and inexpensive purchasing experience to its customers. The measurable objectives for a low-total-cost value proposition should emphasize attractive prices (relative to competitors), excellent and consistent quality for the product attributes offered, good selection, short lead times, and ease of purchase.

Another value proposition, followed by companies such as Apple, Mercedes, Armani, and Intel, emphasizes *product leadership.* These companies command prices far above the average in their industry because of the superior performance of their products. For example, Italian apparel design companies, such as Armani, offer products to high-end customers who are willing to pay significant price premiums

for superior fashion, fit, and fabric. The objectives for companies offering a product leadership value proposition emphasize the particular features and functionalities of the products that leading-edge customers value and are willing to pay more to receive. The objectives could be measured by 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.

A third type of value proposition stresses the provision of *complete customer solutions.* A good example of companies successfully delivering this value proposition is IBM, which offers its customers a one-stop buying experience for a full line of products and services. IBM offers solutions that are tailored to a customer's specific needs for consulting, hardware, software, installation, field service, training, and education. As another example, salespersons at the Nordstrom department store attempt to learn their customers' tastes, sizes, and budgets so that they can suggest entire wardrobes, fully accessorized. This selling strategy generates high customer loyalty and higher average revenue per sales transaction. Many banks strive to profile and understand their customers and offer them integrated financial services including deposit and savings accounts, consumer loans for automobiles and home purchases, insurance, and investment and retirement products, all tied to a lifetime financial plan. Customers at such banks have the convenience of conducting all of their financial transactions, assisted by a knowledgeable account manager, in a single institution and with a common online interface to access all accounts and conduct transactions. Companies that choose to offer a customer solutions value proposition stress objectives relating to the completeness of the solution (selling multiple, bundled products and services), exceptional service both before and after the sale, and the quality of the relationship between the company and its customers.

Exhibit 2-10 displays the value proposition objectives for these three different customer value propositions. Examples of measures that can be used for each value

Exhibit 2-10
Customer Objectives for Three Value Propositions

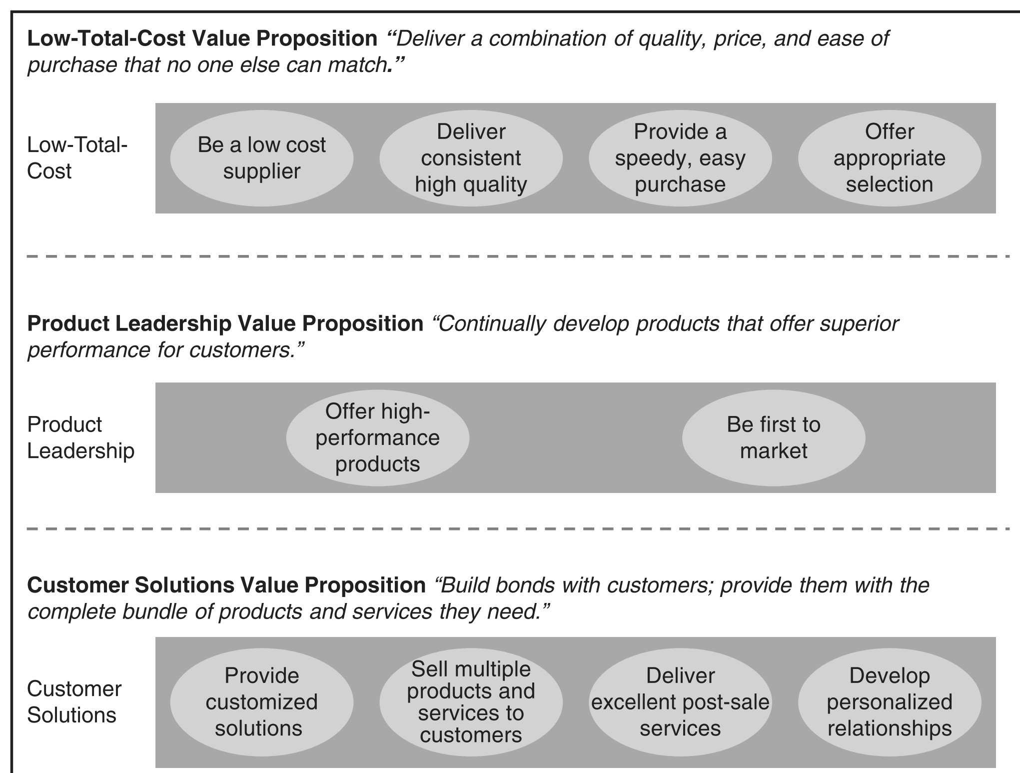


Exhibit 2-11
Customer Value Proposition Objectives and Measures

Low Total Cost	Measures
Be a low cost supplier	• Price, relative to competitors • Customer's cost of ownership
Deliver consistent high quality	• # returns; $ value of returns • # and % customer complaints • # incidents of warranty and field service repairs
Provide a speedy, easy purchase	• % on-time delivery • Customer lead time (from order to delivery) • % perfect orders (right product, right quantity, delivered on time)
Product Leadership	**Measures**
Offer high-performance products	• Customer innovation rating • Competitive product performance (speed, size, accuracy, energy consumption, . . .) • Gross margins, new products
Be first to market with new products	• Number of products that are 1st to market
Customer Solutions	**Measures**
Provide customized solutions	• # customers with profiled preferences
Sell multiple products and services to customers	• # products and services per customer • # clients above $xx million annual in sales
Deliver excellent post-sales services	• Revenues from maintenance, repair, and logistical services
Develop personalized relationships	• # sole-sourced contracts • Client retention

proposition's strategic objectives can be found in Exhibit 2-11. By developing objectives and measures that are specific to its value proposition, a company translates its strategy into tangible measures that all employees can understand and work toward improving.

Process Perspective

The financial and customer objectives and measures reflect the outcomes—satisfied shareholders and loyal customers—from a successful strategy. Once the company has a clear picture of *what* it intends to deliver to its shareholders and customers, it can determine the *how* of its strategy, which are the key processes that accomplish the following:

- Create and deliver the value proposition for customers.
- Achieve the productivity improvements for the financial objectives.

The process perspective identifies the critical operations management, customer management, innovation, and regulatory and social processes in which the organization must excel to achieve its customer, revenue growth, and profitability objectives.

Operations management processes are the basic, day-to-day processes that produce products and services and deliver them to customers. Some typical objectives for operating processes include the following:

- Achieve superior supplier capability.
- Improve the cost, quality, and cycle times of operating (production) processes.
- Improve asset utilization.
- Deliver goods and services responsively to customers.

