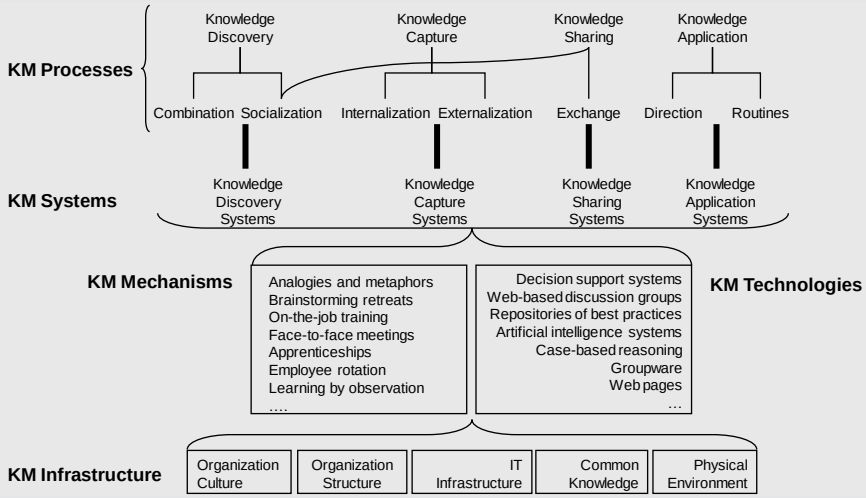
Lecture 3:
Knowledge Management Cycles

Md. Mahbubul Alam, PhD
Associate Professor
Dept. of AEIS
Sher-e-Bangla Agricultural University

Contents

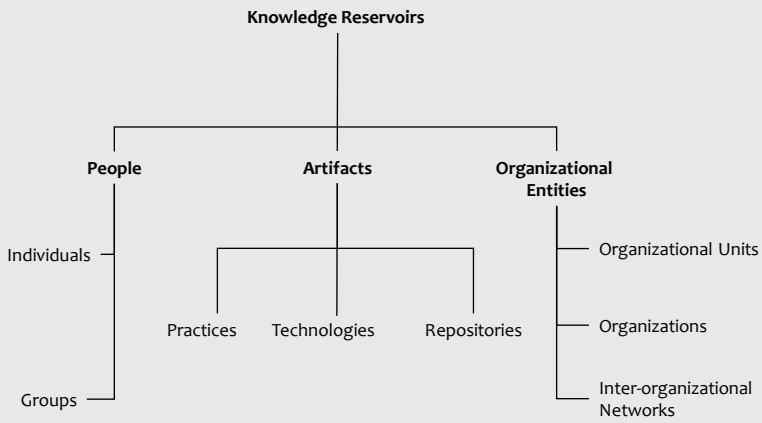
1. Recap of KM foundations and solutions
2. KM cycles

Recap: KM Solutions (Summary)



3

Knowledge Reservoirs



Knowledge & Intellectual Capital

- **Intellectual Capital**
  - ***is the sum of all its knowledge r***esources, which may be within or outside the organization

- **3 types**

i. Human capital
  - ***knowledge, skills and capabilities possessed by individual employees***;

ii. Organizational capital
  - ***knowledge and codified experience*** residing in databases, manuals, culture, systems, structures, and processes;

iii. Social capital
  - ***knowledge embedded in relationships and interactions*** among individuals.

5

Knowledge Characteristics

i. Explicitness
  - the extent to which ***knowledge exists in an explicit form*** so that it can ***be stored and transferred*** to others.
  - ***Explicit knowledge being high and tacit knowledge being low*** in explicitness.

ii. Codifiability
  - the extent to which ***knowledge can be articulated or codified***, even if the resulting codified knowledge might be difficult to impart to another.

iii. Teachability
  - the extent to which the ***knowledge can be taught to other individuals***, through training, apprenticeship, and so on.

