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How valuable is a company culture that enables employees to understand and believe in their organization's mission, vision, and core values? What's the payoff from investing in a knowledge management system or in a new customer database? Is it more important to improve the skills of all employees or focus on those in just a few key positions?

Measuring the value of such intangible assets is the holy grail of accounting. Employees' skills, IT systems, and organizational cultures are worth far more to many companies than their tangible assets. Unlike financial and physical ones, intangible assets are hard for competitors to imitate, which makes them a powerful source of sustainable competitive advantage. If managers could find a way to estimate the value of their intangible assets, they could measure and manage their company's competitive position much more easily and accurately.

But that's simpler said than done. Unlike financial and physical assets, intangible assets are worth different things to different people.

An oil well, for example, is almost as valuable to a retail firm as it is to an oil exploration corporation because either company could sell it swiftly if necessary. But a workforce with a strong sense of customer service and satisfaction is worth far more to the retailer than it would be to the oil company. Also, unlike tangible assets, intangible assets almost never create value by themselves. They need to be combined with other assets. Investments in IT, for example, have little value unless complemented with HR training and incentive programs. And, conversely, many HR training programs have little value unless complemented with modern technology tools. HR and IT investments must be integrated and aligned with corporate strategy if the organization is to realize their full potential. Indeed, when companies separate functions like HR and IT organizationally, they usually end up with competing silos of technical specialization. The HR department argues for increases in employee training, while the IT department lobbies for buying new hardware and software packages.

What's more, intangible assets seldom affect financial performance directly. Instead, they work indirectly through complex chains of cause and effect. Training employees in Total Quality Management and Six Sigma, for instance, should improve process quality. That improvement should then increase customer satisfaction and loyalty—and also create some excess resource capacity. But only if the company can transform that loyalty into improved sales and margins and eliminate or redeploy the excess resources will the investment in training pay off. By contrast, the impact of a new tangible asset is immediate: When a retailer develops a new site, it sees financial benefits from the sales in the newly opened outlet right away.

Although these characteristics make it impossible to value intangible assets on a freestanding basis, they also point the way to a new approach for quantifying how intangible assets add value to the company. By understanding the problems associated with valuing intangible assets, we learn that the measurement of the value they create is embedded in the context of the strategy the company is pursuing. Companies such as Dell, Wal-Mart, or McDonald's that are following a low-cost strategy derive value from Six Sigma and TQM training because their strategies are predicated on continuous process improvement. The strategy of offering customers integrated solutions (rather than discrete products) pursued by Goldman Sachs, IBM Consulting, and the like requires employees good at establishing and maintaining long-term customer relationships. An organization cannot possibly assign a meaningful financial value to an intangible asset like "a motivated and prepared workforce" in a vacuum because value can be derived only in the context of the strategy. What the company *can* measure, however, is whether its workforce is properly trained and motivated to pursue a particular goal.

Viewed in this light, it becomes clear that measuring the value of intangible assets is really about estimating how closely aligned those assets are to the company's strategy. If the company has a sound strategy and if the intangible assets are aligned with that strategy, then the assets will create value for the organization. If the assets are not aligned with the strategy or if the strategy is flawed, then intangible assets will create little value, even if large

amounts have been spent on them.

In the following pages, we will draw on the concepts and tools of the Balanced Scorecard to present a way to systematically measure the alignment of the company's human, information, and organization capital—what we call its *strategic readiness*—without which even the best strategy cannot succeed.

Defining Strategic Readiness

In developing the Balanced Scorecard more than a decade ago, we identified, in its Learning and Growth Perspective, three categories of intangible assets essential for implementing any strategy:

• **Human Capital:** the skills, talent, and knowledge that a company's employees possess.

• **Information Capital:** the company's databases, information systems, networks, and technology infrastructure.

• **Organization Capital:** the company's culture, its leadership, how aligned its people are with its strategic goals, and employees' ability to share knowledge.

To link these intangible assets to a company's strategy and performance, we developed a tool called the "strategy map," which we first introduced in our previous article for *Harvard Business Review,* "Having Trouble with Your Strategy? Then Map It" (September–October 2000). As the exhibit "The Strategy Map" shows, intangible assets influence a company's performance by enhancing the internal processes most critical to creating value for customers and shareholders. Companies build their strategy maps from the top down, starting with their long-term financial goals and then determining the value proposition that will deliver the revenue growth specified in those goals, identifying the processes most critical to creating and delivering that value proposition, and, finally, determining the human, information, and organization capital the processes require.

