Managing knowledge in global service firms: Centers of excellence

Karl Moore and Julian Birkinshaw

Executive Overview

Service firms that are global players benefit primarily from their ability to manage their proprietary knowledge—assimilating new knowledge from around the world, building new knowledge through the interaction of professional employees, and disseminating knowledge effectively throughout the firm. Centers of excellence represent the best practice of managing knowledge. Formally charged with the responsibility of leveraging and/or making knowledge available throughout the firm, the center of excellence provides a focal point for knowledge development and dissemination and replaces an old-fashioned reliance on informal, word-of-mouth mechanisms. However, a center also raises substantial organizational and motivational challenges.

Building Global Competitiveness in Service Firms

Electra Services Europe\(^1\) undertook a major reorganization in 1994, replacing its old country-focused operations with Europe-wide business units. For John Skelton, the new head of corporate marketing in Brussels, the change was an opportunity to seek out and leverage the pockets of expertise that he knew existed in Electra Europe. Using his extensive personal network, Skelton put together a list of best-practices in core marketing activities: the key account management guru was based in Stockholm; the London unit had leading-edge groups in business intelligence and customer loyalty measurement; database marketing was done best in Paris, and so on. These and others were designated as centers of excellence, on whose leading-edge expertise in core marketing areas other units throughout Europe could draw.

Three years later, Electra's Center of Excellence model was only a partial success. Some centers are funded by the local country, so their priorities tend to be towards helping local colleagues; some have attempted to charge for their services, but have found that administering the billing system takes half their time; and a few are funded through Brussels, but there is great reluctance at a top management level to increase the size of the headquarters group. Visibility is also a problem: while the centers of excellence are well-known in their local markets and in a few business units, the large majority of Electra's European operations are still ignorant of them, and of the expertise they offer.

Electra's story illustrates challenges facing many global service firms. Unlike manufacturing firms that can rely on patented technologies or unique products, service firms gain their competitive advantage primarily through their ability to make use of their proprietary knowledge on a global scale. Electra, like many other firms, has adopted the center of excellence model as a way of more effectively exploiting its geographically-dispersed expertise. While the advantages of the approach are many, the management problems it presents are substantial.

We conducted interviews in eighteen global service firms (Table 1) in the consulting, engineering, financial services, and transportation sectors. We define a center of excellence\(^2\) as a small group of individuals recognized for their leading-edge, strategically-valuable knowledge, and mandated to leverage and/or make that knowledge available throughout the global firm.
Knowledge Production in the Global Service Firm

The advantages of global reach to manufacturing companies are self-apparent. Materials can be sourced from the lowest-cost location; manufacturing plants can be built to serve multiple national markets; R&D costs can be amortized over a much broader customer base than before. For service firms, however, the benefits of globalization are more equivocal. If we think in terms of a value chain of activities, global service firms typically replicate the entire value chain in each country of operation, rather than centralizing certain parts in the lowest-cost country. Competitive advantage is gained not through the sharing of activities but through the transfer of intangible assets from country to country. These intangible assets include the corporate name, image and reputation, proprietary services, operating procedures, and know-how about key customer bases. Increasingly, the source of these intangible assets is not the headquarters of the firm, but the various affiliate companies around the world. Top management's task is to develop, leverage, and disseminate knowledge on a worldwide basis, and to foster an environment in which intercountry learning can occur.

For a global service firm, new knowledge comes primarily from interactions with clients, and interactions between team members around the world. Client interactions represent a two-way flow of knowledge, in which the service firm uses its expertise to address a client's needs, enhancing and sharpening that expertise through usage. To the extent that market needs continue to evolve, this form of interaction is central to the knowledge creation process. As one respondent explained:

Things pop out of the woodwork in our organization because of something at a client's site, which are then socialized through the community over time . . . . At some stage someone says, this is a significant amount of work being done, we are responding well to it, and making money; what we now need to do is formalize the competence . . . A lot of the best stuff gets created in the client's environment. It's usually a response to a real problem.

