KNOWLEDGE MANAGEMENT IN INTELLIGENCE INFORMATION SYSTEM

Ms.Karuna Nidhi Pandagre*

Ms. Swati Namdev*

Abstract:

Knowledge Management (KM) is the management of knowledge within organization. The main purpose of this research is, KM seeks to make the best use of the knowledge that is available to an organization, creating new knowledge in the process. It is helpful to make a clear distinction between knowledge on the one hand, and information and data on the other. We can say that Information can be considered as a message and data is a type of information that is structured, but has not been interpreted. On the other hand Knowledge might be described as information that has a use or purpose. Whereas information can be placed onto a computer, knowledge exists in the heads of people .Knowledge is information to which intent has been attached.
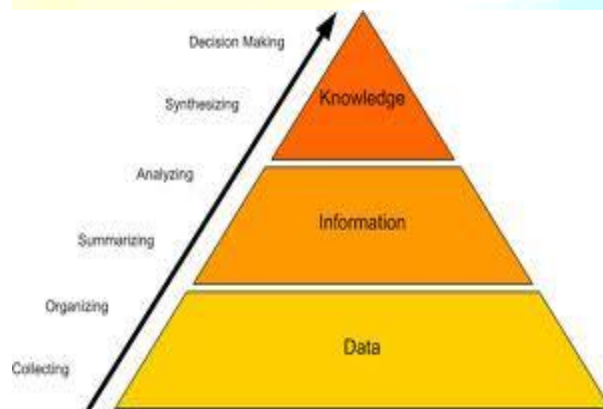

KEYWORDS: Knowledge Management (KM), Information, Data, Knowledge management in Organization.

* Assistant Professor, Career College, Bhopal

1. INTRODUCTION:

Knowledge Management applied in worldwide organizations "Knowledge Management caters to the critical issues of organizational adaptation, survival, and competence in the face of increasingly discontinuous environmental change….Essentially, it embodies organizational processes that synergistic combination of data and information processing capacity of Information technologies, and the creative and innovative capacity of human beings".

This definition not only gives an indication of what KM is, but of how its advocates often treat the English Language. In Simpler terms, KM seeks to make the best knowledge that is available to an organization, creating new knowledge in the process. It is helpful to make a clear distinction between knowledge on the one hand and information and data on the other.

2. Review

Generation of Knowledge Management:

By the early nineties, it was clear that there were two distinct branches of Knowledge Management.

First Generation Knowledge Management involves the capture of information and experience so that it is easily accessible in a corporate environment. An alternate term is "Knowledge Capture". Managing this capture allows the system to grow into a powerful information asset. We can say that first generation knowledge Management involved developing sophisticated data analysis and retrieval Systems.

Second Generation Knowledge Management faced with the theoretical and practical failure of first generation techniques to live up to its promise, theorist began to look more closely at the ways in which knowledge is created and shared. We can say that second generation knowledge Management gives priority to the way in which people construct and use knowledge.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories
Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A.
International Journal of Management, IT and Engineering
http://www.ijmra.us

2

3. Main View to judge Knowledge Management in different views:

Knowledge is the awareness and understanding of facts, truth or information gained in the form of experience or learning.

Distinguishing

Knowing that from *knowing how:* Suppose that Fred says to you:" The fastest swimming stroke is the front crawl. One performs the front crawl by oscillating the legs at the hip, and moving the arms in an approximately circular motion". Here, Fred has propositional knowledge of swimming and how to perform the front crawl.

However, if Fred acquired this propositional knowledge from an encyclopedia, he will not have acquired the skill of swimming: he has some propositional knowledge, but does not have any procedural knowledge or "know-how". In general, one can demonstrate know-how by performing the task in question, but it is harder to demonstrate propositional knowledge.

Inferential Vs. Factual Knowledge

Knowledge may be factual or inferential. Factual knowledge is based on direct observation.

Inferential Knowledge is based on reasoning from facts or from other inferential.