This article focuses on the bottom—the foundation—of the map and will show how intangible assets actually determine the performance of the critical internal processes. Once that link has been established, it becomes easy to trace the steps back up the map to see exactly how intangible assets relate to the company's strategy and performance. That, in turn, makes it possible to align those assets
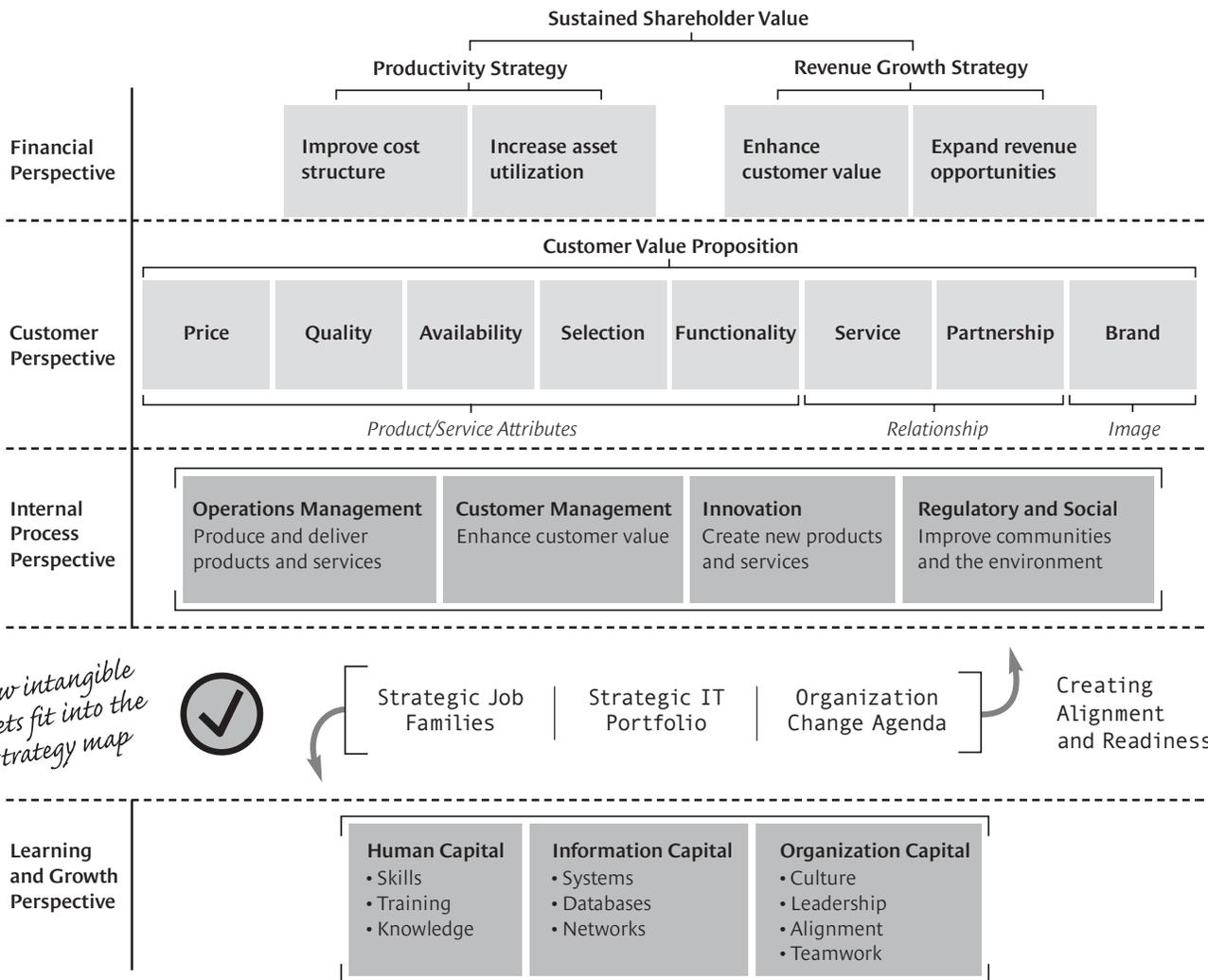
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The Strategy Map

The strategy map provides a framework for linking intangible assets to shareholder value creation through four interrelated perspectives. The *financial perspective* describes the tangible outcomes of the strategy in traditional financial terms, such as ROI, shareholder value, profitability, revenue growth, and lower unit costs. The *customer perspective* defines the value proposition the organization intends

to use to generate sales and loyalty from targeted customers. This value proposition forms the context in which the intangible assets create value. The *internal process perspective* identifies the critical few processes that create and deliver the differentiating customer value proposition. At the foundation of the map, we have the *learning and growth perspective,* which identifies the intangible assets that are

most important to the strategy. The objectives in this perspective identify which jobs (the human capital), which systems (the information capital), and what kind of climate (the organization capital) are required to support the value-creating internal processes. These intangible assets must be integrated and aligned with the critical internal processes.

