

Strategy Maps*

THEY SHOW YOU HOW TO
DESCRIBE, MEASURE, AND ALIGN
YOUR INTANGIBLE ASSETS TO
ACHIEVE SUPERIOR PERFORMANCE
AND BECOME MORE PROFITABLE.

BY ROBERT S. KAPLAN AND DAVID P. NORTON

An organization's strategy describes how it intends to create value for its shareholders, customers, and citizens. In working with more than 300 organizations over the past dozen years, we have learned how to use the Balanced Scorecard (BSC) as a powerful management tool for describing and implementing strategy. The key is to design a scorecard to focus on the critical few parameters that represent a strategy for long-term value creation.

With its multiple perspectives, the BSC framework allows an integrated view of strategic measurement:

- ◆ Financial performance, a lag indicator, provides the ultimate definition of an organization's success. Its strategy describes how a company intends to create sustainable growth in shareholder value. (The strategies of public sector and nonprofit organizations are designed to create sustainable value for citizens and constituents.)
- ◆ Success with targeted customers provides a principal component for improved financial performance. In addition to measuring the lagging outcome indicators of customer success, such as satisfaction, retention, and growth, the customer perspective defines the value proposition for targeted customer segments. Choosing the **customer value proposition** is the central element of strategy.

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◆ **Internal processes** create and deliver the value proposition for customers. The performance of internal processes is a leading indicator of subsequent improvements in customer and financial outcomes.

◆ **Intangible assets** are the ultimate source of sustainable value creation. **Learning and growth** objectives describe how the people, technology, and organization climate combine to support the strategy. Improvements in learning and growth measures are lead indicators for internal process, customer, and financial performance. Enhancing and aligning intangible assets leads to improved process performance, which, in turn, drives success for customers and shareholders.

STRATEGY MAPS AND THE BALANCED SCORECARD

The strategy map provides the specificity needed to translate general statements about high-level direction and strategy into specific objectives that are more meaningful for all employees and that they can act on. We'll start by looking at the financial perspective of the balanced scorecard and work successively through the customer, internal, and learning and growth perspectives. Then we'll show how the strategy map puts all the pieces together.

Financial Perspective: Strategy Balances Long-Term and Short-Term Objectives

The balanced scorecard retains the financial perspective as the ultimate objective for profit-maximizing companies. Financial performance measures indicate whether a company's strategy, including its implementation and execution, is contributing to bottom-line improvement. Financial objectives typically relate to profitability—measured, for example, by economic value added, operating income, or return on investment. Basically, financial strategies are simple: Companies increase shareholder value by (1) selling more and (2) spending less. Any program—customer intimacy, six sigma quality, knowledge management, disruptive technology, just-in-time—creates more value for the company only if it leads to selling more or spending less. Thus, a company's financial performance improves through two basic approaches: revenue growth and productivity.

Companies can generate profitable revenue growth by deepening relationships with their existing customers. This enables them to sell more of their current product or service or to cross-sell additional products and services. For example, banks can attempt to get their checking account customers to also use a credit card issued by

the bank and to borrow from the bank to purchase a home or car.

Companies also generate revenue growth by selling entirely new products. For example, Amazon.com now sells CDs and electronic equipment as well as books, and Mobil encourages its customers to buy from its stations' convenience stores in addition to filling their cars with gasoline. And companies can expand revenue by selling to customers in new segments—for example, Staples now sells to small businesses as well as to retail customers—and in new markets, such as by expanding from domestic sales to international sales.

