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Competitive advantage from **better interactions**

Tacit interactions are becoming central to economic activity. Making those who undertake them more effective isn't like tweaking a production line.

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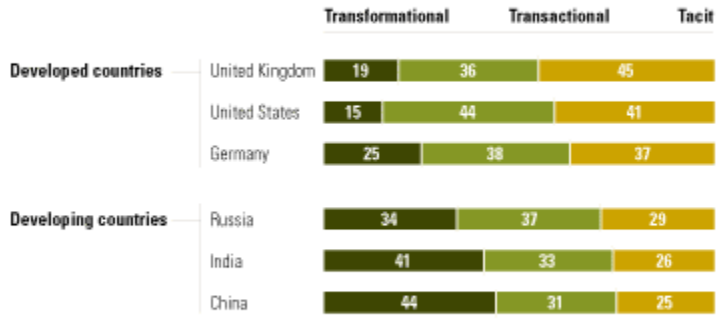
For many employees today, collaborative, complex problem solving is the essence of their work. These "tacit" activities—involving the exchange of information, the making of judgments, and a need to draw on multifaceted forms of knowledge in exchanges with coworkers, customers, and suppliers—are increasingly a part of the standard model for companies in the developed world. Many employees engage in activities of this kind to some extent; production workers at Toyota Motor, for instance, collaborate continually with engineers and managers to find new ways of reducing costs and solving quality problems. But employees such as managers and salespeople, whose jobs consist primarily of such activities, now make up 25 to 50 percent of the workforce. They are typically a company's most highly paid workers and make huge contributions to its competitive prospects in a fast-changing global business landscape.[1] During the next decade, companies that make these activities—and the employees most involved in them—more productive will not only raise the top and bottom lines but also build talent-based competitive advantages that rivals will find hard to match.

But building these advantages won't be easy: companies must alter the way they craft strategies, design organizations, manage talent, and leverage technology. The best way for executives to begin is to understand the nature of what economists call tacit interactions—the searching, coordinating, and monitoring activities required to exchange goods, services, and information. During the past half century, the faster pace of specialization, globalization, and technical change has profoundly altered companies, their customers, the supply chains around them, and, consequently, the nature of work within them and at their borders. The result is a dramatic increase in the volume and value of interactions.[2] In most developed economies today, four out of five nonagricultural jobs involve them; only one in five involves extracting raw materials or working on a production line. A century ago, the proportions were reversed. (This shift is under way in the developing world as well. For a comparison of selected developed and developing countries, see Exhibit 1.) The number of jobs chiefly involving the most complex interactions—tacit ones—is growing faster than any other type of job in developed nations. Examples include running supply chains, managing the way customers buy and experience products and services, reviving brands, and negotiating acquisitions.

EXHIBIT 1

More jobs require tacit interactions

Composition of economies, 2004, % of workforce by job type[1]



[1]Categorized by predominant job activity: tacit = complex interactions; transactional = routine interactions; transformational = extraction or conversion of raw materials; 800 occupations studied.

Source: Bureau of Labor Statistics; Global Insights; International Labour Organization; United Nations; World Bank; McKinsey analysis

Companies boost their productivity by improving the *efficiency* of transformational activities (such as the extraction of raw materials) or of transactions (for instance, the work of the clerks in the accounts-payable

function). But the productivity of marketing managers and lawyers can't be raised by standardizing their work or replacing them with machines. (Nor can companies boost the tacit component of other jobs in this way—automation does nothing, for example, to help the production workers on a Toyota assembly line collaborate with others.) The old strategies for efficiency improvements don't apply to employees whose jobs mostly involve tacit interactions; instead, a company must boost these workers' productivity by making them more *effective* at what they do. As a result, the company will build talent-based competitive advantages that are difficult for rivals to duplicate.

The boundaries between these three categories of business activities—transformational, transactional, and tacit—are not static; they change constantly as a result of innovations in the way functions and tasks are organized and the impact of technology. Although all three are important in today's developed economies, it will be necessary to make a real effort to boost the productivity of tacit interactions. Even as they become more and more dominant, the managerial science for boosting their effectiveness remains less well understood than are ways of increasing the efficiency of transformational and transactional activities. But that must now change. Executives will have to learn how to compete, innovate, and manage in an era when tacit interactions dominate and drive performance. Early innovators are emerging, and sectors where tacit interactions have been dominant for some time offer useful lessons.