Sustained Shareholder Value

	Productivity Strategy		Revenue Growth Strategy	
Financial Perspective	Improve cost structure	Increase asset utilization	Enhance customer value	Expand revenue opportunities

Customer Value Proposition

	Price	Quality	Availability	Selection	Functionality	Service	Partnership	Brand
Customer Perspective	Price	Quality	Availability	Selection	Functionality	Service	Partnership	Brand

Product/Service Attributes — *Relationship* — *Image*

	Operations Management	Customer Management	Innovation	Regulatory and Social
Internal Process Perspective	Produce and deliver products and services	Enhance customer value	Create new products and services	Improve communities and the environment

How intangible assets fit into the strategy map ✓

Strategic Job Families	Strategic IT Portfolio	Organization Change Agenda	Creating Alignment and Readiness

	Human Capital	Information Capital	Organization Capital
Learning and Growth Perspective	• Skills • Training • Knowledge	• Systems • Databases • Networks	• Culture • Leadership • Alignment • Teamwork

with the strategy and measure their contribution to it. The degree to which the current set of assets does—or does not—contribute to the performance of the critical internal processes determines the strategic readiness of those assets and thus their value to the organization. The strategic readiness of each type of intangible asset can be thought of as follows:

Human Capital (HC): In the case of human capital, strategic readiness is measured by whether employees have the right kind and level of skills to perform the critical internal processes on the strategy map. The first step in estimating HC readiness is to identify the *strategic job families*—the positions in which employees with the right skills, talent, and knowledge have the biggest impact on enhancing the organization's critical internal processes. The next step is to pinpoint the set of specific competencies needed to perform each of those strategic jobs. The difference between the requirements needed to carry out these jobs effectively and the company's current capabilities represents a "competency gap" that measures the organization's HC readiness.

Information Capital (IC): The strategic readiness of information capital is a measure of how well the company's strategic IT portfolio of infrastructure and applications supports the critical internal processes. Infrastructure comprises hardware—such as central servers and communication networks—and the managerial expertise—such as standards, disaster planning, and security—required to effectively deliver and use applications. Two categories of applications, in turn, are built on this infrastructure: *Transaction-processing applications,* such as an ERP system, automate the basic repetitive transactions of the enterprise. *Analytic applications* promote analysis, interpretation, and sharing of information and knowledge. Either type may or may not be a *transformational application*—one that changes the prevailing business model of the enterprise. Levi's uses a transformational application to tailor jeans to individual customers. Home Shopping Network uses a transformational application to measure the "profits per second" being generated by currently offered merchandise. Transformational applications have the most potential impact on strategic objectives and require the greatest degree of organization change to deliver their benefits.

Organization Capital (OC): Organization capital is perhaps the least understood of the intangible assets, and the task of measuring it is correspondingly difficult. But in looking at the strategic priorities that companies in our database of Balanced Scorecard implementations used for their organization capital objectives, we found a consistent picture. Successful companies had a *culture* in which people were deeply aware of and internalized the mission, vision, and core values needed to execute the company's strategy. These companies strove for excellent *leadership* at all levels, leadership that could mobilize the organization toward its strategy. They strove for a clear *alignment* between the organization's strategic objectives and individual, team, and departmental goals and incentives. Finally, these companies promoted *teamwork,* especially the sharing of strategic knowledge throughout the organization. Determining OC readiness, we concluded, would involve first identifying the changes in organization capital required by the new strategy—what we call the "organization change agenda"—and then separately identifying and measuring the state of readiness of the company's cultural, leadership, alignment, and teamwork objectives.

Strategic readiness is related to the concept of liquidity, which accountants use to classify financial and physical assets on a company's balance sheet. Accountants divide a firm's assets into various categories, such as cash, accounts receivable, inventory, property, plant and equipment, and long-term investments. These are ordered hierarchically according to the ease and speed with which they can be converted to cash—in other words, according to the degree of their liquidity. Accounts receivable is more liquid than inventory, and both accounts receivable and inventory are classified as short-term assets since they typically convert to cash within 12 months, faster than the cash recovery cycle from such illiquid assets as plant and equipment. Strategic readiness does much the same for intangible assets—the higher their state of readiness, the faster they contribute to generating cash.

Human Capital Readiness

All jobs are important to the organization; otherwise, people wouldn't be hired and paid to perform them. Organizations may require truck drivers, computer operators, production

Human Capital Readiness at Consumer Bank

Here we can see how human capital at our composite company, Consumer Bank, is linked to its critical strategic processes and how well the company scores in terms of the skills and capabilities it needs. The top row lists the internal processes the bank identified as critical to delivering its value proposition. The second row shows the jobs that have the greatest influence on those processes—the *strategic job families*. The third row lists the competencies needed for each job, and the fourth row specifies the number of people with those skills the company requires.