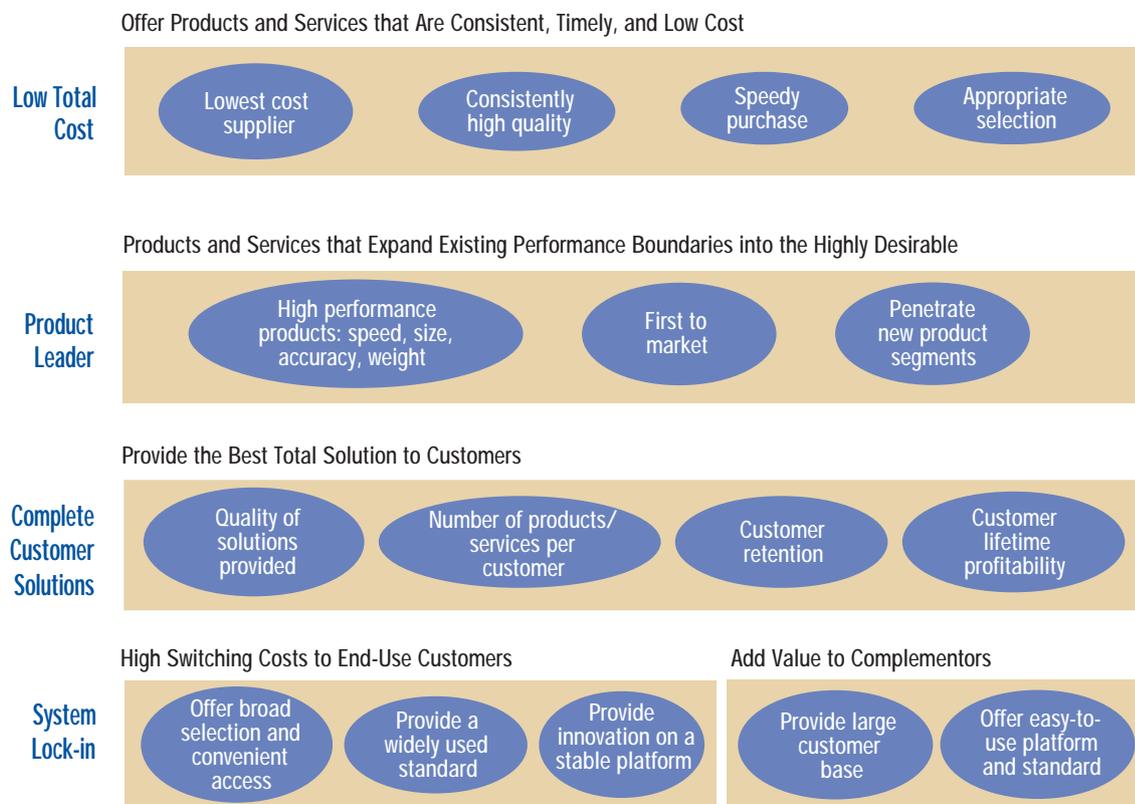
Productivity improvements, the second dimension of a financial strategy, can also occur in two ways. First, a company can reduce costs by lowering direct and indirect expenses. Such cost reductions enable it to produce the same quantity of output while spending less on people, materials, energy, and supplies. Second, by using their financial and physical assets more efficiently, companies can reduce the working and fixed capital needed to support a given level of business. For example, through just-in-time approaches, companies can support a given level of sales with less inventory. By reducing unscheduled downtime on equipment, they can produce more without increasing their investments in plant and equipment.

The link to strategy in the financial perspective occurs as organizations choose a balance between the often contradictory levers of growth and productivity. Actions to improve revenue growth generally take longer to create value than actions to improve productivity. Under the day-to-day pressure to show financial results to shareholders, the tendency is to favor the short term over the long term. Developing the first layer of a strategy map forces an organization to deal with this tension. The overarching financial objective is—and must be—to *sustain* growth in shareholder value. Thus, the financial component of the strategy must have *both* long-term (growth) and short-term (productivity) dimensions. The simultaneous balancing of these two forces is the organizing framework for the remainder of the strategy map.

Customer Perspective: Strategy Is Based on a Differentiated Value Proposition

The revenue growth strategy requires a specific value proposition that describes how the organization will create differentiated, sustainable value to targeted segments. In the customer perspective, managers identify the targeted customer segments in which the business unit competes and the measures of the business unit's performance

Figure 1: **CUSTOMER OBJECTIVES FOR DIFFERENT VALUE PROPOSITIONS**



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for customers in these targeted segments. Several common measures are customer satisfaction, retention, acquisition, profitability, market share, and account share. Market share refers to the percentage of a company's sales to total industry sales. Account share measures the company's proportion of a certain customer's or group of customers' purchases in a given category. For example, a retail clothing store can estimate that it supplies, on average, 13% of the clothing purchased by its customers. A fast food outlet might supply 40% of a family's fast food purchases or 2% of its total food consumption.

These customer outcome measures can themselves be viewed as cause-and-effect relationships. For example, customer satisfaction generally leads to customer retention and, through word of mouth, the acquisition of new customers. By retaining customers, a company can increase the share of business—the account share—it does with its loyal customers. Combining customer acquisition and increased business with existing customers, the company should increase its overall market share with targeted customers. Finally, retention of customers should lead to increases in customer profitability since retaining a customer typically costs much less than acquiring new or replacement customers.

