

Elective Group: (III) Information Systems

Knowledge Management

Unit 5

Implementation of KM

5.1 Discussion on Roadblocks to success

5.2 Implementing a KM programme

5.3 Critical Success Factors in KM

5.4 Implementation of KM

5.1 Discussion on Roadblocks to success, Implementing a KM programme

The knowledge management (KM) concept has been kicking around for over 20 years now, to the point where thought we were permanently lingering in a post-hype disillusionment phase.

But lately seen it creeping back into business cases for collaboration tools and digital workplaces. Leaders worried about the poor knowledge sharing practices of their teams and the existence of knowledge silos in the workplaces are looking for technology to provide part of the answer.

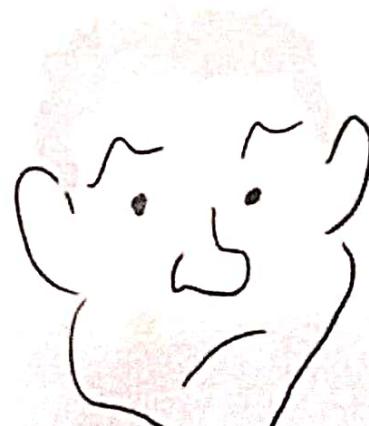
Here's a technique to help you think about knowledge flows and how to plan beyond simple technology changes. Created it because KM discussions either regress to information management or become too philosophical to pinpoint solutions.

Knowledge naturally flows when people ask for it, but it can get blocked. This diagnostic approach helps you identify and fix those blocks.

Model the Simple Scenario First



Person A



Person B

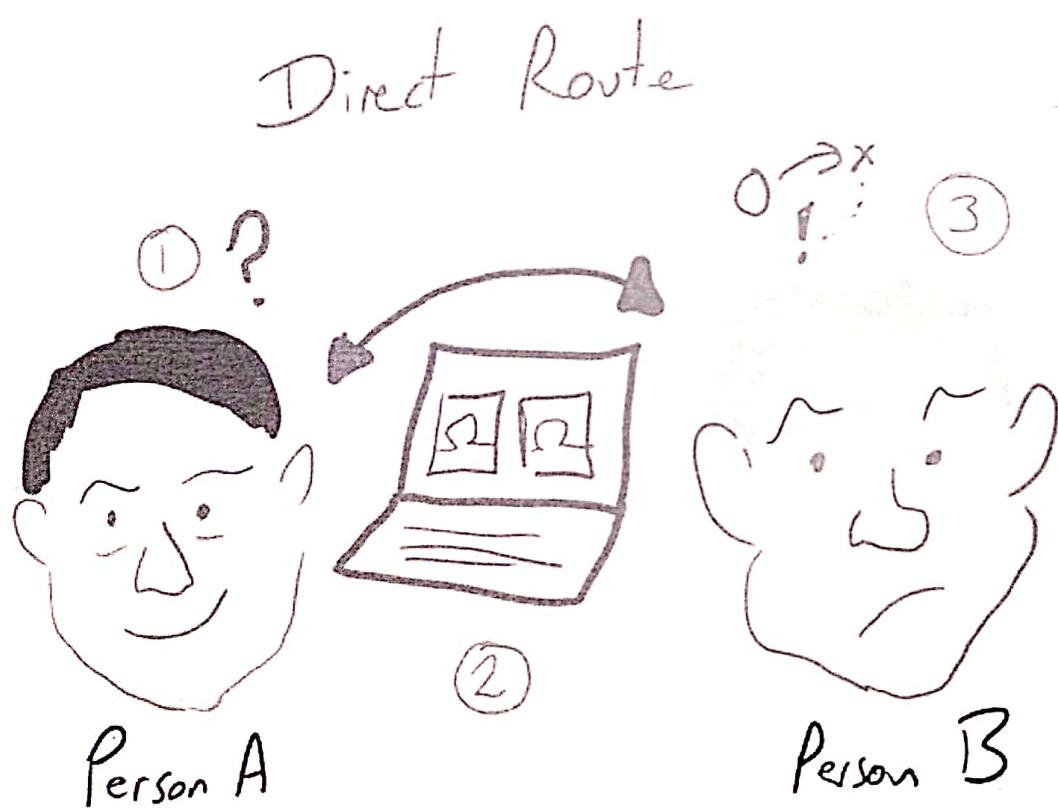
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The starting point is to simplify any scenario by thinking about the flow of knowledge between just two people: A and B. You can use personas if you like, or think about two real people, but the main thing is to tackle how knowledge flows in a specific scenario, rather than ill-defined groups.