---

Table 1
The Firms Studied

<table>
<thead>
<tr>
<th>Company</th>
<th>Home Country</th>
<th>Industry Sector</th>
<th>Types of Centers Identified</th>
<th>Number of Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andersen</td>
<td>USA</td>
<td>Consulting</td>
<td>Focused</td>
<td>8</td>
</tr>
<tr>
<td>Bovis</td>
<td>UK</td>
<td>Construction</td>
<td>Virtual</td>
<td></td>
</tr>
<tr>
<td>Bull</td>
<td>France</td>
<td>Consulting/IT</td>
<td>Charismatic</td>
<td></td>
</tr>
<tr>
<td>Citibank</td>
<td>USA</td>
<td>Banking</td>
<td>Focused</td>
<td>3</td>
</tr>
<tr>
<td>DHL</td>
<td>Netherlands</td>
<td>Express Delivery</td>
<td>Virtual</td>
<td>3</td>
</tr>
<tr>
<td>Electra</td>
<td>USA</td>
<td>Marketing Services</td>
<td>Focused</td>
<td>2</td>
</tr>
<tr>
<td>Ernst &amp; Young</td>
<td>USA</td>
<td>Accounting</td>
<td>Focused</td>
<td>5</td>
</tr>
<tr>
<td>KPMG</td>
<td>USA</td>
<td>Consulting</td>
<td>Charismatic</td>
<td></td>
</tr>
<tr>
<td>IBM</td>
<td>USA</td>
<td>Consulting/IT</td>
<td>Focused</td>
<td></td>
</tr>
<tr>
<td>McKinsey &amp; Company</td>
<td>USA</td>
<td>Consulting</td>
<td>Virtual</td>
<td>1</td>
</tr>
<tr>
<td>Monitor</td>
<td>USA</td>
<td>Consulting</td>
<td>Charismatic</td>
<td></td>
</tr>
<tr>
<td>Oxford Univ. Press</td>
<td>UK</td>
<td>Publishing</td>
<td>Focused</td>
<td>1</td>
</tr>
<tr>
<td>P&amp;O</td>
<td>UK</td>
<td>Shipping</td>
<td>Virtual</td>
<td></td>
</tr>
<tr>
<td>Royal &amp; Sun Alliance</td>
<td>UK</td>
<td>Insurance</td>
<td>Focused</td>
<td></td>
</tr>
<tr>
<td>Skandia</td>
<td>Sweden</td>
<td>Insurance</td>
<td>Focused</td>
<td></td>
</tr>
<tr>
<td>Unisys</td>
<td>USA</td>
<td>Consulting/IT</td>
<td>Virtual</td>
<td></td>
</tr>
</tbody>
</table>

---

Competitive advantage is gained not through the sharing of activities but through the transfer of intangible assets from country to country.
This market understanding is perhaps even more valuable in a global firm where there exists a greater range of opportunities to learn from a more diverse set of customer needs. Few headquarters organizations can keep up with the rapid changes in their global market. Firm headquarters were once urged to tap into the learning of their foreign affiliates’ interactions with customers around the world. The experience of top firms, however, suggests that merely tapping into the affiliates is no longer sufficient. Service firms need to move to the next stage of global development in which the knowledge and ideas emanating from affiliate companies are leveraged and utilized in situ rather than simply being brought back to headquarters.

The other key source of innovations is the interaction of internal teams as they fulfill client needs. Team members combine and build on prior experiences to create new techniques or ideas. But these creative solutions are often not shared with other teams in their own country, let alone globally. Even the individual team members tend to lose the knowledge over time unless it is somehow institutionalized into the system.

To harness these two powerful sources of innovation and learning, global service firms have adopted a number of approaches—enriching the airline industry by flying employees around the world for meetings, pouring millions into groupware such as Lotus Notes, staging video conferences, and mailing client proposals and reports to numerous recipients. Though these solutions have contributed something, centers of excellence have emerged as an organizational innovation that brings greater focus to the effort to harness worldwide learning.

Figure 1 illustrates the concept of a center of excellence. Traditionally, many global service firms adopted one of two basic organizational models. One was a center-driven approach in which the foreign affiliates were seen as adapting centrally-created services to their local clients’ needs. The other was a country-focused approach in which the various foreign units shared a corporate name, but undertook their work with little or no interaction with their affiliates around the world. As firms moved toward a more global organizational model, an informal network typically emerged in which individuals developed contacts through their work in international teams and their attendance at group-wide events. Such networks were invaluable as a means of spreading ideas, but the spread was restricted to existing relationships. Thus, when John in London won a telecom-
munications contract, he would call his old acquaintance, Deborah, in New York to find out about her experiences with similar jobs. But his counterparts in Stockholm or Tokyo might have had far more relevant and valuable expertise in that area. Most service firms have recognized that relying on informal networks is not sufficient and that more formalized approaches to knowledge management can enhance both the quantity and quality of the knowledge flows throughout the firm.

What is a Center of Excellence?

A good example of a center of excellence is a major engineering company’s center for airport construction. This small unit, based in London, comprises the firm’s leading experts in airport construction and the records of all previous airport projects undertaken around the world. The unit has no formal authority over the activities of other affiliates, but it is frequently called on to help with new projects, such as the new airport in Hong Kong. As a senior manager explained:

When there are markets that require quite a high degree of specialized knowledge, to access clients, to bring presentational skills or technology know-how in, then we create centers of excellence.

