

THE KNOWLEDGE ENTERPRISE

By Touraj Nasseri

I will discuss here the importance of organizations developing and implementing a knowledge management system that leverages human capital, information and technology to achieve and sustain winning performance. In other words, how to become a distinctively knowledge enterprise.

Knowledge and its productivity have become leading topics of discourses on management theory and practice. This keen attention on knowledge is justified as knowledge leadership drives market leadership. Major international companies in diverse industries like construction and engineering, telecommunications, computer software & hardware, manufacturing, pharmaceuticals, energy and management consulting have started reaping the competitive advantage of knowing what they know, knowing what to know, knowing how to know, and knowing how to use their knowledge most gainfully. The significance of knowledge management and the enhanced knowledge productivity thereof is not confined to business. Government and non-profit organizations that produce and use knowledge would also much benefit from knowledge management.

Literature and software products pertaining to knowledge management are rapidly proliferating, and so are knowledge sites and activities on the Web. Recent surveys consistently show that knowledge management is receiving much attention from corporate leaders. Many leading enterprises believe there is a strong connection between their performance and their knowledge productivity.

The intensifying focus on knowledge and its productivity is hardly surprising in increasingly knowledge-intensive economies. The economic value of knowledge consists in creating sustained superior performance: great value for customers, great wealth for investors and great careers for employees. Knowledge does this by the contribution it makes to winning innovations and executions. Managing knowledge is essential to creating and seizing gainful future opportunities, and to enhancing current organizational performance.

To appreciate the challenge and scope of knowledge management, I briefly describe here the kind and nature of knowledge used in organizations. Knowledge capital comprises two interactive components: human capital and information. Human capital consists in the gifts of mind and character. It comprises the totality of human competence determined by the innate and acquired knowledge: imagination, intuition, education, skill, and experience, as influenced by emotional and volitional attributes. The individual human knowledge includes tacit knowledge that is not articulated, but it implicitly and significantly influences decisions and actions of individuals and organizations. This knowledge can be difficult to document, communicate and transfer.

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Information covers the documented experience and intellectual achievements of the humankind, including formulations of problems that await solution. The contents of books, papers, studies, reports, software, databases, CDs, DVDs, patents are examples of information. All creation and application of knowledge involves the interaction of human capital and information. For example, technology is a product of this interaction and a tool for facilitating it.

Unlike knowledge in the mind, information becomes independent of its creators, it can survive them, and can be tested objectively for reliability and validity: scientific knowledge is an outstanding example of this category. It can be adapted, readily transferred and used, simultaneously if need be, by any number of people and in many applications. For example, a mathematical model or an engineering design or a marketing technique can be copied and used time and again in many places and by many people. As the value of information can be appropriated by the entire enterprise, capturing, documenting and proactively transferring individual knowledge within and outside the organization, thereby making it into enterprise information, are critical to effective knowledge management.

Enterprise Knowledge Management

Knowledge management consists of the processes that acquire and use knowledge to create value. The fundamental purpose of an enterprise is to seize on opportunities to win and keep customers, owners and employees by the value of its offerings.

Organizations generate increasing value by synthesizing knowledge capital and technology and use it effectively to create an innovation dynamics. In a knowledge-intensive enterprise innovation – i.e., a fast stream of better, cheaper and safer products and processes, and the attendant new knowledge– drives superior performance. Markets handsomely reward companies with effective innovation dynamics for winning performance by pricing them significantly higher than their book values.

