

Knowledge Management & Innovation: An HR Perspective

Young Managers Conference 2009

National HRD Network Delhi Chapter

Gautam Brahma
May 8, 2009

Agenda

- Innovation Imperative
- Knowledge Management & Creation
- Framework for HR Initiatives
- Challenges
- Q&A

Innovation Imperative

- Economic Slowdown
 - Global
 - Prolonged
 - Pervasive
- Organizational Response
 - Short term
 - Cost reduction
 - Head count reduction
 - Expense control
 - Variety reduction(e.g. “Driving Down Costs” – Andrew Wileman)
 - Long term
 - Innovation
 - Product
 - Process
 - Business Model
- Historical validation: New companies in recessions: CK Prahlad

Knowledge Management & Creation

■ Knowledge Management

- Capturing, sharing, & leveraging explicit knowledge
- Converting tacit knowledge to explicit knowledge

‘..Knowledge is information combined with experience, context, interpretation and reflection. ...’ - Thomas H. Davenport;

‘....Creating value from an organization’s intangible assets..’ - Karl Erik Sveiby

■ Knowledge Creation

- Blending new and old tacit knowledge to generate new knowledge

■ Knowledge creation vital for innovation

Framework for HR Initiatives

- Knowledge Creation Spiral: SECI Model
 - Socialization
 - Sharing tacit knowledge : experiential assets
 - Externalization
 - Developing & articulating concepts
 - Combination
 - Fusing elements of explicit knowledge e.g. component based design: systemic assets
 - Internalization
 - Creating new tacit knowledge: learning through action: routine assets
 - Ikujiro Nonaka & Hirotaka Takeuchi: “The Knowledge Creating Company”

Framework for HR Initiatives

■ HR Facilitation at each stage

■ Socialization

- Hard to codify: Create opportunities & context e.g. apprenticeship, open office, unmoderated collaborative platforms

■ Externalization

- Opportunities to articulate, communities of practice, reports, experience sharing

■ Combination

- Traditional KM focus. Repositories, directed work flow...associated training and recognition

■ Internalization

- Opportunity to practice, fail & learn. Culture building.

Challenges

- Overall Strategy
 - Directed Ideation
 - E.g. Charles Leadbeater - “We-Think”
 - Undirected Collaboration
 - E.g. C.K. Prahalad & M.S. Krishnan - “The New Age of Innovation”
- Global operations
 - Business alignment
 - Cultural diversity
 - Communication
- IT focus

Challenges

■ Leveraging Large Groups

- 1906 Annual West of England Fat Stock and Poultry Exhibition
- 800 participants guessed the weight of a prize ox
- Statistician Francis Galton computed the average
- True weight 1198 pounds
- Average of all individual estimates 1197 pounds

(For this and more cases see “The Wisdom of Crowds”; James Surowiecki; 2004: Little, Brown UK)

Q&A

- Gautam.brahma@gmail.com

Agenda – KM Primer

- 1. Definitions**
- 2. Importance**
- 3. Key Processes, Improvement Approaches & Choices**
- 4. Reported Cases**
- 5. Priorities & Perceived Difficulties**
- 6. Success Factors & Measures**
- 7. Mature Practices - Consulting Firm**
- 8. Nascent Practices - IT Firms**
- 9. Neglected Initiatives**

Knowledge

Many definitions exist...

‘..Knowledge is information combined with experience, context, interpretation and reflection. ...’ - Thomas H. Davenport

Knowledge Management

Many definitions exist.

‘...Creating value from an organisation’s intangible assets..’ - Karl Erik Sveiby

Importance of KM

- 1. Staff Turnover**
- 2. Global Spread**
- 3. Rapid Technological Change**
- 4. Delaying / Empowerment**
- 5. 'Generation X' Requirements**
- 6. Recognition & Reward Requirements**

Knowledge Management Processes

- 1. Finding existing knowledge - *e.g. Gathering Competitive Intelligence***
- 2. Creating new knowledge - *e.g. Writing books & articles, product/process research***
- 3. Packaging/assembling knowledge - *e.g. Editing & designing a publication***
- 4. Applying existing knowledge - *e.g. Medical diagnosis***
- 5. Reusing knowledge - *e.g. Use of component libraries in engineering design***

