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Knowledge Management

Key concepts and terms

- Communities of practice
- Data
- Explicit knowledge
- Information
- Knowledge
- Knowledge management
- Tacit knowledge

Learning outcomes

On completing this chapter you should be able to define these key concepts. You should also know about:

- The purpose and significance of knowledge management
- Knowledge management strategies
- Knowledge management systems
- Knowledge management issues
- The contribution HR can make to knowledge management

Introduction

Knowledge management is concerned with storing and sharing the wisdom, understanding and expertise accumulated in an organization about its processes, techniques and operations. It treats knowledge as a key resource. As Ulrich (1998) pointed out, 'Knowledge has become a direct competitive advantage for companies selling ideas and relationships.'

There is nothing new about knowledge management. Hansen *et al* (1999) remark that 'For hundreds of years, owners of family businesses have passed on their commercial wisdom to children, master craftsmen have painstakingly taught their trades to apprentices, and workers have exchanged ideas and know-how on the job.' But they also comment that 'As the foundation of industrialized economies has shifted from natural resources to intellectual assets, executives have been compelled to examine the knowledge underlying their business and how that knowledge is used.'

Knowledge management is as much if not more concerned with people and how they acquire, exchange and disseminate knowledge as it is about information technology. That is why it has become an important area for HR practitioners, who are in a strong position to exert influence in this aspect of people management. Scarborough *et al* (1999) believe that they should have 'the ability to analyse the different types of knowledge deployed by the organization… [and] to relate such knowledge to issues of organizational design, career patterns and employment security'.

The concept of knowledge management is closely associated with human capital management (see Chapter 4) and organizational learning (see Chapter 13).

Knowledge management defined

Knowledge management is 'any process or practice of creating, acquiring, capturing, sharing and using knowledge, wherever it resides, to enhance learning and performance in organizations' (Scarborough *et al*, 1999). Scarborough *et al* suggested that it focuses on the development of firm-specific knowledge and skills that are the result of organizational learning processes. Knowledge management is concerned with both stocks and flows of knowledge. Stocks include expertise and encoded knowledge in computer systems. Flows represent the ways in which knowledge is transferred from people to people, or from people to a knowledge database.

Scarborough and Carter (2000) described knowledge management as 'the attempt by management to actively create, communicate and exploit knowledge as a resource for the organization'. They suggest that this attempt has the following components:

- In technical terms knowledge management involves centralizing knowledge that is currently scattered across the organization and codifying tacit forms of knowledge.
- In social and political terms, knowledge management involves collectivizing knowledge so that it is no longer the exclusive property of individuals or groups.
- In economic terms, knowledge management is a response by organizations to the need to intensify their creation and exploitation of knowledge.

Knowledge management involves transforming knowledge resources by identifying relevant information, and then disseminating it so that learning can take place. Knowledge management strategies promote the sharing of knowledge by linking people with people, and by linking them to information so that they learn from documented experiences.

Knowledge is possessed by organizations and the people in organizations. Organizational operational, technical and procedural knowledge can be stored in databanks and found in presentations, reports, libraries, policy documents and manuals. It can be moved around the organization through information systems and by traditional methods such as meetings, workshops, courses, 'master classes' and written publications. The intranet provides an additional and very effective medium for communicating knowledge. Another method is 'communities of practice', defined by Wenger and Snyder (2000) as 'groups of people informally bound together by shared expertise and a passion for joint enterprise'.

People in organizations have knowledge which will not necessarily be shared formally or even informally with their colleagues. This individual knowledge may be crucial to the interests of the business, and could be lost if it remains locked up in the minds of employees or is taken elsewhere by them if they leave the organization.

The concept of knowledge

Knowledge is defined as what people understand about things, concepts, ideas, theories, procedures, practices and 'the way we do things around here'. It can be described as 'know-how', or when it is specific, expertise. A distinction was made by Ryle (1949) between 'knowing how' and 'knowing that'. 'Knowing how' is the ability of a person to perform tasks, and 'knowing that' is holding pieces of knowledge in one's mind. Blackler (1995) noted that 'Knowledge is multifaceted and complex, being both situated and abstract, implicit and explicit, distributed and individual, physical and mental, developing and static, verbal and encoded.'