The bottom row shows how ready Consumer Bank's human capital is for its new strategy. Taken together, these internal assessments indicate the extent to which the bank actually has the capacity it needs. The bank is in excellent shape for its two operations management processes (100% and 90% readiness) but deficient for the two customer management processes (only 40% and 50% readiness) and for one of the innovation processes (20% readiness). The aggregate measure of 65% human capital readiness (in the red zone) is a weighted average of readiness scores for all seven strategic job families. In terms of human capital, this report tells executives how quickly they can implement their new strategy.

	Operations Management		Customer Management		Innovation		Regulatory and Social	Overall Assessment of Human Capital Readiness
Strategic Processes	**Minimize problems**	**Provide rapid response**	**Cross-sell the product line**	**Shift to appropriate channel**	**Understand customer segments**	**Develop new products**	**Diversify workforce**	
Strategic Job Families	**Quality manager**	**Call center representative**	**Certified financial planner**	**Telemarketer**	**Consumer marketer**	**Joint venture manager**	**Community recruiter**	
Competency Profile	• Six Sigma program • Problem management system	• Customer interaction center • Problem management system • Team building	• Solutions selling • Relationship management • Product-line knowledge • Professional certification	• Phone selling • Product-line knowledge • Order management system	• Market research • Market communication • Cross-business process	• Relationship management • Negotiation • E-commerce know-how	• Community roots • Public relations • Legal frameworks	
Number Required	30	20	100	20	10	30	10	
Strategic Job Readiness	**100%**	**90%**	**40%**	**50%**	**20%**	**70%**	**80%**	**65%**
	✓	✓	✗	✗	✗	?	✓	✗

supervisors, materials handlers, and call center operators and should make it clear that contributions from all these employees can improve organizational performance. But we have found that some jobs have a much greater impact on strategy than others. Managers must identify and focus on the critical few that have the greatest impact on successful strategy implementation.

John Bronson, vice president of human resources at Williams-Sonoma, estimates that people in only five job families determine 80% of his company's strategic priorities. The executive team of a chemical company has identified eight job families critical to its strategy of offering customized innovative solutions. These job families employ, in aggregate, 100 individuals—less than 7% of the total workforce. Kimberlee Williams, vice president of human resources at Unicco, a large integrated facilities-services management company, says that three job families are key to its strategy: project managers, who oversee the operations in specific accounts; operations directors, who broaden the relationships within existing accounts; and business development executives, who help acquire new accounts. These three job families employ only 215 people, less than 4% of the workforce. By focusing human capital development activities on these critical few individuals, the chemical company, Unicco, and Williams-Sonoma can greatly leverage their human capital investments. It is sobering to think that strategic success in these three companies is determined by how well they develop competencies in less than 10% of their workforces.

Once a company identifies its strategic job families, it must define the requirements for these jobs in considerable detail, a task often referred to as "job profiling" or "competency profiling." A competency profile describes the knowledge, skills, and values required by successful occupants in the job family. Often, HR managers will interview individuals who best understand the job requirements to develop a competency profile they can use to recruit, hire, train, and develop people for that position. To see how this might be done, consider Consumer Bank, a composite example distilled from our experiences in working with about a dozen retail banks.

Consumer Bank was migrating from its historic strategy of promoting individual products to one offering complete financial solutions and one-stop shopping to targeted customers. The map for this new strategy identified seven critical internal processes, one of which was "cross-sell the product line." Human resources and line executives then identified the financial planner as the job most important to the effective performance of this process. A planning workshop further identified four skills fundamental to the financial planner's job: solutions selling, relationship management, product-line knowledge, and professional certification. For each internal process on its strategy map, Consumer Bank replicated this approach, identifying the strategic job families and critical competencies each required. The results are summarized in the exhibit "Human Capital Readiness at Consumer Bank."

To take the next step—assessing the current capabilities and competencies of each of the employees in each strategic job family—companies can draw from a broad range of approaches. For example, employees can themselves assess how well their current capabilities fit the job requirements and then discuss those assessments with a mentor or career manager. Alternatively, an assessor can solicit 360-degree feedback on employees' performance from their supervisors, peers, and subordinates. From these assessments, employees get a clear understanding of their objectives, meaningful feedback on their current levels of skill and performance, and specific recommendations for future personal development.

Consumer Bank estimated that it needed 100 trained and skilled financial planners to execute the cross-selling process. But in assessing its recent targeted hiring, training, and development programs, the bank's HR group determined that only 40 of its financial planners had reached a high enough level of proficiency. The bank's human capital readiness for this piece of the strategy was, therefore, only 40%, as the exhibit shows. By replicating this analysis for all its strategic job families, the bank learned the state of its human capital readiness and thus whether the organization could move forward quickly with its new strategy.