We identified three distinct types of centers of excellence in our research, but all shared a number of common themes. First, centers were established only in areas that top management felt to be of strategic importance to the firm. Second, the heart of each center of excellence was the leading-edge knowledge of a small number of individuals (between one and ten) responsible for the continual maintenance and upgrading of the knowledge in question. Third, the centers of excellence all had an implicit dual role—to leverage and/or transfer their current leading-edge capabilities, and to continually fine-tune and enhance those capabilities so that they remained state-of-the-art. Clearly the balancing act that stems from managing these two rather different activities is far from easy, but it is probably more difficult still to separate them.

Finally, many centers of excellence were not—despite their name—fixed in a single geographic location. Some consisted of a small number of individuals living in multiple locations but regularly meeting on projects and at conferences. Others consisted of a larger number of individuals connected primarily through their firms’ groupware or Intranet. While there are clear drawbacks to such configurations, the firms in our study saw the geographical dispersion of their centers of excellence as a great strength, because it allowed them to exploit their global reach. Group members, it was argued, could learn from one another, tap into opportunities in multiple markets, and quickly combine their resources in ways that less globally-minded firms cannot.

But the centers of excellence we studied were also rather different from one another on a number of dimensions. Each firm had to some degree adopted its own approach, but we were able to discern three generic types of centers of excellence (Table 2) that we have labelled Charismatic, Focused and Virtual.

Charismatic Centers of Excellence

Charismatic centers of excellence are simply individuals who are internationally recognized for their knowledge or expertise in a certain area. These individuals can be brought in from outside or they can emerge as experts in the course of their careers with the firm. In two consulting firms we studied, senior professors had been hired from academic positions to provide visionary concepts and greater legitimacy to the practice area in question. By contrast, two investment banks preferred to identify their stars internally, and assign them as centers of excellence. At Chase Manhattan Bank, for example, the approach was described as follows:

One concept we’re pushing is centers of excellence. We’re breaking down the various technologies into categories. Within each group will be what we call top guns. These are the individuals who are recognized leaders in their discipline, who can be called on to answer questions or provide advice in their area of expertise ... A top gun would then evaluate a new product, and share the results of the analysis within the bank’s technical community.

The objective of the charismatic center is to leverage the expertise of the key individual as effectively as possible. He or she typically travels a great deal, performing advisory roles in a rela-
Table 2
Characteristics of Four Types of Centers

<table>
<thead>
<tr>
<th>Nature of knowledge/capability</th>
<th>Charismatic Center</th>
<th>Focused Center</th>
<th>Virtual Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manifestation of center</td>
<td>One “guru,” internationally recognized for his/her knowledge</td>
<td>Leading edge practice developed by small team in a single location</td>
<td>Leading edge practice held by a larger group in several locations</td>
</tr>
<tr>
<td>Primary purpose of center</td>
<td>Leverage the individual’s expertise on a global basis</td>
<td>Identify emerging practices and make them available globally</td>
<td>Large group of people in multiple locations. Access to common database, and proprietary tools.</td>
</tr>
<tr>
<td>How is center formed?</td>
<td>Individual specially designated or hired for leading expertise</td>
<td>Emerges from project work</td>
<td>Build and leverage leading edge practice through a formalized system</td>
</tr>
<tr>
<td>How is center utilized?</td>
<td>Individuals in center transfer their practice to others</td>
<td>Knowledge is codified and routinized; people draw from collectively held body of knowledge</td>
<td></td>
</tr>
</tbody>
</table>

Charismatic centers have another objective, namely the transfer of the star individual’s knowledge to other professional employees. Especially when an individual has been brought in from outside, the objective is clearly to build a capability in the firm that had been lacking. Rather than a codification process, however, the transfer is much more likely to be achieved through the key individual’s working with colleagues on projects, almost in a master-apprentice relationship.

**Focused Centers of Excellence**

Focused centers of excellence, the most common type, are typically based around a single area of knowledge, also called a capability or best practice. The objective, broadly stated, is to identify and build on emerging knowledge and make it available globally. Andersen Consulting, for example, has a multimedia center of excellence in Windsor, UK, consisting of a small group of consultants who are responsible for building the firm’s capability in multimedia technology. Electra, as mentioned earlier, has focused centers in London, Paris, Stockholm, and Milan for various corporate marketing services. These centers have a clearly identifiable physical location, but it is understood that the individuals that are part of the center will travel frequently, to ensure that their expertise is made available to other affiliates around the world. It is also possible that focused centers will attract individuals who do not actually live in the home base for the center, though such cases typically end up becoming more like virtual centers (see below).

Focused centers of excellence typically emerge through project or client work. In one insurance firm we studied, the South African operation had developed a center of excellence in direct marketing through its efforts to get around the country’s weak infrastructure. In McKinsey, the Business to Business marketing center of excellence grew out of a set of techniques that were developed over a series of client projects. It appears that the process in the early stages is usually somewhat hap hazard, but at a critical juncture the decision is made to recognize the center, and to put some additional resources behind it.