4. Successful Implementation of knowledge management

Although KM is as an enterprise- wide goal, many companies find success if they kickoff an initiative in one department and the extend the practices throughout other parts of the organization, Here, we will outline those practices that help ensure a successful KM initiative within the IT help desk or customer contact center. Often KM practices relating to service and support can be defined as knowledge-powered problem resolution- using a knowledge base, knowledge sharing, Collaboration and knowledge reuse to efficiently solve customer questions.

A successful Knowledge Management initiative within a help desk or call center can reduce agent training time and speed new employee ramp up. Knowledge –powered problem resolution enables agents to become more confident and competent sooner than they otherwise would without a KM Practice. By having access to a knowledge base, new help desk and customer service agents can get answers to a common question without having to constantly ash other more experienced agents. Customers and end-users benefit from faster problem resolution, and experienced agents can focus on solving more challenging problems.

Customers and end users also benefit when they have direct access to a knowledge base to solve their own issues without ever contacting an agent.

KM is an evolving discipline that can be affected by new technologies and best practices, but there are some things that we do know for sure.

4. Creating, developing and sharing knowledge

Knowledge Flows comprise the set of processes, events and activities through which data, information, knowledge and meta-knowledge are transformed from one state to another. To simplify the analysis of Knowledge flows, the framework described here is based primarily on the knowledge Model. The model organizes knowledge flows into for primary activity areas: Knowledge Creation, Retention, transfer and utilization.

Creation

Utilization

Transfer **Retention**
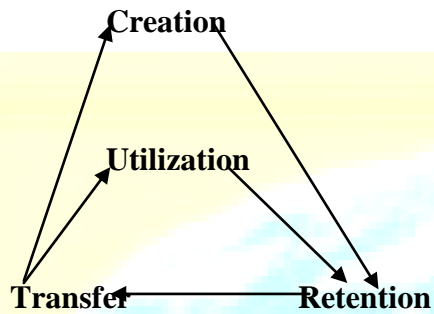
Knowledge Model

Knowledge Creation: This Comprises activity associated with the entry of new knowledge into the system, and includes knowledge development, discovery and capture.

Knowledge Retention: This includes all activities that preserve knowledge and allow it to remain in the system once introduced. It also includes those activities that maintain the viability of knowledge within the system.

Knowledge Transfer: This refers to activities associated with the flow of knowledge from one party to another. This includes communication translation, conversion, filtering and rendering.

Knowledge utilization: This includes the activities and events connected within application of knowledge to business processes.

5. Technologies applied in Knowledge Management

a. Knowledge creation and sharing: A set of systematic and disciplined actions that an organization can take to obtain the greatest value from the knowledge available is given the name knowledge management. "Knowledge" in this context includes both experience the experience and understanding of the people in this organization and the information artifacts, such as documents and reports, available within the organization and in the world outside. Effective knowledge management typically requires an appropriate combination of organizational, social, and managerial initiatives along with, in many cases, deployment of appropriate technology.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories
Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A.
International Journal of Management, IT and Engineering
http://www.ijmra.us

4

To structure the discussion of processes involved in knowledge creation and sharing and technologies involved, it is helpful to classify the technologies by reference to the notions of **tacit** and **explicit knowledge**

➢ **Tacit Knowledge** is what the knower knows, which is derived from experience and embodies beliefs and values. Tacit knowledge is actionable knowledge, and therefore the most valuable.

➢ **Explicit Knowledge** is represented by some artifact, such as a document or a video, which has typically been created with the goal of communicating with another person. Both forms of Knowledge are important for organizational effectiveness.

➢ **Socialization (tacit to tacit):** Socialization includes the shared information and communication

Figure: Conversion of Knowledge from Tacit-to-Explicit form and vice-versa, processes & Techniques.