Tacit productivity

In work of any kind, variability is a sure sign that things could be better. Manufacturers know how to reduce variability in production work and have therefore greatly raised their operating productivity over the past two decades. Aided by technology, companies have adroitly smoothed variance in call centers and IT help desk operations by standardizing interactions—writing scripts for call-center operators, for instance—thus making tasks into routines. But look at work involving tacit interactions in almost any company today; performance always fluctuates wildly.

Variability often characterizes the performance of, for instance, the sales force. In most high-tech companies, enterprise salespeople manage a broad number of interactions and must constantly solve problems to get the job done. In addition to interacting with existing and potential customers, salespeople work with marketing staffers, draw on the services of technical-support and customer service specialists, and sort out shipping problems with supply chain supervisors. Often, the variance between the highest- and lowest-performing sales teams is wide. Effective performance isn't simply about generating leads and closing deals; it's also about how well a salesperson manages the work. In fact, interactions drive customer satisfaction and loyalty—and, ultimately, success in sales.

Companies can analyze work done in processes and root out wasteful activities so that employees do more in less time. But companies don't improve tacit interactions by forcing salespeople (or other tacit workers) to follow a uniform procedure. On the contrary, that approach can undermine their effectiveness—salespeople, for instance, generate more sales and profits when they have better information at their fingertips; can engage in value-adding interactions with customers; are better networked with customers, suppliers, and organizational colleagues; collaborate to develop the better ideas that emerge from iterative teamwork; and learn and grow in deal after deal.

That is also true for other workers engaged primarily in tacit interactions, including software engineers at Google, Microsoft, and Yahoo!; Cisco Systems' manufacturing managers, who direct the connections among the company's salespeople, suppliers, and contract manufacturers; fund managers at Blackstone and Fidelity Investments; doctors and nurses at Kaiser Permanente; movie producers; merger integration managers; and insurance agents. In insurance companies, tacit interactions now constitute the primary activities of 63 percent of the workforce. The proportion is 60 percent in securities companies, 70 percent in health care, and 45 percent in retailing. Even in utilities, 30 percent of the employees undertake tacit work.

Executives recognize that they must manage these workers differently. Managing for effectiveness in tacit interactions is about fostering change, learning, collaboration, shared values, and innovation. Workers engage in a larger number of higher-quality tacit interactions when organizational barriers (such as hierarchies and silos) don't get in the way, when people trust each other and have the confidence to organize themselves, and when they have the tools to make better decisions and communicate quickly and easily.

These aren't new management ideas; indeed, companies have always had workers involved in tacit interactions. But the ever-increasing growth in their number and value is driving companies to adopt such ideas more quickly and deeply.

In certain highly tacit sectors, companies **in the top quartile** understand how to

The competitive imperative

The need to move forward is both substantial and urgent, as our study of more than 8,000 US companies with a preponderance of tacit interactions suggests.

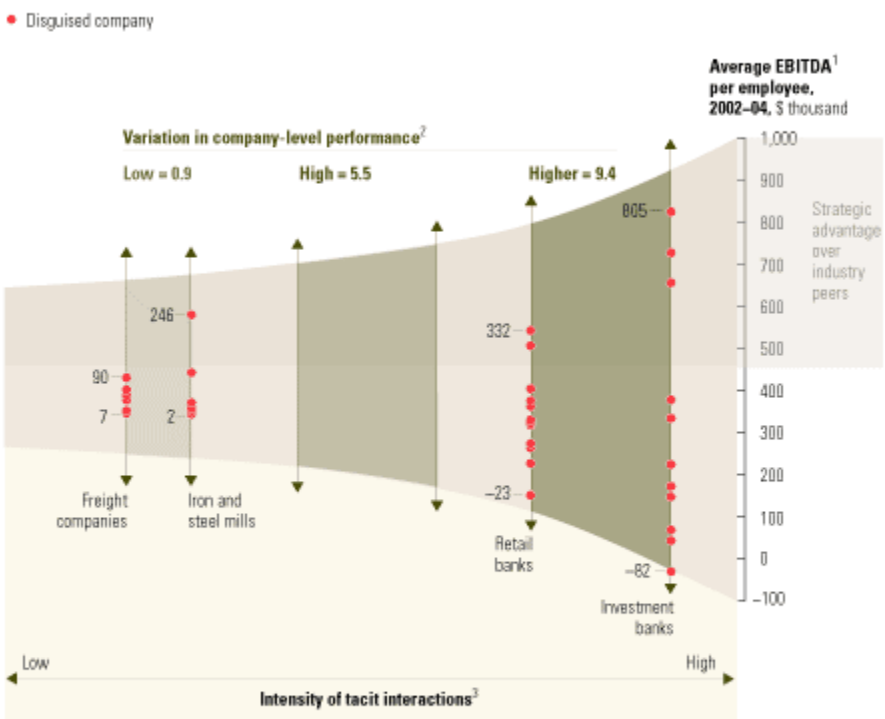
make their tacit employees more effective

