Creating a knowledge culture

Knowledge is now the lifeblood of all companies. Don't confuse it with information.

Susanne Hauschild, Thomas Licht, and Wolfram Stein

Ask a group of senior executives if they regard knowledge management as very important to the success of a company. Most will enthusiastically say that they do—a response befitting one of the trendiest topics in management circles.

Yet thinking that knowledge management is crucial and knowing what to do about it are very different. A McKinsey survey of 40 companies in Europe, Japan, and the United States showed that many executives think that knowledge management begins and ends with building sophisticated information technology systems.

Some companies go much further: they take the trouble to link all their information together and to build models that increase their profitability by improving processes, products, and customer relations. Such companies understand that true knowledge management requires them to develop ways of making workers aware of those links and goes beyond infrastructure to touch almost every aspect of a business.[1]

Because knowledge management is an increasingly essential component of innovation and value creation, we focused on two tasks—product development and order generation and fulfillment—as a way of identifying which companies in our survey were good knowledge managers. These tasks are the major contributors to the value a company generates. By using process performance and financial indicators, we categorized 15 companies as successful and 15 as less successful and then compared the two groups.[2] The successful companies cut throughput time by an average of almost 11 percent from 1995 to 1998, compared with an average of 1.6 percent at the less successful companies. Development time at the successful companies fell by 4.6 percent in the same period, compared with just 0.7 percent at the less successful ones.

We then compared the knowledge-management practices of the more and less successful companies to understand how those practices contribute to corporate success.[3] The survey's findings can be summarized simply: successful companies build a corporate environment that fosters a desire for knowledge among their employees and that ensures its continual application, distribution, and creation.

Creating a desire for knowledge

Less successful companies tend to take a top-down approach: pushing knowledge to where it is needed. Successful companies, by contrast, reward employees for seeking, sharing, and creating knowledge. It requires effort to develop what we call "knowledge pull"—a grassroots desire among employees to tap into their company's intellectual resources. Creating databases or virtual team rooms isn't enough, since many employees resist using knowledge generated by other departments, for example. Worse still, many people believe that the hoarding of knowledge is power, a philosophy that may help individuals but hurts companies.

Partly to overcome barriers of this kind, successful companies tend to establish clear goals that promote knowledge pull by forcing employees to reach beyond themselves (Exhibit 1). Instead of wasting resources by avoiding knowledge that was "not invented here," employees at such companies use all available resources, including the corporate knowledge base, to improve their chances of reaching these goals. Almost all of the successful companies we analyzed set ambitious goals for product development and process innovation, while only 33 percent of the less successful companies did so for product development and only 27 percent for process innovation.

EXHIBIT 1

A lust for knowledge

Percent of participants using specific techniques

▇ Successful companies   ▒ Less successful companies

Set world-class standards for . . .

Product development	Process innovation	Product and process quality
93 / 33	87 / 27	87 / 33

Offer employees incentives for . . .

Product development	Process improvement
73 / 27	60 / 40

Encourage participative decision making in . . .

Process innovation	Product portfolio
60 / 20	60 / 27

Source: 2000 survey of 40 companies in Europe, Japan, and the United States; McKinsey analysis

Other techniques used by successful companies include granting financial and other incentives to reward employees who pull knowledge from internal and external sources and who contribute their own knowledge to the corporate base. More than 70 percent of the successful companies surveyed, for example, had individual incentive systems linked to product development targets, compared with 27 percent of the less successful companies. Tying incentives to goals that employees can influence but not achieve on their own forces them to seek and to offer knowledge more broadly. At one US high-tech firm, for instance, managers give employees cash incentives for filing patent applications, whether or not they are successful, to bring ideas out into the open and to discourage the hoarding of knowledge.

Financial incentives can go a long way toward creating this kind of knowledge pull, but unless they are developed carefully they could encourage the hoarding of knowledge and other counterproductive practices. (Linking an annual bonus solely to a sales rep's volume growth, for instance, could spark unhealthy competition within a company's sales force and, in extreme cases, foment rivalries that might damage overall performance.) Incentive plans can also include coveted office space and other obvious status symbols as well as an opportunity to travel and to receive more challenging assignments.