Tacit-To-Tacit	**Tacit-to-Explicit**
Socialization	Externalization
Team meeting & Discussion	Team meeting & Answer Questions
Explicit-to-tacit	**Explicit-to-tacit**
Internalization	Combination
Learning-from-Reports	E-mail/Reports

➢ Externalization (**Tacit-to-Explicit**): It involves forming a shared mental model, then articulating through dialog.

b. Capturing Knowledge: Capturing explicit knowledge in this way makes it available to a wider audience, and "improving knowledge capture" is a goal of many knowledge projects.

c. Knowledge transfer and organization

- Identifying the key knowledge holders within the organization
- Motivating them to share
- Designing a sharing mechanism to facilitate the transfer
- Executing the transfer plan
- Measuring to ensure the transfer
- Applying the knowledge transferred

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories
Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A.
International Journal of Management, IT and Engineering
http://www.ijmra.us

5

d. Drivers of Knowledge Management

- Making available increased knowledge content in the development and provision of products and services.
- Achieving shorter new product development cycles.
- Facilitating and managing organizational innovation.
- Facilitate organizational learning.
- Managing intellectual capital and assets in the workforce

e. Knowledge Representation

Knowledge Representation is a central problem in arranging knowledge. It is needed for library classification and processing concepts in an information system.

6. The Value of Knowledge Management

Some benefits of KM correlate directly to bottom-line savings, while others are more difficult to quantify. In today's information-driven economy, companies uncover the most opportunities — and ultimately derive the most value — from intellectual rather than physical assets. To get the most value from a company's intellectual assets, KM practitioners maintain that knowledge must be shared and serve as the foundation for collaboration. Yet better collaboration is not an end in itself; without an overarching business context, KM is meaningless at best and harmful at worst. Consequently, an effective KM program should help a company do one or more of the following:

- Foster innovation by encouraging the free flow of ideas
- Improve decision making
- Improve customer service by streamlining response time
- Boost revenues by getting products and services to market faster
- Enhance employee retention rates by recognizing the value of employees' knowledge and rewarding them for it
- Streamline operations and reduce costs by eliminating redundant or unnecessary processes

These are the most prevalent examples. A creative approach to KM can result in improved efficiency, higher productivity and increased revenues in practically any business function.

7. Present and Future State of KM

Currently, communities of practice such as the Knowledge Management Network and the development of standards and best practices are in a mature stage of development. KM curricula such as certification, corporate training and university graduate certificate programs are on the rise. Techniques such as data mining and text mining that use KM for competitive intelligence

and innovation are in the early stages of development. Finally, organizations are investing heavily in ad hoc KM software that facilitates organizational knowledge. The chart below estimates the state of their current and future KM activities.

8. The Effect of Knowledge Management on Databases

Multiple corporate databases will merge into large, integrated, multidimensional knowledge bases that are designed to support competitive intelligence and organizational memory. These centralized knowledge repositories will optimize information collection, organization, and retrieval. They will offer knowledge enriching features that support the seamless interoperability and flow of information and knowledge. These features may include: the incorporation of video and audio clips, links to external authoritative sources, content qualifiers in the form of source or reference metadata, and annotation capabilities to capture tacit knowledge. Content will be in the form of small reusable learning objects and associated metadata that provides contextual information to assist KM reasoning and delivery systems.

The Implications of Knowledge Management for...

- Database Users: From business class users to the general public, database users will enjoy a new level of interaction with the KM system including just-in-time knowledge that delivers precise relevant information on demand and in context. More complex, smart systems will translate to optimal usability and less time spent searching for relevant information. For example, data analysts will enjoy simplified access and more powerful tools for data exploitation. The use of knowledge bases can reduce customer service costs by providing customers with easy access to 24/7 self service via smart systems that reduce the need to contact customer service or technical support staff. Database users may even create customized views of knowledge bases that support their needs.

- Database Developers: The design and development of knowledge based systems will be considerably more complex than current database development methods. Developers must consider the overall technical architecture of the corporation to ensure seamless interoperability. The use of standardized metadata and methods will also facilitate both intra-corporate and inter-corporate interoperability. Making effective physical storage and platform choices will be equally more complex. Both knowledge base developers and administrators must understand the role of the knowledge base in the overall KM system.

- Database Administrators: Database Administrators will evolve into Knowledge Managers. The knowledge base will store and maintain corporate memory and Knowledge Managers will become the gatekeepers of corporate knowledge. The lines between technical roles such as Web Developer, Data Analyst or Systems Administrator

will blur as these systems merge into and overlap with KM systems. DBAs will need to have some knowledge about each of these disciplines.

