



MANAGING COMMUNICATIONS, KNOWLEDGE AND INFORMATION

Lecturer: Donna O'Connor
Lesson 6



MANAGING COMMUNICATIONS, KNOWLEDGE AND INFORMATION

**LO4: Be able to improve systems
relating to information and
knowledge**

The Basic Syllabus

- Understand how to assess information and knowledge needs
- Be able to create strategies to increase personal networking to widen involvement in the decision-making process
- Be able to develop communication processes to improve the gathering and dissemination of information and organizational knowledge
- Be able to design and improve appropriate systems for the collection, storage and dissemination of and access to the information and knowledge gathered

Introduction

- Organizations are realizing how important it is to “know what they know” and be able to make maximum use of it.
- In an economy where the only certainty is uncertainty, one sure source of lasting competitive advantage is knowledge.
- Success in an increasingly competitive marketplace depends critically on the quality and effective management of knowledge which organizations apply to their key business processes.

Introduction

- The nature of competition changed rapidly because of increased global connectivity, distributed expertise and shorter product development cycles.
- Organizations are now, streamlining their processes and exploring ways of working smarter through improved collaboration and communication.
- As the world continues to migrate towards a knowledge-based economy, knowledge management has emerged as a methodology for capturing and managing the intellectual assets of an organization as a key to sustaining competitive advantage.
- Knowledge management is a new strategic initiative that is changing the paradigm of information systems from one of processing data and providing information to one of harvesting and capitalizing on the knowledge of an entire organization, ranging from expertise in individuals' heads to documented material.

Introduction

- Through a supportive organizational climate and good knowledge management, an organization can bring its entire organizational memory and knowledge to bear on any problem anywhere in the world and at anytime.
- Knowledge about how problems are solved can be captured so that knowledge management can promote organizational learning, leading to further knowledge creation.
- Knowledge management requires a major transformation in organizational culture to create a desire to share, the development of methods that ensure that knowledge bases are kept current and relevant, and a commitment at levels of a firm for it to succeed.

What is Knowledge Management?

- The management of corporate knowledge and intellectual assets that can improve a range of organizational performance characteristics and add value by enabling an enterprise to act more intelligently (Gupta et al., 2002).
- *Knowledge Management is a process that helps organizations **identify, select, organize, disseminate** and **transfer** important information and expertise that are a part of the organizational memory that typically resides within an organization in an unstructured manner. This enables effective and efficient problem solving, dynamic learning, strategic planning and decision making. Knowledge management focuses on identifying knowledge, explicating it in a way so that it can be shared in a formal manner, and thus reusing it (Gupta et al., 2002).*
- Knowledge management enables the communication of knowledge from one person to another so that it can be used by the other person.

What is Knowledge Management?

- The domains in which knowledge concepts are leveraged in organization through knowledge initiatives are:
 - sharing knowledge and best practices
 - instilling responsibility for sharing knowledge
 - capturing and reusing best practices
 - embedding knowledge in products , services and processes
 - producing knowledge as a product
 - driving knowledge generation for innovation
 - mapping networks of experts
 - building and mining customer knowledge bases
 - understanding and measuring the value of knowledge
 - Leveraging intellectual assets (Barth, 2000).

What is Knowledge Management?

- Knowledge management is the art of performing *knowledge actions* such as organizing, blocking, filtering, storing gathering, sharing, disseminating and using *knowledge objects* such as data, information, experiences, evaluations, insights, wisdom and initiatives.
- In general terms it is the performance of knowledge actions on knowledge objects (Sivan, 2001)

What is Knowledge Management?

Knowledge management =	Knowledge Actions	× Knowledge Objects
The art of performing knowledge actions on knowledge objects ...	Organizing, storing, gathering, sharing, disseminating, using	Data, information, experience, evaluations, insights, wisdom,....

Goals and Objectives of Knowledge Management

- Knowledge management involves a strategic commitment to improving the organization's effectiveness, as well as to improving its opportunity enhancement.
- The goal of knowledge management as a process is to improve the organization's ability to execute its core processes more efficiently.
- Davenport et al. (1998) describes four broad objectives of knowledge management systems in practice:
 - create knowledge repository
 - improve knowledge assets
 - enhance the knowledge environment
 - manage knowledge as an asset

Goals and Objectives of Knowledge Management

- The key to knowledge management is capturing intellectual assets for the tangible benefits for the organization. As such, imperatives of knowledge management are to:
 - transform knowledge to add value to the processes and operations of the business
 - leverage knowledge strategic to business to accelerate growth and innovation
 - Use knowledge to provide a competitive advantage for the business.