Incentive systems should promote a broad range of corporate objectives, and successful companies tend to include knowledge management among them. Instead of focusing narrowly on individual performance, such companies ensure that incentives uphold a balanced range of goals that might include financial success outside an employee's immediate unit, for when people benefit from the success of other units in their companies, they are encouraged to move away from the knowledge-is-power mind-set and to begin sharing what they know. Other approaches, such as research

competitions with high-prestige, high-value prizes, are more direct ways to encourage the sharing of knowledge.

Although goals, incentives, and participation all play a significant role in aspects of corporate strategy other than knowledge management, successful companies tend to keep knowledge management in mind when crafting their overall strategies. The knowledge-pull mind-set can be created only if it becomes an integral part of corporate culture—a necessary first step before a company embarks on the more practical tasks of knowledge management.

Bringing knowledge to bear

Besides creating an environment that encourages knowledge pull, successful companies excel in applying, distributing, and creating knowledge—tasks that can't always be neatly separated. A technique that helps distribute knowledge, for example, could also facilitate its application in specific situations. Dividing the range of knowledge-management practices among these three tasks is partly a matter of convenience and partly an attempt to distinguish techniques by the speed with which they can improve corporate performance. The three categories also help to identify areas in which a company's overall knowledge-management effort should be improved.
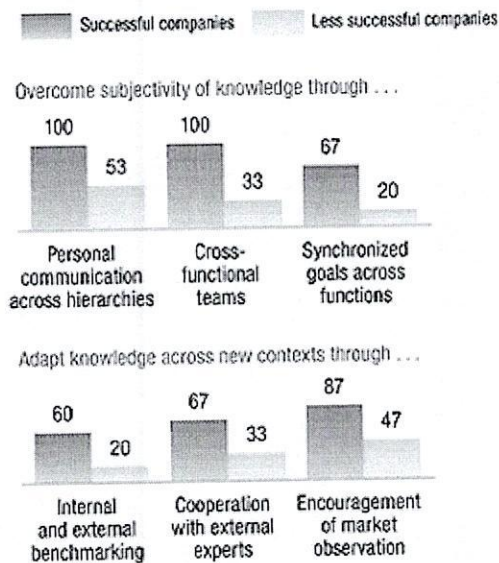
Application

Every company is already sitting on a vast storehouse of knowledge, but much of it is underused. The application of knowledge that is already in hand is the fastest and most direct way of using knowledge to influence a company's bottom line (Exhibit 2). Furthermore, if companies fail to apply knowledge, its successful distribution and cultivation will have little impact.

EXHIBIT 2

Applying knowledge

Percent of participants using specific techniques

■ Successful companies   ▨ Less successful companies

Overcome subjectivity of knowledge through . . .

100 / 53	100 / 33	67 / 20
Personal communication across hierarchies	Cross-functional teams	Synchronized goals across functions

Adapt knowledge across new contexts through . . .

60 / 20	67 / 33	87 / 47
Internal and external benchmarking	Cooperation with external experts	Encouragement of market observation

Source: 2000 survey of 40 companies in Europe, Japan, and the United States; McKinsey analysis

Part of the problem is that "information" is generally a fact, whereas "knowledge," which focuses on linkages or relationships, is subjective. Each employee weighs knowledge against a different set of

experiences and prejudices when deciding its meaning, value, and use. One global electronics company ran into problems of this sort when it tried to apply a technology being exploited at an overseas subsidiary to its traditional product line at home. A manager involved in the project explained that though the overseas team had described and explained the new method, differences in culture and business experience prevented it from being understood and implemented correctly. "We really had to bring the experts together in one team and arrange a personal work meeting, so that they could find a common basis to start from," the manager said. The information was there, but not the knowledge.