Once established, focused centers appear to be used in two distinct ways. One approach is to leverage the core individuals’ expertise by bringing them onto related projects around the world as advisors. As one respondent explained:

We encourage people throughout the organization to go to (the key people in the center of excellence) to seek their advice on a client, on how to put a proposal together, on pricing, on technical jargon, on other firms with whom to collaborate. They will try to be leveraging their skills through people in the other parts of the company.
The other approach is for individuals in the center to disseminate their capability to others in the firm through the development of materials and training courses. This approach appears to work better when the capability can be routinized. However, the two approaches are also somewhat complementary, and in most cases the center of excellence managers we spoke to appeared to be leveraging their capability and disseminating it at the same time.

**Virtual Centers of Excellence**

In Virtual centers of excellence, the core individuals live and work in different cities, and while they all know one another and meet intermittently, their principle means of interaction is through electronic media. Of necessity, virtual centers rely to a large degree on the codification of their knowledge base. Unlike focused centers, in which the core individuals work together to build a mutually held but tacit body of knowledge, virtual centers can function effectively only if knowledge is shared through computer databases and certain proprietary tools.

What does a virtual center look like? The most obvious manifestation is actually the codified element: the systems, tools and methods that the virtual center has developed over its lifetime. At the same time, it should be clear that a computer system is not a virtual center, unless the system in question is maintained, renewed and owned by the individuals who have the leading edge knowledge. In other words, it is not the system per se that is the virtual center, it is the individuals' collective knowledge coupled with the codified part of their knowledge in the system that constitutes the virtual center.

Virtual centers offer two important advantages over focused centers. The first is that they represent a system through which key individuals living in different parts of the world can keep in touch and share their knowledge. From the interviews we conducted, it seems this function works only once the individuals in question know one another. As one respondent observed:

"It is possible to work electronically with someone you have never met, but once you have got to know the other person you can be far more effective. The quality of the interaction improves by an order of magnitude."

The second advantage of virtual centers is that they bring in more individuals than could possibly work together as a single team, and eventually institutionalize some of the knowledge developed in the virtual center. Taken to its natural conclusion, in fact, some elements of knowledge become so widely known and well understood that they become common knowledge—part of the firm’s standard operating procedures, or routines. Andersen Consulting, for example, talks about the shift from competence to capability, where competence refers to a group of 15–20 people with a certain skill, and capability to a group of 300–500.

---

**Andersen Consulting, for example, talks about the shift from competence to capability, where competence refers to a group of 15–20 people with a certain skill, and capability to a group of 300–500.**

Not all virtual centers follow this evolutionary path towards a firm-wide institutionalization of knowledge. Some types of knowledge are, by their nature, hard to codify and thus remain the natural proclivity of a few experts. But other types of knowledge, such as the tools and systems developed by consulting companies, are well-suited to this cycle of discovery, development, fine-tuning, formalization, and institutionalization, and thus lend themselves very nicely to the evolutionary model described here. The virtual center of excellence has a very special role in such cases, because it has to develop a body of knowledge, gradually include more and more individuals in the fine-tuning and formalization of that knowledge, and then be prepared to let go once its usage has been institutionalized in the firm.

---

**Comparing the Three Types of Centers of Excellence**

We can compare the three types of centers in terms of the characteristics of their knowledge bases. Figure 2 maps them according to, (a) how codifiable their knowledge is, i.e. the degree to which the knowledge can be written down in procedures, manuals and models, and (b) the specificity of the knowledge to the firm, i.e. the extent to which the knowledge is proprietary and specific rather than general and widely held.

Both focused and virtual centers represent extremely firm-specific knowledge. Their knowledge bases typically emerge through client interactions and they are therefore embedded in a firm’s particular way of doing business. The difference between the two, as we have already noted, is that
virtual centers involve more people and are more geographically dispersed, which leads to a greater degree of codification of the underlying knowledge. In our experience, virtual centers tend to evolve out of focused centers along the evolutionary lines discussed earlier, but one could also see them evolving from charismatic centers as well.

Charismatic centers have a very low level of codifiability and, typically, a low level of firm specificity. A clear indicator of a low level of firm specificity is to ask: could this individual be as valuable to a competitor as he/she is to us? In cases where independent consultants or professors are brought in to head up a new center in a firm, the answer would certainly be yes. In cases where the individual is internationally recognized and well connected to the firm's internal network, the answer is only partially yes. Thus, we can envisage some breadth to the positioning of charismatic centers on figure 2. In terms of evolution, one would expect a charismatic center's knowledge to become more firm-specific over time, but probably not codified. However, the expectation in many firms was that charismatic centers should use their expertise to inform and build focused centers, for example by transferring some of their knowledge to a number of other key individuals.