Goals and Objectives of Knowledge Management

- The aim of knowledge management is to continuously improve an organization's performance through the improvement and sharing of organizational knowledge throughout the organization
 - (i.e., the aim is to ensure the organization has the right knowledge at the right time and place).
- Knowledge management is the set of proactive activities to support an organization in creating, assimilating, disseminating, and applying its knowledge.
- Knowledge management is a continuous process to understand the organization's knowledge needs, the location of the knowledge, and how to improve the knowledge.

Knowledge Management Activities

- Knowledge management consists of four basic functions:
 - *Externalization*
 - *Internalization*
 - *intermediation*
 - *cognition* (Frappaolo, 1998)

Knowledge Management Activities

- **Externalization** is capturing knowledge in an external repository and organizing it by some framework in an effort to discover similar knowledge. Technologies that support externalization are imaging systems, databases, workflow technologies, document management systems using clustering techniques, etc.
- **Internalization** is the process of identifying knowledge, usually explicit, relevant to a particular user's needs. It involves mapping a particular problem, situation, or a point of interest against the body of knowledge already captured through externalization.
- **Intermediation** is similar to the brokering process for matching a knowledge seeker with the best source of knowledge (usually tacit) by tracking the experience and interest of individuals and groups of individuals. Some technologies that facilitate these processes are groupware, intranets, workflow and document management systems.
- **Cognition** applies the knowledge exchanged preceding three processes. This is probably the knowledge management component that is most difficult to automate because it relies on human cognition to recognize where and how knowledge can be used.

Managing Knowledge Effectively

- Effective knowledge management is neither panacea (cure-all) nor bromide, it is one of many components of good management (Davenport et al., 1998).
- In order to manage knowledge effectively in corporates and organizations special attention should be given to contextual dimensions of organization such as *strategy, technology and culture*, that is:
 - Most important is building a strong culture to adopt and support it.
 - Defining effective strategies for using all knowledge resources efficiently.
 - Using information technologies (digital documents, intranets, expert systems, etc.) for developing knowledge management systems.

Culture

- *Culture* should be considered before practicing knowledge management.
 - Knowledge management, at its core, has a strong human component. An organization's knowledge management strategy cannot be successful unless the organization has developed a trusting knowledge culture that emphasizes the role and value of knowledge in day-to-day business decisions and enterprises. The culture must be geared towards rewarding innovation, learning, experimentation, scrutiny and reflection (Allee, 1997).
- Organizations should establish a culture conducive to more effective knowledge creation, transfer, and use.
 - People should have a positive orientation to knowledge, that is, employees should be bright, intellectually curious, willing and free to explore and also executives should encourage their knowledge creation and use.
 - People should not be inhibited in sharing knowledge, that is, they should feel that they are not alienated or resentful of the company and don't fear that sharing knowledge will cost them their jobs.
- Effective knowledge management requires a healthy and conducive culture as a prerequisite.

Strategy

- The real point of knowledge management strategy is to create an environment for leveraging the organization's intellectual property into a collaborative platform, making this knowledge actionable.
- *Knowledge management is about action, not just about collection and consolidation.*
 - Develop sophisticated scenarios for current and future competitive environments.
 - Describe ideal successful companies with respect to the future scenarios. A vital characteristic of this step is evaluation of the advantages and base knowledge required in these successful organizations (Clarke, 1998).
 - Identify the individuals within the firm who have the knowledge required or the capability to acquire that knowledge. It is important to identify external knowledge sources to help determine and understand current and future customers, suppliers and markets.

Strategy

Generally implementing a knowledge management methodology follows seven steps:

1. ***Identifying the problem.***
 2. ***Preparing for change.***
 3. ***Creating the team.***
 4. ***Mapping out the knowledge.***
 5. ***Creating a feedback mechanism.***
 6. ***Defining the building blocks for a knowledge management system.***
 7. ***Integrating existing information systems*** to contribute and capture knowledge in an appropriate format.
- Initially a prototyping process should be used, starting with a small group in a pilot program. Once it has demonstrated success, then other members of the organization should request access and this way the stem will expand.