One way successful companies overcome this problem is to bring people together across functions and hierarchies. All of the best performers had cross-functional teams and frequent personal contacts among people at different levels, but only 33 percent of the less successful companies formed cross-functional teams and only 53 percent had cultures encouraging informal talks between managers and subordinates at all levels. It may sound obvious, but face-to-face meetings open the door to continued exchanges and can be an important way of creating a common understanding, particularly in multinational corporations whose teams are spread across the globe.

What is more, ideas can often be adapted to different processes or products, and successful companies actively try to apply knowledge to these new contexts. Some of the clearest examples of the way knowledge can be adapted come from companies that have searched far afield for new insights. To develop a more efficient luggage-handling system, for instance, one international airline studied how Indianapolis 500 car crews orchestrated pit stops during races. By applying these observations to a luggage-handling system, the company reduced downtime dramatically. In another case, a California construction company raised its rate of on-time cement deliveries to 95 percent, from 68 percent, by taking route-planning lessons from a local pizza delivery company.
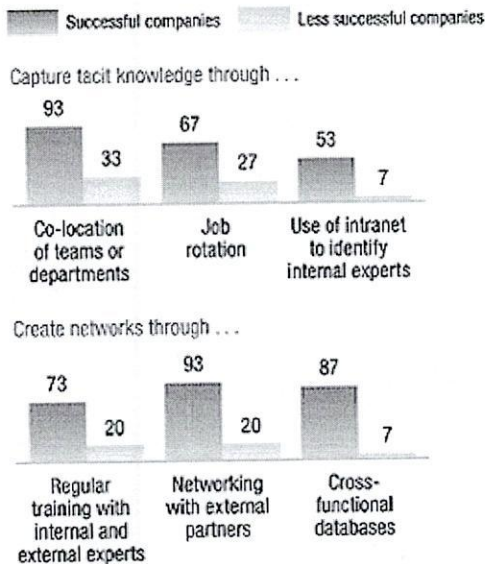
Distribution

Techniques that benefit application often benefit distribution, since the two are closely linked. But application focuses on using knowledge for immediate effect, distribution on moving knowledge to where it can best be applied. Distribution relies heavily on good infrastructure to create electronic meeting places, on databases, and on other channels for spreading knowledge.

However, successful companies—even those with IT systems facilitating smooth and broad exchanges of data—know that the challenge goes beyond building information networks (Exhibit 3). Much of a corporation's most valuable knowledge is tacit—embedded in the minds of employees. Tacit knowledge is difficult to manage, but successful companies have figured out ways to manage it. One global capital-goods company assigned product developers to the shop floor to supervise the production of the modules they had designed. This program opened up lines of communication between assembly-line employees and developers, thus giving the developers better insight into production problems, establishing continuing relations between the two groups, and encouraging the exchange of tacit knowledge between them. Within five years, the program, together with other measures, had cut production costs by 15 percent and throughput time by 80 percent.

EXHIBIT 3

Distributing knowledge

Percent of participants using specific techniques

■ Successful companies ▨ Less successful companies

Capture tacit knowledge through . . .

	Successful	Less successful
Co-location of teams or departments	93	33
Job rotation	67	27
Use of intranet to identify internal experts	53	7

Create networks through . . .

	Successful	Less successful
Regular training with internal and external experts	73	20
Networking with external partners	93	20
Cross-functional databases	87	7

Source: 2000 survey of 40 companies in Europe, Japan, and the United States; McKinsey analysis

Our survey showed that 67 percent of the successful companies used product development teams whose members rotated jobs, as compared with 27 percent of the less successful companies. Since personal meetings seem to be the best way of sharing tacit knowledge, 93 percent of the successful companies locate development teams in the same facilities used by groups with which they work closely, such as supplier teams. Only 33 percent of the less successful companies take this approach.

