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# Using knowledge brokering to improve business processes

**New applications of open-innovation principles allow progressive companies to enhance not only their products but also their core internal business processes.**

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**Over the past decade,** open innovation has begun transforming the way global companies develop new products, as executives increasingly recognize the benefits of exposing internal R&D to outside ideas. Now, some organizations are going even further by applying open-source thinking to improve a range of core business processes. Aided by rapidly changing technology, these leaders are looking outside the gates to develop faster and better solutions to a variety of strategic, operational, and organizational problems.

Such companies have resorted to a practice called knowledge brokering, a systematic approach to seeking external ideas from people in a variety of industries, disciplines, and contexts and then of combining the resulting lessons in new ways. Most of these people are happy to share their experiences free of charge. Like best-practice benchmarking, knowledge brokering aims to find—not invent—world-class answers to problems. But it goes beyond benchmarking and other traditional approaches of where and how companies search for information and how they use it. A closer look at the way forward-looking organizations use knowledge brokering to improve their business processes offers practical lessons for companies of all stripes and suggests how senior managers must adapt to thrive in a digital era characterized by increased collaboration.

### **Open up**

Open innovation is changing the face of product development as more and more organizations find clever ways to use Web-based technology to pair internal “seekers” with external “solvers.”<sup>1</sup> We believe the same holds true for process innovation. Nearly any activity a company undertakes—from hiring employees to running global supply chains to setting strategy—involves processes. Since business processes are generally more similar than different across companies, there should be rich opportunities for collaboration. Moreover, the rise of Web-based social-networking sites means that the collective know-how of millions of managers is more accessible than ever. Couldn’t executives tap into this wealth of experience for insights, just as they might use a search engine for anything else?

Knowledge brokering offers companies an analogous capability. Pioneered by product designers in companies such as the design consultancy IDEO, it is grounded in the adage that the best source of new ideas is old ideas.<sup>2</sup> Creative product designers can take a subassembly (say, a hinge or a motor) from an existing product and apply it in a completely new context. We’ve observed companies using processes in much the same way. They do so by forming project teams that initiate conversations with knowledge brokers—people willing to discuss their experiences to serve the teams’ needs—and then combine the external ideas with internal ones to improve these companies’ business processes.

<sup>1</sup>See Larry Huston and Nabil Sakkab, “Connect and develop: Inside Procter & Gamble’s new model for innovation,” *Harvard Business Review*, 2006, Volume 84, Number 3, pp. 58–66.

<sup>2</sup>The term “knowledge brokering” was coined by Andy Hargadon and Robert Sutton to describe companies, spanning multiple markets and technology domains, that move innovations around from business to business. We recommend these authors’ seminal article on the topic: “Building an innovation factory,” *Harvard Business Review*, Volume 78, Number 3, pp. 157–66.

Over the past four years, we've studied the use of knowledge brokering among more than 50 teams at ten multinational companies in industries such as banking, consumer goods, high-tech products, shipping, engineering, retailing, and utilities. Each team used this approach to devise an innovative solution to a project assigned by senior management in areas including strategic planning, supply chains, sales and marketing, corporate social responsibility, and HR. When surveyed afterward, team members unanimously agreed that knowledge brokering increased the effectiveness of their projects—and two-thirds said it did so “greatly.” On average, it helped the teams design new processes twice as quickly as they would have expected to do by using conventional techniques.

### **Using knowledge brokering**

While all the teams we studied faced unique business problems, each followed a similar path to address them. A closer look at these organizations' systematic approaches to knowledge brokering suggests ways for other companies to get more from open innovation.

#### **1. Analyze the 'problem space'**

The first step is to approach the business problem at a level that encourages effective brokering. If the problem is too high level or complex, few potential solvers will have the experience to address it. By considering a problem's constituent parts, companies increase both the pool of solvers and the odds of good results—much in the way that carefully selecting the terms of a search engine query increases its usefulness.