Nonaka (1991) suggested that knowledge is held either by individuals or collectively. In Blackler's (1995) terms, embodied or embraced knowledge is individual and embedded, and cultural knowledge is collective. It can be argued (Scarborough and Carter, 2000) that knowledge emerges from the collective experience of work and is shared between members of a particular group or community.

Explicit and tacit knowledge

Nonaka (1991) and Nonaka and Takeuchi (1995) stated that knowledge is either explicit or tacit. *Explicit knowledge* can be codified – it is recorded and available and is held in databases, in corporate intranets and intellectual property portfolios. *Tacit knowledge* exists in people's minds. It is difficult to articulate in writing, and is acquired through personal experience. As suggested by Hansen *et al* (1999), it includes scientific or technological expertise, operational know-how, insights about an industry, and business judgement. The main challenge in knowledge management is how to turn tacit knowledge into explicit knowledge.

The purpose of data, information and knowledge

Ultimately, the purpose of knowledge management evidence is to manage data and information which can be put to good use in evidence-based management. Data, information and knowledge can be distinguished as follows:

- *Data* consist of the basic facts – the building blocks – for information and knowledge.
- *Information* is data that have been processed in a way that is meaningful to individuals. It is available to anyone entitled to gain access to it. As Drucker (1988) wrote, 'information is data endowed with meaning and purpose'.
- *Knowledge* is information put to productive use. It is personal and often intangible, and it can be elusive – the task of tying it down, encoding it and distributing it is tricky.

The purpose and significance of knowledge management

As explained by Blake (1988), the purpose of knowledge management is to capture a company's collective expertise and distribute it to 'wherever it can achieve the biggest payoff'. This is in accordance with the resource-based view of the firm, which suggests that the source of competitive advantage lies within the firm (that is, in its people and their knowledge), not in how it positions itself in the market. Trussler (1998) commented that 'The capability to gather, lever, and use knowledge effectively will become a major source of competitive advantage in many businesses over the next few years.' A successful company is a knowledge-creating company.

Knowledge management is about getting knowledge from those who have it to those who need it in order to improve organizational effectiveness. In the information age, knowledge rather than physical assets or financial resources is the key to competitiveness. In essence, as pointed out by Mecklenberg *et al* (1999), 'Knowledge management allows companies to capture, apply and generate value from their employees' creativity and expertise.'

Knowledge management strategies

Two approaches to knowledge management strategy have been identified by Hansen *et al* (1999).

The codification strategy: Knowledge is carefully codified and stored in databases where it can be accessed and used easily by anyone in the organization. Knowledge is explicit and is codified using a 'people-to-document' approach. This strategy is therefore document-driven. Knowledge is extracted from the person who developed it, made independent of that person and re-used for various purposes. It will be stored in some form of electronic repository for people to use, which allows many people to search for and retrieve codified knowledge without having to contact the person who originally developed it. This strategy relies largely on information technology to manage databases, and also on the use of the intranet.

The personalization strategy: Knowledge is closely tied to the person who has developed it, and is shared mainly through direct person-to-person contacts. This person-to-person approach involves ensuring that tacit knowledge is passed on. The exchange is achieved by creating networks and encouraging face-to-face communication between individuals and teams by means of informal conferences, workshops, communities of practice, brainstorming and one-to-one sessions.

Hansen *et al* (1999) state that the choice of strategy should be contingent on the organization: what it does, how it does it, and its culture. Thus consultancies such as Ernst & Young, using knowledge to deal with recurring problems, may rely mainly on codification so that recorded solutions to similar problems are easily retrievable. Strategy consultancy firms such as McKinsey or Bains, however, will rely mainly on a personalization strategy to help them to tackle the high-level strategic problems they are presented with, which demand the provision of creative, analytically rigorous advice. They need to channel individual expertise, and they find and develop people who are able to use a person-to-person knowledge-sharing approach effectively. In this sort of firm, directors or experts can be established who can be approached by consultants by telephone, e-mail or personal contact.

The research conducted by Hansen *et al* (1999) established that companies that use knowledge effectively pursue one of these strategies predominantly and use the second strategy to support the first. Those who try to excel at both strategies risk failing at both.