What sort of center lies in the lower-right quadrant of figure 2? These are essentially public-source databases, such as those that can be found on the Internet or on CD-ROMs. These databases are not firm-specific, but the knowledge they contain is highly codified. Of course, such knowledge bases can be extremely valuable to the maintenance of charismatic, focused, and virtual centers. At the same time, they are clearly not centers of excellence because they are not proprietary to the firm.

When should a firm use a particular type of center? As the above analysis indicates, the three types of centers represent different but complementary approaches to managing knowledge. Focused centers represent an effective way of leveraging existing knowledge bases by raising the profile of specific groups of individuals and making their knowledge available worldwide. Charismatic centers are very effective when a firm wants to leverage the unique capabilities of its star performers; they can also be used as a means of raising the profile of a practice area by bringing in a well-known outsider. Virtual centers represent an effective way of bringing together the knowledge of a group of dispersed individuals, integrating it into a coherent whole, and disseminating it throughout the firm. More broadly, we suggest that firms need to think in terms of their entire knowledge profile—what they have, what is needed, how codifiable it is, how firm-specific, and so on. As with most of the firms in our study, some combination of different types of centers is usually needed to cover the breadth of knowledge demands firms are dealing with.

Other Manifestations of Centers of Excellence

Before finishing this section, we have to acknowledge one other common manifestation of centers of excellence, namely physical centers with an important knowledge-development role. For example, the Swedish Insurance firm Skandia built a Future Center just outside Stockholm with company exhibits, future concepts in insurance services, and facilities for planning meetings and development courses. The Future Center is used internally, as a place where new ideas are developed and tried out, and externally, as a place where potential customers can see Skandia's vision of the future. Other companies have established various learning centers. One consulting firm we spoke to had created a Thought Leadership Center in California. The Bank of Montreal built a Learning Center just outside Toronto. Such examples, however, do not fit our definition of centers of excellence. While many leading-edge ideas are developed at these centers, it is the groups that did the developing, not the building in which they were developed. Physical entities like Skandia’s Future Center may provide the stimulus for the emergence of virtual centers of excellence,
but they cannot be considered centers in their own right.

Physical centers do offer one important insight into the center of excellence phenomenon. A central feature of such centers is that they are created through a top-down decision to build new knowledge, rather than the more bottom-up process of identifying and recognizing existing bodies of knowledge that is typical in focused and virtual centers. If physical centers do indeed inspire the emergence of genuine centers of excellence, they can perhaps be seen as strategic investments in the future, perhaps as a means of building knowledge areas that senior management have judged to be lacking. When thinking in terms of the firms' entire knowledge profile, then, physical centers provide a useful complement to charismatic centers of excellence as a means of stimulating the development of new knowledge.

The Center of Excellence Life-Cycle

For most of the firms we talked to, centers of excellence were seen as living organisms that emerged to fill a specific need and that would one day evolve or die out. In the words of one manager, "there was no intention to create a permanent something, because this is where the skills are ... (Rather) we see it as a transitory four to five year phenomenon." Our study found cases of birth, death, and evolution, and a number of important suggestions about how the cycle should be managed.

Establishing New Centers of Excellence

Most firms have gone through a process of developing informal networks with de facto centers that lead the knowledge accumulation and dissemination process. The question here is really whether and when a more formalized center of excellence model be adopted. As we see it, a center of excellence requires both recognition and resources for it to move beyond an informal system. Recognition means communicating to staff worldwide that the center in question has an important strategic role. Resources means building the appropriate support systems and gaining access to the necessary staff to make the center viable.

Centers of excellence, we suggest, should be established on the basis of strategic importance. Firms need to focus their resources where they are most valued. As one manager explained: "If the market place says infrastructure projects are big now, we will develop a center of excellence for infrastructure projects. If nobody is doing theme parks, then that goes to go to the bottom of the list." Particularly in cases where the level of resources committed to a center is high (e.g., making several professional employees full time center employees) the strategic payoff has to be substantial. Furthermore, there is a question of focus. Centers of excellence need to be visible if they are to be effective, and visibility will obviously be compromised if they are fighting for space in the firm's newsletter or there appear to be several centers doing similar things. One way of circumventing this problem, of course, is through powerful information systems that help employees to target the knowledge they need.

Centers of excellence need to be visible if they are to be effective, and visibility will obviously be compromised if they are fighting for space in the firm's newsletter or there appear to be several centers doing similar things.

Centers of excellence are formed through two different processes. The more common is a bottom-up emergent process, in which top management formally recognize the importance of an existing knowledge base. Such cases rely on the entrepreneurial spirit of the core individuals, and the mentorship of a senior manager, to get noticed, rather than any sort of central-planning system. This process is most often seen in focused centers, and to a lesser degree in charismatic centers.