Starting at the top of the above list, superior supplier capabilities enable the company to receive competitively priced, defect-free products and services that are delivered on time. Lowering the cost of production is important to both manufacturing and service companies. Excellence in production processes also requires improving quality and process times. Improved asset utilization enables the company to produce more output from its existing supply of resources (equipment and people). Finally, the company's strategy might require high-performance processes for distributing finished products and services to customers.

Customer management processes expand and deepen relationships with targeted customers. We can identify three objectives for a company's customer management processes:

- Acquire new customers.
- Satisfy and retain existing customers.
- Generate growth with customers.

Customer acquisition relates to generating leads, communicating with potential customers, choosing entry-level products, pricing the products, and closing the sale.

Customer satisfaction and retention requires excellent service and response to customer requests. Companies operate customer service and call center units to respond to requests about orders, deliveries, and problems. Customers may defect from organizations that are not responsive to requests for information and problem solving. Therefore, timely and knowledgeable service units are critical for maintaining customer loyalty and reducing the likelihood of customer defections.

To *generate growth with customers*, the company must manage its relationships effectively, cross-sell multiple products and services, and become known to the customer as a trusted adviser and supplier. For example, a company can differentiate its basic product or service by providing additional features and services after the sale. A commodity chemical company was able to differentiate its basic product by providing a service that picked up used chemicals from customers and reprocessed the chemicals in an efficient process conforming to environmental and safety regulations for disposal or reuse. This service relieved many small customers from performing expensive environmental processes themselves.

Customer growth can also occur by selling the customer products and services beyond the entry-level product that initially brought the customer to the company. For example, banks now try to market insurance, credit cards, money management services, and personal loans of various types—especially automobile, educational, and home equity—to customers who currently have a basic checking account. Manufacturers of expensive equipment such as medical imaging devices, elevators, and computers sell maintenance, field service, and repairs that minimize the downtime of the equipment. As a customer buys more of a complete set of services from a supplier, the cost of switching to alternative suppliers becomes higher, so growing the business in this manner also contributes to customer retention and higher lifetime customer profitability.

Innovation processes develop new products, processes, and services, often enabling the company to penetrate new markets and customer segments. Successful innovation drives customer acquisition, loyalty, and growth, in turn leading to enhanced operating margins. Without innovation, a company's value proposition can eventually be imitated, leading to competition solely on price for its undifferentiated products and services.

We can identify two important innovation subprocesses:

- Develop innovative products and services.
- Achieve excellence in research and development processes.

Product designers and managers generate new ideas by extending the capabilities of existing products and services, applying new discoveries and technologies, and learning from the suggestions of customers.

The research and development process, the core of product development, brings the new ideas and concepts to market. Although many people believe that the innovation process is inherently creative and unstructured, successful product innovation companies actually use a highly disciplined process to move new ideas to the market, carefully evaluating the product development at specified milestones, and moving the product to the next stage only if they continue to believe that the end product will have the desired functionality, will be attractive to the targeted market, and can be produced with consistent quality and at a cost that enables satisfactory profit margins to be earned. The product development process has to meet its own targets for completion time and development cost.

Regulatory and social processes make up the final process group. Companies must continually earn the right to operate in the communities and countries in which they produce and sell. National and local regulations—affecting the environment, employee health and safety, and hiring and employment practices—impose minimum standards on companies' practices, and companies must comply with these to avoid shutdowns or expensive litigation. Many companies, however, seek to go beyond mere compliance and seek to perform better than the regulatory constraints so that they develop a reputation as an employer of choice in every community in which they operate.

Companies can manage and report their regulatory and social performance along several critical dimensions:

- Environment.
- Health and safety.
- Employment practices.
- Community investment.

Investing in the environment and in communities need not be for altruistic reasons alone. First, an excellent reputation for performance along regulatory and social dimensions assists companies in attracting and retaining high-quality employees, thereby making human resource processes more effective and efficient. Second, reducing environmental incidents and improving employee safety and health improves productivity and lowers operating costs. Third, companies with outstanding reputations generally enhance their image with customers and with socially conscious investors. These linkages to enhance human resource, operations, customer, and financial processes illustrate how effective management of regulatory and community performance can drive long-term shareholder value creation.

Exhibit 2-12 summarizes the objectives for the four process groups, along with possible measures that can be used with each objective.

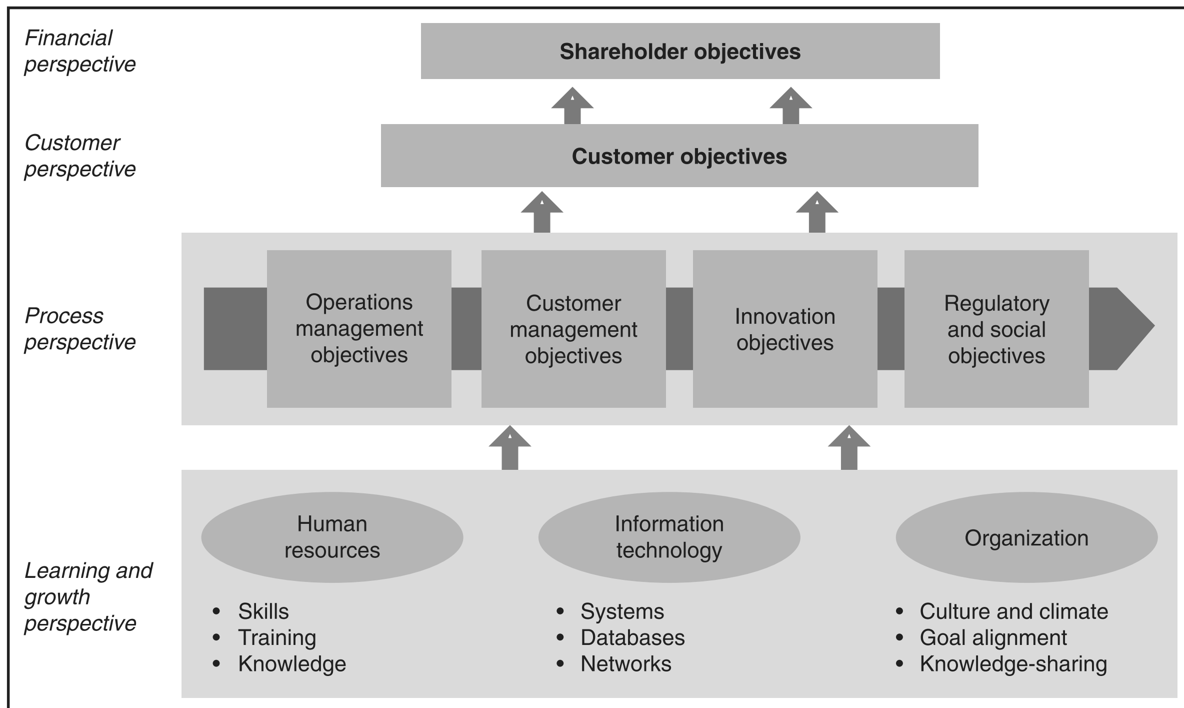
Exhibit 2-12
Process Objectives and Measures