Knowledge management systems

A survey of 431 US and European firms by Rugles (1998) found that the following systems were used:

- creating an intranet (47 per cent);
- creating 'data warehouses', large physical databases that hold information from a wide variety of sources (33 per cent);
- using decision support systems which combine data analysis and sophisticated models to support non-routine decision making (33 per cent);
- using 'groupware', that is, information communication technologies such as e-mail or Locus Notes as discussion bases, to encourage collaboration between people to share knowledge (33 per cent);

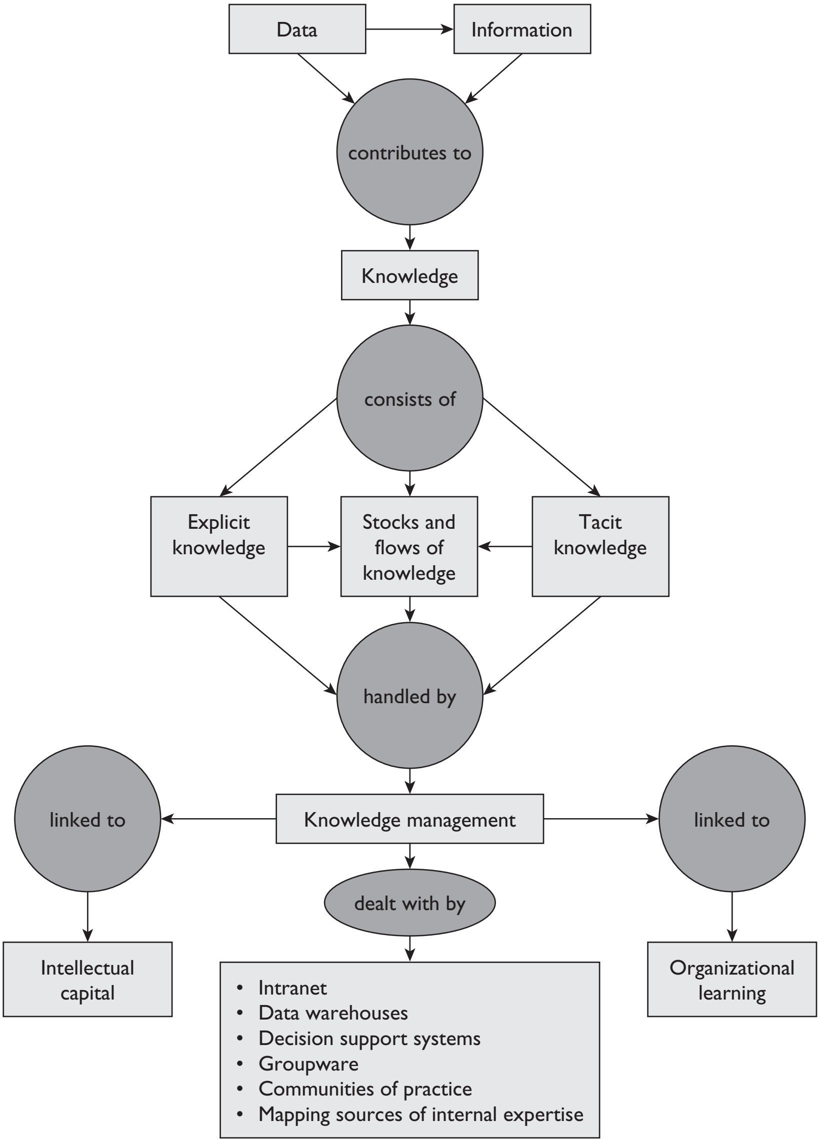

Figure 5.1 Concept map: knowledge management

- creating networks or communities of practice or interest of knowledge workers to share knowledge (24 per cent);
- mapping sources of internal expertise by, for example, producing 'expert yellow pages' and directories of communities (18 per cent).

Knowledge management issues

The various approaches referred to above do not provide easy answers. The issues that need to be addressed in developing knowledge management processes are discussed below.

The pace of change

One of the main issues in knowledge management is how to keep up with the pace of change and identify what knowledge needs to be captured and shared.

Relating knowledge management strategy to business strategy

As Hansen *et al* (1999) showed, it is not knowledge per se but the way it is applied to strategic objectives that is the critical ingredient in competitiveness. They point out that 'competitive strategy must drive knowledge management strategy', and that managements have to answer the question 'How does knowledge that resides in the company add value for customers?' Mecklenburg *et al* (1999) argued that organizations should 'start with the business value of what they gather. If it doesn't generate value, drop it?'