Virtually all organizations try to improve these measures, but merely satisfying and retaining customers is hardly a strategy. A strategy should identify specific customer *segments* that the company is targeting for growth and profitability. For example, Southwest Airlines offers low prices to satisfy and retain price-sensitive customers. Neiman Marcus, on the other hand, targets customers with high disposable incomes who are willing to pay more for high-end merchandise. Companies should measure satisfaction, retention, and market share with their targeted customers. Price-sensitive customers with low disposable incomes aren't likely to be satisfied with the shopping experience at Neiman Marcus, whereas business travelers with generous expense accounts typically don't seek out a Southwest Airlines flight because of its long lines and lack of reserved seats and first-class cabins.

Value Propositions

Once a company understands who its targeted customers are, it can identify the objectives and measures for the *value proposition* it intends to offer. The value proposition defines the company's customer strategy by describing the unique mix of product, price, service, relationship, and image that a company offers its tar-

geted group of customers. It should communicate what the company expects to do for its customers *better* or *differently* than its competitors.

For example, companies as diverse as Southwest Airlines, Dell, Wal-Mart, McDonald's, and Toyota have been extremely successful by offering customers the *best buy* or *lowest total cost* in their categories. The objectives for a low-total-cost value proposition should emphasize attractive prices, excellent and consistent quality for the product attributes offered, good selection, short lead times, and ease of purchase (see the top row in Figure 1).

Another value proposition, followed by companies such as Sony, Mercedes, and Intel, emphasizes *product innovation and leadership*. These companies command high prices, above the average in their category, because they offer products with superior functionality. The objectives for their value proposition would emphasize the 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, or other performance characteristics that exceed the performance of competing products and that are valued by customers. Being the first to market with new features and functionality is another objective for such product leadership companies (see the second row in Figure 1).

A third type of value proposition stresses the provision of *complete customer solutions*. Good examples here are Goldman Sachs and IBM (from 1960 to 1985). For this value proposition, customers should feel that the company understands them and is capable of providing them with customized products and services tailored to their needs. IBM, when it dominated the computer industry, didn't offer the lowest prices and only rarely delivered its new products on time. Nor were IBM's products the most advanced technologically, the most powerful, or the fastest. But IBM offered information technology executives, its targeted customers, complete solutions—hardware, software, installation, field service, training, education, and consulting—that were tailored to each organization's needs. Companies offering such a customer-solutions value proposition stress objectives relating to the completeness of the solution (selling multiple, bundled products and services), exceptional service before and after the sale, and the quality of the relationship (see the third row in Figure 1).

A fourth generic strategy, called *lock-in*, arises when companies create high switching costs for their customers. Ideally, a proprietary product, such as a computer

operating system or microchip hardware architecture, becomes the standard for an industry. In this case, both buyers and sellers want their products to be consistent with the standard so they can benefit from the large network of users and complementors. Complementors are the people or organizations who add value to the company's basic product. For example, Microsoft's complementors are the more than five million programmers who write application programs that run on Microsoft's operating systems and that make Microsoft's systems more useful for end-use consumers. Becoming a dominant exchange, such as eBay and the Yellow Pages, is another example of a successful lock-in strategy. Buyers will choose an exchange where the largest number of sellers is offering products or services, and sellers will offer their products and services on an exchange that exposes them to the largest number of potential buyers. In this situation, one or two companies will tend to be dominant suppliers of the exchange, and they will create large barriers to entry for other exchange providers and high switching costs to its buyers and sellers (see the bottom row in Figure 1).

A company defines its strategy by the objectives and measures it chooses for its value proposition. By developing objectives and measures that are specific to its value proposition, the company translates its strategy into tangible measures that all employees can understand and work toward improving.

Internal Perspective: Value Is Created Through Internal Business Processes

Objectives in the customer perspective describe the strategy—the targeted customers and value proposition—and the objectives in the financial perspective describe the economic consequences from a successful strategy—revenue and profit growth and productivity. Once an organization has a clear picture of these financial and customer objectives, it can develop objectives in the internal and learning and growth perspectives that describe how the strategy will be accomplished. Excellent performance in these two perspectives drives the strategy.

Internal processes accomplish two vital components of strategy: They produce and deliver the value proposition for customers, and they improve processes and reduce costs for the productivity component in the financial perspective. We group organizations' myriad internal processes into four clusters (see Figure 2):

1. Operations management,
2. Customer management,

- 3. Innovation, and
- 4. Regulatory and social.