PROCESS OBJECTIVES	MEASURES
OPERATIONS MANAGEMENT	
Improve the cost, quality, and cycle times of operating (production) processes	• Supplier scorecard ratings: quality, delivery, cost • Cost per unit of output • Product and process defect rates • Product cycle times
Improve asset utilization	• Lead times, from order to delivery • Capacity utilization (%) • Equipment reliability, percent availability
CUSTOMER MANAGEMENT	
Acquire new customers	• % leads converted • Cost per new customer acquired
Satisfy and retain existing customers	• Time to resolve customer concern or complaint • # referenceable customers (willing to recommend)
Generate growth with customers	• # products and services per customer • Revenue or margin from post-sale services
INNOVATION	
Develop innovative products and services	• # fundamental new ideas entering product development
Achieve excellence in research and development processes	• # patent applications filed or patents earned • Total product development time: from idea to market • Product development cost vs. budget
REGULATORY AND SOCIAL	
Improve environmental, health, and safety performance	• # of environmental and safety incidents • Days absent from work
Enhance reputation as "good neighbor"	• Employee diversity index • # employees from disadvantaged communities

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.

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. Achieving overall process excellence generally requires that companies have objectives and measures for improving processes in all four process groups so that the benefits from each process group phase in over time.

Exhibit 2-13
The Learning and Growth Perspective Provides the Foundation for the Strategy



Learning and Growth Perspective

The fourth perspective of the Balanced Scorecard, learning and growth, identifies the objectives for the people, information technology, and organizational alignment that will drive improvement in the various process objectives (see Exhibit 2-13).

It is in the learning and growth scorecard perspective that executives target improvements in their intangible assets—human resources, information technology, and organizational culture and alignment. The following describes typical objectives for the three learning and growth components:

Human Resources

- *Strategic competency availability*—The company's employees have the appropriate mix of skills, talent, and know-how to perform activities required by the strategy.

Information Technology

- *Strategic information availability*—The company's information systems and knowledge applications contribute to effective strategy execution by facilitating process improvements and better linkages with suppliers and customers.

Organization Culture and Alignment

- *Culture and climate*—Employees have an awareness and understanding of the shared vision, strategy, and cultural values needed to execute the strategy.
- *Goal alignment*—Employee goals and incentives are aligned with the strategy at all organization levels.

Exhibit 2-14
Learning and Growth Objectives and Measures

Objectives	Measures
Human Resources	
Develop strategic competencies	• % of employees with required capabilities and skills
Attract and retain top talent	• Employee satisfaction • Turnover of key personnel
Information Technology	
Provide applications that support the strategy	• Strategic information coverage: % of critical processes supported with adequate system applications
Develop customer data and information systems	• Availability of customer information (e.g., CRM systems, customer databases)
Organization Culture and Alignment	
Create a customer-centric culture	• Employee culture survey
Align employees' goals to success	• Percent of employees with personal goals linked to organizational performance
Share knowledge about best practices and customers	• # of new practices shared and adopted

- *Knowledge sharing*—Employees and teams share best practices and other knowledge relevant to strategy execution across departmental and organizational boundaries.

Specific examples of learning and growth measures can be found in Exhibit 2-14.

With this overview of identifying objectives and measures in the four Balanced Scorecard perspectives, we can now examine how Brian Roberts and his leadership team developed a strategy map and scorecard for Pioneer Petroleum's new customer-focused strategy.

Strategy Map and Balanced Scorecard at Pioneer Petroleum

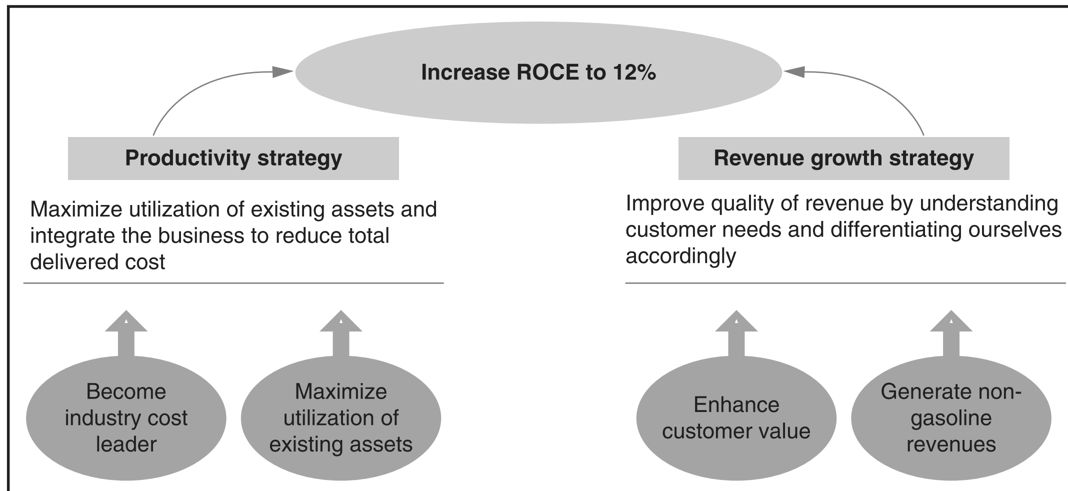
Brian Roberts formed a leadership team that included himself, the heads of several large business units and functional departments (such as human resources, finance, and information technology), and a project manager from the finance function to create the division's strategy map and Balanced Scorecard. The team met several times over a three-month period to define the strategic objectives for the strategy map and the accompanying scorecard of measures.

Financial Perspective

The leadership team started by setting an ambitious financial target for the new strategy to achieve: double return on capital employed (ROCE) to 12% within three years from its current depressed level of 6%.[7] The company would achieve its ROCE target by using

[7] Return on capital employed = Net income after taxes/[Interest bearing liabilities + Shareholders' equity]. Usually the after-tax interest expense [defined as Interest expense × (1 – Tax rate)] is added back in the numerator of the ROCE ratio so as not to have the mix of financing sources affect this profitability metric.

