1 Introduction, Concepts and Definitions

Learning objectives

- ☐ Learn key terms, dimensions and definitions of knowledge management.
- ☐ Understand different types and different levels of knowledge.
- ☐ Explore the relationship between knowledge management and organisational learning.
- ☐ Be able to define knowledge management and distinguish the three generations of knowledge management research and practice.
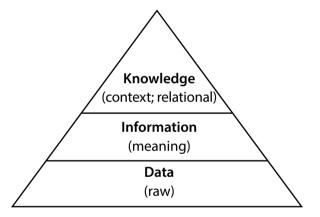
Introduction

During the late 1990s and early 2000s, the belief in a knowledge-based economy has grown; not just amongst academics, but also policy makers, consultants and managers. Nonaka and Takeuchi's (1995) work *The Knowledge Creating Company* was among the first to recognise that organisations that manage their knowledge efficiently, have a competitive advantage over organisations that do not succeed in doing so. Based on this understanding, a number of knowledge management frameworks and models have emerged which highlight how to improve the identification, creation, transfer, and documentation of knowledge. These will be discussed further in Chapter 3.

This introductory chapter starts with a definition of key concepts and terms, including data, information and knowledge; explicit and

tacit knowledge; and the three levels of where knowledge resides (the individual, group, and organisational level). It also briefly explains how processes of managing knowledge at an organisational level can help organisations learn over time, create an organisational memory, and build on what has or has not worked in the past. The concept of knowledge management is thus linked to organisational learning and innovation (Argyris & Schoen, 1978; Gorelick et al., 2004; Senge, 2006). The final section of the chapter provides a range of knowledge management definitions and an overview of the 'three generations' of knowledge management.

Data, information, and knowledge

The knowledge management literature commonly distinguishes between data, information, and knowledge (see Figure 1.1):

Figure 1.1: Data – information – knowledge

At the lowest level, *data* simply consists of (raw) numbers without any particular meaning; it can be described as discreet, objective facts. For example, the price for a ticket to the event, and when and where it was purchased. This kind of data does not tell us anything about why somebody bought the ticket, what their motivations were, if they were willing to pay a higher price, or who they are planning to attend the event with. Data can be stored on a computer though, and is of use to, for example, the finance, accounting and marketing team. Storing too much data, however, can be dangerous in the sense that the organisation might then struggle to make sense of the kind of data that actually

matters and get lost in other non-relevant data. Furthermore, there is no meaning in the data, no interpretation, and it only partly describes what happened; it does not tell us how to make a decision based on this data.

As soon as data is put into a certain context or arranged in a specific order, it can then be turned into *information*. Information is "data that makes a difference" (Davenport & Prusak, 1998: 3); it shapes the person who receives it, it changes their way of thinking and their outlook in some form. It can be (see Davenport & Prusak, 1998: 3):

♦ **Contextualised**: what purpose was the data gathered for?
   ◊ e.g. to find out people's motivations to attend an event

♦ **Categorised**: what are the units of analysis or key components of this data?
   ◊ e.g. ask people about their needs, wants, and expectations of the event on a Likert scale

♦ **Calculated**: has the data been mathematically or statistically analysed?
   ◊ e.g. analyse the data in terms of how many people strongly agree – agree – disagree – strongly disagree with certain statements

♦ **Corrected**: were there errors in the data and have they been removed/sorted out?
   ◊ e.g. did somebody tick two boxes and has their answer therefore been removed from the data?

♦ **Condensed**: has the data been summarised to make sense of it?
   ◊ e.g. produce figures and graphs to summarise findings about people's motivations to attend an event

Information can therefore also – to some extent – be captured by and stored on a computer, but it always requires human beings to first interpret the data. When information is interpreted further and put into action, it can then, at the highest level, be turned into *knowledge*; in other words, "knowledge derives from minds at work" (Davenport & Prusak, 1998: 5). Knowledge consists of experience, values, expert insights and contextualised information that is being put into practice by human beings. This happens through the use of information in, for example, processes, procedures, documents or repositories; and it adds value to