Chapter 1

Knowledge in an Organizational Context

Knowledge Objectives

After studying this chapter, you should be able to:

- Provide a basic introduction of organizational knowledge;
- Discuss the notion of knowledge from a philosophical perspective;
- Differentiate between the three constructs — data, information and knowledge;
- Explain the emerging views of knowledge from a knowledge management perspective; and
- Describe the significance of knowledge in contemporary organizations.

1.1 Introducing the Chapter

Organizational knowledge is the core component that is widely discussed in the emerging interdisciplinary discourse of knowledge management. Over the last 20 years, many issues within the knowledge management domain have received much attention among researchers and practitioners. However, research on the concept of knowledge itself is not new. Since time immemorial, knowledge has been regarded as an important topic of study as it draws from a wide range of disciplines. In the emerging knowledge-based society, one of the key areas that
2 Knowledge Management: An Interdisciplinary Perspective

appears to be involved in knowledge management is organizational knowledge. It is evident that the concept of organizational knowledge has received much attention in the knowledge management literature. The idea of organizational knowledge is at the center of all the themes and issues surrounding knowledge management, which will be explained in detail throughout subsequent chapters of this book.

Scholars have contributed a lot to develop and popularize the concept of organizational knowledge. Among them are such notables as Peter Drucker, Daniel Bell, Thomas Davenport, Laurence Prusak, Peter Senge, Dorothy Leonard-Barton, Michael Polanyi, Ikujiro Nonaka, Hirotaka Takeuchi, J. C. Spender and Frank Blackler, all of whom stress the growing importance of organizational knowledge. In the 21st century, knowledge has become a key concern for organizations.

In this very first chapter, I will present the basic notion and process of organizational knowledge and its importance so as to establish the argument that knowledge is a strategic source of sustainable competitive advantage for an organization, be it a private organization or a public enterprise, a government organization or a non-governmental organization. A fuller description of its definitions will also be provided.

Organizational knowledge itself is an eclectic topic. Spender (2008) supports this view, arguing that knowledge remains a curiously elusive topic. There are contradictory views regarding the origin of knowledge. This book will introduce a model of the disciplinary roots of knowledge management that will help to illustrate the dynamic relationships in line with the debate on the notion of knowledge.

This chapter will demonstrate the link between the notion of knowledge and an organization, and is structured as follows. Section 1.2 starts with a discussion about what knowledge is from a philosophical point of view. Various definitions of organizational knowledge given by management scholars will be elaborated in Section 1.3. There is confusion between knowledge, information and data; these constructs are sometimes used interchangeably in the management and information systems literature. It is important to clarify whether knowledge, information and data are the same or different. With this
in mind, Section 1.4 focuses on a knowledge hierarchy relating to these constructs (i.e., knowledge, information and data). There are various perspectives on knowledge in organizations. Section 1.5 focuses on two alternative perspectives in order to help the reader understand different types of knowledge. Since organizational knowledge is regarded as the key resource of sustainable competitive advantage for organizations, the increasingly significant role of organizational knowledge is outlined in Section 1.6. The chapter ends with a concluding summary in Section 1.7.

1.2 The Notion of Knowledge from a Philosophical Perspective

Interest and concern have been expressed about the source, nature and quality of knowledge since the time of great philosophers like Socrates, Plato and Aristotle (Hazlett et al., 2005). According to Sveiby (1997), the concept of knowledge traditionally falls in the area of epistemology (i.e., the philosophical study of the nature of knowledge and how it is created). The majority of knowledge management scholars tend to focus on organizational knowledge with respect to its hierarchy and typology (Jasimuddin, 2005). Nevertheless, there is a growing awareness of the way in which organizations manage and nurture their knowledge. In recent times, organizational knowledge has emerged at the center of the knowledge management discourse (Drucker, 1993; Bell, 1973; Toffler, 1990; Grant, 1996).

It can be argued that, in the emerging knowledge-based society, it will be easier to conceptualize and utilize organizational knowledge if various themes and issues associated with the notion of knowledge can be clarified and explained. In this regard, the knowledge management literature includes a number of distinctions between different forms of knowledge. For example, Tiwana (2002, p. 65) classifies knowledge using four key dimensions:

(i) type (i.e., technological knowledge, business knowledge or environmental knowledge);
(ii) focus (i.e., operational knowledge or strategic knowledge);
(iii) complexity (i.e., explicit knowledge or tacit knowledge); and
(iv) perishability over time (i.e., low perishable knowledge or high perishable knowledge).