Operations Management Processes

Operations management processes are the basic, day-to-day processes by which companies produce their existing products and services and deliver them to customers.

Some examples in manufacturing companies are:

- ◆ Acquire raw materials from suppliers,
- ◆ Convert raw materials to finished goods,
- ◆ Distribute finished goods to customers, and
- ◆ Manage risk.

Operating processes for service companies produce and deliver the services customers use.

Customer Management Processes

Customer management processes expand and deepen relationships with targeted customers. We can identify four customer management processes:

- ◆ Select targeted customers,
- ◆ Acquire the targeted customers,
- ◆ Retain customers, and
- ◆ Grow business with customers.

Customer *selection* involves identifying the target populations for which the company's value proposition is most desirable. This process defines a set of customer characteristics that describes an attractive customer segment for the company.

For consumer companies, segments can be defined by income, wealth, age, family size, and lifestyle; typical business customer segments are price-sensitive, early adopting, and technically sophisticated. Customer *acquisition* relates to generating leads, communicating to potential customers, choosing entry-level products, pricing the products, and closing the sale. Customer *retention* is a result of excellent service and responsiveness to customer requests. Timely, knowledgeable service units are critical for maintaining customer loyalty and reducing the likelihood of customer defections. *Growing* a customer's business with the company involves managing the relationship effectively, cross-selling multiple products and services, and becoming known as a trusted adviser and supplier.

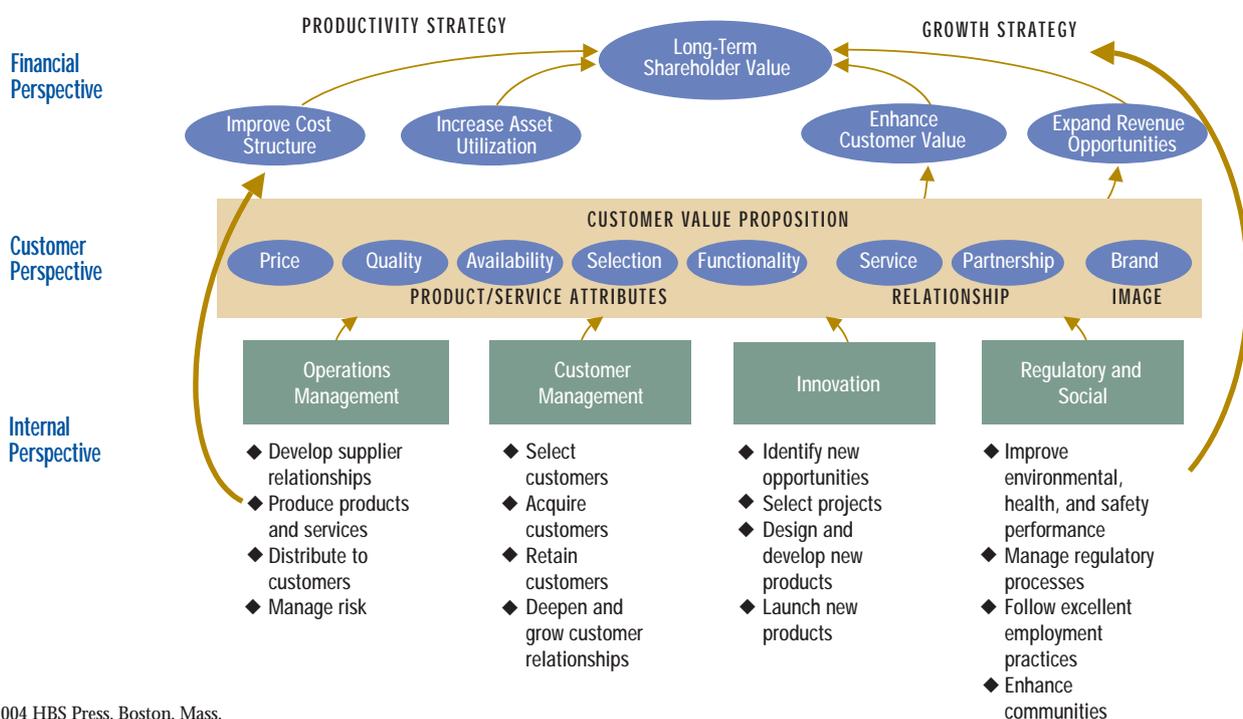
Innovation Processes

Innovation processes develop new products, processes, and services, often enabling the company to penetrate new markets and customer segments. Managing innovation includes the following processes:

- ◆ Identify opportunities for new products and services,
- ◆ Manage the research and development portfolio,
- ◆ Design and develop the new products and services, and
- ◆ Bring the new products and services to market.