The alternative process is top-down, in that it is driven by senior management's recognition that certain knowledge areas need to be actively developed within the firm. Some charismatic centers emerge in this way, in that they are industry experts hired by the firm for their specific knowledge. Virtual centers also exhibit a top-down process to a large degree, because it takes a conscious and sustained effort to make them work. The more advanced process of knowledge institutionalization is, in particular, one that is likely to occur only through top management sponsorship.

Building and Maintaining the Center of Excellence

The center's primary role is to leverage or make available its distinctive knowledge base throughout the firm. It also has the less visible but equally important role of continuously sharpening its knowledge to ensure that it stays on the leading edge. Unfortunately, the former role tends to drive
out the latter, simply because most center of excellence managers are very busy. It is much easier to put off a conference or a planning retreat than the demands of colleagues from around the world. Building the center of excellence thus becomes a frequently neglected duty.

In all three types of centers, the key individuals kept their knowledge sharp through project and client interaction. In many cases they also attended international conferences, read the relevant journals, and built up networks of outsiders to ensure that they were on top of the latest trends. Virtual centers, in addition, were maintained through the continuous updating of their common database, and through the enhancement of the existing set of tools and concepts.

How much time should be spent on exploiting the existing knowledge base and how much on exploring new ones? In charismatic and focused centers the emphasis should clearly be on exploiting, given that a certain amount of exploration will happen naturally in the course of project work. In virtual centers, however, the level of exploration should be much higher, because the objective of such centers is to bring together and integrate knowledge. Even in virtual centers, however, people we spoke to were happy if they could devote even one quarter of their time to the more forward-looking part of their job.

The End of the Life-Cycle: Renewal or Closure?

The third stage of the life-cycle has not yet received much attention, even in cutting edge service firms that have used centers of excellence for a few years. As is the case in any organizational form, it is perhaps harder to end something than start it. Empires are built, resources are committed and a sense of identity develops around the center. But over time, the value of the center is likely to diminish. In some cases, the knowledge in question may have been disseminated throughout the firm, in which case the center will have worked itself out of a job. One engineering firm explained its philosophy on the center of excellence life-cycle thus:

How long do they last? About 40 years. There are one or two that basically have just died out. Tall buildings was one . . . its not that we don’t do any tall buildings, its just that we have enough experience globally that we don’t need it as a center of excellence. Because what made it a specialist is now common knowledge, it’s widely dispersed.

In this case, the tall building center of excellence ceased to exist, and the staff transferred its attention to other projects. In other cases, focused and charismatic centers evolved into virtual centers. Interestingly, we saw no cases of virtual centers’ dying out, despite the earlier logic that they could lose their reason for being if their knowledge base became widely disseminated. Perhaps no examples had existed for long enough for us to see the process run its course.

The other reason for centers to die is when their knowledge base is eclipsed by others or becomes less relevant in a new competitive environment. Where centers are set up according to industries or technologies, it is to be expected that demand for services in the various industries and technologies will vary over time. New centers are therefore established to meet emerging client demands, and old centers are allowed to die out.

Managing the closure of a center of excellence is actually far easier than it sounds, simply because the center is typically a small number of professionals, most of whom have adaptable skills that can be transferred to other areas of the business.

Managing the closure of a center of excellence is actually far easier than it sounds, simply because the center is typically a small number of professionals, most of whom have adaptable skills that can be transferred to other areas of the business.

Moreover, rather than thinking in terms of closure, the preferred model we identified can best be termed renewal. Here, the individuals in the center were actively looking ahead, and seeking out new areas into which the existing center could evolve. The comments of one consulting company respondent exemplify this issue very effectively:

Each of the competencies and market units (i.e. centers) are responsible for constantly re-energizing their capability. There is a constant pressure to look for new areas of practice and to look for and create an investment program for taking them from initial ideas into substantial capabilities around the world.

In the firms we studied, little attention had been given to the center of excellence life-cycle, presumably because most were still in the very early stages of using the concept. But clearly this will
have to change. For most firms, the best approach is probably to actively manage the life-cycle, to target new areas of knowledge that need to be developed or disseminated, and to identify those that are no longer a strategic priority. The alternative is to let the birth and death of centers of excellence take care of itself, almost through a competitive process of natural selection. We have seen this work in a couple of firms, but it is risky because it can engender the development of a secretive, noncooperative culture.

Motivations and Incentives
A consistent and recurring problem in managing centers of excellence appears to be one of motivation. Most of the individuals we talked to had an existing responsibility that was measured, for example, in terms of billable hours, and a center of excellence responsibility on top that was not formally measured. These individuals obviously knew that their center of excellence was important, but if the compensation and reward system favored their existing responsibilities, it was very clear which part of their work would get neglected when time was short.