Several management scholars (e.g., Polanyi, 1962; Nonaka and Takeuchi, 1995; Spender, 1996; Blackler, 1995) have contributed to the development of theories of organizational knowledge in the relevant management literature. While existing theories of organizational knowledge from a management perspective will be elaborated in Chapter 4, this section will explain the notion of knowledge from a philosophical perspective.

As mentioned earlier, the term “knowledge” itself as a concept is not new in the relevant academic and philosophical literature. Newell et al. (1999, p. 3) state that “definitions and debates about the nature of knowledge have appeared in philosophical literature since the classical Greek period”. The word “knowledge” derives from the Greek word *episteme*. The first philosophical definition of knowledge given by the great philosopher Plato described the concept of knowledge as “justified true belief”. *Collins English Dictionary* (2000) defines knowledge as “the facts, feelings, or experiences known by a person or group of people”. Marr et al. (2003) give a comprehensive picture, arguing that philosophers have debated the definition of knowledge for ages. In line with this, several other scholars (e.g., Hislop, 2005; Jashapara, 2004) argue that the discussions and debates associated with knowledge have occupied the minds of philosophers for ages. Specifically, Marr et al. (2003) argue that philosophers — most notably Aristotle (1998), Descartes (1996), Locke (1998), Kant (1999), Hegel (1997), Wittgenstein (1953) and Heidegger (1962) — have debated the definition of knowledge for centuries. Likewise, Jashapara (2004) provides a comprehensive categorization of philosophers who view knowledge differently under two groups:

- The *idealistic* philosophers (e.g., Plato, Descartes, Kant, Hegel, Husserl, Heidegger and Sartre), who think of knowledge as an entity within an individual’s mind; and
• The *empirical* philosophers (e.g., Aristotle, Locke, Hume, Peirce, James, Dewey and Wittgenstein), who view knowledge as evolving from an individual’s senses.

As noted earlier, the great Greek philosopher Plato defined knowledge as “justified true belief”, which is widely cited in the knowledge management literature. The fact is that Plato brought issues like perception and true judgment in order to address the definition of knowledge. Although Plato’s definition of knowledge is widely accepted by scholars, such a definition is still under widespread discussion and sometimes criticism (Gettier, 1963). For example, Gettier (1963) — in his legendary three-page article, “Is Justified True Belief Knowledge?” — attempted to overturn the thousand-year-old definition of knowledge (i.e., “justified true belief”) postulated by Plato. This corresponds well with Nonaka (1994), who admits that the history of philosophy can be regarded as a never-ending search for the meaning of knowledge. Similarly, Boyett and Boyett (2001) conclude by saying that it is easy to discuss knowledge, but it is very difficult to find a comprehensive definition of knowledge. It is worth mentioning that this book concentrates on organizational knowledge within the knowledge management discipline, as will be reflected in the rest of the book.

### 1.3 Organizational Knowledge Defined

It is not surprising that there are diverse views of what knowledge is. In this regard, Hlupic et al. (2002) rightly comment that there are differences in the understanding of the term “knowledge” as well as its dimensions. Tsoukas and Vladimirou (2001) state that the notion of organizational knowledge is “much talked about but little understood”. Parallel to this, Newell et al. (2002, p. 3) argue that “knowledge is an intrinsically ambiguous and equivocal term”. Since defining organizational knowledge is difficult, probably hundreds of definitions of knowledge could be found in the relevant literature.

Despite this fact, Lin and Wu (2005) assert that information becomes knowledge when it is interpreted by individuals, given a
context, and anchored into the beliefs and commitments of individuals. For Kanter (1999), knowledge is power for decision making and execution. Leonard and Sensiper (1998) see knowledge as information that is pertinent, actionable and based on some experience process. Nonaka and Takeuchi (1995, p. 58) define knowledge as a dynamic human process of justifying personal belief toward the “truth”. This corresponds well with Davenport and Prusak (1998, p. 5), who provide a comprehensive definition of knowledge as “a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information”.

However, several researchers (e.g., Machlup, 1980; Alavi and Leidner, 1999; Blackler, 1995; Spender, 1996; Connell et al., 2003) claim that knowledge is a catalyst for useful actions and decisions. Similarly, others (e.g., Gao et al., 2008; Tiwana, 2001; von Krogh et al., 2000) contend that knowledge should relate to action. Machlup (1980), for instance, argues that the kind of knowledge that is important for business is practical knowledge. Reflecting this view, Bourdreau and Couillard (1999) contend that knowledge is a driving force for action and a sphere of influence for professionals.