Imagine Person A as the one who knows something that Person B would also like to know. It might be how to fix a pump, interpret a data set, give a sales pitch or advise on relevant employment law. Try to keep your scenario reasonably specific and limit the question to one that can be answered in five to 20 minutes. Bigger scenarios are often a set of these smaller ones.

The Simple Scenario: Direct Knowledge Flow

In the simplest scenario, knowledge flows when two people communicate. This happens naturally when people are face to face, and reasonably with video conferencing for most kinds of exchange.



So what steps, blockers and solutions present themselves in this scenario?

1. Awareness of need

Person B needs to ask the question. It sounds simple, but potentially B doesn't know who to ask. Expert profiles on enterprise directories .

2. Appropriate communication

Person A and Person B need a way to communicate. Face to face is great, but not always practical.

This is where the ready availability of video calls (Skype, Google Hangouts, Slack, etc.) have made a huge difference. Voice or email are fine if the knowledge can be easily verbalized, but sometimes you need to show people. Tools that allow desktop sharing, which most web meeting tools now offer, can also be invaluable for demonstration, and are still one of the most under-utilized tools outside of the IT profession.

3. Shareable knowledge

Some knowledge isn't readily shareable, it has to be re-learned by each individual rather than transferred. This is particularly true of motor skills.

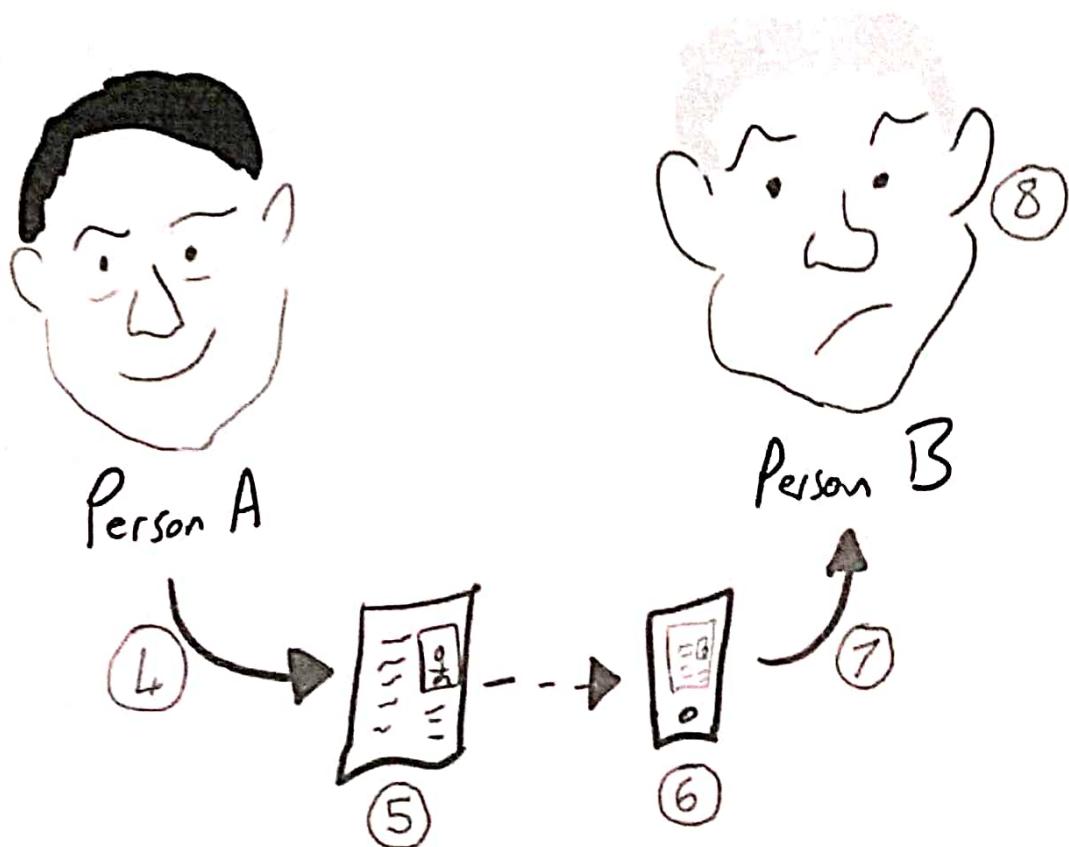
For example, to learn to ski a good teacher gets the student to do drills so that their body feels the right sensations — they form a muscle memory. You can't learn skiing from a conversation. Emotional skills are similar. In both cases, a more structured approach is needed than simple knowledge flow, but digital tools can support the learning process.