Despite the general agreement on the benefits of IT infrastructure, less successful companies were far behind their successful counterparts in creating data networks accessible across functions. Only 7 percent of the less successful companies had created regularly updated procurement databases that could be read by product developers, for example, compared with 87 percent of the successful companies. In addition, there were sharp differences in the ways companies encouraged personal networking. The survey also revealed wide gaps in the use of training by internal and external experts (73 percent for successful companies versus 20 percent for less successful ones) and in creating strong networks with external partners (93 percent versus 20 percent). Both are effective ways of distributing internally and externally generated knowledge throughout a company.
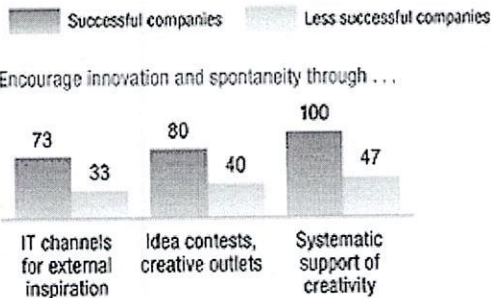
Creation

Of all the tasks involved in managing knowledge, its creation is the most slippery, because creativity is cultivated rather than ordained. To remain vital, companies need new knowledge: ways of making paperwork run more smoothly, say, or developing new products or services. New knowledge, moreover, is a necessary raw material for innovation, another strategic goal that partly overlaps with knowledge management. As Georg von Krogh has observed, "Knowledge creation is the key source of innovation in any company."[4] Innovation and the creation of knowledge—both closely tied to new products and services—can often be sparked by similar techniques (Exhibit 4).

EXHIBIT 4

Creating knowledge

Percent of participants using specific techniques

■ Successful companies   ▨ Less successful companies

Encourage innovation and spontaneity through . . .

73 | 33 | 80 | 40 | 100 | 47

IT channels for external inspiration | Idea contests, creative outlets | Systematic support of creativity

Source: 2000 survey of 40 companies in Europe, Japan, and the United States; McKinsey analysis

Our survey showed that successful companies often tried to foster creativity by making the jobs of employees more interesting—for instance, by allowing employees to participate in projects not directly linked to their usual work. Eighty percent of the successful companies, as compared with only 40 percent of the less successful ones, had programs to encourage creativity, such as idea contests and opportunities to work on diverse projects. Means of access (such as fast Internet connections) to a wide range of external stimuli were available at 73 percent of the successful companies but at only 33 percent of the less successful ones.

Sometimes even bald-faced gimmicks work. One global electronics company developed a so-called virtual Hollywood and asked "directors" (employees) to present "scripts" (improvement ideas) to "investors" (general managers) who would choose the ones to "produce" (implement). The project promoted out-of-the-box thinking and in the first year generated submissions from 200 teams addressing process improvement and product development.

Successful companies understand that knowledge management and information technology are not synonymous. These companies' knowledge- management programs, far from being special, one-off projects, are long-term efforts that involve all aspects of the business and dovetail with other strategic decisions.

Among the techniques we examined, many of those that distinguish successful companies from their less successful counterparts could be described as attempts to do things faster, cheaper, and better. In today's changing economy, the key to faster, cheaper, and better is to bring the full force of a company's knowledge to bear on the effort. Knowledge—not land, labor, and capital—is now the lifeblood of a corporation.

About the Authors

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Notes

[1] Knowledge management is the focus of a large and expanding body of literature. The books that helped us analyze the findings of our survey included Kazuo Ichijo, Ikujiro Nonaka, and Georg von Krogh, *Enabling Knowledge Creation: How to Unlock the Mystery of Tacit Knowledge and Release*

the *Power of Innovation*, New York: Oxford University Press, 2000; and Thomas H. Davenport and Laurence Prusak, *Working Knowledge: How Organizations Manage What They Know,* Boston, Massachusetts: Harvard Business School Press, 1998.

[2] Ten moderately successful companies were intentionally left out to get a significant differentiation.

[3] The companies we examined covered a wide spectrum of industries: automotive, capital goods, and high technology. We also looked at a handful of companies, from other industries, that were specifically chosen because of their reputation for good knowledge management. Successful techniques, we found, worked across industry categories.

[4] Georg von Krogh, "Care in knowledge creation," *California Management Review*, spring 1998, Volume 40, Number 3, pp. 133–53.

Source: McKinsey