Key Improvement Approaches

- 1. Change knowledge itself *e.g. Create / capture new units of knowledge that reuse or access- modular contracts***
- 2. Change physical location of where and with whom people work *e.g. colocation, modified teams, & new roles***
- 3. Use technology as enabler *e.g. create knowledge databases, telecommunications infrastructure & application software***

Choice of Approach

	Unit Change	Setting Change	Technology
Find		X	X
Create	X	X	
Package	X		X
Apply	X	X	X
Reuse	X		X

KM Projects - Reported Cases

1. Creating Repositories

1.1 External Knowledge - e.g. Competitive Intelligence

1.2 Internal Knowledge - e.g. Research reports; Techniques

1.3 Informal Knowledge - e.g. Discussion databases ('lessons')

2. Improve Access

2.1 Expert Networks (e.g. *yellow pages*.)

2.2 Competency profiles

2.3 Videoconferencing

2.4 Face-to-face meetings

KM Projects - Reported Cases (Contd.)

3. Enhance Environment (*i.e. make it conducive to knowledge creation, transfer & use*)

3.1 Encourage Reuse (*e.g. in product design*)

3.2 Create Awareness (*e.g. where it is embedded in client relationships & engagements & how it can be used*)

3.3 Encourage Contributions (*e.g. by linking it to compensation & promotion*)

3.4 Develop metrics (*e.g. speed, cost, impact & csat of KM*)

3.5 Audit Use in Decision Making

4. Measure Assets

KM Project Priorities - Survey

47% Creating Intranet

•33% Data Warehousing / Creating Repositories

•33% Implementing Decision Supporting Tools

•33% Implementing Groupware

•24% Creating Networks of Knowledge Workers

•18% Mapping Sources of internal Expertise

•15% Establishing New Knowledge Roles

•14% Launching New Knowledge Based Products / services

KM Difficulties - Survey

- 56% Changing behaviour**
 - 43% Measuring knowledge assets**
 - 40% Deciding what knowledge to manage**
 - 34% Justifying use of scarce resources**
 - 28% Mapping existing knowledge**
 - 24% Setting the scope for the KM initiative**
 - 15% Making knowledge available**
 - 13% Overcoming technological limitations**
 - 12% Identifying the right KM project leader**
 - 9% Attracting and retaining the right people**
- (431 large US & European companies. E&Y)**

Measures of Success in KM Projects

1. Indirect

1.1 Growth in resources attached to project (*e.g. people, money etc.*)

1.2 Growth in volume and usage (*e.g. #documents, #accesses, #participants in discussion lists etc.*)

1.3 Likelihood of survival without key individual (*i.e. organisational initiative vs individual project*)

2. Direct

2.1 Operational improvement in particular process / function (*e.g. new product development, customer support etc.*)

2.2 Evidence of financial return

Success Factors in KM

- 1. Link to economic performance** (*e.g. Dow \$4m, TI \$200m from better patent management. Hoffman LaRoche reduced time to market, HP 50% cut in cost of answering customer calls*)
- 2. Right technical / organisational infrastructure** (*e.g. HP minimal common operating environment. NS multiple tools, E & Y 22 n/ws, several KOOs, one CKO, multiple committees*)
- 3. Standard flexible knowledge structures**
- 4. Knowledge-friendly culture** (*e.g. low fear of sharing failure, low fear of redundancy, absence of 'hero' mentality*)
- 5. Clear Purpose & Language**

Success Factors in KM (Contd.)

6. Change in motivational practices (e.g. frequent flier miles, chocolate covered ice-cream bar, mouse pads, appraisal weightages, laptops, holiday trips, 'Not Invented Here But I Did It Anyway' Award, etc.)