Exhibit 2-15
Pioneer Petroleum's Financial Objectives and Measures



the two financial levers: *productivity* and *growth*. Improving productivity involved two components: cost reduction and asset intensity. Cost reduction would be measured by operating cash expenses versus the industry (using cents per gallon to normalize for volume), with the goal being to have the lowest operating cost per unit of output in the industry.[8] Asset productivity would enable Pioneer to handle the anticipated higher volumes from its growth strategy without expanding its asset base. For this objective, it selected the sales-to-assets ratio to indicate the benefits from generating more revenue (i.e., throughput) from existing assets, plus any benefits from inventory reductions.

Pioneer's revenue growth lever also had two components. The first, volume growth, was to grow sales from its basic gasoline products (and home heating oil and jet fuel) faster than the industry average. In addition to pure volume growth, Pioneer wanted a higher proportion of its sales in the premium product grades. So it set two measures for this growth component: volume growth rate relative to the industry growth rate, and percentage of volume in premium grades.

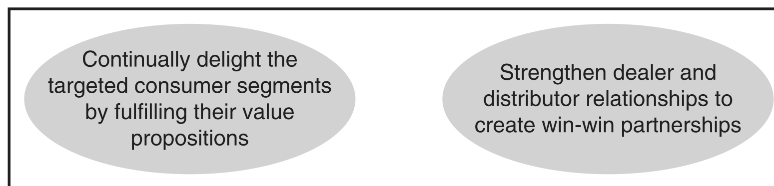
The second growth component represented the opportunity to sell products other than gasoline to retail customers. An important component of Pioneer's growth theme was a customer-driven strategy built around sales of convenience store products. New revenue could also come from sales of automobile services and products such as car washes, lubricants, oil changes, minor repairs, and common replacement parts. Pioneer set a financial growth objective to develop new sources of revenue, and it measured this objective by nongasoline revenues and margins. Thus, the financial perspective (see Exhibit 2-15) incorporated objectives and measures for both productivity and revenue growth.

Customer Perspective

For the customer perspective, Pioneer started by establishing an objective to continually delight the consumers in its three targeted segments (see Exhibit 2-16). The leadership team decided to measure success for this objective by its market share among the

[8] Note that operating expenses exclude the cost of purchased raw materials, such as crude oil. Thus while Pioneer could be the industry leader for its operating expenses, a competitor that had access to lower cost crude oil could have a lower total cost per gallon produced.

Exhibit 2-16
Pioneer Petroleum's Customer Objectives and Measures



Road Warriors, True Blues, and Generation F3 consumer segments. Measuring total market share would represent an undifferentiated strategy, perhaps no strategy at all.

Pioneer could have selected customer satisfaction as the driver of its segment market share objective. But the leadership team wanted a measure that was more specific to its new strategy. Pioneer's market research had identified the attributes that constituted a great buying experience for customers in the three targeted segments. These included:

- Friendly employees.
- A convenience store, stocked with fresh, high-quality merchandise.
- Immediate access to a gasoline pump (to avoid waiting for service).
- A speedy purchase, including self-payment mechanisms at the pump (to avoid waiting to pay).
- Covered area for gasoline pumps (to protect customers from rain and snow).
- 100% availability of product, especially premium grades (to avoid stockouts).
- Clean restrooms.
- Attractive exterior station appearance.
- Safe, well-lit station.
- Ample parking spaces near convenience store.
- Availability of minor car services.

Pioneer summarized these attributes as offering customers "a fast, friendly serve." But how could all of the attributes of the fast, friendly serve buying experience be measured? Pioneer decided that the consumer's buying experience was so central to its strategy that it invested in a new measurement system: the mystery shopper. Pioneer hired an independent third party to send a representative (the mystery shopper) to every Pioneer station, every month, to purchase fuel and a snack, and evaluate the experience based on specified attributes of a "perfect buying experience." The mystery shopper rating represented the value proposition that Pioneer would offer its targeted customers. If Pioneer's theory of the business was valid, increases in the mystery shopper score would translate into increases in market share in the three targeted segments. Note that Pioneer did not expect that its market share in the nontargeted segments—price shoppers and homebodies—would increase since consumers in these segments did not necessarily value the improved buying experience enough to pay the higher prices Pioneer would charge at the gasoline pump. Over time, Pioneer could use the new data to test the validity of the hypothesis underlying its new strategy. With more than 7,000 retail gasoline outlets, Pioneer could statistically validate whether outlets with high mystery shopper scores generated higher revenues and margins, because of increased purchases by Road Warriors, True Blues, and Generation F3's, than outlets with consistently low mystery shopper scores. In this way, Pioneer would get valuable feedback about both how well the strategy was being implemented in gasoline stations as well as feedback about the linkage from improved buying experiences to increased customer loyalty, revenues, and margins.

The customer perspective, however, was not complete. Pioneer did not sell directly to its end-use consumers. Like companies in many industries, Pioneer worked through intermediaries, such as wholesalers, distributors, and retailers to reach the

end-use consumer of its products. Pioneer's immediate customers were independent owners of gasoline stations and distributors of its other petroleum-based products (such as distillates, lubricants, home heating oil, and jet fuel). Franchised retailers purchased gasoline and lubricant products from Pioneer, and sold to consumers in Pioneer-branded stations. If end-use consumers were to receive a great buying experience, then the independent dealers/distributors had to be aligned to Pioneer's new strategy and capable of delivering that experience. Dealers were clearly a critical part of the new strategy.

Pioneer adopted an objective to increase its dealers' profitability so that it could attract and retain the best dealers. The new strategy emphasized creating a positive-sum game, increasing the size of the reward that could be shared between Pioneer and its dealers so that the relationship would be a win–win one.

The higher reward came from several sources. First, the premium prices that Pioneer hoped to sustain at its stations would generate higher revenues. Second, by increasing the market share in the three targeted segments, a higher quantity of gasoline would be sold, and a higher percentage of the purchases would be for premium grades (especially by True Blues and Road Warriors). Third, the dealer would also have a revenue stream from the sale of nongasoline products and services—convenience store and auxiliary car services—a portion of which would also flow back to Pioneer.

Pioneer set an objective to create the win–win relationship with dealers and measured this objective by dealer/distributor satisfaction ratings and profitability.