Information Capital Readiness

Executives must understand how to plan, set priorities for, and manage an information capital portfolio that supports their organiza-

Information Capital Readiness at Consumer Bank

The first two rows of the information capital readiness report, like the human capital report, list the company's critical internal processes and its strategic job families. The remaining five rows specify the various items in the IC portfolio, assigning scores indicating how well developed each item is. In this example, Consumer Bank has the IC portfolio it needs to support innovation but is less able to support the jobs most critical to its customer management and operational excellence goals.

	Operations Management		Customer Management		Innovation	
Strategic Processes	**Minimize problems**	**Provide rapid response**	**Cross-sell the product line**	**Shift to appropriate channel**	**Understand customer segments**	**Develop new products**
Strategic Job Families	**Quality manager**	**Call center representative**	**Certified financial planner**	**Telemarketer**	**Consumer marketer**	**Joint venture manager**
	Strategic Information Capital Portfolio					
Transformational Applications		Customer self-help **4**	Customer portfolio self-management **4**			
Analytical Applications	Service quality analysis **2**	Best-practice community knowledge management system **3**	Customer profitability **3**	Best-practice community knowledge management system **2**	Customer profitability **3**	Best-practice community knowledge management system **2**
Transaction-Processing Applications	Incident tracking **6** Problem management **2**	Workforce scheduling **3** Problem management **2**	Integrated customer file **2**	CRM/lead management **6** CRM/order management **2** CRM/sales force automation **4**	Customer feedback **2**	Project management **2**
Technology Infrastructure	Web enabled **3** Computer telephony integration **4**	Computer telephony integration **4** Interactive voice response **3**	CRM packaged software **2** Web enabled **3**	Web enabled **3** Computer telephony integrated **4**	CRM packaged software **2**	
Combined Readiness Level	X	X	?	X	✓	✓

Ratings

1
OK

2
Minor enhancements needed

3
New development under way

4
New development behind schedule

5
Major enhancements required

6
New application required

tion's strategy. As with human capital, the strategy map serves as a starting point for delineating a company's IC objectives. In the case of Consumer Bank, the chief information officer led an initiative to identify the specific information capital needs of each of the seven internal processes previously identified as critical to the bank's new value proposition.

For the customer management process "cross-sell the product line," the workshop team identified an application for customers to analyze and manage their portfolios by themselves (a customer portfolio self-management system) as a transformational application. The workshop team identified an analytical application for the same process (a customer profitability system) and a transaction-processing application (an integrated customer file). The internal process "understand customer segments" also needed a customer profitability system, as well as a separate customer feedback system to support market research. The process "shift to appropriate channel" required a strong foundation of transactional systems, including a packaged CRM software suite that included modules for lead management, order management, and sales force automation. For the operations process "provide rapid response," participants identified a transformational application (customer self-help) as well as an analytic application (a best-practice community knowledge management system) for sharing successful sales techniques among telemarketers. Finally, the "minimize problems" process required an analytical application (service quality analysis) to identify problems and two related transaction-level systems (one for incident tracking and another for problem management).

After defining its portfolio of IC applications, the project team identified several required components of IT infrastructure. Some applications needed a CRM transactions database. Others required that a Web-enabled infrastructure be integrated into the bank's overall Web site architecture. The team also learned about the need for an internal R&D project to develop a new interactive voice-response technology. All together, the bank's planning process defined an information capital portfolio made up of 14 unique applications (some of which supported more than one internal process) and four IT infrastructure projects. (See the exhibit "Information Capital Readiness at Consumer Bank.")

The team then turned to assessing the readiness of the bank's existing portfolio of IC infrastructure and applications, assigning a numerical indicator from 1 to 6 to each system. A score of 1 or 2 indicates that the system is already available and operating normally, perhaps needing only minor enhancements. A score of 3 or 4 indicates that the system has been identified and funded but is not yet installed or operational. In other words, current capability does not yet exist but development programs are under way to close the gap. A score of 5 or 6 signals that a new infrastructure or application is needed to support the strategy, but nothing has yet been done to create, fund, and deliver the capability. Managers responsible for the IC development programs provided the subjective judgments for this simple measurement system, and the CIO was responsible for assessing the integrity of the reported numbers. In the IC exhibit, we can also see that Consumer Bank aggregated the readiness measures of individual applications and infrastructure programs—designating them green, yellow, or red, based on the worst-case application in the category—to create a portfolio status report. With such a report, managers can see the strategic readiness of the organization's information capital at a glance, easily pinpointing the areas in which more resources are needed. It is an excellent tool for monitoring a portfolio of information capital development programs.