The Not-so-Simple Scenario: Indirect Knowledge Flow

The direct route above isn't always feasible or practical in business. It doesn't scale easily and relies on both parties being available at the same time. If the time gap is months or years, Person A may have even left the company.

This makes an indirect route, where the knowledge flow is asynchronous, more attractive.

Indirect Route



For the indirect route, some blockers and enablers are:

4. Readiness to share

Person A doesn't — or won't — share it. A lot has been written on what motivates or inhibits knowledge sharing. Politics and power dynamics aside, remember that people help people, they don't help databases. So if you expect people to document knowledge, be prepared to sponsor and resource that directly as an activity.

Also keep in mind that some cultures may view making expertise visible to all as arrogant, so having somebody else handle the publishing can help. Chat tools like Slack claim to capture knowledge as a side-effect, but often fall foul of point seven: appropriate format.

5. Ability to share

Most collaboration tools are optimized for words. Not everyone is comfortable with this.

Video, particularly YouTube, has a rich archive of "how to" material from people who would never write a book, but happily post videos on how to strip down an engine. In the digital workplace, video-sharing via Yammer, Jive and apps like SeenIt all help if Person A wants have knowledge to share but no desire to write about it.

6. Ability to find

Even if Person A has documented something useful, often Person B can't find it. Of course search, metadata, taxonomy and all the other fun things apply here.

But other subtle barriers impede find ability. One possibility is B's lack of knowledge may mean he doesn't use the right terminology. He might search for "AI" but all the answers are under "Machine Learning."

Structured publishing can help here: navigation, or navigation plus local search can still beat broad search for vague terms. The other route is "social search." A good social network lets B ask in general terms and establish what the more precise term is.

7. Appropriate format

Even if a document technically contains an answer, its format can make it hard to use. For example, an engineering paper on networking might explain how to configure a router, but a novice would need step-by-step instructions. Knowledge can be most succinctly shared when the purpose is very specific. If you document in advance, you can't always know the purpose, and covering the "What if" scenarios turn it into a book. Stable processes are most suitable for the indirect route.

8. Foundation knowledge

Imagine you needed a new kidney but your healthcare wouldn't cover it. "Don't worry," I'd say, "I've read a book on transplants — I'll do it for free."

Would you trust me? Hopefully not.

The reality with any knowledge flow is it needs to build on a pre-existing base for Person B. If this is your final blocker, you should consider more substantial interventions like formal training, shadowing and apprenticeships.

Making the Diagnostic Work for You

Every company will inevitably have different requirements. This diagnostic is meant to help you figure out what works best for your organization.

When making a change, such as introducing a new collaboration tool with the goal of "improving knowledge sharing," it can be helpful to ask "What knowledge?" "Who will share it?" "How?" and then sketch out a figure like the one above.

The sketch zooms out from a narrow tool-related focus, and asks the broader question of what needs to happen before and after to support the knowledge exchange. It can switch the balance of resources from going into the tool only into supporting the coaching and other processes involved.

Ask Me Anything (With a Beer in Hand)

Many people argue you can't store knowledge. And while this may technically be true, we probably don't need to worry about semantics if the end result is that Person B is now able to do what Person A can do.

We get too hung up on tacit, explicit definitions of information versus knowledge too — in practice, most business decisions involve a combination of all of them. And if there's anything you'd like to know from me, I'm willing to share more knowledge for beer — and the final advantage? Supporting cocktail napkin drawings!

Fifteen tips to ensure KM's success

An important issue for long-term success of KM initiatives is aligning them with organizational strategy, especially in times of change. KM initiatives, however, can "drift" over time if measures are not taken to align them with organizational mission, new turns in direction, management changes and different product/service offerings.

At a recent monthly meet up of the Bangalore K-Community, panel lists from Unisys, Citigroup, Mind tree and Ernst & Young discussed 15 useful, actionable tips to ensure that a company's KM initiatives succeed not just at launch stage but also over the years to come.