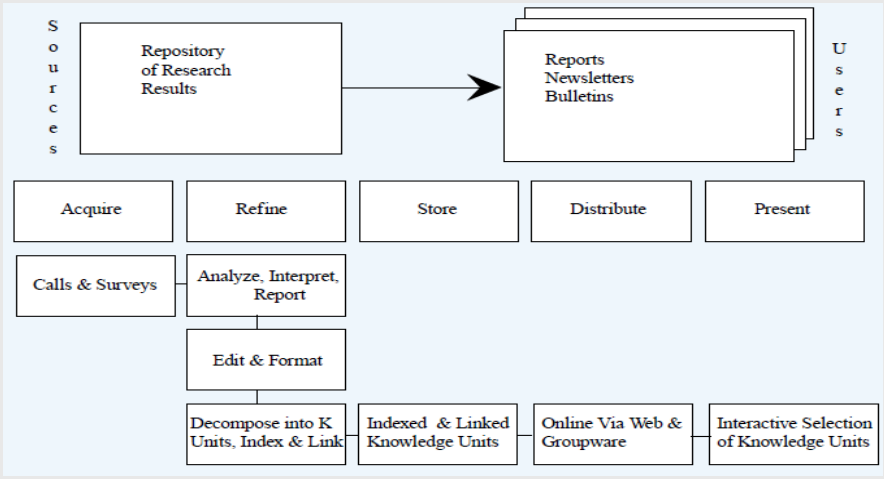
iv. Knowledge specificity
  - Knowledge that is ***possessed by a very limited number of individuals*** who possessing certain prior knowledge and is expensive to transfer.

6

KM Cycles

7

The Zack KM Cycle (Meyer & Zack, 1996)



8

The Zack KM Cycle (Meyer & Zack, 1996) (cont'd)

- **Acquisition**
  - **'Raw' materials and its quality**, such as, scope, breadth, depth, credibility, accuracy, timeliness, relevance, cost, control & exclusivity.
  - Source data must be high in quality.
- **Refinement**
  - Cleaning up the data ("**sanitizing**") or standardizing data.
  - **Restructuring, relabeling, indexing & integrating data.**
  - Statistical analysis or meta analysis can be performed for finding pattern or summary of source data.
- **Storage/retrieval**
  - Bridge between the upstream acquisition and refinement.
  - **Physical storage** (file folders, printed information) or **digital storage** (database, KM tools).
- **Distribution**
  - Medium of delivery (fax, e-mail, print) & quality of delivery (timing, frequency, form, language & so on.
- **Presentation/use**

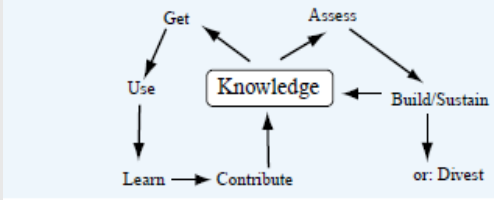
9

The Bukowitz & Williams KM Cycle (2000)

• Get, Use, Learn & contribute → more tactical in nature. Day to day use of knowledge to respond to market opportunities & demands.

• Assess, build/sustain & divest → more strategic in nature. Focus on more long-range processes of matching intellectual capital to strategic requirements.

THE BUKOWITZ AND WILLIAMS KM CYCLE



10

The Bukowitz & Williams KM Cycle (2000) (cont'd)

- **Get**
  - **seeking out informa**tion needed in order to make decisions, solve problems, or innovate.
  - Knowing where knowledge resources exist & can be accessed.
- **Use**
  - deals with **how to combine information in new & interesting ways** in order to foster organizational innovation.
- **Learn**
  - **process of learning from experiences** as a means of creating competitive advantage.
  - Experience, e.g., **successes (best practices) , failures (lessons learned)**.
- **Contribute**
  - deals with getting employees to post what they have learned to the communal knowledge base (e.g., a repository).
  - **Organizational memory management system**.

