

Second Quarter 1996SB Strategy & Business
...Booz, Allen & Hamilton

The Right Path to Knowledge Management

(Page 1 of 2) ▶

By Glenn Rifkin

In the current rush to create formal knowledge management systems, companies must recognize that all organizational knowledge is not equal. According to Bart Victor and Andy Boynton, professors at the Kenan-Flagler School of Business Administration at the University of North Carolina, a company's ability to distinguish between different types of knowledge will determine whether it will create a "right path" to developing the strategic practices needed to manage knowledge.

Ultimately, all companies are seeking to manage knowledge in order to gain competitive advantage in their respective markets. Mr. Victor and Mr. Boynton point out that initiatives such as continuous improvement or total quality management can be understood from a knowledge perspective. The key to the success of these initiatives is matching distinct types of corporate knowledge with the proper methods to extract and exploit this knowledge.

To this end, the two professors argue that knowledge can be broken down into three distinct categories--craft, practical and architectural--with each requiring very different management methods. But the current teaching in this area, they say, tends either to ignore the existence of these categories or to confuse their distinctions. The result is that many companies head down the wrong path, producing confused and ultimately failed initiatives involving everything from re-engineering and total quality management to continuous improvement and mass customization.

"You have to recognize first and foremost what the market wants and understand the needs of the customer and processes within the firm," Mr. Boynton explains. "If the market wants X and you are managing knowledge to Y, it requires a major change within the firm." Managers in information-intensive companies, such as consulting firms, must learn to look at the creation and use of knowledge and find opportunities to gain advantage from managing it better. Is a certain type of knowledge reusable and replicable in a mass-production or practical way so that it can be distributed and disseminated more easily and efficiently throughout an organization?

To answer that question, Mr. Victor and Mr. Boynton say, one must clearly understand the differences that separate the three key categories of knowledge.

Practical knowledge is created by workers who faithfully execute and observe predefined routines or procedures; for example, assembly line workers in a microprocessor plant. The procedures are laid out in a manual and monitored by supervisors. The insights, skills and ideas about these processes can only be generated by the accumulated experiences of executing the predefined processes. Practical knowledge has the advantage of being repeatable, readily re-usable and controllable. But it is relatively inflexible and has limited functionality. It also tends to be very product and process specific and thus cannot be easily reused across different product and service offerings.



Second Quarter 1996



SB Strategy & Business
...Booz, Allen & Hamilton

The Right Path to Knowledge Management

◀(Page 2 of 2)

Craft knowledge is created and maintained by individual workers or groups of workers who develop both the work itself and the personalized skill required to execute it. An example would be the Xerox copier repair force, which has developed its own methods, rules of thumb and expertise at fixing copiers. Craft knowledge has the advantage of being adaptive, flexible and responsive to change, but its tacit nature makes it difficult to control and transfer.

While craft and practical knowledge can co-exist at times, understanding and managing their differences is essential, Mr. Victor and Mr. Boynton say. Inadvertently mixing and matching craft and practical knowledge in the course of re-engineering, for example, will make the benefits of growth, diversification, automation, technology transfer and worker replacement far more difficult to achieve.

"Managers want to jump to total quality but they haven't thought about this from a knowledge acquisition point of view," Mr. Boynton says, "so the initiative ultimately fails."

Architectural knowledge, however, is created by workers who repeatedly revise and refine a process. Years of organized process improvement at Motorola's pager assembly line, for example, generated a wealth of knowledge about how each of the steps of the process interact and react to change. Using this knowledge, the workers are able to hypothetically produce 27 million varieties of pagers for Motorola customers.

According to the two professors, architectural knowledge combines the flexibility of craft knowledge and the reusability of practical knowledge, and though it also has its limitations, it is the key to being able to achieve such competitive advantage as mass customization. Managing organizational learning to create architectural knowledge, therefore, is the ultimate objective for companies hoping to fully leverage their core competencies.

Thus, a company intent on leveraging its organizational learning must recognize the right path to architectural knowledge. The path is not traversed overnight, but systematically over time, building on the foundation of previous processes through links between craft and practical knowledge.

"The most important creator of knowledge transfer was Henry Ford," Mr. Boynton says. "He took all the knowledge from the auto industry at the time and built an assembly line that could turn out a million cars. All the knowledge was embodied in the factory. Every firm needs a Henry Ford, someone setting the vision who can say, 'What does my market want and how do I set my knowledge in the right direction?'"