Strategies for successful knowledge management implementations

- Establishing a knowledge management methodology.
- Designate a point-person.
- Empower knowledge workers.
- Manage customer-centric knowledge.
- Manage core competencies.
- Foster collaboration and innovation.
- Learn from best practices.
- Extend knowledge sourcing.
- Interconnect communities of expertise.
- Report the measured value of knowledge assets.

Benefits of knowledge management implementation

- Organizations can gain several benefits from implementing knowledge management strategies.
 - Tactically they can reduce loss of intellectual capital due to people leaving the company
 - reduce costs by decreasing and achieving economies of scale in obtaining information from external providers,
 - reduce redundancy of knowledge based activities
 - increase productivity by making knowledge available more quickly and easily
 - increase employee satisfaction by enabling greater personal development and empowerment.
 - The best reason is a strategic need to gain a competitive advantage in the marketplace

Technology

- Plays a key role in the trend towards knowledge management.
- Information technologies support knowledge management and broad sharing of information and are good examples of effective knowledge management tools.
- When facilitating knowledge management initiatives, information technology environments such as intranets can be utilized to establish a virtual meeting place where communities of practice can engage in dialogue and collaboration.
 - Actions such as information creation, information seeking, and information interpretation can successfully be performed in these environments.
 - Intranets must be designed to support not only the informational aspects but also include people by making salient networks of users with similar interests and allow these to communicate and collaborate.
 - Stenmark (2002) suggested a multi-perspective view of intranet, a technology that helps in creating an effective knowledge management environment, which are:
 - Information perspective,
 - Awareness perspective
 - Communication perspective

Technology

- The **information perspective** is the most obvious view of the intranet, since information provision is a fundamental part of the infrastructure.
 - Gives the organizational members access to both structured and unstructured information in form of databases and documents.
 - Access to rich and diverse sets of information is important for organizational knowledge creation since it provides rich stimuli and requisite variety.
 - Affects the interaction between information and knowledge in today's organizations by increasing the consumer's access to information and the opportunities for producers to reach a larger audience.
- The **awareness perspective** suggests that not only explicit information links but also tacitly expressed connections should be exploited to hook up organizational members with information and people they might otherwise have missed.
 - The large amount of information available can result in information overload, and to avoid such a situation and maintain the awareness perspective, tools to assist the organizational member by prompting when new and relevant information is added must be developed.
- The **communication perspective**, enables the organizational members to collectively interpret the available information by supporting various forms of channels for conversations and negotiations.
 - The intranet communication perspective promotes reflection by making salient different interpretations and viewpoints.
 - By offering workflows and coordinating routines as well as support for more informal collaboration such as shared whiteboards and project areas, the intranet provides means for organizational members to work together.
- Intranet technology can be an effective tool for managing knowledge inside the organizations, therefore enhancing productivity and helping organizations to improve their performance.

Technology

- **Expert systems** are computerized advisory programs that attempt to imitate the reasoning process of experts in solving difficult problems.
 - Expert systems are of great interest to organizations because they can increase productivity and augment workforces in specialty areas where human experts are becoming increasingly difficult to find and retain or are too expensive to hire.
 - It enables experts to make better and faster decisions than non-experts in solving complex problem and this expertise takes a long time to acquire, also it is distributed in organizations in an uneven manner.
 - Retaining and hiring of these experts is most of the times very expensive for the organizations. Therefore in order to solve this problem, this highly valuable knowledge (expertise) is transferred from an expert to the computer where it is stored in the knowledge repositories called knowledge bases in the form of facts, symbols, frames or rules.

Technology

- The whole process, transfer of knowledge to its use, involves four activities:
 - **Knowledge acquisition** from experts or other sources: Knowledge is acquired from experts or from documented sources.
 - **Knowledge representation** as fact, symbols, rules, etc. in the computer: Through the activity of knowledge representation, acquired knowledge is organized as *rules* or *frames* and stored electronically in a knowledge base
 - **Knowledge inferencing** that is reasoning and formulating conclusions: With the help of this stored knowledge, key component that is inference engine makes inferencing.
 - **Knowledge transfer** to the user: It results in an advice or a recommendation for novices. Thus, this way the valuable knowledge that is transferred to users, is managed effectively and is economical.

Discussion Question

- How can effective knowledge management help organizations survive in today's competitive and global environment?
- How can organizations improve access to systems of information and knowledge?