- 1.** Bring KM into mission-critical activities. KM is a great enabler of many business processes, but it can be very relevant to ensure success and continuity of mission-critical activities in areas ranging from banking to security. The IT giant Unisys leverages KM to "acquire, retain and propagate" mission-critical knowledge in its global services.
- 2.** Focus on knowledge retention during times of attrition. Globalization, aging work forces and economic downturns are leading to loss of valuable knowledge. KM can help stem that gap in the near term and especially in the long term.

3. Use KM to improve understanding and execution of business reorganization. KM sometimes gets shunted aside during complex organizational restructuring, but can actually be useful in determining how to reorganize effectively. Some companies seem to spend almost half of their time on restructuring, but are not using KM to be more effective or innovative in restructuring.
4. Go beyond connecting to networking. KM at the people level sometimes gets stuck at the stage of people profiles and a bewildering range of discussion forums. It is important to add collaborative tasks on top of such connections, so that actual networking takes place and collective intelligence emerges.
5. Conduct more research on knowledge work. With all the hype about social media in the enterprise, people tend to forget that knowledge work is essentially built on effective communication. More research is needed about the changing workplace/workspace to understand how KM is becoming even more critical to 21st century organizations, and how knowledge seeking/collaboration behaviours of knowledge workers are changing.
6. Pay more attention to design and visualization. In a workspace of increasing information overload and multitasking, it is important to design knowledge interactions and interfaces in a compelling yet effective manner. Effective design can help in sense-making in fast changing and information-intensive environments. But how many KM functions include roles for skilled user experience designers?
7. Pay attention to the requirements of mobile knowledge workers. BYOD (bring your own mobile/tablet device to the office) is now old hat. More and more frontline employees and managers are using mobile devices not just for accessing information but also for full workflow. Knowledge processes should be mobile-optimized, and not just in terms of device interface but also in speed of delivery, e.g. fast loading dashboards for sales teams.
8. Blend informal and formal activities in knowledge-sharing sessions. For example, a "knowledge fair" format with each project team presenting its achievements and learning drives home the KM message stronger for all who participate. The very act of presenting a KM case study can help employees develop a deeper appreciation of the strengths and opportunities for KM at work in the long term, and installs a sense of pride.
9. Broad base the KM initiative and don't restrict it to only select managers or project heads. The more people who engage with KM in full-time or part-time roles, the more buy-in KM will gain and the more value it will contribute. Unisys conducts an annual one-week knowledge-sharing event called UniLight that attracts more than 60 percent of its employees.
10. Highlight KM practitioners across the board. Don't just showcase the usual super-achievers; also feature the employees who are coming up with their first, unique work insights or first reuse of existing knowledge assets.

- 11.** Don't pitch KM as an "extra" activity to be done after normal work hours; it should be embedded in regular workflow. Even additional activities such as conferencing and industry meet ups should be seen as a way of learning, brainstorming and benchmarking.
- 12.** Avoid too much theory and jargon. While the core team certainly needs to be abreast of developments in KM models and research, its recommendations and implementations must be demystified and simplified so that employees are not distracted or confused with more buzzwords.
- 13.** Don't get hung up on the name KM. Some people seem to have a problem with the words knowledge management and even KM. Other terms such as collaborative work or knowledge sharing/emergence seem to be in use as well. A particularly creative acronym I have come across in a Singapore office is FISH (Friday information sharing huddle).
- 14.** Use metrics and analytics effectively, and conduct KM course corrections as appropriate. Many KM initiatives stop their outcome studies at the level of activity metrics (as described in my book *Knowledge Management Tools and Techniques*), but fail to connect them to deeper processes, knowledge insights, people attitudes and overall impacts on productivity and innovation. One company reported that only 40 percent of its knowledge assets were being used, and some were being viewed only by the creator. At the same time, metrics are not the "be-all and end-all" of assessment.
- 15.** Help ensure long-term success of KM by evangelizing it to students. Unisys has created the Unisys Technology Forum to bring workplace domain knowledge and practices to students—including activities like KM. This helps create awareness in students about the importance of KM and strengthens the KM pipeline in the long run.

5.2 Implementing a KM programme

8 Steps to Implementing a Knowledge Management Program at Your Organization

A winning knowledge management program increases staff productivity, product and service quality, and deliverable consistency by capitalizing on intellectual and knowledge-based assets. However, implementation can be a challenge.

