

Knowledge Management System

A knowledge management system (KMS) is a system for applying and using knowledge management principles. These include data-driven objectives around business productivity, a competitive business model, business intelligence analysis and more.

A knowledge management system is made up of different software modules served by a central user interface. Some of these features can allow for data mining on customer input and histories, along with the provision or sharing of electronic documents. Knowledge management systems can help with staff training and orientation, support better sales, or help business leaders to make critical decisions.

What is Knowledge?

- Personalized information
- State of knowing and understanding
- An object to be stored and manipulated
- A process of applying expertise
- A condition of access to information
- Potential to influence action

Sources of Knowledge of an Organization

- Intranet
- Data warehouses and knowledge repositories
- Decision support tools
- Groupware for supporting collaboration
- Networks of knowledge workers

- Internal expertise

Problems and Failure Factors

Too often, the effects of technology on the organization are not given enough thought prior to the introduction of a new system. There are two sets of knowledge necessary for the design and implementation of a knowledge management system (Newell et al., 2000):

- The technical programming and design know-how
- Organizational know-how based on the understanding of knowledge flows

The problem is that rarely are both these sets of knowledge known by a single person. Moreover, technology is rarely designed by the people who use it. Therefore, firms are faced with the issue of fit between IT systems and organizational practices, as well as with acceptance within organizational culture (Gamble & Blackwell 2001).

Botha et al (2008) stress the importance of understanding what knowledge management systems cannot do. They point to the fact that introducing knowledge sharing technologies does not mean that experts will share knowledge - other initiatives have to be in place.

Akhavan et al (2005) identify several additional failure factors including: lack of top management support, organizational culture, lack of a separate budget, and resistance to change.

Building upon all this, and incorporating previously discussed elements, failure factors of knowledge management systems are as follows:

- ❖ Inadequate support: managerial and technical, during both implementation and use.
- ❖ Expecting that the technology is a KM solution in itself.
- ❖ Failure to understand exactly what the firm needs (whether technologically or otherwise).
- ❖ Not understanding the specific function and limitation of each individual system.

- ❖ Lack of organizational acceptance, and assuming that if you build it, they will come – lack of appropriate organizational culture.
- ❖ Inadequate quality measures (e.g. lack of content management).
- ❖ Lack of organizational/departmental/etc fit - does it make working in the organization easier? Is a system appropriate in one area of the firm but not another? Does it actually disrupt existing processes?
- ❖ Lack of understanding of knowledge dynamics and the inherent difficulty in transferring tacit knowledge with IT based systems (see segment on tacit knowledge under knowledge sharing).
- ❖ Lack of a separate budget.

Purpose of KMS

- ❖ Improved performance
- ❖ Competitive advantage
- ❖ Innovation
- ❖ Sharing of knowledge
- ❖ Integration
- ❖ Continuous improvement by –
 - Driving strategy
 - Starting new lines of business
 - Solving problems faster
 - Developing professional skills
 - Recruit and retain talent

Activities in Knowledge Management

- ❖ Start with the business problem and the business value to be delivered first.
- ❖ Identify what kind of strategy to pursue to deliver this value and address the KM problem.
- ❖ Think about the system required from a people and process point of view.
- ❖ Finally, think about what kind of technical infrastructure are required to support the people and processes.
- ❖ Implement system and processes with appropriate change management and iterative staged release.

Levels of Knowledge Management

1. Information Management

The most basic level of KM is ensuring that people have access to relevant, timely, high-quality information. It is about the centralized capture, categorization, tagging, storage, and distribution of information. It is about books, papers, reports, and databases, increasingly in electronic form. This KM level is about Information Technology (IT), intranets and the cloud.

It include big data and machine learning at this level.

For some organizations, this is all there is to KM.

One fundamental point that is often not given the consideration it deserves is the quality of the information that is used for sensemaking and decision making. These two videos The War on Sensemaking by Daniel Schmachtenberger powerfully make the point that our information ecosystem is extensively polluted. There is little information that can be trusted to be of sufficient quality not to be dangerously misleading.

Strictly speaking, this level is not Knowledge Management; it is Information Management. If you see KM as about making better decisions then clearly that is predicated on having high-quality just-in-time information.

2. Knowledge Sharing

Knowledge Sharing is the second level and is sometimes known as peer learning. It is about people sharing their knowledge. It is about peer to peer learning tools such as peer assists, after-action reviews, and communities of practice. It is also about making personal knowledge explicit through activities like blogging and populating wikis and then sharing this information.

Although formal training/education is not normally seen as part of KM, if it is then it would be included in this level.

This second level is primarily about people and conversation and only a little about IT. For the vast majority of organizations, KM stops here.

3. Sense making and Decision Making

Sense making and decision making comprise the third level of KM. We can have perfect information, but this does not necessarily mean that the information is well understood or that we make good decisions. This level is about bringing people together using group conversational tools such as Knowledge Cafés to make sense of say new technology, an emerging competitor or a new regulation and subsequently making more informed decisions.

It is also about strategy formulation, implementation, and innovation.

The need for improved sensemaking and decision making is vitally important in today's complex world where our old methods are failing us.

This level is firmly about people and conversation. It has almost nothing to do with IT. It is unfortunately still an emerging field of KM that few organizations engage in today.

4. Agency and Communityship

People often say that knowledge is power, but knowledge is not power – the ability to act on knowledge and to influence and work with other people, especially those in authority is power. You can have all the knowledge in the world, make perfect decisions but not have the power to act. We need to help each other develop agency.

The second part of this level overlaps to some degree with agency and that is communityship – a word coined by Henry Mintzberg.

The idea that underpins communityship is that everyone in a community – an organization being a community – should see leadership as a practice and not as a position of authority. Each and every one of us can choose to lead.

This KM level is not so much about technology, sharing, or sensemaking. It's more about human psychology and behaviors. If we don't understand ourselves, we don't understand what motivates us, if we don't understand each other's emotions, fears, hopes, and aspirations, even the best KM strategy will fail. We need to better understand what it means to be human – human complexity.

Few, if any organizations take agency seriously and even less understand the concept of communityship.