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Features

Eight Keys to Successful KM Practice
by Madanmohan Rao
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Editors Note: In this second of two feature-length reports from KM Asia 2002, Madan Rao discusses key learnings from KM practitioners in the context of his own "8 Cs" framework for successful practice: connectivity, content, community, culture, cooperation, capacity, commerce and capital.

Knowledge management--as a systematic approach to create, capture, organize, access and use organizational knowledge and learnings--has clearly begun to mature and gain traction over the past decade.

According to research conducted by KPMG, companies expect a wide range of benefits from their KM initiatives: better decisions, more flexibility, increased profits, reduced workloads, improved productivity, new business opportunities, reduced costs, best practice exchange, higher market shares, higher stock prices, lower corporate memory loss, improved motivation and retention of employees.

How KM is applied to a wide range of tasks should depend on which differing kinds of knowledge and user participation are relevant--routine, logical, complex, unexpected, and unusual--according to Karl Wiig, CEO of the Knowledge Research Institute in the US, who spoke at the recent KM Asia 2002 conference held in July in Singapore.

Numerous steps are involved in unveiling successful KM practices. "The corporate KM roadmap at Siemens involves four successive stages: initiate, mobilize, institutionalize, and innovate," according to Manuela Mueller, director of knowledge sharing at Siemens Medical Solutions in Germany.

This article delineates and analyzes the success factors for KM practices based on the "8 Cs" framework devised by this author: connectivity, content, community, culture, cooperation, capacity, commerce and capital. In other words, successful KM practices can be facilitated by adequate employee access to KM tools, user-friendly work-oriented content, communities of practice, a culture of openness, a sprit of cooperation, learning capacity, commercial and other incentives, and carefully measured capital investments.

1. Connectivity

"Technology enables new knowledge behaviors," said Paul McDowall, KM advisor at the Treasury Board of Canada Secretariat, citing researched KM findings.

Technology is not the panacea for a KM practice--but an easy to use knowledge sharing infrastructure is an important enabler. Organization-wide access to KM architecture, Web-based applications, mobile devices, world wide access, high performance, user friendliness, common structure, groupware, data mining tools, and an easily administered controlling systems are key requisites of the supporting KM infrastructure.

Siemens Medical Solutions uses Livelink to power a portal that supports collaboration, knowledge sharing and document management. The single-platform approach helps reduce the number of applications for similar purposes. Connection is extended to hundreds of mobile workers at Siemens Medical Solutions have access to crucial know-how via its Med2Go wireless solution on Compaq iPaqs.

2. Content

To begin with, an organization must conduct an enterprise knowledge audit to determine internal and external knowledge leverage points.

Internal and external forces come into play here, ranging from customer knowledge to news media, according to Clare Hart, CEO of Factiva, which helps organizational KM initiatives via workflow design and news feeds.

"A context-sensitive content taxonomy is needed to ensure workflow-oriented content structure for easy retrieval of knowledge," according to Siemens' Mueller. The KM system at Siemens is supported by a Global Editing Team which checks the quality of each document and provides support in writing powerful abstracts. Its knowledge objects include successful practices, innovations, lessons learned, and methodologies.

"It is important to launch with sufficient, valuable content and easy navigation. Disappointed users won't return a second time," Mueller warned.

"Referable and usable contributions from users must be culled, and irrelevant and unsolicited contributions must be filtered out," advised Ravi Arora, KM Head at Tata Steel in India.

However, said David Snowden, director of the Cynefin Centre for Organisational Complexity at IBM UK, "It is important to remember that knowledge is not just a thing that can be managed but a flow that has to be nurtured, and this requires an understanding of the complex ecology of knowledge."

3. Community

Successful KM relies heavily on communities of practice, or groups of people who work on business-relevant topics across organisational boundaries. Such communities typically evolve through stages like preparation, warm-up, operation and eventual consolidation.

The Bank of Montreal has used a technique called Social Network Analysis to determine who shares information and point out likely interventions. "The groups initiate a knowledge fair to share information between teams. Cross functional teams are formed to address new project demands, and leadership forums encourage greater sharing among team leaders," said Richard Livesley, head of KM at the Bank of Montreal.

The corporate university and the KM department at the bank jointly funded the "kCafe," which acts as a bridge between classroom training and on-the-job tools, as well as an enterprise program called ideaNet to have employees identify and brainstorm on banking solutions.

Siemens has 500 communities worldwide across its various business units; for instance, Siemens Medical Solutions has a global knowledge community called KnowledeSharing@Med. It provides community support like an integrated portal, expert map, coaching, training and a hotline.

Innovative channels for "face time" such as breakfast meetings, learning centers, and coffee corners also help, said Teo Tze Fang, assistant director at Singapore Prison Service, which also conducts regular teleconferences with counterparts in the Hong Kong Correctional Services.

Tata Steel has over 21 communities of practice aligned with the company's business processes and strategy, focusing on areas like iron making, automation, waste management, and energy management. "The most important challenge in this economy is creating conversations," Arora said.

4. Culture

Support and vision from top management, shared sense of direction, trust, openness, excitement, and a willingness to continually learn from peers are key components of KM culture.

"You have to be able to trust the information that you receive to be the best that can be sent to you, and those that send it to you have to trust that you will use the information in an appropriate manner," said Bob Buckman, one of the pioneers of KM practice.

Buckman Labs has 1,300 associates in 90 countries who speak 15 different languages. It has designed an e-learning solution called the Bulab Learning Centre to enable its employees to takes degree courses online from multiple universities around the world.