For example, a large, fast-moving consumer goods company accustomed to operating in grocery stores wanted to increase its competitiveness in specialist channels. By looking more closely at the problem—how to improve sales volumes and profitability in the new channels—team members identified four discrete subparts, each suggesting a different challenge requiring specific expertise (exhibit). Team members knew, for instance, that the company would need to learn how to launch low-volume, superpremium brands. The low volumes meant that the company's senior executives wouldn't approve large advertising budgets. Ultimately, the team sought lessons from managers in companies—including small consumer goods organizations, such as the UK-based smoothie maker innocent drinks, and global giants, like P&G—that excel at launching new brands through viral marketing.

Likewise, the team recognized that staff recommendations in stores can make or break brands in specialty channels. It therefore wanted to encourage salespeople to recommend—and even become passionate about—the company's new products. This goal led the team to talk with managers at Nike about a program that offers aerobics instructors discounts on purchases of its sports clothing.

Exhibit

## Breaking it down

High-level problem for a large, fast-moving consumer goods company: Increase sales volumes and profitability in specialist channels (disguised example)

### Four constituent parts and their knowledge brokers<sup>1</sup>

<p><b>1</b> Learn how to launch low-volume, superpremium brands and support through viral marketing.</p> <p>Knowledge brokers: innocent drinks, P&amp;G, Puma</p>	<p><b>2</b> Lower the cost to serve specialist channels by introducing processes that reduce operational complexity.</p> <p>Knowledge brokers: HP, Whirlpool</p>
<p><b>3</b> Create regional R&amp;D processes to respond to market 'pull' for increasingly sophisticated products.</p> <p>Knowledge broker: McDonald's</p>	<p><b>4</b> Improve ability to generate recommendations within specialist channels.</p> <p>Knowledge brokers: Johnson &amp; Johnson, Nike, Novartis</p>

<sup>1</sup>Knowledge brokers are people willing to share their own experiences to serve a teams' needs.

While there are no ironclad rules for breaking down business problems, the trick is finding the leverage points where improvements would help meet the overarching goal. A European high-tech manufacturer with too many finished goods in inventory, for instance, found that it had to address three subproblems: forecasting the amount of finished goods sold in each country, distributing and storing them, and disposing of excess goods.

Finally, teams should carefully remove industry, product, or company contexts from their problem statements to prevent managers from looking for solutions solely in their own industries. People and information tend to flow freely within any given sector, thus quickly diffusing new process ideas, so it is necessary to go outside for breakthroughs.

### 2. Evaluate brokering communities and choose experts

With context-free problems in mind, teams can begin looking for knowledge brokers. The key is casting an appropriately wide net; we recommend evaluating at least four to five industries. Teams should pay particular attention to companies or sectors that have experienced the problem recently or where all industry players must excel at addressing it.

A commercial bank in the United Kingdom, for instance, faced frequent complaints from customers about long lines in its local branches. After formulating a neutral problem statement, the bank's team identified three promising sources of brokers: amusement parks, where customers spend considerable time in lines; supermarkets, where razor-thin

margins force companies to devote a lot of energy to the problem; and department stores, where seasonal fluctuations in customer levels are common.

This approach led the team to a range of brokers it would never have considered otherwise, including a traffic-circulation-planning expert, a Disney theme park manager, and a manager from the UK grocer Tesco. The insights gained from these brokers proved invaluable. The bank, for example, ultimately designed a successful ticketing option inspired by Disney's Fastpass, which gives patrons at the company's amusement park the option of avoiding a long wait for a ride by scheduling one during a specific window of time later on. Disney managers also showed the bank that customers become irritated when they can see the "full horror" of a long line. As a result, the bank redesigned its teller windows in a circle, so that customers are less able to see the whole length of a line or to become annoyed if some of the teller stations are unstaffed. From Tesco, the bank learned about "dynamic queuing," which led to the creation of a customized system for using back-office staffers to substitute for tellers when the foot traffic in a branch exceeds certain thresholds.