Tiwana (2002, p. 37) repeats the definition, stating that “knowledge is actionable information. Actionable refers to the notion of relevant and being available in the right place at the right time, in the right context, and in the right way so that anyone (not just the producer) can bring it to bear on decisions being made every minute”. Similarly, drawing on Plato’s definition, Alavi and Leidner (1999) strongly argue that knowledge is justified personal belief that increases an individual’s capacity to take effective action. Furthermore, Alavi and Leidner (2001, p. 109) state:

Knowledge is … the result of cognitive processing triggered by the inflow of new stimuli. … [I]nformation is converted to knowledge once it is processed in the mind of individuals and knowledge becomes information once it is articulated and presented in the form of text, graphics, words, or other symbolic forms.
A common theme here is the fact that knowledge is linked to the capacity for action. In line with this, several other scholars (chiefly, Drucker, 1992; Kanter, 1999; Sveiby, 1997; Nonaka and Takeuchi, 1995; Mahlitta, 1996; Vail, 1999) define knowledge as the decision and power to act. Nonaka and Takeuchi (1995), for example, contend that knowledge should relate to action. Table 1.1 depicts organizational knowledge definitions provided by various management scholars.

Borrowing from the definition of knowledge postulated by Plato and by Alavi and Leidner, the definition of organizational knowledge that will be used throughout this book is of interpreted organizational information which is processed from data (i.e., facts and events) that helps organizational members to take purposeful actions and make decisions so as to accomplish their assigned tasks — what Machlup (1980) calls practical knowledge.

Table 1.1 presents some representative definitions of knowledge. This demonstrates that there is no commonly accepted definition of knowledge (Hofer-Alfeis and van der Spek, 2002) because, as noted earlier, it is difficult to define knowledge (Gamble and Blackwell, 2001). Blackler (1995, p. 1032) rightly comments that knowledge is multi-faceted and complex, and therefore is very hard to define. Indeed, the fact that this subject has been studied by several disciplines and from different approaches is an obvious illustration of the lack of consensus. This corresponds well with Hlupic et al.’s (2002) comment that “a possible reason for the vagueness and ambiguity in the definition of organizational knowledge seems to be that the word ‘knowledge’ means different things to different people who are coming from different academic and philosophical backgrounds”.

Furthermore, Hlupic et al. (2002) identify several factors that help to understand why it is extremely difficult to define knowledge. These factors include:

- **The intangible nature of knowledge.** Knowledge itself is very much intangible in nature. Since knowledge is not tangible, it appears as an extremely complex concept to define.
### Table 1.1 Organizational Knowledge Defined

<table>
<thead>
<tr>
<th>Authors</th>
<th>Definitions</th>
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<tbody>
<tr>
<td>Bourdeau and Couillard (1999)</td>
<td>A driving force for action and a sphere of influence for professionals</td>
</tr>
<tr>
<td>Buckley and Carter (2000)</td>
<td>“Structured information”, which does not characterize the simpler “information”</td>
</tr>
<tr>
<td>Davenport and Prusak (1998)</td>
<td>A fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information</td>
</tr>
<tr>
<td>Galup et al. (2002)</td>
<td>Inseparable information in context</td>
</tr>
<tr>
<td>Kanter (1999)</td>
<td>Power for decision making and execution</td>
</tr>
<tr>
<td>Leonard and Sensiper (1998)</td>
<td>Information that is pertinent, actionable and based on some experience</td>
</tr>
<tr>
<td>Lin and Wu (2005)</td>
<td>Information that becomes knowledge when it is interpreted by individuals, given a context, and anchored into the beliefs and commitments of individuals</td>
</tr>
<tr>
<td>Mahlitta (1996)</td>
<td>Information for action</td>
</tr>
<tr>
<td>Plato (1992)</td>
<td>Justified true belief</td>
</tr>
<tr>
<td>Polanyi (1962, 1966)</td>
<td>An activity which is better described as a process of knowing</td>
</tr>
<tr>
<td>Tiwana (2002)</td>
<td>In the business context, nothing but actionable information</td>
</tr>
<tr>
<td>Tsoukas and Vladimirou (2001)</td>
<td>The set of collective understandings embedded in a firm, which enable it to put its resources to particular uses</td>
</tr>
<tr>
<td>Vail (1999)</td>
<td>A value-adding tool for organizations</td>
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</table>
• The subjective and eclectic nature of knowledge. The difficulty with the definition of knowledge is compounded even further because knowledge itself is believed to be a subjective and eclectic field.