We found that the performance of companies in relatively tacit-interactive sectors varied far more than that of other companies. The level of performance variability (defined as the standard deviation of performance divided by the mean level of performance) was 0.9 for companies in sectors with a low level of tacit interactions. Among companies in sectors with a middling number of tacit interactions it was 5.5, rising to 9.4 in sectors with a high level of interactions.

This widening variability as the extent of tacit interaction increases reflects two things. First, companies have considerable competitive headroom for improving the productivity of those who undertake tacit interactions and less headroom for improving the productivity of other workers. Second, in some highly tacit sectors, companies in the top quartile understand how to make tacit workers more effective and now have a significant performance lead on rivals that still manage for efficiency (Exhibit 2).

EXHIBIT 2

Performance varies for the highly tacit



[1] EBITDA = earnings before interest, taxes, depreciation, and amortization.
[2] Defined as ratio of standard deviation to mean for EBITDA per employee within each industry.
[3] Level of intensity defined as: low—below 14% interactions workers; high—14% to 62% interactions workers; higher—above 62% interactions workers.

Source: Compustat; McKinsey analysis

The top performers have also figured out that by managing their tacit interactions more effectively, they can create competitive advantages that rivals in their sectors find hard to match—in particular, because tacit interactions are hard to specify in advance, or "prewire." Such interactions involve talented people armed with experience, judgment, creativity, facts, and the ability to connect the dots in problem solving, all of which make their work more effective and more likely to achieve desired outcomes. The actions and innovations of these people are usually specific to a particular business situation. Tacit capabilities do not resemble IT systems or reengineered processes that can be copied easily. Their power lies in the collective company-specific knowledge that emerges over time.

New management science

Efforts to make tacit interactions (and hence the talent that undertakes them) more effective require changes in every facet of a business, from hatching strategies to organization to managing talent and leveraging IT. Each of these is essentially a piece in a set of interconnected changes. The focus of managerial action is to establish conditions that allow tacit interactions to emerge and flourish rather than trying to engineer connections from the top down. Management's job is to foster connectivity, remove barriers,

facilitate learning, and provide new tools that help workers collaborate and learn within an environment that demands more and more complex and often decentralized decision making.

Strategy and innovation

Wherever groups of people collaborate to solve problems—in the field, the supply chain, operations, marketing—innovations are more likely to occur at the front lines of interaction than at the corporate center. Furthermore, innovations in tacit interaction are by nature usually the result of decentralized experimentation, trials, and learning.

A company can boost the number and quality of the interactions likely to promote innovation if it creates the conditions that allow them to emerge. Google, for instance, encourages its software engineers to devote 20 percent of their time to pursuing their own ideas for new and innovative products and services. Google Earth, a next-generation mapping application, was one such product. New ideas are exposed to the market through the Google Labs Web site and tested both inside and outside the company, which assesses the success of initiatives by gauging how much attention and resources they attract. Pilots that catch on are adopted and those that don't are shut down, so the allocation of resources is more an emergent activity (which isn't centrally planned or predetermined) than a managed one.

To boost the effectiveness of tacit interactions, companies must also upend their strategic decision-making processes. Managers today commonly believe that more and better ideas will follow when communication and interaction increase inside a company and beyond—with its partners, suppliers, customers, and communities of interest—and become "multi-directional." But few companies bake this understanding into the development of strategy by altering traditional top-down processes to include mechanisms and approaches that allow a portfolio of initiatives to emerge from internal and external interactions.[3] Not that management should abdicate its role in setting thematic strategic goals and the company's direction—quite the opposite, since these become crucial to providing a "magnetic north" as innovations occur at the interaction interfaces.