Process Perspective

With a clear picture about the outcomes desired in the financial and customer perspectives, Pioneer now turned to the objectives and measures for the process perspective. The leadership team wanted strategic objectives in all four process themes:

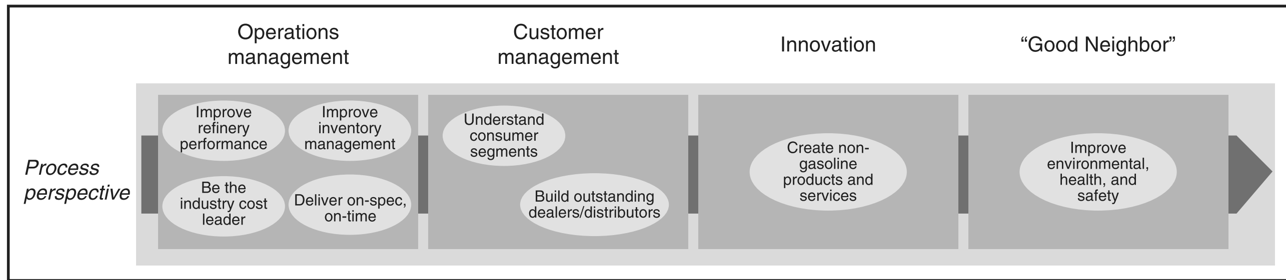
- Operations management to improve the efficiency, quality, and responsiveness in all of Pioneer's purchasing, refining, and distribution processes.
- Customer management to generate dealer profits from nongasoline revenues.
- Innovation to develop new products and services that could be offered at Pioneer stations.
- Environmental, health and safety performance, and being a better neighbor and employer at all Pioneer locations.

Pioneer included multiple objectives and measures for its basic refining and distribution processes. These stressed low cost, consistent quality, and reduced asset downtime. Most of these objectives would drive improvements in the financial perspective's productivity measures though some related to on-time and on-spec delivery of products to its dealers/distributors.

Objectives for customer management processes supported both the new win–win relationship with dealers and Pioneer's financial objectives. If dealers could generate increased revenues and profits from products other than gasoline, then dealers would place less reliance on profits from gasoline sales to meet their profit targets. This would leave more of a profit share for Pioneer, while still allowing its dealers to be the most profitable in the industry. Pioneer also recognized that another important process objective to drive dealer profitability was having trained dealers be better managers of the gasoline station, service bays, and the convenience store.

An innovation process objective signaled the desire to enhance the buying experience of consumers and profit potential of dealers by developing new offerings at the gasoline station.

Exhibit 2-17
Pioneer Petroleum's Process Objectives and Measures



Pioneer also selected objectives and measures related to environmental, health and safety (EHS) performance. Some of the benefits from improved EHS performance contributed to the cost reduction and productivity themes. Roberts believed that safety incidents were an important leading indicator, believing that if employees were careless, leading to personal harm, they were not likely paying much attention to the physical assets of the company either. The EHS measures, however, also contributed to Pioneer being a good citizen in all of the communities in which it produced and sold its products, and for enabling the well-being of its employees.

In summary, Pioneer's eight process objectives (see Exhibit 2-17) supported both its differentiated strategy with consumers and dealers, its financial objectives for cost reduction and productivity, and its social responsibilities.

Learning and Growth Perspective

The final set of objectives provided the foundation for Pioneer's strategy: enhancing the skills and motivation of employees, expanding the role for information technology, and aligning employees to the strategy. The project team identified three strategic objectives for the learning and growth perspective:

Develop 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 level 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.

Provide Access to Strategic Information

- Develop the strategic information required to execute our strategies.

Engage and Empower Employees

- 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.

Pioneer identified the specific skills and information each employee should have to enhance internal process performance and deliver the value proposition to customers. It measured the percentage of employees who currently had the requisite skills and knowledge as well as the percentage who had access to all of the data

and information they needed to excel at process improvement and meeting customers' expectations. It had to defer actual measurement of these two objectives, however, until it could develop the data to support the two new metrics. For the third objective, Pioneer implemented an employee survey designed to measure the awareness people had about the new strategy and their motivation to help the company achieve its targets.

With the learning and growth perspective completed, Pioneer's leadership team now had developed a complete representation of its new strategy. The strategy map, shown in Exhibit 2-18, translated the division's vision and strategy into a visual representation of the cause-and-effect linkages of strategic objectives across the four perspectives. The team also had created a comprehensive Balanced Scorecard (see Exhibit 2-19) that measured performance for each strategic objective. Roberts and other members of Pioneer's leadership team could now communicate the strategy clearly to all business unit leaders and employees throughout the organization.