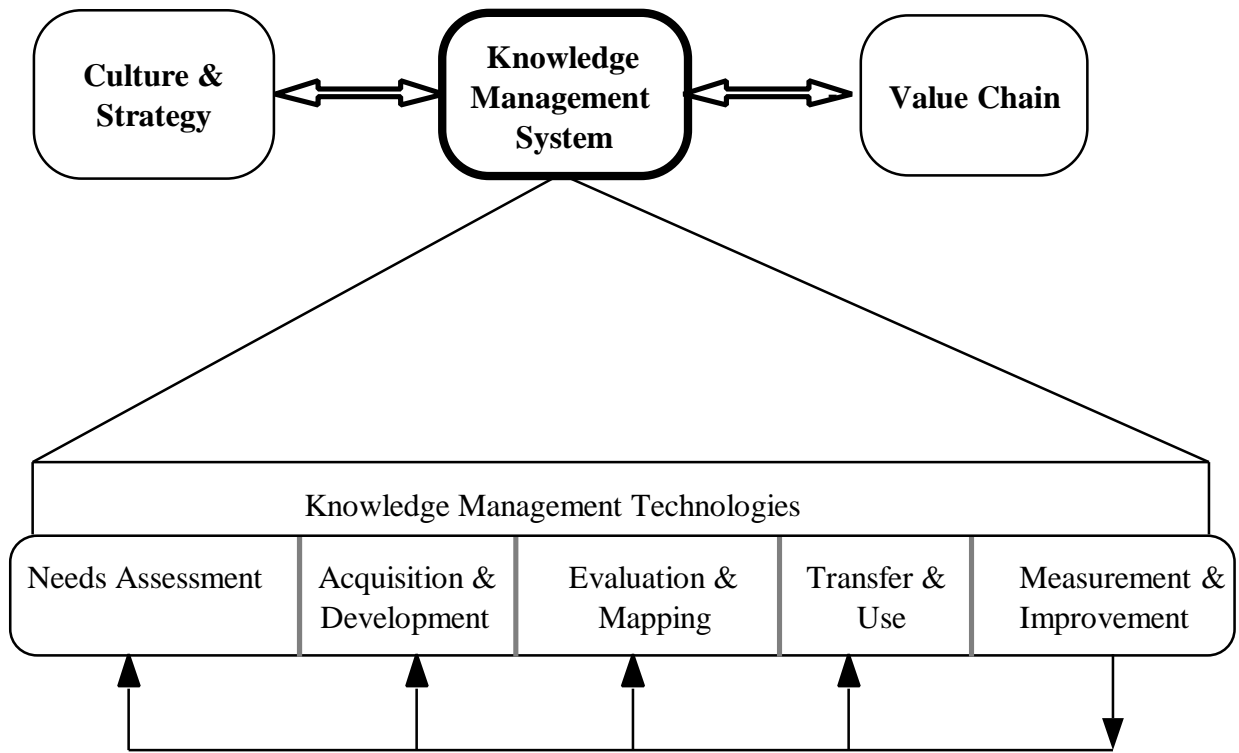
Innovation dynamics that drives an enterprise's winning performance needs a knowledge management system (**KMS**) that unlocks the potential of knowledge-technology synthesis. Each organization will need to determine the specifics of its own KMS to be most responsive to the organization's operational and strategic needs. A knowledge management system consists of processes and technologies that are inspired and guided by the vision and strategy of the enterprise and designed to deliver the right knowledge efficiently to people when they need them for problem solving and decision making. KMS cannot be fully automated by technology though automation can greatly facilitate and enhance the processes of KMS provided the technology requirements are determined as tools for a well defined KMS.

Knowledge management systems can be configured in different ways. The main processes of a typical KMS are shown schematically in Fig 1. Knowledge management must be inspired and guided by the cultural and strategic imperatives of the organization.

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The output of knowledge management must also feed the value chain of the organization. Knowledge technologies are shown to extend across the processes to emphasize that they are enablers of each process.

FIG 1: Basic Elements of a Knowledge Management System



It is beyond the scope of this paper to describe in detail the processes that make up a KMS. So I will now briefly describe each process of the KMS.

Knowledge Needs Assessment

The alignment of KMS with enterprise's strategy requires that a continual assessment is made of the human competencies and information needs of the enterprise. Each value-adding activities of the enterprise should be assessed for its knowledge needs to respond competently to the current and future challenges and opportunities.

This process should ensure that the enterprise can answer the following questions for each of its activity category

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What does the enterprise know ?

What competencies do the workforce have?

What must the enterprise know?

What competencies must the workforce have?

What are the knowledge gaps in order of operational and strategic criticality?

Knowledge Acquisition & Development

An enterprise must identify the best sources and means of meeting its knowledge needs as defined by the process of knowledge needs assessment. The sources are either internal or external, and the choice depends on several factors including the strategic importance of the knowledge, the level of knowledge available at the enterprise and the feasibility of outsourcing options.