Finally, managers should construct incentives that stimulate collaboration by encouraging innovators to share their inventions and insights within the organization. A trader who works for one of a company's funds isn't likely to share ideas that would help the people who run the rest of them if each fund's employees are rewarded by its performance relative to that of the others. Rewards for collaborating and for sharing knowledge, by contrast, help the organization as a whole rise to the level of its best innovations. Rewards could also reflect an innovator's ability to attract resources and users, such as customers, or reflect the breadth and depth of their personal and professional networks. Bottom-up innovators usually don't have the structural authority to order people to join a team; instead, the innovator succeeds by influencing them and leveraging a personal network—collaborating, sharing, inspiring, and leading.

Workers will exchange information if there is a fair return on sharing it and a clear value for seeking it. See "Making a market in knowledge."

Organization

To encourage more interaction, innovation, and collaboration, companies must become more porous by continuing to break down barriers to interactions—barriers such as hierarchies and organizational silos. While the command and control exerted by hierarchies help a company to manage its routine processes and tasks efficiently, they also short-circuit tacit interactions: information moves up and down a hierarchy at defined management levels. By contrast, to stimulate interactions, organizations want whatever information is relevant for solving a particular problem to be shared among teams laterally, in real time, irrespective of reporting channels and silos. What's more, organizational structures presuppose structures for getting work done, but tacit work is improvisational and difficult to define in advance, for it follows the problem being solved and the nature of the opportunity at hand.

Tacit interactions reduce the importance of structure and elevate the importance of people and collaboration. Some of these changes are already under way. In many companies, people now come together in project teams, address an issue, and then disassemble to start the process again by joining other informal teams. In fact, this approach is common in certain professional-services and engineering firms, so their organizational charts rarely reflect what is really happening within them. Hierarchy-busting has been a theme in the business press for years, but the pace of change has been slow and its effectiveness questionable.

Companies will face a real challenge when they need to balance old- and new-school management sciences, particularly if, as is often the case, their tacit interactions are evenly balanced and intermingled with the transactional and transformational activities they undertake. They will still need to manage workers who primarily undertake transformational (production) or transactional tasks—that is, to manage these workers for efficiency—while simultaneously enabling tacit workers to interact in more fluid structures. The necessary

balance will require trade-offs between performance norms, on the one hand, and cooperative norms, on the other.

People, knowledge, values, and learning

Culture, metrics, and incentives will need to change as well. The kind of network building that tacit workers must do to boost their effectiveness thrives in a culture built on trust. It will thrive, too, in companies that reward collaboration, dispense group-based incentives, and measure tacit work by its impact and the relationships that those who engage in it forge. Output measures alone are far less effective in the messy, "inefficient" world of tacit innovation.

Few of these "soft" managerial mechanisms have legs today. How do you measure the contribution of an employee who is 1 of 20 people on a team? What was that employee's contribution to the outcome? Is it even clear whether that contribution was positive or negative? How do team managers measure the work of people who serve on more than one team? Moreover, as decision making becomes more decentralized and organizations grow in size, it will become critical to articulate clearly the corporate and professional values that will provide a "compass" and shared sense of purpose and direction to tacit workers. Evaluation processes will need to evolve to include more peer- and project-based reviews, as opposed to the lines of traditional reporting, and must also assess softer aspects of work such as values, nonhierarchical leadership abilities, and mentoring skills.

Wherever tacit interactions take place, so do learning and the creation of new knowledge. The people involved become sources of and contributors to institutional learning. Companies can't manage this kind of knowledge from the top down. Instead, managers must promote its capture and sharing by developing the right infrastructure and incentives, as well as a "market in knowledge." Recently, blogs (online diaries), wikis (Web sites where users can contribute and edit content), and the like have created new, decentralized, and dynamic approaches to the capture and dissemination of the knowledge critical for tacit interactions.

The focus of learning changes too. Organizations can use programs delivered in classrooms or sites to train production workers to operate lathes or call-center personnel to handle incoming calls. But learning in the tacit world is based much more on experience and apprenticeship and on the ways in which both are scaled across the networks of people who participate in interactions: inexperienced managers learn from experienced ones. Also, managers continually change their roles—they must constantly study examples and analogies. Companies may even find it worthwhile to expose tacit workers to totally new experiences to round out their capabilities.