Exhibit 2-18
Pioneer Petroleum's Complete Strategy Map

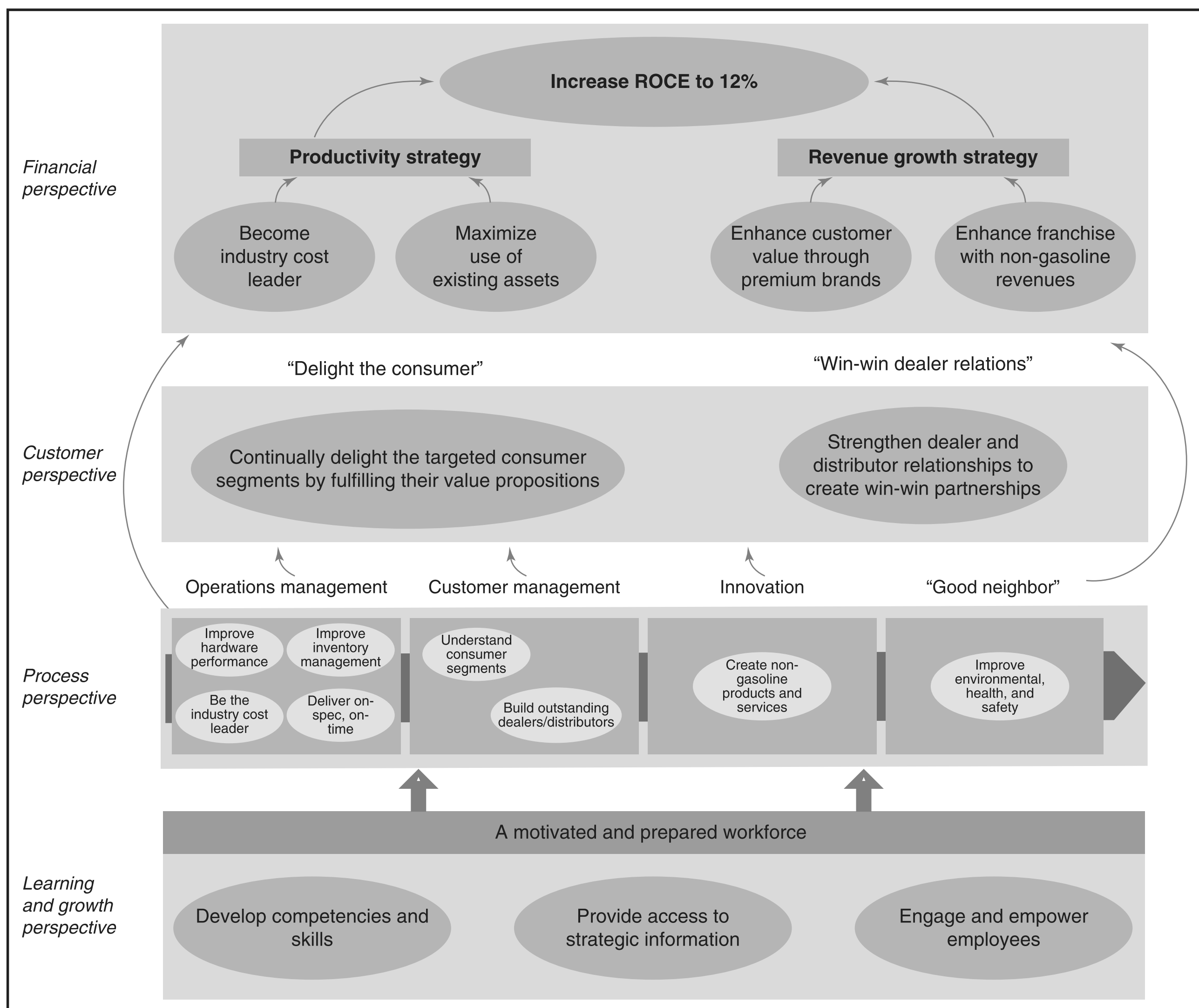


Exhibit 2-19
Pioneer Petroleum's Balanced Scorecard

Strategic Objectives	Strategic Measures
Financial	
• Increase return on capital employed • Become industry cost leader • Maximize use of existing assets • Enhance customer value • Generate non-gasoline revenues	• Return on capital employed • Net margin rank (vs. competition) • Full cost per gallon delivered (vs. competition) • Sales to asset ratio • Volume growth rate vs. industry • Ratio of premium product sales to total • Non-gasoline revenues and margins
Customer	
• Continually delight the targeted consumers • Create win-win relationships with dealers and distributors	• Share of segment: Road Warriors, True Blue, Generation F3 • Mystery shopper rating • Dealer gross profit growth • Dealer satisfaction survey
Process	
• Improve hardware performance • Improve inventory management • Be the industry cost leader • Deliver on-spec, on-time	• Unplanned downtime • Capacity utilization • Stock-out rate • Inventory levels • Activity costs versus competition • % perfect orders
• Understand consumer segments • Build outstanding dealers/distributors	• Feedback from consumer focus groups • Dealer quality score
• Create non-gasoline products and services	• New product ROI • New product acceptance rate
• Improve environmental, health, and safety performance	• Number of environmental incidents • Days absent from work
Learning and Growth	
• Develop competencies and skills • Provide access to strategic information • Engage and empower employees	• Strategic competency coverage ratio • Strategic information coverage ratio • Employee culture survey

Pioneer had followed a systematic process to develop a strategy map and scorecard for its strategy:

- Assess the competitive environment.
- Learn about customer preferences and segments.
- Develop a strategy to generate sustainable and superior financial performance.
- Select the targeted customer segments.
- Determine the value proposition for the targeted customers.
- Identify the critical internal processes to deliver the value proposition to customers and to achieve the financial productivity objectives.
- Identify the skills, competencies, motivation, databases, and technology required to excel at improving the critical internal processes and customer value delivery.

Applying the Balanced Scorecard to Nonprofit and Government Organizations

Strategy maps and Balanced Scorecards are not limited to for-profit companies, such as Pioneer Petroleum. Nonprofit and government organizations (NPGOs) also need to have strategies and measurement systems to communicate and help implement their strategies. Prior to the development of the Balanced Scorecard, the performance reports of NPGOs focused only on financial measures, such as funds appropriated, donations, expenditures, and operating expense ratios. NPGOs, however, cannot be measured primarily by their financial performance. Certainly, they must monitor their spending and operate within financial constraints, but their success must be measured by their effectiveness in providing benefits to constituents, not by their ability to raise money, be efficient, or balance their budgets. The use of nonfinancial measures enables NPGOs to assess their performance with targeted constituents.

In our experience, however, many NPGOs encountered difficulties in developing their initial Balanced Scorecard. First, they did not have a clear strategy. They may have had "strategy" documents that ran upwards of 50 pages, but these consisted only of a lengthy list of planned programs and initiatives that never specified the outcomes the programs and initiatives were intended to achieve. To apply the Balanced Scorecard, an NPGO's thinking has to shift from what it plans *to do* to what it must *accomplish*, a shift from activities to outcomes. Otherwise, any new scorecard will be just a list of key performance indicators of operational performance, not a system to communicate and implement its strategy.

Since financial success is not their primary objective, 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, or the 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. The measured improvement in an NPGO's social impact objective may take years to become noticeable, which is why the measures in the other perspectives provide the short- to intermediate-term targets and feedback necessary for year-to-year control and accountability.

NPGOs also modify the private-sector scorecard framework by expanding the definition of who is the customer. Donors or taxpayers provide the resources—they pay for the service—while another group, the citizens and beneficiaries, receive the service. Who is the customer, the one paying for the service or the one receiving the service? Many NPGOs treat both as their customers. They place both a constituent perspective and a resource (taxpayer/donor) perspective at the top of their Balanced Scorecards (see Exhibit 2-20). With these changes, NPGOs—as wide ranging in focus as a local opera company, an after-school mentoring program for at-risk urban youth, the Canadian Blood Services, the Federal Bureau of Investigation, and the country of Botswana—have developed Balanced Scorecards that described their strategy and used them to communicate mission and strategy more clearly to resource providers, employees, and constituents.

Exhibit 2-20
The Balanced Scorecard Model for Public Sector and Nonprofit Organizations

IN PRACTICE

A Balanced Scorecard for a Nonprofit Organization

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, as shown in Exhibit 2-21.[9] 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.