- General Public: Even if they are not interacting directly with a knowledge base, the general public will benefit from the secondary effects of improved customer service due to faster access to more accurate information by service providers.

9. The Future of Knowledge Management

In the next several years ad-hoc software will develop into comprehensive, knowledge aware enterprise management systems. KM and E-learning will converge into knowledge collaboration portals that will efficiently transfer knowledge in an interdisciplinary and cross functional environment. Information systems will evolve into artificial intelligence systems that use intelligent agents to customize and filter relevant information. New methods and tools will be developed for KM driven E-intelligence and innovation.

10. Conclusion of Knowledge management for the new economy and Information system

It is not clear what kind of organizations will survive in this environment or what types of learning will be central. Perhaps we will see increasingly large multinational corporations as Schumpeter predicted decades ago. Or perhaps the hot boiling pot of Silicon Valley will be the augur for the future, with its lightning-speed creation, destruction, and recombination of business models. Maybe work-related competencies are in the future increasingly created by quick and well-timed traversal through concentrations of social networks -- perhaps still called organizations or business

Firms -- which appear and disappear as bubbles in a boiling kettle?

The increasingly dynamic internal and external environment of organizations results from the growing intensity of knowledge generation in and around organizations. As innovation-based competition is becoming increasingly important, the traditional Weberian hierarchy that was based on a relatively stable division of labor is becoming outdated. This has also implications outside organizations. For example, the institutional and legal basis for employer-worker relationship was based on the idea that workers sell their labor force by physically moving it to the workplace as needed, and that the boundary between work and non-work is easy to define. Today, knowledge workers don't sell their hands but also their brains. Often the creative nature of work requires that the soul will follow. Organizations are rapidly becoming

Perhaps the most important places for learning work-related competencies and developing social capital that makes workers employable. Perhaps we therefore will also need a new constitution that defines the mutual responsibilities and rights in the work life.

Work, politics, economy, and the domain of private life have been understood and organized in different ways in different times. As Arendt (1998) noted, modern industrial society has been a

very special configuration of them. When we move towards the innovation based economy and knowledge society, they will beer configured once again. Social change will be predominant. The third generation of

Knowledge management will require capability to manage change, social conflict, and revolution. It will require organizational forms that make ongoing revolution possible without excessively destroying accumulated knowledge assets and social capital or decapitating revolutionaries in the process. It will also require new institutional foundations that make productive conflict resolution possible. It will therefore also require that we understand better the cultural basis of knowing and social activity, as well as the ways in which social and organizational learning lead to new social practices.

References:

- K.C.Laudon. and J.P.Laudon, Management Information System : Managing the digital firm(8th Edition),Prentice Hall, New Delhi
- P.Hilderth and C.Kimble, Knowledge Networks: Innovation through Communities of Practice, Idea Group.
- J.O'Brian, Management Information Systems: Managing Information Technology in The network enterprise (3rd Edition), Irwin, 1996.
- Tuomi, I. (1999). *Corporate Knowledge: Theory and Practice of Intelligent Organizations.* Helsinki: Metaxis.
- Tuomi, I. (2002). *Networks of Innovation: Change and Meaning in the Age of Internet.* Oxford: Oxford University Press.
- Tushman, M.L., & Nadler, D.A. (1978). Information processing as an integrating concept in organizational design. *Academy of Management Review,* **3***,* pp.613-24.
- Ungson, G.R., Braunstein, D.N., & Hall, P.D. (1981). Managerial information processing: a research review. *Administrative Science Quarterly,* **26***,* pp.116-34.
- Walsh, J.P., & Ungson, G.R. (1991). Organizational memory. *Academy of Management Review,* **16***,* pp.57-91.
- Watson, H.J., Rainer, R.K.Jr., & Koh, C.E. (1991). Executive information systems: a framework for development and a survey of current practices. *MIS Quarterly,* **March***,* pp.13-30.
- Weick, K.E. (1995). *Sensemaking in Organizations.* Thousand Oaks: Sage Publications.
- Winograd, T., & F. Flores. (1986). *Understanding Computers and Cognition: A New Foundation for Design.* Norwood, NJ: Ablex Publishing Corporation.