Eager to reap the benefits, many organizations leap into a knowledge management solution (e.g. document management, data mining, blogging, and community forums) without first considering the objectives they wish to fulfill or how the organization will adopt and follow best practices for managing its knowledge assets long term.

The key to long-term success is a more measured and phased approach.

Five Core Considerations for a Knowledge Management Program

A successful knowledge management program will consider these five areas:

- **People.** Your program should increase the ability of individuals within the organization to influence others with their knowledge.
- **Processes.** The processes you establish should include best practices and governance for the efficient and accurate identification, management and dissemination of knowledge.
- **Technology.** The technology you choose should enhance how you configure and use tools and automation to enable knowledge management.
- **Structure.** Organizational structures should transform to facilitate and encourage cross-discipline awareness and expertise.
- **Culture.** Your organization should establish and cultivate a knowledge-sharing, knowledge-driven culture for long-term success.

Prepare for Implementation Challenges

Implementing a knowledge management program is no easy feat. Even with the best planning, prepare to encounter and work around obstacles.

Some common challenges you may want to prepare for include:

- Inability to recognize or articulate knowledge; turning tacit knowledge into explicit knowledge
- Geographical distance and/or language barriers in an international company
- Limitations of information and communication technologies
- Loosely defined areas of expertise
- Constantly changing business
- Internal conflicts (e.g. professional territoriality)
- Lack of incentives or performance management goals
- Poor training or mentoring programs
- Cultural barriers (e.g. “this is how we’ve always done it” mentality)

Eight Steps to Knowledge Management Implementation

This eight-step approach will help you plan for common challenges, minimize the risks, and maximize the rewards.

This approach was developed based on tried-and-true activities for implementing any new organizational program. The early steps emphasize strategy, planning and requirements gathering; the later steps focus on execution and continual improvement.

Step 1: Establish Knowledge Management Program Objectives

Before selecting a tool, defining a process, and developing workflows, envision and articulate the ideal end state. To establish the appropriate program objectives, identify and document the business problems that need resolution and the business drivers that will provide momentum and justification for the implementation.

Document both short-term and long-term objectives that address the business problems and support the business drivers. Short-term objectives should seek to provide validation that the program is on the right path while long-term objectives will help to create and communicate the big picture.

Step 2: Prepare for Change

Knowledge management is more than just an application of technology — it's a culture change. Employees will likely have to rethink the way they share the knowledge they develop and possess.

One common hurdle to increasing knowledge sharing is that companies primarily reward individual performance. This practice promotes a "knowledge is power" behavior that contradicts a knowledge-sharing, knowledge-driven culture.

Successfully implementing a new knowledge management program may require changes within the organization's norms and shared values; changes that some people might resist or even attempt to quash. To minimize the negative impact, prepare to manage cultural change.

Recruit knowledge-management champions throughout the organization who will encourage knowledge sharing behaviors within their departments and provide valuable feedback to the implementation team.

Step 3: Define a High-Level Process as a Foundation

Laying out a high-level knowledge management process is a key step for effective implementation. Beginning with a high-level process will help you progressively develop and hone detailed procedures throughout steps four, five, and six. Keep in mind: the people who will be the users and contributors of knowledge should be part of this conversation. The fully developed process should be finalized and approved prior to step seven (implementation).

Organizations that overlook or loosely define the knowledge management process will not realize the full potential of their knowledge management objectives. How knowledge is identified, captured, categorized and disseminated will be ad hoc at best. Common knowledge management best practices to consider in your plan include: knowledge strategy, creation, identification, classification, capture, validation, transfer, maintenance, archival, measurement and reporting.

Step 4: Determine and Prioritize Technology Needs

It's time to assess what kind of technology will enhance and automate your knowledge management related activities. You can determine and prioritize your knowledge management technology needs based on your program objectives established in step one and the process controls and criteria you defined in step three.

The marketplace for knowledge management solutions is vast and diverse; it is imperative to know the primary providers, understand the cost and benefit of each type of technology, and figure out how each solution could help—or hinder—you from reaching your objectives.

Gain an understanding of what employees use today and what is working and not working for them. Don't be too quick to purchase a new technology without first determining if your existing technologies are already meeting your needs. You can also wait to make costly technology decisions after the knowledge management program is well underway if there is broad support and a need for enhanced computing and automation.