[9] Teach for America chose to modify the standard nonprofit template by labeling and sequencing its five perspectives as social impact, constituent, operating processes, financial, and organizational capacity.

Exhibit 2-21
Balanced Scorecard for Teach for America

Perspective	Objectives	Measures
Social Impact	• Improve prospects of low-income youth	• Percent of corps members who increase student achievement • Principals' rating of corps member performance
	• Impact tomorrow's low-income youth	• Number of alumni engaged in or influencing education
Constituent	• Create engaged corps members • Produce motivated alumni	• Percent highly satisfied with TFA experience • Alumni engagement index
Operating Processes	• Grow size, quality, and diversity of corps member applicants • Enhance corps member effectiveness • Build a thriving alumni network	• Number of highly qualified applicants • % African American and Latino corps members • Corps member satisfaction with training • % of alumni attending events
Financial	• Grow and diversify revenue base	• Total revenue • # of high net worth contributors
	• Practice good financial management	• Cost per corps member
Organizational Capacity	• Build a diverse team • Ensure effective management • Enhance information technology capabilities • Engage our national board members	• % of staff diversity • % of key goals met • Staff satisfaction with technology • $ raised through board members

The TFA constituent perspective focused on satisfying existing corps members with excellent training and teaching experiences, and the involvement of former TFA corps members in alumni activities. The TFA operating processes stressed recruitment and selection of diverse, high-quality applicants from leading colleges, providing corps members with excellent training before starting their two-year teaching experience, and conducting events that attracted alumni participation. The financial perspective had objectives to improve the funding base and to lower its unit costs (measured by total operating expenses divided by number of corps members). The organizational capacity perspective contained objectives to enhance the talent and diversity of employees and to improve TFA's information technology, plus a new objective of building increased commitments from the national board of directors.

This example illustrates how nonprofit organizations can develop objectives and measures for their strategies. This helps managers of nonprofits to communicate to donors, volunteers, and employees how the nonprofit intends to create social value in the lives of its targeted constituents. The scorecard also gives feedback to managers about whether the enterprise is achieving the outcomes it wants to deliver and the performance of the drivers—operating processes, finances, technology, employees, board members, and volunteers—of the desired social impact.

Managing with the Balanced Scorecard

Developing a strategy map and Balanced Scorecard is just the start of the journey to performance improvement. Executives must communicate the strategy to all employees since, as Brian Roberts remarked, they are the ones who must implement the strategy. People cannot help implement a strategy that they are not aware of or do not understand.

Once all employees understand the strategy of their operating units, divisions, and corporation, managers ask them to develop personal objectives in light of the broader priorities. Most organizations link *incentive compensation* to the Balanced Scorecard, typically after managing with the scorecard for a year.

The issues of communication, setting objectives, and aligning compensation systems for employees will be discussed in Chapter 9.

Companies must also focus their continuous improvement activities on those processes that have the largest impact on successful strategy execution. Thus, the process improvement approaches described in Chapter 7 will have the largest impact when they are applied to achieve the strategic objectives defined in the Balanced Scorecard's process perspective.

To implement their strategies, companies must have excellent knowledge of their costs. That is why the BSC financial perspective contains objectives and measures to improve productivity and lower costs. The operations management theme in the process perspective emphasizes reducing the costs of products and processes. The next three chapters contain the foundational material for understanding how to develop accurate costing systems that help managers make better decisions about managing and reducing the costs of their processes and products. Chapter 6 extends the cost focus out to customers so that companies can manage their cost of serving customers, resulting in more profitable customer relationships. Chapter 6 will also introduce material on how to develop the nonfinancial measures of customer performance for a company's BSC customer perspective. Measuring and managing innovation processes are often overlooked in a company's performance measurement system. Yet these processes are what enable a company to introduce new product variations and new product platforms. Chapter 8 describes management accounting tools that help employees improve their innovation processes.

Of course, managers must always remember that the success of their strategies will ultimately be evaluated based on how well they deliver superior financial performance. So traditional financial control approaches, including budgeting and resource allocation, discussed in Chapters 10 and 11, remain highly relevant even for 21st-century enterprises.

Barriers to Effective Use of the Balanced Scorecard

Not all companies succeed with developing and applying Balanced Scorecards. Several factors can lead to problems when building a performance measurement and management system around the Balanced Scorecard. Some companies use too few measures—only one or two measures per perspective—in their scorecards. A scorecard with too few measures does not depict enough of the company's strategy and does not represent a balance between desired outcomes and the performance drivers of those outcomes. Conversely, some companies include too many measures, incorporating more than 100 measures, so that managers' attention is so diffused that they pay insufficient attention to those few measures that can make the greatest impact.

Other organizations, unlike Pioneer Petroleum, do not start their performance measurement process by clearly describing their strategy and building their strategy map. Instead they look at measures they currently use, classify them into the four scorecard perspectives, and declare that they now have a Balanced Scorecard. Such key performance indicator (KPI) scorecards will typically use common measures, such as customer satisfaction, process quality, cost, and employee satisfaction and morale, that are certainly worth striving to improve but do not reflect a company's unique strategy. KPI scorecards also arise from capturing the data from a company's quality management approach in a scorecard framework. Again, quality improvement is certainly desirable, but a quality program's focus is to make existing processes better, faster, and

cheaper. The metrics drive and evaluate continuous improvement but do not link to a company's differentiating strategy. Thus, such scorecards produce incremental improvements but do not align the enterprise around successful execution of its strategy.

A poor scorecard design, however, is not the biggest threat to successful Balanced Scorecard implementation. When too few or too many measures are present or they are not the right measures, these design defects can be recognized and fixed. The biggest threat is a poor organizational process for developing and implementing the scorecard. Building and embedding a new measurement and management system into an organization is complex and susceptible to at least four pitfalls.