• The emerging rather than established field of knowledge. Organizational knowledge is treated as an emerging topic in the management field rather than an established one. As a result, the difficulty with definitions is even further felt.

1.4 Knowledge Hierarchy

Not only is it difficult to explain what organizational knowledge is, but there is also confusion in understanding data and information in line with the notion of organizational knowledge. The question of whether data, information and knowledge have a similar meaning remains unresolved. Numerous attempts have been made to link knowledge with data and information. A number of researchers (e.g., Frappaolo, 1997; KPMG, 1999) argue that the terms “data”, “information” and “knowledge” have a very similar meaning. Other scholars (e.g., Wiig, 1993; Nonaka, 1994; Court, 1997; Davenport and Prusak, 1998; Blumentritt and Johnston, 1999; Buckley and Carter, 2000; Alter, 1996; Tobin, 1996; van der Spek and Spijkervet, 1997; Bouthillier and Shearer, 2002; Beckman, 1999) contend that knowledge differs from information and data. For example, Bouthillier and Shearer (2002) state that the distinctions drawn between the related concepts of data, information and knowledge need to be examined in order to differentiate knowledge management from other well-established disciplines, particularly information management.

As far as the definitions of data and information are concerned, several authors (e.g., Davenport and Prusak, 1998; Drucker, 1998; Tiwana, 2002; Buckley and Carter, 2000) argue that they are less contentious and relatively straightforward compared to the definition of knowledge. Reflecting this view, Davenport and Prusak (1998) see data as a structured record of transactions within an organization. Specifically, Davenport and Prusak (1998, p. 2) define data “as a set of discrete, objective facts about events” and suggest that “in an
organizational context, data is most usefully described as structured records of transactions”. Davenport and Prusak (1998, p. 3) continue to describe information as “a message, usually in the form of a document or an audible or visible communication”. Drucker (1998) supports this view, postulating that “[i]nformation is data endowed with relevance and purpose” (p. 5).

In attempting to link knowledge and information, Tiwana (2002, p. 37) claims that “knowledge in the business context is nothing but actionable information. Knowledge allows for making predictions, casual associations, or predictive decisions about what to do — unlike information, which simply gives us the facts”. Moreover, several other authors draw distinctions between data, information and knowledge. Drucker (1999), for instance, contends that information is data with attributes of relevance and purpose. Information is, above all, context-based. According to the American Productivity and Quality Center (1996), knowledge is information that has value. Buckley and Carter (2000, pp. 57–58) state: “Information is ‘interpreted data’, with meaning not possessed by simple data, and knowledge is ‘structured information’ … which does not characterise the simpler ‘information’”.

Likewise, Alavi and Leidner (2001) suggest that data are combined to create information, while information is combined to create knowledge. Similarly, Tiwana (2002, p. 37) argues that knowledge “is formed in and shared between individual and collective minds. It does not grow out of databases but evolves with experience, successes, failures, and learning over time”. In their classic book, Working Knowledge, Davenport and Prusak (1998) provide a thorough discussion of the distinctions between data, information and knowledge, suggesting that “data are simply facts, which then become information by the addition of meaning, while knowledge originates in peoples’ heads, drawing on information which is transformed and enriched by personal experience”.

On the other hand, Walters (2000) argues that knowledge is neither data nor information, though it is related to both. Knowledge is information made actionable (Mahlitta, 1996), or information made actionable in a way that adds value to the enterprise
In this context, Jashapara (2005) points out that knowledge rather than information has become the critical resource, as knowledge workers provide the driving force for innovation and productivity improvements in goods and services. Al-Hawamdeh (2002) succinctly elaborates the distinction between knowledge and information as thus:

Knowledge embodied in books and journals does not necessarily translate into useful and usable knowledge unless it is read, manipulated and communicated from one person to another. In other words, knowledge can only reside in the minds of people and the minute it leaves the human mind, it is information. However, not all types of knowledge can be codified and captured. Knowledge in the form of skills and competencies can only be transferred from one person to another through interaction. Information management on the other hand deals with knowledge that can be captured, processed and managed.