Many sophisticated IT organizations already use more quantitative, objective assessments of their information capital portfolios than the subjective process we've just described for Consumer Bank. These organizations survey users to assess their satisfaction with each system. They perform financial analyses to determine the operating and maintenance costs of each application. Some conduct technical audits to assess the underlying quality of the code, ease of use, quality of documentation, and frequency of failure for each application. From this profile, an organization can build strategies for managing its portfolio of existing IC assets just as one would manage a collection of physical assets like machinery or a fleet of trucks. Applications with high levels of maintenance can be streamlined, for example, applications with high operating costs can be optimized, and applications with high

levels of user dissatisfaction can be replaced. This more comprehensive approach can be effective for managing a portfolio of applications that are already operational.

Organization Capital Readiness

Success in performing the critical internal processes identified in an organization's strategy map invariably requires an organization to change in fundamental ways. Assessing OC readiness is essentially about assessing how well the company can mobilize and sustain the organization change agenda associated with its strategy. For instance, if the strategy involves focusing on the customer, the company needs to determine whether its existing culture is customer-centric, whether its leaders have the requisite skills to foster such a culture, whether employees are aware of the goal and are motivated to deliver exceptional customer service, and, finally, how well employees share with others their knowledge about the company's customers. Let's explore how companies can make these kinds of assessments for each of the four OC dimensions.

Culture. Of the four, culture is perhaps the most complex and difficult dimension to understand and describe because it encompasses a wider range of behavioral territory than the others. That's probably why "shaping the culture" is the most often-cited objective in the Learning and Growth section of our Balanced Scorecard database. Executives generally believe that changes in strategy require basic changes in the way business is conducted at all levels of the organization, which means, of course, that people will need to develop new attitudes and behaviors—in other words, change their culture.

Assessment of cultural readiness relies heavily on employee surveys. But in preparing surveys, companies need to distinguish clearly between the values that all employees share—the company's base culture—and the perceptions that employees have of their existing system—the climate. The concept of base culture has its roots in anthropology, which defines an organization's culture as the symbols, myths, and rituals embedded in the group consciousness (or subconscious). To describe a company's base culture, therefore, you have to uncover the organization's systems of shared meanings, assumptions, and values.

The concept of climate has its roots in social psychology and is determined by the way organizational influences—such as the incentive structure or the perceived warmth and support of superiors and peers—affect employees' motivation and behavior. The anthropological component reflects employees' shared attitudes and beliefs independent of the actual organizational infrastructure, while climate reflects their shared perception of existing organizational policies, practices, and procedures, both formal and informal.

Surveying perceptions of existing organizational policies and practices is a fairly straightforward task, but getting at the base culture requires a little more digging. Anthropologists usually rely on storytelling to identify shared beliefs and images, but that approach is inadequate for quantifying the alignment of culture to strategy. Organizational behavior scholars have developed measurement instruments, such as Charles O'Reilly and colleagues' Organizational Culture Profile, in which employees rank 54 value statements according to their perceived importance and relevance in the organization. Once ranked, an organization's culture can be described with a reasonable degree of reliability and validity. Then the organization can assess to what extent the existing culture is consistent with its strategy and what kinds of changes may be needed.

One caveat: Managers do need to be aware that some variations in culture are necessary and desirable in different operating units or functions. The culture of an R&D group, for example, should be different from the culture of a manufacturing unit; the culture of an emergent business unit should be different from the culture of a mature one. Executives should strive for agreement throughout the organization about corporatewide values such as integrity, respect, treatment of colleagues, and commitment to customer satisfaction. But some value statements in the survey instrument should refer to the culture of specific operating units. So, for example, surveys of the employees in operations and service-delivery units would include statements about quality and continuous improvement, whereas the R&D department survey might include statements about creativity and innovation. For employees involved in customer acquisition, statements might relate to retention and growth or to a deep understanding of individual customers' preferences and needs.

Leadership. If companies change their strategies, people will have to do some things differently as well. It is the responsibility of leaders at all levels of the organization—from the CEO of a retail chain down to the local store managers—to help employees identify and understand the changes needed and to motivate and guide them toward the new ways of working.

In researching the best practices in our Balanced Scorecard database, we were able to identify seven generic types of behavioral changes that build organization capital, and each fell into one of two categories: changes that support the creation of value—such as increasing people's focus on the customer—and those required to carry out the company's strategy—such as increasing accountability. The sidebar "Seven Behaviors for Transformation" describes these behavioral changes in more detail.

To ensure that it gets the kind of leaders it needs, a company should draw up a *leadership competency model* for each of its leadership positions. This is a kind of job profile that defines the competencies a leader is expected to have to be effective in carrying out the company's strategy. For example, one manufacturing company, attempting to create teams to solve customers' problems, identified and defined three competencies essential for people in team leadership positions:

• **Customer Focus**—Outstanding leaders understand their customers. They place themselves in the customers' minds and spend time with them to understand their current and future needs.

• **Fostering Teamwork**—Outstanding leaders work collaboratively with their own teams and across organizational and geographic boundaries. They empower their teams to achieve excellence.