**A consistent and recurring problem in managing centers of excellence appears to be one of motivation.**

How can firms get around this motivational problem? We heard conflicting stories during the research. Some respondents saw the center of excellence model working as it is, with no changes to incentive systems. They argued that the motivation comes from within:

They get a little bit in the newspaper, they don’t get paid any more . . . They are thought of as having superior knowledge or experience in that particular area, and people want to talk to them.

The more usual view, however, was that systems need to be created to build individual motivation. One approach, in theory, is to manipulate the hard systems, such as reporting structures, appraisal systems, and bonus packages. However, we saw no evidence for this occurring, presumably because firms are worried that such structures would detract from the primary responsibilities of professional employees. The only structural change we observed was where one individual was given full-time responsibility for managing a center—for example, McKinsey’s industry specialists. This was attempted only in cases where the center in question was broad enough in scope that it could withstand the cost of full-time professional staff. In most cases, centers were deliberately kept lean.

Most firms, instead, preferred to work on the soft systems, those relating to the social community of which the employees are part. As explained by one respondent:

... We need to understand what creates the behavior of knowledge sharing . . . This is the socialization of people actually knowing each other. Because I am more likely to respond to a request (from a colleague) if I know him, if he’s a good guy, I am going to respond because I know he’d do the same for me, but if I’ve never heard of him, maybe I’ll get to it tomorrow ...

Such an approach may not be entirely satisfactory either, but in essence it is the direction most firms seem to be going. Firms are making small concessions to the hard elements of the organization, such as formal acknowledgment of centers of excellence elements on annual appraisals, but working primarily on the softer elements. These firms had developed organizational cultures in which many professionals appeared to be willing to contribute with virtually no formal recognition. What seemed to be encouraging them was a sense that they needed to put something back in the system because they had taken a considerable amount out. There was also an intangible desire to be recognized by their peers around the world.

The extent to which there were motivation problems varied between the types of centers. Individuals in virtual centers appeared to have the hardest jobs, both because they had a substantial exploration-oriented component to their work and because their support groups were dispersed around the world. Individuals in focused centers suffered from motivational problems but to a lesser degree than those in virtual centers, perhaps because their identity with the center was more concrete. And charismatic centers suffered very little from motivational problems; their center of excellence role was usually closely aligned with their day-to-day work, and the high profile nature of their work resulted in a lot of peer recognition.

The Role of Senior Management
While we have focused on the centers of excellence themselves, because we believe they are an
important but under-recognized model for helping service firms to manage their worldwide knowledge assets, there are also a number of important implications for how global services should be run in their entirety. Although senior managers in service firms typically play a much less intrusive role in the day-to-day activities of their employees than their counterparts in the manufacturing sector, they nonetheless have an important part to play in shaping the overall direction of the firm and building an organization in which knowledge is created and disseminated effectively. Below we identify the three key issues for senior managers to consider if they are currently using the center of excellence model, or thinking of doing in the near future.

**Managing the Firm’s Knowledge Portfolio**

Focused centers capture emergent capabilities; virtual centers represent more codified capabilities; charismatic centers often represent capability gaps that the firm is trying to fill. Senior management’s responsibility, is to make the strategic decisions about what sorts of centers to build, and the specific knowledge areas or capabilities that the centers are expected to manage. Most centers emerge over time through a rather haphazard process that is shaped by senior management only in its latter stages. But there is an opportunity for senior managers to become more involved in the earlier stages of center evolution, and even to begin to set priorities on what sorts of knowledge areas should be developed in the first place.

Senior managers also have to think about the where of centers of excellence. When establishing centers, most firms have a natural bias towards identifying excellence in the home country or in the largest market. A thorough investigation, however, might well reveal hitherto-unknown expertise in distant parts of the organization. Such latent centers are a valuable source of expertise, and send the important signal that all parts of the firm have an important role to play in knowledge development.

**Managing the Center of Excellence Life-Cycle**

One of the primary risks in using centers of excellence is that the life-cycle is not managed, and the firm ends up with too many centers, some of which are strategic but most of which are not.

Some centers of excellence will die out naturally, perhaps because they were not well-reourced in the first place, or perhaps because internal competition pushes the individuals behind them into other areas. But in other cases, particularly when there are dedicated resources attached to a center, the center of excellence will likely endure for longer than it is needed, unless decisive action is taken by senior managers. The process, then, involves an ongoing assessment of what role the centers of excellence serve, and whether that role can be better fulfilled through other means.