Technology and people

Technology may be central to companies adopting a codification strategy, but for those following a personalization strategy, IT is best used in a supportive role. As Hansen *et al* (1999) commented, 'In the codification model, managers need to implement a system that is much like a traditional library – it must contain a large cache of documents and include search engines that allow people to find and use the documents they need. In the personalization model, it's more important to have a system that allows people to find other people.'

Scarborough *et al* (1999) suggested that 'technology should be viewed more as a means of communication and less as a means of storing knowledge'. Knowledge management is more about people than technology. As research by Davenport (1996) established, managers get two-thirds of their information from face-to-face or telephone conversations.

There is a limit to how much tacit knowledge can be codified. In organizations relying more on tacit than explicit knowledge, a person-to-person approach works best, and IT can only support this process; it cannot replace it.

The significance of process and social capital and culture

Blackler (1995) emphasized that a preoccupation with technology may mean that too little attention is paid to the processes (social, technological and organizational) through which knowledge combines and interacts in different ways. The key processes are the interactions between people. This is the social capital of an organization, the 'network of relationships (that) constitute a valuable resource for the conduct of social affairs' (Nahpiet and Ghoshal, 1998). Social networks can be particularly important in ensuring that knowledge is shared. Trust is also required – people are not willing to share knowledge with those whom they do not trust.

The culture of the company may inhibit knowledge sharing. The norm may be for people to keep knowledge to themselves as much as they can because 'knowledge is power'. An open culture will encourage people to share their ideas and knowledge.

Knowledge workers

Knowledge workers were defined by Drucker (1993) as individuals who have high levels of education and specialist skills combined with the ability to apply these skills to identify and solve problems. As Argyris (1991) commented, 'The nuts and bolts of management... increasingly consists of guiding and integrating the autonomous but interconnected work of highly skilled people.' Knowledge management is about the management and motivation of knowledge workers who create knowledge and will be the key players in sharing it.

Knowledge management: key learning points

The purpose and significance of knowledge management

Knowledge management is about getting knowledge from those who have it to those who need it in order to improve organizational effectiveness.

Knowledge management strategies

The codification strategy: knowledge is carefully codified and stored in databases where it can be accessed and used easily by anyone in the organization. Knowledge is explicit and is codified using a 'people-to-document' approach.

The personalization strategy: knowledge is closely tied to the person who has developed it and is shared mainly through direct person-to-person contacts. This is a person-to-person approach which involves ensuring that tacit knowledge is passed on.

Knowledge management systems

- Creating an intranet.
- Creating 'data warehouses'.
- Using decision support systems.
- Using 'groupware', information communication technologies such as e-mail or Locus Notes discussion bases.
- Creating networks or communities of practice or interest of knowledge workers.

Knowledge management issues

- The pace of change.
- Relating knowledge management strategy to business strategy.
- IT is best used in a supportive role.
- Attention must be paid to the processes (social, technological and organizational) through which knowledge combines and interacts in different ways.
- The significance of knowledge workers must be appreciated.

The contribution HR can make to knowledge management

- Help to develop an open culture which emphasizes the importance of sharing knowledge.
- Promote a climate of commitment and trust.
- Advise on the design and development of organizations that facilitate knowledge sharing. Ensure that valued employees who can contribute to knowledge creation and sharing are attracted and retained.
- Advise on methods of motivating people to share.
- Help in the development of performance management processes that focus on the development and sharing of knowledge.
- Develop processes of organizational and individual learning that will generate and assist in disseminating knowledge.
- Set up and organize workshops, conferences and communities of practice and symposia that enable knowledge to be shared on a person-to-person basis.
- In conjunction with IT, develop systems for capturing and, as far as possible, codifying explicit and tacit knowledge.
- Generally, promote the cause of knowledge management with senior managers.

Questions

1. Many organizations are now introducing knowledge-sharing initiatives and processes. Outline one approach that you would like to see introduced in your organization, justifying how it would be of benefit to the business.
2. Your managing director has sent you the following e-mail: 'I have been hearing about the concept of communities of interest. What are they, would they be useful in our company, and if so, how should we introduce them?' Draft your reply.
3. The following questions were posed by Swart *et al* (2003) for the CIPD on knowledge-intensive firms:

   – What are the key characteristics of knowledge-intensive organizations?

   – What are the particular knowledge-intensive situations that are important for the success of organizations?

   – Which people management practices are particularly valuable in helping to manage these situations successfully?

   Drawing on Swart *et al* and other research, provide answers to these questions.

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