1. **Senior management is not committed.** By far, the largest source of failures occurs when the Balanced Scorecard project is led by or gets delegated to a middle-management project team. Often the impetus for a new performance measurement system arises from the quality group or the finance function. Individuals in these groups see the limitations from attempting to manage with only financial measures and want the organization to adopt a more robust performance measurement system tied closer to strategy or operational improvements, not just financial results. They manage to get approval from senior management to explore extensions of the existing measurement system to include some nonfinancial metrics. But senior management treats this as a local, incremental project and does not understand the need for their entire measurement and management system to change. Ultimately, the lack of understanding and commitment among the senior management team for the new performance measurement undermines the success of any such project led by middle managers. If senior managers are not actively engaged in the project, new measurements will focus on local operational improvements and not be a comprehensive system that senior executives can use to manage the successful implementation of their strategy.
2. **Scorecard responsibilities do not filter down.** In some companies, senior executives feel that only they need to know and understand the strategy. They fail to share the strategy and scorecard with middle managers and with lower level employees on the front lines and in back offices. A successful Balanced Scorecard implementation, while requiring commitment from the senior management team, must involve more than just senior managers. The executive team must communicate the Balanced Scorecard to everyone in the organization so that all employees learn about the strategy and how they can contribute to its successful implementation.
3. **The solution is overdesigned, or the scorecard is treated as a one-time event.** Some failures have occurred when the project team allowed "the best to be the enemy of the good." These teams wanted to have the perfect scorecard. They did not want to launch the scorecard until they were sure they had exactly the right measures as well as valid data for every measure on the scorecard. The teams believed they would have only one opportunity to launch the scorecard, and they wanted it to be the best it could possibly be. So they spent months refining the measures, improving data collection processes, and establishing baselines for the scorecard measures. Eighteen months after the start of the Balanced Scorecard project, management had yet to use it in any meetings or to support their decision processes. When interviewed, several executives at these companies responded, "I think we tried the Balanced Scorecard last year, but it didn't last." The problem was not that it didn't last. It had never begun!

All Balanced Scorecards start with some new measures for which no data currently exist. Sometimes, up to one-third of the measures are not available in the first few months, especially for measures relating to employee skills, information technology availability, and customer loyalty. Managers should initiate new data collection processes for the missing measures and still use the scorecard for their review and resource allocation processes, even without specific data on the new measures.

As the data become available, managers will have an even better basis for their discussions and decisions. However, the management system should be dynamic, and the objectives, the measures, and the data collection processes can be modified over time on the basis of organizational learning.

4. **The Balanced Scorecard is treated as a systems or consulting project.** Some of the most expensive Balanced Scorecard failures have occurred when companies implemented a Balanced Scorecard as a systems project rather than as a management project. Automating and facilitating access to the thousands (or millions) of data observations collected in a company does not lead to a Balanced Scorecard, nor would such a process identify the critical measurements of an organization's strategy not currently being measured at all (recall the missing measurement problem in the preceding pitfall). Also, giving managers more convenient access to an organization's database is much different than having a structured strategy map, with cause-and-effect linkages, for the relatively few (20 to 30) measures that are the best indicators of the organization's strategic performance.

None of these pitfalls is insuperable. In fact, companies, nonprofits, and government agencies around the world have implemented this new strategy execution system and enjoyed considerable success.[10] The leaders of these successful implementers used the scorecard to communicate strategic objectives and measures to all employees and subsequently aligned employees' personal goals and incentives with improvements in scorecard measures. Managers discussed scorecard results at monthly meetings so they could continually learn and improve how to implement their strategy better. The successful organizations used the Balanced Scorecard as their central management system for focusing the organization on the strategy and aligning employees, business units, and resource allocation on achieving dramatic performance improvements for shareholders and customers.

Epilogue to Pioneer Petroleum

Shortly after Brian Roberts and his leadership team finished with the Pioneer's strategy map and scorecard (Exhibits 2-18 and 2-19), they asked the newly-appointed heads of all 17 strategic business units to create scorecards for their own units. They did not insist that all 17 scorecards be the same; they preferred that the management teams at each unit be guided by the objectives and measures on the division's scorecard but wanted each business unit to decide what was most important for them, given their local situation. They could eliminate objectives and measures that were not relevant to them and add new ones that better reflected their local competitive situation. Roberts also started an active process to communicate the strategy's strategic objectives and measures to all of Pioneer's employees, and within a year had introduced a variable pay plan that allowed every employee to earn up to a 30% bonus based on performance of the division's and the employee's business unit scorecard. He recalled:

> People got that scorecard out and did the calculations to see how much money they were going to get. We could not have got the same focus on the scorecard if we didn't have the link to pay.

[10] A good source to learn about companies, nonprofits, and governmental agencies that had good success implementing their strategies using the Balanced Scorecard is *Palladium Balanced Scorecard Hall of Fame for Executing Strategy*, retrieved April 8, 2010, from http://www.thepalladiumgroup.com/about/hof/Pages/overview.aspx

Roberts met with his 17 business unit heads at least once per quarter to discuss the unit's performance, as revealed by its scorecard. As he described the meetings:

> I went into these reviews thinking they would be long and arduous. I was pleasantly surprised how simple they were. Managers came in prepared. They were paying attention to their scorecards and using them in a very productive way—to drive their organization hard to achieve the targets.
>
> The process enabled me to see how the business unit managers think, plan, and execute. I could see the gaps, and by understanding the manager's culture and mentality, I developed customized programs that made them better managers.

Within two years, Pioneer went from being the least profitable to the most profitable company in its industry. Brian Roberts retired as CEO after five years of industry-leading profitability summarizing what had been achieved:

> We produce a commodity product, with mature processes, using the same assets as our competitors, through standard distribution (ships, pipelines, trucks), ending in public service stations (no secrets; everyone sees what you are doing), and a strategy that can be quickly imitated. Our only secret was that the Balanced Scorecard helped us out-execute our competitors in an open, transparent game.

Summary

Information-age companies succeed by investing in and managing their intangible assets. As organizations invest in acquiring the new capabilities provided by these assets, their success cannot be motivated or measured by the traditional financial accounting model. This financial model, developed for trading companies and industrial-age corporations, does not measure whether the company is building capabilities that will provide future value.

The Balanced Scorecard, a more comprehensive performance management system, incorporates measures derived from a company's strategy. While retaining financial measures of past performance, the Balanced Scorecard introduces the drivers of future financial performance. The drivers—found in the customer, process, and learning and growth perspectives—are selected from an explicit and rigorous translation of the organization's strategy into tangible objectives and measures. The benefits from the scorecard are realized as the organization integrates its new measurement system into management processes that communicate the strategy to employees, align employees' individual objectives and incentives with successful strategy implementation, and integrate the strategy with ongoing management processes: planning, budgeting, reporting, and management meetings. A new performance measurement and management system has its greatest impact when the executive team leads these transformational processes.

Key Terms

Balanced Scorecard (BSC), 19
customer management processes, 32
customer perspective, 20
financial perspective, 20
innovation processes, 33
learning and growth perspective, 21
measures, 25
objectives, 24
operations management processes, 32
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strategy, 23
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