Knowledge Management - A State Of The Art Guide

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Knowledge Management: A State Of The Art Guide
By Paul Gamble and John Blackwell
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Organizations are awash with information flows and knowledge assets, and understanding and applying KM principles is increasingly becoming a competitive imperative for companies around the world. Knowledge Management: A State Of The Art Guide by Paul Gamble and John Blackwell provides a useful conceptual introduction to KM strategy as practiced at leading U.S. and European companies.

The primary audiences for the book are managers involved in KM practices and MBA students. The material is divided into ten chapters, covering KM models, processes, planning, learning, technology infrastructure and measurement. Paul Gamble is professor at University of Surrey in the UK, and is a co-author of Up Close and Personal? Customer Relationship Marketing at Work. John Blackwell is a senior manager at IBM specializing in KM consulting.

The book includes a modest two-page list of references and a very useful ten-page questionnaire for assessing KM aptitude in an organization. The latter covering issues such as staff awareness, KM commitment, IT infrastructure, business culture and KM measurement.

The book is based on research carried out in 1999 and 2000 by a University of Surrey project. The material is peppered with sidebars containing actual quotes from strategists and managers at 28 U.S. and European companies like HP, Andersen, Swiss Re, Barclays Bank, Cap Gemini, Siemens, AstraZeneca, Reckitt & Coleman, BP Amoco, KPMG, Buckman Labs, PricewaterhouseCoopers, Rolls-Royce, Nokia, Cable & Wireless, NatWest, Procter & Gamble, Ericsson and PowerGen.

Business Drivers

"KM has come to the fore over the last 8-10 years, progressively brought into centre-stage, driven by the networked economy through increased competition, mergers and acquisitions, and the all-invasive Internet. The net result of all this has been a far greater dynamism in the economy as a whole. People have greater access to information than they ever had before. There is a huge potential for learning at an accelerated pace, for change at an accelerated pace. What this has led to is a need to have a far more responsive organization," the authors begin.

Drivers for KM today include increased workforce mobility, growing complexity in business environments, the need for lifelong learning, willingness by companies to invest in KM, the need to reduce loss of intellectual assets from employee turnover, the need to avoid reinventing the wheel, faster pace of
innovation, the need to operate at a global level, increasing shift from tactical to strategic adoption of KM practices, and the emergence of Internet technology.

It is estimated that in the U.S. alone, re-invention costs for the Fortune 500 companies could amount to a staggering US$31 billion; KM hopes to reduce some of this duplicated cost.

The global KM market is expected to be worth US$8.8 billion in 2004, doubling in size from the year 2001; much of this market is in Europe and the U.S. Content management also has a lot to share with KM; the content management market alone is expected to exceed US$10 billion by 2004.

McKinsey classifies KM buying behaviors into five kinds: conservative adopters (with basic KM functionality for cost savings), fast followers (deep KM functionality in a few critical processes), solution buyers (who prefer all-in-one solutions), self-sufficient integrators (market leaders), and business design innovators (driven by visionary leaders).

Still, the authors caution that KM need not be a guarantee of success or survival, though it can certainly improve the odds. There is also the possibility that without proper planning, users may merely become 'information rich but knowledge poor.'

Deconstructing KM

Contextually, KM is more organic and humanistic as compared to the various business strategy paradigms of the last few decades, such as portfolio management, sensitivity training, core competencies, TQM, and BPR. The human factor was underestimated in BPR, whose focus on process efficiencies often ignored opportunities for knowledge exchange among employees and with customers. One of the major shortcomings of TQM and QC philosophy was its narrow focus on problem solving, and not other corporate issues.

The authors draw up numerous taxonomies of knowledge, such as tacit/explicit, embodied/embedded/represented, individual/institutional, static/dynamic, declarative/procedural, routine/non-routine, team-specific/strategic. KM can also extend outside organizational domains to suppliers and distributors, via alliance knowledge; cultural alignment and trust are key pre-requisites for such transfers.

KPMG identifies five stages in the maturity of KM culture and adoption in a company: knowledge chaotic (no structured KM approach), knowledge aware (basic cataloguing available), knowledge enabled (standardized processes implemented), knowledge managed (integrated KM culture, CKO), and knowledge centric (daily assessment and improvement of knowledge environment).

From a KM practice perspective, Sveiby categorizes four modes of knowledge conversion: embodied to embodied knowledge (sharing experiences and mental models, e.g. apprenticeship), embodied to represented (e.g. cook books), represented to represented (e.g. formal education, corporate universities), and represented to embodied (internalization).

Hansen, Nohria and Tuerney identify two kinds of KM strategies: codification (re-use of knowledge bases) and personalization (encouraging people-to-people networking and mentoring).

A key foundation of KM is nurturing and harnessing communities of practice, where knowledge is put into action. Useful tools here include organizational network analysis (ONA), based on employee answers to a wide range of questions about the conversations they normally indulge in at the workplace and outside. The output is the cross-functional sociogram, which can help identify key knowledge flows in an organization.
Expertise directories and glossaries, knowledge coordinators, network events, online collaboration spaces and storytelling of illustrative anecdotes are important roles and processes here.

One chapter covers the KM matrix, a useful table with knowledge types on one axis (embedded, embodied, represented) and knowledge processes on the other (sense, organize, socialize, internalize). Accordingly, there are numerous KM activities (and enabling technologies) that arise, such as data mining, knowledge surveys, knowledge taxonomisation, groupware, e-learning and workflow analysis.

Some obstacles that may arise here include differing learning styles among employees, a 'hoarding mentality,' and work-related cultural differences (particularly for global organizations) related to power, individualism, gender and ability to cope with ambiguity.

On the technology front, content management is a major factor in the more efficient management of knowledge. Version control, document cross-referencing, library systems, security, bandwidth, interactivity and reusability are key considerations.

At the end of the day, measures for evaluating KM programs will have to be applied, but the issues surrounding such intangible assets are not easily resolved. Assessing intellectual capital can cover not just financial returns but also customer satisfaction, employee profiles, business processes and performance trends (i.e. human, structural and customer capital).

Case Studies

Many of these perspective and principles are based on the numerous examples cited throughout the book.

- Swedish company Skandia was probably the world's first to value intellectual assets on its balance sheets.
- Intranets and groupware technologies have been key in enabling KM practices for AstraZeneca's projects that span the globe, time differences, and functionality.
- Benetton's dynamic production lines keep modifying designs based on knowledge gained from customers.
- 3M encourages continuous learning while also maintaining a balance between creativity and conservatism.
- BP heavily uses email and videoconferencing to facilitate internal knowledge flows.
- Buckman Labs provides financial rewards and accelerated promotion for employees who excel at knowledge sharing; its global communities of best practice include methods of escalating problem resolution by translating queries and answers into multiple languages.
- Xerox provides physical support for convenient "coffee-pot" environments.
- Siemens makes its best-practice solutions from the Web-based ShareNet system available on Palm Pilots for mobile workers.
- Chevron identifies and institutionalizes best practices at four levels: good idea, good practice, local best practice, and industry best practice.
- Procter & Gamble is planning on using the knowledge between partner companies to provide a seamless supply chain to its customers.
- Ericsson has professional journalists who handle KM content functions like interviews, newsletters, and Web publishing.
  - Swiss Re has professional knowledge managers whose role is to review documents and contact authors periodically to determine their validity.

"The main objective of KM is to arrange, orchestrate and organize an environment in which people are invited and facilitated to apply, develop, share, combine and consolidate knowledge," the authors conclude.