11

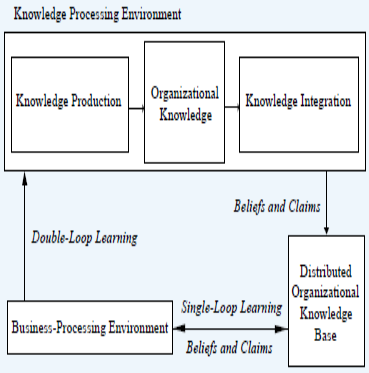
The Bukowitz & Williams KM Cycle (2000) (cont'd)

- **Assess**
  - **evaluate & map current intellectual capital** against future knowledge base.
  - **Identify new form of capital**, such as, human capital (competencies), customer capital (customer relationship), organizational capital (business processes, technology infrastructure, values, norms, culture, knowledge base).
- **Build/sustain**
  - it ensures organization's future intellectual capital will keep the organization viable & competitive.
  - Resources must be allocated to the growth & maintenance of knowledge.
- **Divest**
  - **Transfer of knowledge** outside the organization.
  - Assess whether the knowledge resources would be better spent elsewhere.
  - **Identify which part of the knowledge base will be unnecessary** for sustaining competitive advantage & industry viability.

12

McElroy KM Cycle (1999)

HIGH-LEVEL PROCESSES IN THE MCELROY KM CYCLE

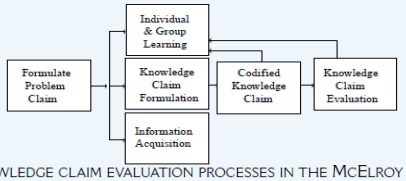


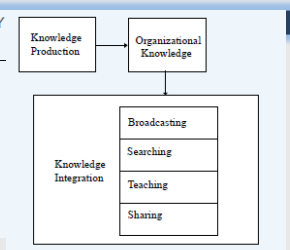
- McElroy's KM cycle consists of the processes of **knowledge production & knowledge integration, with a series of feedback loops** to organizational memory, beliefs, & claims and the business-processing environment.
- **Organizational knowledge is** held both **subjectively** (i.e., minds of people/group), and **objectively** (i.e., explicit forms).
- **Positive outcome** of knowledge use (i.e., matching) reinforce **re-use** of knowledge, while **mismatch leads to adjustment** in business-processing behavior.
- **Successive failures** from mismatches will **lead to doubt & ultimately rejection of existing knowledge** & trigger to produce & integrate new knowledge.

13

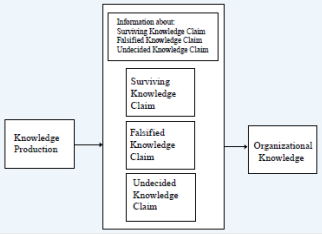
McElroy KM Cycle (1999) (cont'd)

KNOWLEDGE PRODUCTION PROCESSES IN THE MCELROY KM CYCLE





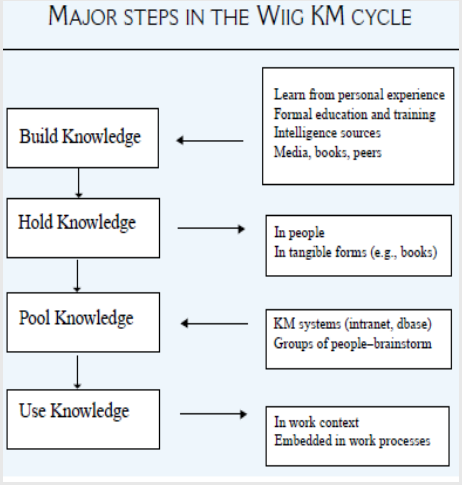
KNOWLEDGE CLAIM EVALUATION PROCESSES IN THE MCELROY KM CYCLE



- **Individual & group learning**: first step in organizational learning.
- **Knowledge claim formulation**: involves **codification of knowledge** at organizational level.
- **Information acquisition**: **process of acquiring knowledge claims,** or information produced by others.
- **Knowledge claim evaluation**: process by which knowledge claims are evaluated to **determine their veracity & value**.
- **Knowledge integration:** introduction of new knowledge and retire old ones.