Knowledge acquisition comprises:

- creating knowledge within the enterprise (e.g., R&D, product development & marketing)
- creating knowledge through collaboration and knowledge alliances with other enterprises, government R&D organizations or academia.
- developing competencies by acquiring promising people and human development programs (e.g. coaching, mentoring, corporate universities, in -career education programs)
- procuring knowledge from knowledge vendors (e.g. consultants, research providers, patent holders)
- gathering knowledge from the market and information sources(e.g. customers, competitors, the Web, and publications)
- acquiring the people who have the knowledge
- acquiring the company that has the knowledge

Knowledge Evaluation & Mapping

This is a facility that critically evaluates the validity of , documents and continuously updates the information and competencies of the enterprise. It maps only relevant and

valid information, is dynamic and highly interactive and serves knowledge assessment, knowledge acquisition and knowledge transfer. This process should ensure that KMS:

- provides easy and fast access to reliable information

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- facilitates access to human competencies (i.e., tacit knowledge, skills and wisdom)
- contains all knowledge, including patents, gained from the enterprise's activities (e.g. marketing, customer contacts, product development, problem solving)
- contains all relevant knowledge retrieved from knowledge tracking
- contains all knowledge gained from outsourcing projects
- contains problems that the enterprise must solve to improve its performance
- ensures the security of enterprise's knowledge (this issue can be treated as a separate requirement of KMS)

There are software products on the market that facilitate documenting, mapping and retrieving knowledge. But the content of the knowledge map, its structure and taxonomy, should be customized for each enterprise's knowledge management system.

Knowledge Transfer & Use

The principal objective of knowledge management is to ensure that the relevant and reliable knowledge consistently enlightens decision making and problem solving. The timely transfer of the right knowledge to decision makers and problem solvers is therefore critical to the success of an enterprise let alone its KMS. Knowledge transfer is not

merely communicating or sharing information or making it accessible to people who need them: transfer comprises both dissemination and assimilation. Information or competency is effectively transferred when the recipient of knowledge understand it well enough to use it effectively and efficiently. The structure and the modus operandi of an enterprise have important impact on the effectiveness of knowledge transfer.

Interpersonal knowledge transfer is highly important and coaching and informal interaction and networking can and do contribute significantly to individual and organizational learning. Software companies have developed products that automates the search, distribution, inventorying, retrieval and processing of information. The assessment of available technologies that enable knowledge transfer and the selection of the appropriate technology is part of the design of knowledge transfer capability of a KMS.

Technology is a powerful enabler, but the critical issues of knowledge transfer are cultural and people-intensive. Clearly a culture of knowledge sharing and knowledge seeking based on trust is essential for effective and rewarding networking and for the flourishing of knowledge alliances between communities of knowledge workers. Furthermore the enterprise culture must set a very high value on proactive coaching ,mentoring and transfer of tacit knowledge. Human capital development depends

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critically on the capture and validation of accumulated wisdom embedded in the minds, decisions and actions of the employees.

Knowledge transfer offers great benefits and enterprises incur considerable cost to effect knowledge transfer. In designing knowledge transfer capability, the cost of transferring knowledge should be weighed against the cost of decisions made in the absence of significantly relevant knowledge and the cost of losing knowledge that leaves the enterprise with people.

Measurement & Improvement

While vision and entrepreneurship drive much of knowledge management initiatives, the value of systems to enhance knowledge productivity and energize innovation dynamics is to be found in the enterprise performance.

Without getting bogged down by measurement obsession, a knowledge management system must devise, apply and revise metrics to evaluate the effectiveness of each of the processes that make up a KMS. This process provides the feedback that is necessary to measure impact on enterprise performance and improve the enterprise's KMS.

One approach to developing this process is to introduce a KMS , or some elements of it, first and then proceed to develop appropriate metrics and measurement method . For example, the quality and speed of decisions, the rate of innovation, the quality of workforce attracted and maintained, the cost and success rate of winning new business, the increased earnings from innovations or operational improvement are all candidate measures for evaluating the worth and improving the effectiveness of an enterprise knowledge management system .

Does Your Enterprise Need Knowledge Management?

Enterprise leaders will have to answer this question. I will suggest the kind of questions that enterprise leaders should ask and answer to determine whether they need to be concerned with knowledge management. The fundamental premise of knowledge management is that the enterprise is intent on prospering for long by innovation.

- Does innovation matter to your enterprise? If yes, what is the innovation strategy of the enterprise?
- Does your enterprise need to attract, develop and keep a world class workforce? If yes, what human capital development programs do you have in your enterprise to meet your human capital objectives?
- Does your enterprise have all the knowledge it needs to meet its operational and strategic needs? If no, what is your strategy for acquiring the knowledge?
- Are you getting the maximum return from your investment in technology,

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information and human resources? If no, what is the strategy to remedy this?

- Is the enterprise's knowledge–technology strategy effectively integrated with the enterprise's strategy?
 - Is contribution to the productivity and growth of enterprise's knowledge capital a performance criterion?
 - Do you assess the effectiveness of your knowledge-technology management? If yes, how ?
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