Step 5: Assess Current State

After you have established your program objectives, prepared for cultural changes, defined a high-level process, and determined and prioritized your technology needs, you can assess the current state of knowledge management within your organization.

The assessment should cover the five core knowledge management components: people, processes, technology, structure and culture. A typical assessment should provide an overview of the current state, the gaps between the current and desired states, and the recommendations for closing those gaps.

These recommendations will be the foundation for the roadmap in step six.

Step 6: Build a Knowledge Management Implementation Roadmap

With the current-state assessment in hand, it is time to build the implementation roadmap for your knowledge management program. But before going too far, you should re-confirm senior leadership's support and commitment, as well as the funding to implement and maintain the knowledge management program. Without these prerequisites, your efforts will be futile. Having solid evidence of your organization's shortcomings, via the assessment, should drive the urgency rate up.

Having a strategy on how to overcome the shortcomings will be critical in gaining leadership's support and getting the funding you will need. This strategy can be presented as a roadmap of related projects, each addressing specific gaps identified by the assessment. The roadmap can span months and years and illustrate key milestones and dependencies. A good roadmap will

yield some short-term wins in the first step of projects, which will bolster support for subsequent steps.

As time progresses, continue to review and evolve the roadmap based upon the changing economic conditions and business drivers. You will undoubtedly gain additional insight through the lessons learned from earlier projects that can be applied to future projects as well.

Step 7: Implementation

Implementing a knowledge management program and maturing the overall effectiveness of your organization will require significant personnel resources and funding. Be prepared for the long haul, but make sure that you're making incremental advances and celebrate them. As long as there the value and benefits of the developing program are recognized, there should be little resistance to continue investing in knowledge management.

With that said, it's time for the rubber to meet the road. You know what the objectives are. You have properly mitigated cultural issues. You've got the processes and technologies that will enable and launch your knowledge management program. You know what the gaps are and have a roadmap to tell you how to address them.

As you advance through each step of the roadmap, make sure you are realizing your short-term wins. Without them, your program may lose momentum and the support of key stakeholders.

Step 8: Measure and Improve the Knowledge Management Program

How will you know your knowledge management investments are working? You will need a way to measure your effectiveness and compare to anticipated results. If possible, establish some baseline measurements in order to capture the before shot of the organization's performance prior to implementing the knowledge management program. Then, after implementation, trend and compare the new results to the old results to see how performance has improved.

Don't be discouraged if the benefits are not as obvious as you would have anticipated. It will take time for the organization to become proficient with the new processes and improvements. Over time, the results should follow suit.

When deciding upon the appropriate metrics to measure your organization's progress, establish a balanced scorecard that provides metrics in the areas of performance, quality, compliance and value. The key point behind establishing a knowledge management balanced scorecard is that it provides valuable insight into what's working and what's not. You can then take the necessary actions to mitigate compliance, performance, quality, and value gaps, thus improving the overall efficacy of the knowledge management program.

The Power of Knowledge Management

Implementing a complete knowledge management program takes time and resources, however, the results can be impressive. You can also minimize risk by taking a phased approach that gives beneficial returns at each step.

Organizations that have made this kind of investment in knowledge management realize tangible results quickly. They add to their top and bottom lines through faster cycle times, enhanced efficiency, better decision making and greater use of tested solutions across the enterprise.

5.3 Critical Success Factors in knowledge management

Many factors contribute to the success or otherwise of a knowledge management initiative. From the many cases we have studied, seven key success factors recur. Follow the links for more discussion on each of them.

1. A strong link to a business imperative. The KM programme and its KM processes must visibly support business objectives. There must be a clearly articulated 'value proposition', such as "better customer service", "faster time-to-market for new products". There is a clear understanding of how knowledge contributes to these business objectives. Associated with this CSF is a good measurement system, both measuring the impact of KM on business results and the effectiveness of the KM programme itself.
2. A compelling vision and framework. The framework provides the 'hook' around which to build a common language and momentum for change. It may also define key domains of knowledge and core knowledge value enhancing processes.
3. Knowledge leadership. This is usually a knowledge champion with support from top management. But knowledge leadership qualities are also developed in individuals throughout the organisation.
4. A knowledge-creating and sharing culture. This is a culture that empowers individuals, supports informal networking and encourages knowledge sharing across organization and geographic boundaries.
5. Continuous learning. Learning at all levels. Individuals are encouraged to ask questions, to challenge and to learn. Teams learn from other teams. The organization learns from its successes and mistakes. Learning is shared.
6. Systematic organizational knowledge processes and practices. A framework and processes for identifying, capturing and diffusing important knowledge in a structured way. Sources of knowledge must be easily identifiable and accessible, whether in databases or human brains.
7. A well developed ICT (information and communications technology) infrastructure. An infrastructure that supports collaborative work. As well as information databases, it supports