**Motivating Employees to Build and Use the Centers of Excellence**

Incentive and motivation issues are central to making the center of excellence model effective. Structural changes are probably not appropriate unless the center has a broad-based knowledge development role (e.g., a learning center). Resourcing centers with full-time individuals is effective for managing the centers of excellence, but it creates unwanted overhead. Soft management tools, such as building a cooperative culture, create strong social networks, and enhance the overall levels of communication in the firm. Related to the development of social networks is the need to build strong internal information networks such as Lotus Notes. Because many firms we spoke to were still struggling to build up-to-date and reliable computer infrastructure, they were severely hampered in their ability to manage their centers of excellence effectively. Managers should ensure that the proposed center of excellence solution is backed up by the appropriate technology before it is introduced.

**Conclusion**

The center of excellence model is attractive because it provides the focal points for knowledge development and dissemination, rather than relying on old-fashioned, informal, word-of-mouth mechanisms. However, we should acknowledge the emergence of Internet/Intranet systems as one possible way that the center of excellence model could be eclipsed. The Intranet offers a low-cost forum for worldwide information exchange. Centers that emerge there need not rely on top management to identify and broadcast their abilities. But Intranets are unlikely to ever be the whole solution to the problem of management of tacit knowledge, which by definition needs human interaction to be transferred. And on a practical level, Intranet usage in large firms is still patchy, and the software is of variable quality. But it seems likely that an increasing amount of intrafirm communication will take place over the Intranet, which will in turn lead to changes in
structural approaches to knowledge management like centers of excellence.

We should stress that many firms function quite effectively without centers of excellence. Centers of excellence are most appropriate: (a) when the key source of competitive advantage for the firm is tacit knowledge (rather than knowledge embodied in technology or physical assets); and (b) when the activities of the firm are so large or so dispersed that professional staff members cannot possibly know all their colleagues. These conditions hold for global service firms, and they probably hold for the service side of a great many multinational manufacturers as well. But we are wary about generalizing too far. If either of these conditions is absent, the center of excellence model may add relatively little value, and indeed be very costly to administer. In which case a firm can function better without it.

Endnotes

1 Electra is a disguised name.

2 While we use the term center of excellence exclusively in this article, it should be clear that the firms in our study used a plethora of names to describe the same phenomenon. These included: center of competence, community of practice, best practice, capability center, and future center.

3 We define service firms as those whose primary value-added to customers is in the form of an intangible service, rather than in the transformation of inputs into a physical product. In terms of service firms studied in this research, our focus is on the consulting, insurance, banking, shipping, engineering, publishing, and information technology industries.

4 Though there are certainly opportunities even within service firms to benefit from cost differences between countries. Back-office activities are frequently located in low-cost countries, and even in professional activities there are benefits to be gained from tapping into well-educated but relatively low-salary countries such as Ireland.


6 Knowledge can also be gained through external non-client relationships and through conferences and journals, but much of this knowledge is essentially a public good, so it offers no potential for competitive advantage unless it can somehow be transformed by the firm.


8 These two models parallel the ethnocentric and polycentric models described in: Perlmutter, H. 1989. The Tortuous Evolution of the Multinational Corporation. Columbia Journal of World Business, 4: 9–18. The next two are variants of his geocentric model.


10 Codification is a process through which tacit knowledge, that which is personal, context-specific and hard to formalize, becomes explicit, i.e. transmittable in formal, systematic language.


12 It is interesting to compare virtual centers to communities of practice, which are emergent bodies of professionals drawn together by common interests and experiences. In many ways the two are quite similar, but they differ in two important ways: (a) virtual centers have a clear deliverable, while communities of practice do not; and (b) communities of practice are by definition unformalized learning groups, whereas virtual centers are an attempt to structure interaction between people. See: Stewart, T. 1997. Intellectual Capital. Nicholas Brealey: London.

13 In this regard, virtual centers could perhaps be better called spheres or webs of excellence, in the sense that they are interconnected, flexible, and quickly adopted to new demands.


15 One consulting company we studied, for example, had an impressive project database, but when anyone tried to use it their search typically resulted in a deluge of mostly useless material, or none at all. Quality control in such databases is still very hard to achieve.

About the Authors

Karl J. Moore is on the faculty of Templeton College, Oxford University, where he teaches international business strategy, primarily to executives. He has also taught at McGill University, Dartmouth, and the London Business School. The author of more than 50 books, chapters, articles, and papers, his research focuses on global competitive advantage and emerging issues in high tech industries. His book, the U.K. Venture Capital Market, was published by Wiley & Sons in 1997.

Julian M. Birkinshaw is an assistant professor at the Institute of International Business, Stockholm School of Economics. His research is centered around issues of strategy and organization in large multinational firms, and in particular on how firms can effectively manage their geographically dispersed resources. His research has been published in Strategic Management Journal, Journal of International Business Studies, Sloan Management Review and a number of other journals.