As the bank's example suggests, the best information often comes from a wide range of different sources—and not necessarily from world-class companies (which tend to dominate traditional benchmarking) or even experts. Any manager or other experienced person can be a good source of information if he or she has more experience than the seeker at the process in question. Moreover, many useful brokers come from outside conventional business environments. Professionals such as doctors, lawyers, dentists, and administrators of nongovernmental organizations (NGOs) can make for highly effective brokers (see sidebar, "Finding knowledge brokers").

Once the team has created a list of potential sources, its members should activate their personal networks to locate people who have relevant experience and are willing to share it. We find that teams frequently underestimate the quality and quantity of the brokers they can tap for ideas, as well as the willingness of people to share information.

### 3. Engage brokers to extract ideas

The insights good knowledge brokers bring to a problem are conveyed in the personal stories and anecdotes they tell. These stories contain tacit information that is gleaned, often semiconsciously, from experience and is difficult to document and transfer by formal means. Yet tacit knowledge is particularly powerful because it's rich in the practical dos and don'ts that can help a team implement process changes.

In our experience, the most effective way to draw out this kind of information is a structured approach that follows a few simple guidelines. First, the whole project team should listen to a knowledge broker because the probability of a breakthrough increases

## Finding knowledge brokers

While third parties such as business schools, consultancies, and other organizations with extensive networks can play a role in helping companies find knowledge brokers, many good sources are available through a team's existing professional networks. Most experts, we find, happily share their experiences free of charge, since they too benefit from the interactions. Further, we find that most managers simply enjoy the experience of sharing their stories and helping to develop new approaches.

- Suppliers, an ideal source of brokering opportunities, are typically delighted to help. When a large manufacturer of office equipment, for example, was redesigning a process to develop stronger relationships with its indirect channel partners, it found that its IT enterprise systems partner was eager to share information.

Potential suppliers are not only highly motivated to share ideas on process improvements but can also be a great source of more radical ideas. When a UK subsidiary of a major European utility was reinforcing its in-house shared-services strategy, for example, it gathered useful perspectives from companies interested in gaining outsourcing business.

- Customers are often prepared to share business process tips because they benefit as well. Think of the way Japanese automotive companies, for example, have worked with suppliers over the years to form robust knowledge-sharing networks.<sup>1</sup>

- Functional business networks are a great source of brokers for companies redesigning functional processes (for instance, in supply chains or HR). Increasingly, managers in these functions are already members of online communities, for instance HR.com.
- Professionals such as lawyers, doctors, and architects make excellent brokers, although they typically expect compensation for their time.

Brokering based on shared values is possible in environments where managers feel they are supporting moral causes. We've observed many managers willing to impart experiences in areas such as diversity in the workforce and environmentally responsible procurement.

Brokering swaps, in which companies formally exchange information about areas of expertise, are increasingly attractive. These could be modeled on arrangements like the one that a leading global high-tech company made, in the mid-1990s, with a diversified global agriculture player. Under the deal, the former traded its expertise in supply chain management for the latter's superior knowledge of managing risk in procuring commodities.

<sup>1</sup> See Jeffrey H. Dyer and Nile W. Hatch, "Using supplier networks to learn faster," *MIT Sloan Management Review*, 2004, Volume 45, Number 3, pp. 57–63.

with the number of listeners, each with unique experiences and viewpoints. Hearing anecdotes secondhand is inevitably less effective in transferring tacit knowledge.

The best medium we've found for knowledge brokering is a one-hour telephone call. Visits in person and by video yield less useful knowledge because they subtly distract team members from the experience of listening while subconsciously encouraging them to form irrelevant value judgments based on the speaker's appearance, expressions, and so on. A knowledge broker should start the conversation by describing experiences related to the process issue, simply by telling the story. Just 10 to 15 minutes is plenty of time to acclimatize the team.