14

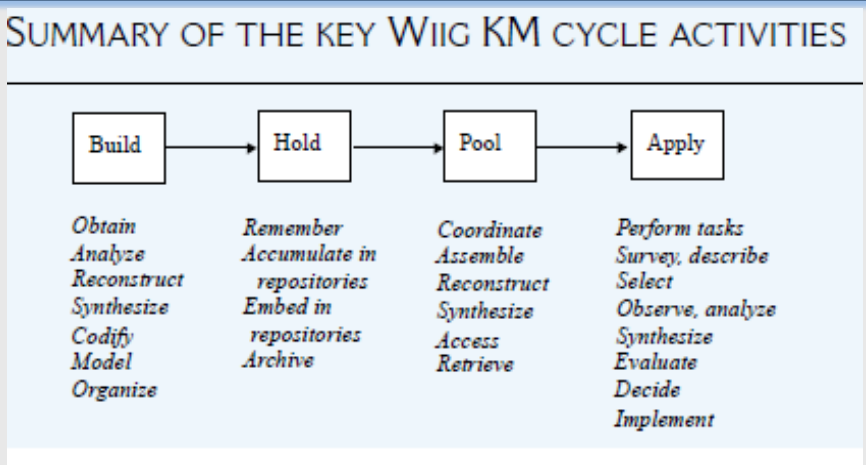
The Wiig KM Cycle (1993)



- 3 conditions must have
- **a business (product/service) & customers**
- **resources** (people, capital & facilities)
- **ability to act.**
- **knowledge** is the principal force that **determines and drives the ability to act** intelligently.
- With improved knowledge we know better **what to do & how to do.**
- **Purpose of KM:** is to make the enterprise intelligent-acting by facilitating the **creation, accumulation, deployment & use** of quality knowledge.
- **we must acquire** as much relevant & high-quality knowledge as possible & **apply it better in a number of different ways.**

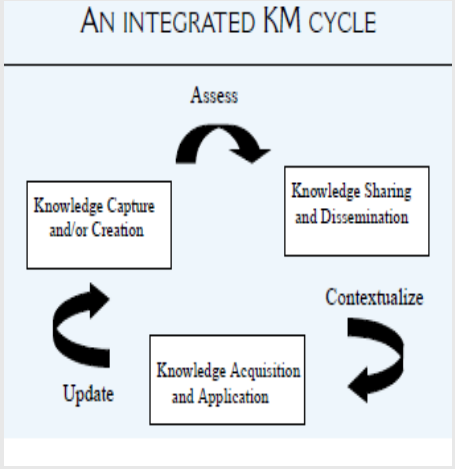
15

The Wiig KM Cycle (1993) (cont'd)



16

Integrated KM Cycle



- ***Knowledge capture*: identification & subsequent codification** of existing knowledge (both internal & external).
- ***Knowledge creation*: creating or development of new knowledge and know-how-innovations** that did not have a previous existence.
- ***Contextualization*: identifying the key attributes of the content** in order to better match to a variety of users.

17

Integrated KM Cycle (cont'd)

INTEGRATED KM CYCLE STEPS

Meyer & Zack (1996)	Bukowitz & Williams (2003)	McElroy (1999)	Wiig (1993)	Integrated KM Cycle
Acquisition	Get	Individual & group learning	Creation	Create/capture
Refinement	Use	Knowledge claim validation	Sourcing	Create/capture
Store/retrieve	Learn	Information acquisition	Compilation	Create/capture
Distribution	Contribute	Knowledge validation	Transformation	Create/capture and contextualize
Presentation	Assess	Knowledge integration	Dissemination	Share, disseminate, and assess
	Build/sustain		Application	Acquisition and application
	Divest		Value realization	Update

18

Question Please ?