Product designers and managers generate new ideas by extending the capabilities of existing products and ser-

Figure 2: INTERNAL PROCESS OBJECTIVES



The Datex-Ohmeda Strategy Map

Datex-Ohmeda, the largest division of Instrumentarium Corporation (now owned by GE Medical Systems), is based in Helsinki, Finland, with manufacturing operations in Finland, Sweden, and the U.S. Datex-Ohmeda's product line includes patient monitors and networked systems for anesthesia, intensive-care units, and subacute care, as well as anesthesia machines, ventilators, drug delivery systems, pulse oximeters, and supplies and accessories.

Datex-Ohmeda had been a product leader since its founding in the early 1900s, but it faced tough competition from companies such as Philips, Siemens, and Drager. Organizational alignment was another growing challenge since most of the company's factories and business units had been acquired through mergers and continued to operate as mostly independent business units and sales channels with goals that would occasionally conflict or diverge.

The executive team worked on developing a new, integrated strategy in the summer of 2001 and used the strategy map to crystallize its thinking. Planning sessions led to the company deciding to change from its historic value proposition based on product innovation to one that leveraged long-term customer relationships. This meant providing the right solution for customers based on thoroughly understanding their needs and operating customer-focused processes for ongoing support and ease of doing business. Datex-Ohmeda used its strategy map to describe these new directions.

The financial perspective shows the goal of obtaining revenue growth from new customers (F2) and expanding relations with existing customers (F3). The key to achieving the F3 objective is delivering "team-designed solutions" (C1) based on product-line breadth. Objec-

tives for two internal processes describe how this value proposition will be created and delivered: A customer management objective (P9) defines the process of teamwork across Datex-Ohmeda, as well as with its channel partners, and objective P4 defines the innovation required to "develop and manage platform-based solutions throughout their life cycle." These two internal process objectives, in turn, create the demand for organizational capabilities and culture that would promote the development of new human and informational capital, strong networking, and teamwork across lines of business and national boundaries.

The learning and growth objectives, organized under the heading "Continuous Learning and Improvement," align the intangible assets with the strategic priorities. Objectives L1, L2, and L3 create organization readiness for implementing the new strategy. Objective L1 identifies the need for consistency in decision-making processes required for a platform-based product strategy. Objective L2 defines the need for teamwork required by the team-solutions strategy. Objective L3 focuses on the process of alignment with the strategy at the individual level. The strategy map addresses the human capital needs ("right skills, right place, right time") of the new strategy in objective L4. The details of these requirements will be described in lower-level human resources plans. Objectives L5 and L6 focus on the information capital requirements, with particular emphasis on knowledge sharing across the organization. The strategy map provided Datex-Ohmeda with a framework to align its human capital, information capital, and organization readiness to the strategy with sufficient specific detail to be meaningful, measurable, and actionable.