"It is important to create a climate of continuity and trust so that we may have proactive knowledge sharing across time and space. Organizational culture must change from a state of hoarding knowledge to gain power to one of sharing knowledge to gain power," Buckman advised.

The key lies in "igniting the fire" worldwide, according to Siemens' Mueller. "The best theoretical concept cannot replace excitement. KS@Med is more than a database, it is a new spirit," she added.

A knowledge culture and a learning culture are complementary and convergent towards building capability, according to Hubert Saint-Onge, CEO of in Ontario, Canada. Learning helps enhance and reframe existing knowledge. A culture of self-directed and peer-enabled learning is key for knowledge organizations at multiple levels: individual learning, team learning, organizational learning and customer learning.

It is important for existing experts to change their attitude from "I do not need more knowledge" to a continuous quest for new knowledge, advised Tata Steel's Arora.

5. Cooperation

Workflows in knowledge organizations are becoming increasingly interlinked and cooperative in nature, as opposed to sequential or parallel.

Cooperation is a key success factor especially in order to overcome cultural, linguistic and other barriers that arise in companies operating across multiple geographic boundaries. Such blocks to cooperation include the "not invented here syndrome," disapproval of perceived "copying from a neighbor," entrenched fiefdoms, technophobia in using new KM systems, and fears of being "downsized."

Siemens Medical Solutions encourages cooperation via its "Share and Succeed" KM initiative.

6. Capacity

In addition to having a willingness to share and learn, an organization must have the "intellectual capital governance" capacity to take this to the next stage via building the necessary skill sets and systematically executing a KM strategy.

KM capacity at NASA is grown through training and mentoring via the Academy of Program and Project Leadership which hosts classes, team-targeted training, just-in-time online learning,

storytelling activities, intelligent authoring tools for experts, and a community of practice for project managers, according to Jeanne Holm, chief knowledge architect at NASA in the US.

"Visible senior management support is key to spearhead KM," said Siemen's Mueller. KM leaders and patrons are needed for strategic guidance of overall KM initiatives. Siemens conducts coaching programs for KM organizations in different business units and regions in order to develop KM competencies, and has also developed a KM workshop briefcase (with instructions, trainer schedule, checklists and presentation materials).

KM roles need to be clearly defined, and the confusion that middle managers tend to face must be overcome. HR professionals need to devise creative ways in which KM capacity can be built up in organization, KM activity integrated with regular business processes, and KM participation rewarded with appropriate incentives.

Sometimes, in-house capacity for KM needs to be augmented or bootstrapped by an outside KM consultancy. For instance, Tata Steel hired McKinsey to conduct a seminar on KM and communities of practice, according to Arora.

And much of the continued success of a KM practice can be attributed to a visionary and committed chief knowledge officer.

KM capacity can also be built up not just at organizational levels but across an entire geographic region. "The Lisbon strategy for eEurope aims to make the EU the most competitive knowledge-economy by 2010," according to Paul Hearn, project officer at the EC's Information Society Technologies Programme. An open pan-European network of KM professionals called the European KM Forum has been formed to promote European excellence in KM and develop frameworks like maturity grids and SME case studies.

Countries like Japan are also seriously considering the formation of hybrid models of individualistic and collectivistic knowledge behaviours, said Hideo Yamazaki of the Yomura Research Institute in Japan.

7. Commerce

Commercial and other incentives to embrace change in a knowledge economy must be implemented, and rewards for outstanding content contributions and user answers in a KM system need to be devised.

Siemens has introduced incentive structures to accelerate and overcome initial barriers to KM culture. Its "Share and Succeed" initiative allots points or shares (similar to frequent flyer miles) which can be collected, accumulated and turned into rewards.

For instance, shares are awarded to employees according to number of discussion group statements in each community of practice (CoP), number of urgent requests answered, documents loaded into CoPs, submission of knowledge profiles, and shares per knowledge object contribution in the Market Research Solution. Shares can then be converted into prizes like the Siemens SL45 dual-band mobile phone.

And like any other commercial offering, the KM practice within Siemens Medical Solutions is also well advertised and branded via a marketing material briefcase (with posters, flyers, postcards). There is also effective external marketing, as with their recently published classic, "The KM Case Book."

8. Capital

All of this support for KM infrastructure, community roles and learning workshops calls for serious capital investments by a company -- which must also be backed up by systematic approaches to RoI (return on investment) via various metrics.

At Buckman Labs, a key metric is the faster pace of innovation. At Siemens, metrics for successful RoI include number of requests to the knowledge base, increase in orders, reusable R&D components, reduction in labor costs, reduction in production costs, lower training expenses, and reduced IT investments.

Other metrics include surveys on job satisfaction, a sense of personal accomplishment, improved morale, and plans to stay in the organization, according to Singapore Prisons' Fang.

South Korean retailer e.Land leveraged KM to improve revenues and productivity; Toyota saves millions by standardizing management systems; and Wal-Mart's RetailLink KM system increases sales while decreasing growth, according to research cited by Factiva's Hart.

Tata Steel also reports significant savings in saleable steel costs to the tune of about US$700,000, thanks to its KM initiatives, and has even been guiding sister companies of the Tata group to implement KM.

In sum, a systematic understanding and application of this "8Cs" framework can help an organization conduct a knowledge audit and then successfully deploy an effective KM strategy.

[Madanmohan Rao, a consultant and writer based in Bangalore, India. is editor of the recently released Asia-Pacific Internet Handbook, Episode IV: Emerging Powerhouses*, covering key trends in the major Internet economies of the Asia-Pacific region.]*