• **Open Communications**—Outstanding leaders tell the truth. They openly share information with peers, managers, and subordinates. They tell the whole story, not just how it looks from their position.

Often, organizations will measure leadership traits, such as those listed above, through employee surveys. A staff or external unit solicits information from subordinates, peers, and superiors about a leader's mastery of the critical skills. This personal feedback is used mainly for coaching and developing the leader, but the unit can also aggregate the detailed (and confidential) data from the individual reviews to create a status report on the readiness of key leadership competencies needed throughout the organization.

Alignment. An organization is aligned when all employees have a commonality of purpose, a shared vision, and an understanding of how their personal roles support the overall strategy. An aligned organization encourages behaviors such as innovation and risk taking because individuals' actions are directed toward achieving high-level objectives. Encouraging

Seven Behaviors for Transformation

All new strategies require employees to make, and leaders to identify and foster, some specific changes in behavior. But in our research, companies that have successfully changed their strategies have needed only a limited number of behavioral changes—just seven, in fact—to maximize the contributions of their people to the execution of their new strategies. The changes fall into two categories:

• **Value Creation:** Behaviors that support value creation are those that increase focus on customers, innovation, and results.

• **Strategy Execution:** Behaviors that support strategy execution are those that increase employees' understanding of the company's mission, vision and values; accountability; communications; and teamwork.

Of course, no organization will try to change all seven behaviors at once. Typically, a company will identify the two to four most important ones for implementing a specific strategy. For example, firms in deregulated industries like utilities or telecommunications now place a heavy emphasis on becoming customer focused and innovative, which are, for them, totally new behaviors. Previously, operating from a monopoly position, they had focused on operating efficiency and on avoiding risks to protect revenues.

That said, customer focus was the most frequently identified required new behavior in all the companies we studied. That's partly because virtually every strategy initiative starts with a clarification or redefinition of the customer value proposition. But some new strategies impose different priorities. Companies introducing shareholder value programs, for example, may already be sufficiently customer focused and will need instead to focus on results.

Companies adopting strategies that require high degrees of integration commonly need to increase communication. That was so, for instance, for one pharmaceutical company in our database that was attempting to transfer knowledge and marketplace experience from its commercial division to

and empowering individual initiative in an unaligned organization leads to chaos, as the innovative risk takers pull the organization in contradictory directions.

Achieving alignment is a two-step process. First, managers communicate the high-level strategic objectives in ways that all employees can understand. This involves using a wide range of communication mechanisms: brochures, newsletters, town meetings, orientation and training programs, executive talks, company intranets, and bulletin boards. The goal of this step is to create intrinsic motivation, to inspire employees to internalize the organization's values and objectives so that they want to help the organization succeed. The next step uses extrinsic motivation. The organization has employees set explicit personal and team objectives aligned to the strategy

and establishes incentives that reward employees when they meet personal, departmental, business unit, and corporate targets.

Measuring alignment readiness is relatively straightforward. Many survey instruments are already available for assessing how much employees know about and how well they understand high-level strategic objectives. It is also fairly easy to see whether or not individuals' personal objectives and the company's existing incentive schemes are consistent with the high-level strategy.

For example, a large property and casualty insurance company adopted a new strategy intended to reduce its underwriting losses by creating a tighter link between the underwriters, who decide whether to accept a new piece of business, and the claims agents, who deal with the consequences from poor underwriting de-

Organization Capital Readiness Report

The various measures for organization capital readiness should be put together in a readiness report, which shows, for all the components of organization capital, where the company needs to introduce changes to its behaviors and policies. The report shown here is a simplified version of one prepared by a company in our Balanced Scorecard database.

Attribute	Strategic Objective	Strategic Measure	Target	Actual	
Culture	Foster awareness and internalization of the mission, vision, and core values needed to execute the strategy	Customer-focused (customer survey; percentage who understand the organization's mission)	80%	**68%**	X
		Other core values (employee change readiness survey)	80%	**52%**	X
Leadership	Develop leaders at all levels who can mobilize the organization toward its strategy	Leadership gap (percentage of key attributes in competency model rated above threshold)	90%	**92%**	✓
Alignment	Align goals and incentives with the strategy at all levels of the organization	Strategic awareness (percentage of staff who can identify organization's strategic priorities)	80%	**75%**	X
		Strategic alignment (percentage of staff whose objectives and incentives link to Balanced Scorecard)	100%	**60%**	X
Teamwork	Ensure that knowledge and staff assets that have strategic potential are shared	Sharing best practices (number of knowledge management system hits per employee)	5.0	**6.1**	✓

cisions. Historically, these specialists lived in different parts of the organization, and their incentives were totally unrelated to each other, which clearly did little to foster cooperation between them or with the line business units they supported. To reflect the new strategy, the company changed to a team-based compensation system in which everyone's incentive pay was based on a common set of measures (their Balanced Scorecard). Underwriters and claims agents, who worked in service departments shared by the various business units, were now rewarded using the Balanced Scorecard measures related to the business units they supported. The company used a survey instrument to capture the employees' perceptions of the improved teamwork created by aligning the incentive systems.