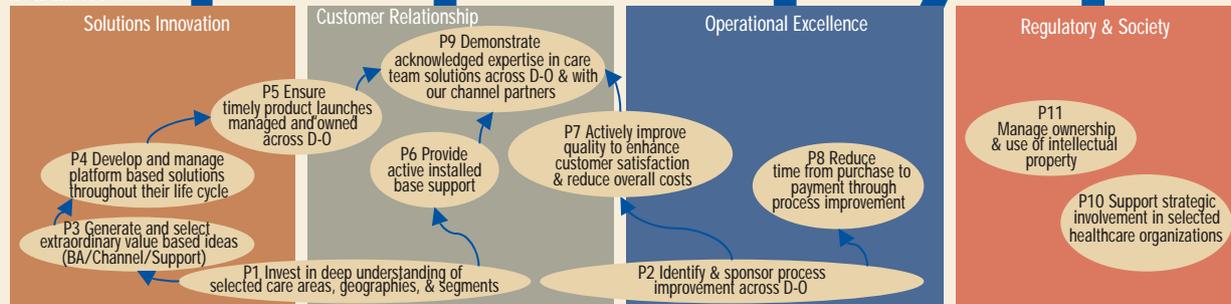
Financial Perspective



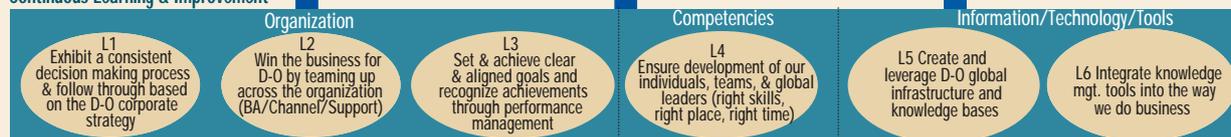
Customer Perspective



Networked Processes



Continuous Learning & Improvement



VICES, applying new discoveries and technologies, and learning from customers' suggestions. Once ideas for new products and services have been generated, managers must decide which projects to fund and whether they will be developed entirely with internal resources, collaboratively in a joint venture, licensed from another organization, and/or outsourced. The design and development process—the core of product development—brings new concepts to market. A successful design and development process culminates in a product that has the desired functionality, is attractive to the targeted market, and can be produced with consistent quality and at a satisfactory profit margin. At the conclusion of the product development cycle, the project team brings the new product to market. The innovation process for a particular project concludes when the company achieves targeted levels of sales and production at specified levels of product functionality, quality, and cost.

Regulatory and Social Processes

Regulatory and social processes help organizations continually earn the right to operate in the communities and countries in which they produce and sell. National and local regulations—on the environment, on employee health and safety, and on hiring and employment practices—impose standards on companies' operations. But many companies seek to go beyond complying with these minimal standards. They want 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 manage and report their regulatory and social performance along a number of critical dimensions:

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

Investing in these needn't be for altruistic reasons alone. 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. Also, reducing environmental incidents and improving employee safety and health improves productivity and lowers operating costs. And companies with outstanding reputations generally enhance their images with customers and with socially conscious investors. All these linkages—to enhanced human resource, operations, customer, and financial processes—illustrate how effective

management of regulatory and community performance can drive long-term shareholder value creation.

There are literally hundreds of processes taking place simultaneously in an organization, each creating value in some way. The art of strategy is to identify and excel at the critical few processes that are the most important to the customer value proposition. All processes should be managed well, but the few strategic processes must receive special attention and focus since they create the differentiation of the strategy. They should also be drawn from all four clusters: Every strategy should identify one or more processes within operations management, customer management, innovation, and regulatory and social. In this way, the value creation process is balanced between the short and long term. This ensures that the growth in shareholder value will be sustained over time.

Learning and Growth: Strategic Alignment of Intangible Assets

The fourth perspective, learning and growth, describes the organization's intangible assets and their role in strategy. We organize intangible assets into three categories (see bottom section of Figure 3):

Human capital: The availability of skills, talent, and know-how required to support the strategy.

Information capital: The availability of information systems, networks, and infrastructure required to support the strategy.