7. Multiple channels for knowledge transfer

8. Senior management support

8.1 Sending message that KM is critical

8.2 Providing funding & resources

8.3 Clarifying types of knowledge required by Company

8.4 Appointing KM project leaders who are cerebral, conceptual, well-read & well-educated

Key Difficulties In KM Projects

- 1. All case studies relate to companies that have many people, many lines of activity and many locations. No models for small companies.**
- 2. Enormous expense involved. (e.g. *Buckman Labs 2.5% of sales, E&Y 6%, McKinsey 10%*)**
- 3. Difficulty in imposing process orientation**
(e.g. 1. reengineering vs intranet 2. one process, 15 sub processes, 53 sub-sub-processes; 5% implementation in one year)
- 4. Applications need critical mass to succeed**
- 5. Jargon-filled publications**

Mature KM - A Consulting Firm

- 1. Process classification scheme**
- 2. Process definition**
- 3. Best practices - which company, why 'best', description, list of sources for additional info, list of internal & external contacts**
- 4. Relevant engagements - overview of client, , identity of partner/manager, description of project, discussion of BPssed, detailed documentation)**
- 5. Performance measures**
- 6. Studies & articles**
- 7. Diagnostic details**
- 8. Presentations (all related to this process/practice - both client specific ang general)**
- 9. AA experts in this process**
- 10. Best operational, financial control practices for this process**

Mature KM - A Consulting Firm (Contd.)

Knowledgespace - Business Consulting

1. Engagements - Client description, management challenge, AA's approach, learnings, recommendations, deliverables, tools and methodologies used, detailed financial information, partners and managers involved. Classified by service line, function, geographic location, business process industry code, and technology related categories.

2. Library resources - articles, book references, marketing presentations, proposals, reports and methodologies.

3. Best practice information on general consulting - guidelines on client handling and 400 analytical tools and techniques.

4. Distance learning support

Mature KM - A Consulting Firm (Contd.)

- **External Knowledgespace - clients/outsideers can access relevant news, discussion forums, and best practice information.**
- **Groupware-based tools - AA Conference Centre, AA Offline, e-news, (WSJ, JEN, Dow Jones Intl.), Proposal toolbox, Electronic Client Folder, Local Office Webpage editor.**
- **AA Online - 25000 useful documents customisable by user.**
Client - Service connection - extranet involving 45 global clients.

Nascent KM - Select IT Firms Finding Existing Knowledge

- 1. Technology scanning by dedicated / part time staff**
- 2. Commissioning / buying 3rd party reports**
- 3. Moderated technical discussion groups**
- 4. Annotated electronic news service, with searchable archives**

Nascent KM - Select IT Firms Creating New Knowledge

- 1. Competence building / prototyping studies.**
- 2. Draft standards.**
- 3. Authoring technical papers**
- 4. Rich inter-active library resources.**
- 5. Unmoderated electronic discussion groups**
- 6. Best practice meets**

Nascent KM - Select IT Firms

Packaging / Assembling Knowledge

- 1. Group home pages with tools , white papers, presentations and tutorials.**
- 2. Skill database.**
- 3. Individual homepages on the intranet.**
- 4. Project post-mortem reports repository.**
- 5. Customer survey information repository.**

Nascent KM - Select IT Firms Applying Existing Knowledge

- 1. Transparent work-flow application for logging, tracking closing procedural non-compliance.**
- 2. Buddies & Mentors help new engineers do first project using company processes.**
- 3. Formal inspection of all artifacts.**
- 4. Trained internal faculty for in-company programs.**

Nascent KM - Select IT Firms

Re-using Knowledge

- 1. Central intellectual property repository.**
- 2. Mandated re-use in project planning.**
- 3. Common frameworks for product families.**
- 4. Central repository for training material.**
- 5. Central tool repository with user comments & expert user reference.**
- 6. Policy / process repository**
- 7. Proposals / presentations repository**

Nascent KM - Select IT Firms Future Directions

- **Greater use of web-based repositories for sharing information & refinement by monitoring usage.**
- **Greater internal e-governance e.g. project status on intranet.**
- **Posting project specs and “free hours” on intranet to create an internal marketplace matching short-term resources required and available. (*Internal job posting program already exists on intranet.*)**
- **More informal opportunities for talks by internal / external speakers in large / small groups. (*Ref J.B. Quinn*)**

Knowledge Creation - Neglected KM Initiative

- **Key problem** - Handling 'tacit' knowledge & creating new knowledge
- **Key thinker** - Ikujiro Nonaka (64)
- **Key works** - 'The Knowledge Creating Company'
(OUP, 1995 with Hirotaka Takeuchi)
- **Key concepts** - Ba
 - The SECI model for the knowledge creation spiral