Next, the team members ask questions for the remaining 45 minutes or so, probing areas of interest, asking follow-up questions, and pursuing the threads of the conversation wherever intuition leads. Such experiences won't all be equally rewarding, of course, but enough of them will be useful to provide valuable insights. It's a bit like mining for ore. Sometimes the team finds nothing, sometimes nuggets of information, sometimes the mother lode.

We find that teams frequently experience "aha" moments when brokers challenge them to rethink familiar problems in new contexts. A team from a private bank, for example, wanted to steer its high-net-worth clients away from customized investments and toward portfolio-management products offering both higher returns for customers and higher profits for the bank. One of the team's brokers was a physician who described his bedside manner, explaining that when hospital patients refuse to take their medication he overcomes the problem by engaging directly with the family. This was a breakthrough for the team, which later successfully applied the idea in its own context by developing ways to include the broader families of the bank's clients in key financial decisions.

#### 4. Incorporate the new ideas into a change plan

The final step is for the team to incorporate the ideas into an implementation plan for a new process, which doesn't have to be flawless—just significantly better than the existing one. As a rule of thumb, three or four innovative design elements are enough to create a "wow factor" with senior management. The team should think of each element as a limited release that creates momentum while reducing execution anxiety.

A European power utility's UK subsidiary engaged knowledge brokers in a procurement initiative to help it ensure that its suppliers behaved in a socially responsible manner. The project team created a host of new processes and procedures, both for suppliers and the utility's own purchasers. To gain buy-in, the team implemented these ideas gradually over the following year, starting with a new code of conduct, which outlined the utility's expectations for vendors. After getting the key ones to accept the code's principles, the

team began sharing new self-assessment tools that helped these suppliers determine when their actions didn't square with the utility's expectations and outlining ways to begin rectifying any problems.

As enthusiasm for the project grew among senior executives, the team released the tools it had created to help the utility's own procurement group determine how much risk individual suppliers might pose on important social, economic, and environmental dimensions. Accompanying the tools were new auditing processes to help the purchasers keep suppliers accountable and even to show suppliers where to invest their resources to improve compliance. A year later, when the project was firmly established, the team made additional improvements, which would have been viewed skeptically at the outset. They included bringing in sustainability experts to advise the utility's procurement group, placing a greater company-wide emphasis on buying goods with higher levels of recycled content, and establishing relationships with NGOs.

Such moves didn't go unnoticed. In addition to helping the utility adopt better purchasing practices and strengthen the practices of its suppliers, the project enabled it to garner a prestigious trade association award for corporate social responsibility.

### **The open road**

While it's impossible to fully predict the path open innovation will take over the coming five to ten years, our research already shows that knowledge brokering could transform the way companies develop and improve their core business processes. Nevertheless, like other forms of open innovation, it requires considerable change on the part of managers.

Managers at all levels, for example, will increasingly need to become much more conscious of the social networks to which they do and could belong. Gone also are the days when they might simply have leveraged relationships within their own industries. Executives who can cultivate a variety of external networks will be vital to a company's ability to innovate.

Simply being connected, however, is not enough. Managers must be prepared to use their networks and reach out to people they don't know for help. Many of them will have to overcome a strong bias: the desire to develop their own solutions to problems rather than apply existing solutions; after all, from an early age all of us were taught in school that copying from other students is wrong. Yet younger managers—say, those born around 1980 or later—are ideally poised to take advantage of the new way of working because for them reaching out to networks is second nature.

Organizations too face challenges institutionalizing open innovation. Some companies we know are exploring the use of a "scouting" function to help characterize and organize the networks available to managers. Such a function could be located within a company's

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central strategy group or (to draw on knowledge from suppliers) the procurement unit. Companies with learning and development functions could draw on their rich outside connections with academics and other experts.



New applications of open-innovation principles allow progressive companies to improve not just their products but also their core internal business processes. By tapping into a wide variety of knowledge sources and combining outside insights with internal ones, companies can develop breakthrough process innovations while positioning themselves for a more networked world where *whom* employees know is as important as *what* they know. ○

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