Finally, even hiring profiles will change—indeed, in some tacit-intensive industries, such as software and hospitals, they already have. Managers in these organizations have redefined their job descriptions and criteria in order to hire people who can solve problems, work under ambiguous reporting relationships, and network. But the pool of experienced tacit workers is finite, and demand is increasing; companies already feel the pinch. In reaction, they may cast a wider global net for tacit talent. One thing is clear: for tacit interactions, selecting and motivating talent are core processes that drive effective outcomes.

Technology

Clearly, technology will play a critical role in fostering tacit interactions and making them more effective and valuable. Indeed, technology has in large part been responsible for the acceleration of tacit interactions over the past 20 years. Two decades ago, international calls were costly and e-mail was a novelty; today, global voice connections are cheap, people around the world send about 30 billion e-mails a day, and entirely new technologies—broadband Internet, search capabilities such as Google, mobile phones, personal digital assistants such as BlackBerries and Treos, and video-conferencing—make it possible for tacit interactions to happen more easily.

Companies will increasingly focus on these kinds of technologies to further improve tacit work, thereby raising a host of new IT-management issues. The bulk of corporate investment in technology has been devoted to improving transactional and even transformational activities. New investments in PDAs, collaborative software, wiki tools, and other technologies that improve tacit interactions will be far less costly than, say, enterprise transactional systems. But they do require new IT architectures and skills. Some companies are already getting it right. Tacit-dominated sectors in the top quartile of labor productivity growth have armed their employees with five times more IT stock than sectors in the bottom quartile. Further, they are increasing their IT base per employee 40 percent more rapidly (on an annual basis).

The good news is that, with few exceptions, most enterprises now have an underlying communications infrastructure, which is vital for extending the reach of interactions. This infrastructure must go on evolving to provide a foundation for ever-richer media. Companies will increasingly need to deploy technology that makes shared data, information, and expertise available in real time; to offer decision support tools that help workers involved in tacit interactions create insights from data and analyses and that enhance the context and information that interactions require; to improve the ability of employees, customers, and suppliers to

interact; and to offer effective collaboration tools for multiparty work flows.

Many of the technologies and tools that tacit workers are going to use will promote the collaborative and dynamic pursuit, capture, and sharing of knowledge and will allow for more video, audio, and graphics to facilitate remote interactions and broader access to scarce expertise. Tools based on search capacities, collaborative approaches to capturing and organizing knowledge, and new digital-learning channels are likely to emerge.

Further, these new tools and approaches have broader implications for the way companies manage their IT infrastructures and operations. The new world won't use either the practices and organizing principles that production-support and transaction systems require or the big, rigid business applications designed to automate transactions and make them efficient. Not that enterprise applications won't be required; rather, they must evolve to make tacit interactions more effective. Executives will have to focus on deploying work-group-centric tools that are easy to set up and tear down as projects and strategic experiments come and go. They will also have to find ways of connecting these tools easily to preexisting interaction platforms. In addition, the issue of information overload must be addressed: already, Microsoft and others are trying to help tacit workers filter data from interactions more successfully and thereby reduce the burden of the excess information created when companies manage interactions (and their rate of increase) improperly.

Managing in an environment where most workers mainly participate in interactions will upend the greater part of what senior management has learned over the past half century. But the opportunity to create new forms of competitive advantage is clear for companies that take a new approach. The time to start is now.

About the Authors

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Notes

[1]Lowell L. Bryan and Claudia Joyce, "The 21st-century organization," *The McKinsey Quarterly*, 2005 Number 3, pp. 24–33.

[2]Patrick Butler, Ted W. Hall, Lenny Mendonca, Alistair M. Hanna, Byron Auguste, James M. Manyika, and Anupam Sahay, "A revolution in interactions," *The McKinsey Quarterly*, 1997 Number 1, pp. 4–23; and Bradford C. Johnson, James M. Manyika, and Lareina A. Yee, "The next revolution in interactions," *The McKinsey Quarterly*, 2005 Number 4, pp. 20–33.

[3]Lowell L. Bryan and Ron Hulme, "Managing for improved corporate performance," *The McKinsey Quarterly*, 2003 Number 3, pp. 94–105.

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