

# Knowledge Management

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## WHAT IS KNOWLEDGE MANAGEMENT?

Knowledge management is a concept in which an enterprise gathers, organizes, shares, and analyzes its knowledge in terms of resources, documents, and people skills. Knowledge management involves data mining and some method of operation to push information to users.

The systematic management and use of the knowledge in an organization; or, "the leveraging of collective wisdom to increase responsiveness and innovation."

### Roots of knowledge management

1. Knowledge based systems
2. intellectual assets/ Capital
3. Learning organizations
4. Business transformation (TQM, BPR, Culture)
5. Innovation
6. Information Management

### The Changing shift from Nomadic to Knowledge Society

Age	Nomadic Society	Agrarian Society	Mercantile Society	Industrial Society	Knowledge Society
Attributes					
Dominant Technology	Crude Hunting Tools	Manual Farm Equipment	Sailing Ships	Machine	The Computer
Icon	The Hunting Club	The Plough	The Great Sailing Ships	The Gasoline Engine	The Microprocessor
Science	Superstition	Civil Engineering	Marine Engineering	Mechanical Engineering	Computer Science
Output	Slaughtered Animals	Farm Food	Trade	Consumer Goods	Knowledge
Energy Source	Fire	Animals	Wind	Fossil Fuels	The Mind
Basis of Wealth	Hunting Ability of Tribe	Farm Land	Sailing Ships	Land, Labor, and Capital	Information
What Makes the Difference	Courage	Muscle	Fleets	Economies of Scale	Intelligence

<b>Defining Work</b>	<b>Hunter</b>	<b>Farmer</b>	<b>Merchant</b>	<b>Laborer</b>	<b>Knowledge Worker</b>
<b>What are you doing</b>	<b>Surviving</b>	<b>Eating</b>	<b>Trading</b>	<b>Automating</b>	<b>Informing</b>
<b>Organizational Form</b>	<b>Tribe</b>	<b>Feudalism</b>	<b>Trading House</b>	<b>Hierarchal Corporations</b>	<b>Networks</b>
<b>Means of Logistics</b>	<b>People</b>	<b>Animals</b>	<b>Ships</b>	<b>Airlines, Trains, Ships, Trucks</b>	<b>Network</b>
<b>Where is the Marketplace</b>	<b>Person-to-Person</b>	<b>Village Square</b>	<b>Town Stores</b>	<b>Shopping Malls</b>	<b>Cyberspace-Marketplace</b>

### EMERGING DEFINITONS OF KM

<b>Author</b>	<b>Year</b>	<b>Definition and issue</b>
Arthur, Murray J	2000	Corporate KM as the process whereby knowledge seekers are linked with knowledge sources and knowledge is transferred. KM to integrate computation, perception and cognition
R. Gregory Wenig	1996	Activities focused on the organization gaining knowledge from its own experience and from the experience of others, and application of that knowledge to fulfill the mission of the organization through marrying technology, organizational structures, and cognitive based strategies to raise the yield of existing knowledge and produce new knowledge. Critical in this endeavor is the enhancement of the cognitive system (organization, human, computer, or joint human-computer system) in acquiring, storing and utilizing knowledge for learning, problem solving, and decision-making
Newman, Brian	1991	Collection of processes that govern the creation, dissemination, and utilization of knowledge in one form or another.
Maarten Sierhuis	1996	The term information management came about when people realized that information is a resource that can and needs to be managed to be useful in an organization. Organizations are now starting to look at knowledge as a resource as well. This means they need ways for managing the knowledge in an organization. Techniques and methods that were developed as part of knowledge Technology to analyze the knowledge sources in an organization could be used to perform Knowledge Analysis and Knowledge Planning.
Bertels Thomas	1996	Management of the organization towards the continuous renewal of the organizational knowledge base. This means creation of supportive organizational structures, facilitation of organizational members, putting IT instruments like group ware with emphasis on teamwork and diffusion of knowledge into place.

## **6.KM Enhances Knowledge Sharing Through Forums and Technological Tools by:**

- What Does it Do
- Connecting people to people and people to tools and products
- Connecting people to critical organizational knowledge
- Enabling the conversion of assertions into facts and knowledge
- Enabling knowledge sharing through networks, connections, websites, and other electronic and oral communication processes

## **7. Two Key thrusts**

- Sharing existing Knowledge, “knowing what you know”
- Knowledge for innovation, “Creating and Converting”

## **8. Seven Levers**

- **Customer knowledge- the most vital knowledge**
- **Knowledge in products-smarts add value**
- **Knowledge in people-but people ‘walk’**
- **Knowledge in processes-know how when needed**
- **Organizational memory-do we know what we know**
- **Knowledge in relationships-richness in depth**
- **Knowledge assets-intellectual capital**

## **9. Knowledge Cycles**

### **Innovation Cycle**

**Products/ Processes:** Codify, Embed , & Diffuse

### **KM Cycle:**

**Knowledge Repository:** *Create & identify*, Collect, classify, organize/ store & Share/ disseminate , *Access & Use / exploit*

## **10. Dimensions in Knowledge Management**

- **Technology Dimension of KM**
- **People Dimension of KM**
  - KM is a Social Construct
  - Organizational Learning for KM
- **Process Dimension of KM**
  - Collaborative Process for KM
  - Integration of KM with ongoing initiatives
  - Strategy and Top Management Commitment
  - Strategic Alliances for KM
  - Flexibility for KM
- **Performance Dimension of KM**
  - KM for Competitive Advantage

- KM for Corporate Performance

### 11. Balance Measurement Model for KM

#### Balanced metrics for total life cycle of KM

Performance Dimension	=	Knowledge dimension
Organizational performance		$f \{K_p, K_t, K_{pr}\}$ where, $f$ is a function of $K_p$ is people dimension of KM, $K_t$ is technology dimension of KM, $K_{pr}$ is process dimension of KM
Metrics to measure balanced performance		Matrices to measure effective implementation of KM in terms of People, Process, and Technology dimensions.