Teamwork and Knowledge Sharing. There is no greater waste than a good idea used only once. Most organizations have to go through a cultural change to shift individuals from hoarding to sharing their local knowledge. No asset has greater potential for an organization than the collective knowledge possessed by all its employees. That's why many companies, hoping to generate, organize, develop, and distribute knowledge throughout the organization, have spent millions of dollars to purchase or create formal knowledge management systems.

The challenge in implementing such systems is motivating people to actually document their ideas and knowledge to make them available to others. Most organizations in our Balanced Scorecard database attempted to develop such motivation by selecting "teamwork" and "knowledge sharing" as strategic priorities in their Learning and Growth Perspective. Typical measures for these priorities included the number of best practice ideas the employees identified and used, the percentage of employees who transferred knowledge in a workout process, the number of people who actually used the knowledge management system, how often the system is used, the percentage of information in the knowledge management system that was updated, and how much was obsolete.

For knowledge sharing to matter, it must be aligned with the priorities of the strategy map. For example, one organization—a chemical company—created several best practice com-

munities to complement the internal process objectives on its strategy map. The Improve Workplace Safety community consisted of the safety directors from every facility. They studied the best practices at the high-performing plants and created a best practice–sharing program. The company's output measure, "days away from work," dropped by 70%. In another example, a children's hospital was attempting to reduce costs without reducing the quality of patient care. Intensive discussions resulted in a top-ten list of best practices already being used somewhere in the hospital. The hospital then formed cross-functional medical practice teams of physicians, nurses, and administrators to implement as many of these procedures as they practically could. It measured success, the output of this knowledge-sharing process, by the "number of best practices utilized." The effective implementation of best practices over the next three years led to dramatic improvements in organizational outcomes: Readmission rates dropped by 50%, cost per case and length of stay each declined by 25%, and both customer satisfaction and quality of care increased. In these and many other examples in our case files, organizations enhanced their performance by aligning the teamwork and knowledge-sharing component of their organization capital with their strategy.

To get an overview of organizational readiness, companies can put the information they obtain from their various surveys and assessments together in a report like the one shown in "Organization Capital Readiness Report." In this exhibit, the leadership measure, drawn from the leadership competency model, displays the company's estimate, based on employee surveys, of the degree to which the company possesses the key attributes for leadership. At 92%, the company is above target on its leadership objective and can be considered strategically ready in terms of this dimension. The company's OC with respect to teamwork and knowledge sharing is also in good shape. But the firm is performing inadequately in alignment and in developing the right culture, and these problems are lowering its overall level of organization capital readiness.

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The intangible assets described in the Balanced Scorecard's Learning and Growth Perspective are the foundation of every organization's strategy, and the measures in this

perspective are the ultimate lead indicators. Human capital becomes most valuable when it is concentrated in the relatively few strategic job families implementing the internal processes critical to the organization's strategy. Information capital creates the greatest value when it provides the requisite infrastructure and strategic applications that complement the human capital. Organizations introducing a new strategy must create a culture of corresponding values, a cadre of exceptional leaders who can lead the change agenda, and an informed workforce aligned to the strategy, working together, and sharing knowledge to help the strategy succeed.

Some managers shy away from measuring their intangible assets because these measures are usually "softer," or more subjective, than the financial measures they conventionally use to motivate and assess performance. The Balanced Scorecard movement has encouraged organizations to face the measurement chal-lenge. Using the systematic approaches set out in this article, companies can now measure what they want, rather than wanting only what they can currently measure. Even if the measures are imprecise, the simple act of attempting to gauge the capabilities of employees, information systems, and organization capital communicates the importance of these drivers for value creation. In the course of our work, we have seen many companies find new ways to measure—and consequently new ways to enhance the value of—their intangible assets. The measurement and management of these assets played a prominent role in their transformation into successful, strategy-focused organizations.

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Further Reading

Measuring the Strategic Readiness of Intangible Assets is also part of the *Harvard Business Review* OnPoint collection **Focusing Your Organization on Strategy—with the Balanced Scorecard, 2nd Edition**, Product no. 5933, which includes these additional articles:

Having Trouble with Your Strategy? Then Map It
Robert S. Kaplan and David P. Norton
Harvard Business Review
September–October 2000
Product no. 5165

Using the Balanced Scorecard as a Strategic Management System
Robert S. Kaplan and David P. Norton
Harvard Business Review
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Robert S. Kaplan and David P. Norton
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