While knowledge has always been an important factor of production (in addition to land, labor and capital), it is becoming a key differentiator as the other three factors are becoming abundant and accessible. "While the importance of knowledge is, at the very least, widely acknowledged, we are still missing a comprehensive approach to managing knowledge in order to maximize returns," say consultants Jurgen Kluge, Wolfram Stein and Thomas Licht.

"Understanding how knowledge works throughout your organization therefore allows you to reap the highest rewards from KM: the ability to adapt successfully through constant reinvention and optimization, to tap into new market opportunities, to jump on the latest trend earlier and more decisively than others, and to innovate," the authors begin.

Knowledge Unplugged is one of the more original, informative, comprehensive, and practical books on KM. Jurgen Kluge, Wolfram Stein and Thomas Licht are based with consulting leader McKinsey & Company in its Germany offices.

The material is based on a two-year survey conducted by the consultancy, encompassing 40 manufacturing companies in the US, Europe and Japan. At least eight interviews were conducted in each of these companies, to assess their deployment of up to 139 KM techniques culled from KM literature. Techniques included incentive schemes and use of IT infrastructure; the degree of application of these techniques was rated on a scale of 1 to 5. Companies were also classified on a performance spectrum (based on financial and process indicators) and divided into categories like less successful and more successful companies. This combination of scores provides a very powerful framework for assessing the differentiating "knowledge contribution" or "KM index" of a company, which is one of the very useful contributions of this book.

The authors define knowledge as the "understanding of relations and causalities" and management as "conscious and systematic decision making." Though knowledge can be slippery and nebulous as a subject, it is important not to get distracted by imperfect definitions. Dedicated techniques need to be designed, applied, coordinated and aligned to ensure a successful KM practice.

There are six key attributes of knowledge which must be factored into KM practices:

1. Subjectivity (context and individual background shape the interpretation of knowledge)

2. Transferability (knowledge can be extracted and transferred to other contexts)
3. Embeddedness (knowledge is often in a static and buried form that makes it difficult to extract or reformulate)

4. Self-reinforcement (the value of knowledge increases and not decreases when shared)

5. Perishability (knowledge can become outdated)

6. Spontaneity (knowledge can develop unpredictably in a process)

More successful companies deal with the challenges of subjectivity by ensuring agreement on general rules and values, cross-functional collaboration in product development and order generation, and increased face-to-face communication. For instance, Danish hearing aid manufacturer Oticon ensures that team membership is constantly shifting, as experts shuttle between teams.

Transferability of knowledge can be facilitated by internal and external benchmarking, market research, external alliances, and competitor analysis. Lateral thinking is needed to bring knowledge into entirely new contexts and even from entirely new industries. Japanese auto component company Aisin AW draws lessons actively from the consumer electronics industry mecca Akihabara in Tokyo. A European engine company actively participates in a variety of public research projects where it partners with universities and even competitors.

Best-practice KM techniques for dealing with embedded knowledge include knowledge databases, corporate yellow pages, job rotation, teamwork with suppliers, and co-location of product development staff. Finnish metal group Outokumpu has a solid IT infrastructure to make it easier to find knowledge among its staff. Apprenticeships and collocation with suppliers can help in the automotive sector.

Self-reinforcement knowledge networking practices for jump-starting the knowledge value chain include online training, formal networks with retailers, joint problem-solving, alignment with partner IT systems, and easy access for service data. Amazon links book purchases with past customer book preferences; an international conglomerate gets all its employees to write year-end reports containing their successes and outlook for the next year. SAP opened SAP University in 1999; it offers blended e-learning courses, and employees can set up their own sites and present a skill set.

Coping with perishability of knowledge involves continuous training related to standards and design rules, development optimization, FAQs, and clear division of responsibilities. Intel speeds chip development via a "Copy EXACTLY!" initiative to avoid overdoing customization and ensure that best practices can be precisely replicated across its global chip plants; chip-turnaround time has been cut from 7 years to 2 years. It is important to balance standards with creativity, of course.

As for spontaneity in knowledge creation, it is certainly difficult to "create creativity," but quite possible to ensure that the frequency of valuable knowledge generation can be increased via creativity techniques, Internet access for all staff, ideas contests, and greater freedom in individual aspirations. 3M, Sony and Nokia are particularly good at unleashing new ideas via a "search, collide, decide and try" process. Ford lets its employees "log on and tune in" via the Net -- all its employees get free Internet access at home. Fuji Xerox has a creative Knowledge Dynamics Initiative with projects like a Virtual Hollywood.

"The less successful companies do not realize the opportunities that a modern and open IT infrastructure can bring in terms of searching and scanning external knowledge pools," according to the authors. Brainstorming and offsite workshops are a good practice, but must avoid traps like lack of openness, lack of experience, and lack of focus.

Buckman Labs draws heavily on Metcalfe's principles of networking, whereby knowledge sharing was exponentially increased via a combination of community forums, online K-Netix infrastructure, a formal
Knowledge Transfer Department, multilingual platforms, partnership with suppliers, and dedicated “traffic cops.” Sales per salesperson and percentage of sales from new products increased 50 per cent in 2000.

Based on the analysis of more successful companies along these six knowledge parameters, the authors have devised a six-dimensional "KM scanner" audit metric, and have come up with numerous recommendations for successful KM.

- Be precise in your KM objectives and link them to business targets.
- Leverage push as well as pull factors to holistically grow and share knowledge.
- Create the right cultural context which nurtures reciprocal trust, openness and cooperation.
- Employees must be enthused with a desire for world-class performance and lust for knowledge, from within and outside the company.
- Financial and non-financial incentives should be devised.
- Avoid micro-management and encourage self-steering mechanisms.
- Guard against “not invented here” and “knowledge is power” syndromes, which lead to shunning external knowledge or hoarding personal knowledge.
- Align individual motivation with corporate goals.
- Increased group contact, cross-hierarchical teams, cross-functional teams, and job rotation can improve cooperative behavior.
- Devise a balanced score card system for financial, human, process and customer parameters.
- Roll out KM practices via smaller pilot projects if necessary, and look for quick wins to ignite interest in the system.
- IT infrastructure is important, but don't confuse information management with knowledge management.

The increase in the speed of business cycles and the threat from nimble copycat competition calls for faster harnessing of KM initiatives, the authors argue, so stay focused on the three main tasks of KM: application, distribution, and cultivation; address all these in parallel and not serially. KM is not just an operational fix but a strategic investment. Knowledge cannot remain delegated to a separate unit, but must eventually be an integral part of the way everyone thinks and acts. “You must instill in your company a sense of caring for knowledge so that it becomes part of everyday life, rather than something that ebbs and flows as the mood suits. Soon, every worker will become a knowledge worker,” according to the authors.

"Working with knowledge is much more creative, gives a higher sense of doing value-added work and, simply put, is much more fun. Just as no company will probably survive without taking advantage of the opportunities offered by the Internet, soon no worker will survive without actively using knowledge as a tool of their trade, whatever trade that is, and no company will succeed without tapping into the great potential of their employees’ knowledge," the authors conclude.

[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.]

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