### 12. Dimensions to be Included in the Balance Score Card

#### Metrics for effective Implementation of KM factors

Dimensions of measurement	items of Measure	Scale
1. People Dimension	Contribution to the Knowledge Management	Quantitative/Qualitative through benchmarks, feedback
	Incentive and rewards for sharing	
	Number of cross-functional teams	
	Number of users	
	Commitment and involvement	
2. Process Dimension	Collaboration over the KMS, New features	
	Frequency of content updating of Web pages	
	Mapping of skills and competency	
	Number of community of practices in use	
3. Technology Dimension	Access of the KMS for knowledge and solutions	
	Number of dynamic web pages	
	On-line Availability	
	Search engine usage	
	Database usage	

	<b>Usage of critical software</b>	
<b>4a. Performance Dimension Financial perspective</b>	<b>Sales growth</b>	<b>Quantitative</b>
	<b>Profitability</b>	
	<b>New sales based on strategy</b>	
	<b>Costs savings (non-quantitative)</b>	
	<b>Export sales</b>	
<b>4b. . Performance Dimension Customer perspective</b>	<b>Customer satisfaction survey results</b>	<b>Subjective assessments, self-assessments, customer evaluations</b>
	<b>Customer involvement in Technology</b>	
	<b>Customer perception Survey</b>	
	<b>Customer Partnerships in SCM</b>	
	<b>Sales of new Products to existing customers</b>	
	<b>Number of customer complaints</b>	
	<b>Retention of Key customer accounts</b>	
	<b>Customer Partnerships in R&amp;D</b>	
<b>4c. Performance Dimension Internal Processes</b>	<b>True Learning Organization</b>	<b>Quantitative/Qualitative through benchmarks, feedback</b>
	<b>Intelligence for the solution to a business problem.</b>	
	<b>Early warning signals in the corporate strategy</b>	
	<b>Employee satisfaction surveys</b>	
	<b>Business process effectiveness</b>	
<b>4d. Performance Dimension Learning, Growth and Knowledge creation</b>	<b>Market share</b>	<b>Quantitative/Qualitative through benchmarks, feedback</b>
	<b>New Process, New market</b>	
	<b>Learning through application and feedback</b>	

## 12. Perception Survey

The Survey was divided in two parts

To understand the views of respondents ( cross section of executives in middle management and top management) regarding the importance of knowledge and intellectual resources for organizational survival and growth.

To get the first hand perception from industry about key process involved in KM and to find out the key organizational results which were benefited by the use of KM

### Results of Perception Survey

KEY ORGANIZATIONAL RESULTS /KRAs	RESPONDENTS (%age)
Enhanced customer satisfaction and customer loyalty	90
Reduction in cycle time	80
Reduction on operating costs	75
Improved response level of employees	85
Improved operational efficiency	70
Improved strategic benefits	75
Enhanced flexibility and agility	80
Improved & effective virtual teaming capability	80
Enhanced capability for identification of new emerging opportunities & harvesting the same at most opportune time	75
Improved level of awareness about internal and external environment	70
Improved integration of different functions	80
Improved bonds with customers and suppliers	85
Improved performance of R&D function	80
Continuous innovation and renewal	70
Improved revenues and market share	70
Improved organizational culture and adaptive ness to change	Respondent identified (16)
Improved technical capabilities	Respondent identified (18)
The very survival of organization will be at stake in absence of systematic knowledge management process in the organization	Respondent identified (14)
Improved profitability	Respondent identified (13)

### 13. KM Framework Highlights

- Development of People Centric Policies for Creativity and Commitment
- Readiness for Change
- Formulization of KM Concept
- Top Management Commitment for Culture of Sharing
- Dynamic and Empowered Teaming
- Management of Intellectual Resources
- Regulation and Compliance of KM Policies
- Technology Dimension of KM Facilitating
  - Capture
  - Classify
  - Retrieval
  - Measure
  - Collaboration
  - Communication

- Life Long Learning through Training, and Alliances
- Alliances, Joint Working and Net Working with Partners

#### 14.Example of KM application

##### **Launch of KM Initiative at SONA (Sona Koyo Steering Systems Limited )SKSSL**

- Technology Centric Approach to Implement of KM initiatives
- Design Workshop for KM
- KM Perspective of Supply Chain Management
- KM Perspective of R & D Technology Management

##### **Technological Dimension of KM at SONA**

- Hardware Infrastructural Facility
- Software Infrastructural Facility
- Communication Infrastructure Facility
- Collaborative Product Development Initiatives

##### **Process Dimension of KM at SONA**

- Toyota Production System
- Total Quality Management
- Total Productive Management
- Koyo Production System
- Group Kaizen Activities
- Internal Communication Processes for Knowledge Sharing
- ISO 9002
- Enterprise Resource Planning
- Environment Management System
- Technical Training Process

##### **Human Resource Dimension of KM at SONA**

- Continuous Learning through learning and development
- Performance management of Employees
- Top Management commitment for employees
- Culture for KM
- Participative Management

##### **Performance Parameters**