communities of practice through discussion forums or social networking facilities. There must also be good software and tools to support individual knowledge workers. Information systems must be accessible and easy to use from multiple locations (within the constraints of security).

For small localised pilot projects, not all factors are important, but these factor recur in those organizations that are truly transforming themselves into knowledge-based enterprises.

5.4 Implementation of KM

This section will provide you with a simple Knowledge Management System, a step by step process for implementing a Knowledge Management Initiative.

You may be interested in just some or all of the below steps of effective Knowledge Management. Although they are listed as separate steps, and sequentially, they eventually need to be considered as inter-related components, as part of a holistic approach to Knowledge Management.

Understanding the Dimensions of Knowledge Management here

KM Awareness & Understanding

1. Free Knowledge Management Assessment Survey
2. Knowledge Management Education

KM Analysis and Planning

3. Knowledge Management Consulting

KM Development and Implementation

4. Knowledge Management roles and responsibilities
5. Knowledge Management processes, methods and tools
6. Knowledge Competencies
7. Knowledge Networks
8. Knowledge Management Technologies
9. Knowledge Management Measures

1. Free Knowledge Management Assessment Survey

The first step is to quickly assess your organisation or team's orientation and readiness for knowledge management. By taking around 15 minutes to complete the 46 multi-choice questions below we can provide you with a free assessment and a free benchmark with other organisations in your same industry sector.

2. Knowledge Management Education

At this stage, you may be totally new to Knowledge Management and be glad to start from the beginning and simply 'soak up' anything you can, or you may be familiar with Knowledge Management and keen to improve your understanding further. This step provides online Knowledge Management education.

3. Knowledge Management Consulting

You may have a good understanding of Knowledge Management and are keen to learn how to conduct a Knowledge Management consulting engagement yourself and/or be interested in engaging Knowledge Management consultants online. This step describes and provides online a well proven and robust KM Consulting methodology that will help you develop a compelling KM Strategy and Business case.

4. Knowledge Management roles and responsibilities

At this stage, you may be concerned with identifying and implementing the new Knowledge Management Roles and Responsibilities. This step describes online the new roles and responsibilities that need to be performed to implement the strategies and perform the processes for effective Knowledge Management implementation.

5. Knowledge Management processes, methods and tools

At this stage you may be concerned with evaluating, piloting, designing, improving and implementing improved knowledge driven work practices, processes, methods, tools and techniques. This step provides online a directory of Knowledge Management processes, methods, tools and techniques.

6. Knowledge Competencies

At this stage you may be concerned with developing and managing the new knowledge competencies to be able to perform the new Knowledge Management roles and responsibilities, perform the new Knowledge Management processes and methods, and to use the new tools and knowledge technologies. This step provides a complete online Knowledge Competencies development and management system.

7. Knowledge Networks

At this stage you may be concerned with developing and/or participating in effective Knowledge Networks and Communities of Practice to be able to better surface and share the most valuable tacit knowledge that often gets locked away in the heads of individuals . This step provides online a growing international Community of Knowledge Management Practitioners for you to join and share knowledge and experiences.

8. Knowledge Management Technologies

At this stage you may be concerned with developing and implementing the new hardware and software technologies, such as Knowledge Portals, Knowledge Servers, Knowledge Bases and Collaborative work spaces to support the new Knowledge Management Processes, Methods and Tools. This step provides online Knowledge Management technologies for you to experience and evaluate.

9. Knowledge Management Measures

At this stage you may be concerned with measuring the effectiveness of implementing Knowledge Management and the Business benefits derived. This step provides online Knowledge Management measurement tool.

Questions :

- 1 Explain with example Discussion on Roadblocks to success.
- 2 Write factors in Implementing a KM programme.
- 3 Explain Critical Success Factors in KM .
- 4 Briefly explain implementation of KM.