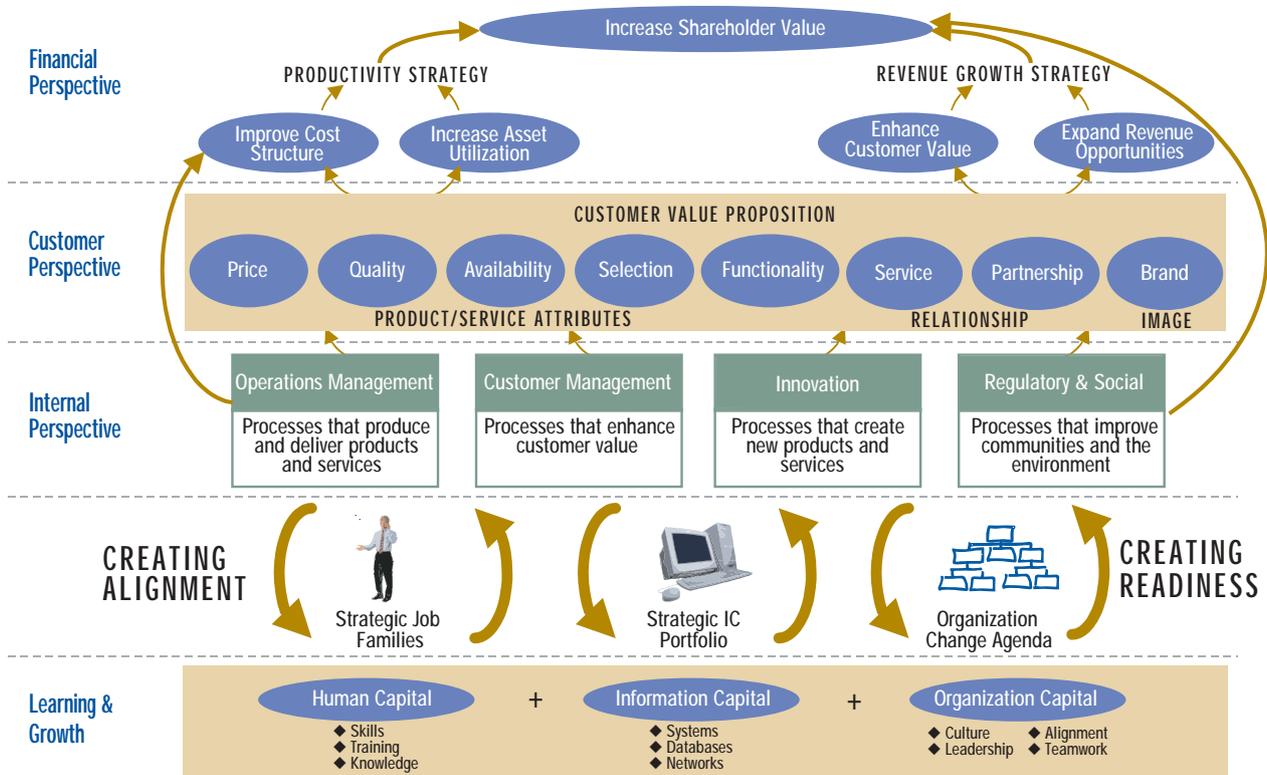
Organization capital: The ability of the organization to mobilize and sustain the process of change required to execute the strategy.

Whereas all organizations attempt to develop their people, technology, and culture, most do *not* align these intangible assets with their strategies. The key to creating this alignment is *granularity*—that is, to move beyond generalities such as “develop our people” or “live our core values” and focus on specific capabilities and attributes required by the critical internal processes of the strategy. The balanced scorecard strategy map enables executives to pinpoint the specific human, information, and organization capital required by the strategy (we wrote about this in “Measuring the Strategic Readiness of Intangible Assets,” *Harvard Business Review*, February 2004).

TRANSLATING STRATEGY INTO ACTION

The strategy map describes the logic of the strategy, clearly showing the objectives for the critical internal processes that create value and the intangible assets required to support them. The balanced scorecard trans-

Figure 3: THE STRATEGY MAP ALIGNS INTANGIBLE ASSETS WITH THE STRATEGY FOR VALUE CREATION



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lates the strategy map objectives into measures and targets. But objectives and targets won't be achieved simply because they have been identified. The organization must launch a set of action programs (*strategic initiatives*) that will enable the targets for all the measures to be achieved, and it must supply scarce resources—people, funding, and capacity—for every program. For each measure on the balanced scorecard, managers must identify the strategic initiatives needed to achieve the target because the initiatives create results. Hence, the execution of strategy is managed through the execution of initiatives.

The action plans that define and provide resources for the strategic initiatives can be *aligned* around strategic themes that enable the initiatives to be viewed as an *integrated* bundle of investments instead of as a group of stand-alone projects. Each strategic theme represents a self-contained business case.

Figure 4 illustrates an action plan and business case for the *fast ground turnaround* theme of a low-cost airline. This theme was core to the low-total-cost customer value proposition. It would contribute to on-time departures and arrivals that would increase satisfaction among customers, leading to future revenue increases. It also would enable the company to reduce costs by operating with fewer planes and flight crews than competitive airlines so

that it could offer lower fares to attract price-sensitive customers while still earning profits and a return on investment above its cost of capital.

The figure shows the intangible assets required to enable the strategy: new skills for the ramp agent, an improved information system, and the alignment of the ground crew to the strategy. The middle columns of the figure show the balanced scorecard of measures and targets for the strategic objectives in the strategy map. The right side of the figure identifies the strategic initiatives and the costs required to achieve the targets established in the scorecard. Eight initiatives have been identified—each affects one or two objectives—and all eight are necessary for the strategy to succeed. If one is deleted, a critical objective will be missed, and the chain of cause-and-effect relationships will be broken.

For example, ground crew training and a new crew scheduling system might be introduced, but if the ground crew doesn't understand how it fits in (communications program) or doesn't have incentives to improve organizational performance (ESOP, an employee stock ownership plan), then the strategy will fail. Thus, the strategic theme for fast ground turnaround requires aligned capabilities for intangible assets and a complete set of strategic initiatives.

Figure 4: THE STRATEGIC THEME DEFINES THE PROCESS, INTANGIBLE ASSETS, TARGETS, AND INITIATIVES REQUIRED TO EXECUTE PIECE OF STRATEGY

STRATEGY MAP		BALANCED SCORECARD		ACTION PLAN		
Process: Operations Management Theme: Fast Ground Turnaround		Objectives	Measurement	Target	Initiative	Budget
FINANCIAL		<input type="checkbox"/> Profitability	<input type="checkbox"/> Market Value	<input type="checkbox"/> 30% CAGR		
		<input type="checkbox"/> Grow revenues	<input type="checkbox"/> Seat Revenue	<input type="checkbox"/> 20% CAGR		
CUSTOMER		<input type="checkbox"/> Fewer planes	<input type="checkbox"/> Plane Lease Cost	<input type="checkbox"/> 5% CAGR		
		<input type="checkbox"/> Flight is on-time	<input type="checkbox"/> FAA On-Time Arrival Rating	<input type="checkbox"/> #1	<input type="checkbox"/> Quality Management	◆ \$XXX
INTERNAL		<input type="checkbox"/> Lowest prices	<input type="checkbox"/> Customer Ranking	<input type="checkbox"/> #1	<input type="checkbox"/> Customer Loyalty Program	◆ \$XXX
		<input type="checkbox"/> Attract and retain more customers	<input type="checkbox"/> # Repeat Customers	<input type="checkbox"/> 70%	<input type="checkbox"/> Implement CRM System	◆ \$XXX
LEARNING		<input type="checkbox"/> Fast ground turnaround	<input type="checkbox"/> # Customers	<input type="checkbox"/> Increase 12% annual	<input type="checkbox"/> Cycle Time Optimization	◆ \$XXX
		<input type="checkbox"/> Develop the necessary skills	<input type="checkbox"/> Time On Ground	<input type="checkbox"/> 30 Minutes		
		<input type="checkbox"/> Develop the support system	<input type="checkbox"/> On-Time Departure	<input type="checkbox"/> 90%		
		<input type="checkbox"/> Ground crew aligned with strategy	<input type="checkbox"/> Strategic Job Readiness	<input type="checkbox"/> Yr 1 - 0%, Yr 3 - 90%, Yr 5 - 100%	<input type="checkbox"/> Ground Crew Training	◆ \$XXX
			<input type="checkbox"/> Info System Availability	<input type="checkbox"/> 100%	<input type="checkbox"/> Crew Scheduling System Rollout	◆ \$XXX
			<input type="checkbox"/> Strategic Awareness	<input type="checkbox"/> 100%	<input type="checkbox"/> Communications Program	◆ \$XXX
			<input type="checkbox"/> % Ground Crew Stockholders	<input type="checkbox"/> 100%	<input type="checkbox"/> ESOP	◆ \$XXX
					Total Budget	\$XXXX

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BRINGING IT TOGETHER: THE STRATEGY MAP

We have now worked systematically through the four balanced scorecard perspectives to determine the objectives and measures that describe the strategy. A strategy map (go back to Figure 3) is a visual representation of the strategy. It provides a single-page view of how objectives in the four BSC perspectives integrate and combine to describe the strategy. Each company must customize the strategy map to its particular set of strategic objectives.

Typically, the objectives in the four perspectives of a strategy map lead to 20-30 measures being required in the associated balanced scorecard. Some people have criticized the balanced scorecard, believing that people can't focus on 25 different measures. If a scorecard is viewed as 25 independent measures, it will be too complicated for an organization and its employees to absorb. But this is the wrong way to think about it. The strategy map shows how the multiple measures on a properly constructed balanced scorecard provide the instrumentation for a single strategy. Companies can formulate and communicate their strategies with an integrated system of approximately two to three dozen measurements that identify the cause-and-effect relationships among the critical variables—including leads, lags, and feedback loops—that describe the trajectory, or the flight plan, of the strategy. Employees—

in their day-to-day actions, decisions, and initiatives—should focus on the objectives and measures in the internal and learning and growth perspectives since these are where the strategy gets implemented and improved. If the theory of the strategy is valid, improvements in internal and learning and growth measures should soon translate into enhanced performance in the customer and financial outcome measures. ■

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