Likewise, Nonaka and Takeuchi (1995, p. 58) make the following observations about knowledge and information: “First, knowledge, unlike information, is about beliefs and commitment. Knowledge is a function of a particular stance, perspective, or intention. Second, knowledge, unlike information, is about action. And third, knowledge, like information, is about meaning. It is context specific and relational”. They actually consider knowledge as “a dynamic human process of justifying personal belief toward the ‘truth’”.

It can be concluded that, although the terms “data”, “information” and “knowledge” can be used with a similar meaning, knowledge also differs from information and data. It is helpful to view data, information and knowledge as separate constructs that are linked sequentially. Parallel to this, Zins (2006) contends that data, information and knowledge are viewed as sequential. There are many dimensions in explaining the relationship among them.

Several other scholars (e.g., Beckman, 1999; Nissen et al., 2000; Davenport and Prusak, 1998; Tuomi, 1999) attempt to resolve the
issue by organizing knowledge, information and data into a hierarchy. Each level in the hierarchy builds on the one below it, so data are required to create information and information is required to create knowledge. Most researchers agree on the fact that data occupy the lowest level in the knowledge hierarchy, while knowledge is above data and information. Walters (2000), for example, reports that the differences between data, information and knowledge are often a matter of degree. However, Tuomi (1999) proposes a reverse hierarchy (knowledge–information–data), arguing that “data emerge only after we have information, and that information emerges only after we already have knowledge” (p. 103); therefore, “the hierarchy of data–information–knowledge should be turned the other way around. Data emerge last — only after there is knowledge and information available” (p. 107).

Extending Tuomi’s concept of a reversed hierarchy, Nissen (2002) proposes a two-dimensional knowledge hierarchy model. Using the vertical axis to represent action ability and the horizontal axis to represent volume, Nissen concludes that knowledge is the most actionable level but the rarest, whereas data are the least actionable level but have the greatest volume. As he puts it:

[T]he transferor of knowledge could indeed view the hierarchy … where knowledge is necessary to produce information, which in turn is necessary for creating data that is conveyed (e.g., via paper, network, speech, observable action). However, the receiver of knowledge would view the hierarchy in the opposite perspective … where data are placed into context to become information, and information that enables action becomes knowledge. [Nissen, 2002, p. 253]

In the existing literature, considerable similarity of opinions among scholars on the relationship between data, information and knowledge is detected. For example, the list of stock prices displayed on a commercial screen is data; information is the meaningful data that are extracted for the prices of various stocks; and finally knowledge is the processed information that helps one to make decisions regarding stock investments, taking into account other relevant information
and data such as stock price, company profile, industry information, portfolio risk and availability of funds. Likewise, Wilson (1996, p. 34) explains the relationship between the three constructs using the following practical example:

For instance, if you are standing on the platform at Paddington Station waiting to go to Oxford, you may consult a time table (data) to look up the departure time of the next train (information). Then you may look at your watch to see what time it is (more information) and subtract this time from the departure time so that you know how long you have to wait (knowledge). Along with other knowledge of the options open to you, you can then decide what there is time for: enough only to board the train? … or to buy a newspaper first? … or to sit down and wait with newspaper, coffee and bun? (decision and action).

These constructs can be viewed as a hierarchy of increasing meaning, depth and relevance to action, as depicted in Figure 1.1. In line with this, Zack (1999, p. 46) also provides a conceptual analysis on the differences between data, information and knowledge:

Data represent observations or facts out of context that are, therefore, not directly meaningful. Information results from placing data
within some meaningful context, often in the form of a message. Knowledge is that which we come to believe and value on the basis of the meaningfully organized accumulation of information (messages) through experience, communication, or interference.

It is to be noted that the knowledge hierarchy depicts the transformation of knowledge, in which data is converted to information and information is converted to knowledge. This corresponds well with Nissen (2002), who argues that data are placed in context to create information and that information which becomes actionable is knowledge.

Following our discussion on the knowledge hierarchy, the perspectives on organizational knowledge and its related activities will be addressed next.

### 1.5 Perspectives on Knowledge in Organizations

Before moving on to the discussion about the role of knowledge in organizations, an essential starting point is to mention the emerging views associated with the notion of organizational knowledge. Several scholars (Empson, 1999, 2001; Newell et al., 2002) have come forward with various perspectives on knowledge in organizations in order to help us understand different types of knowledge. For example, Newell et al. (2002) explain the notion of knowledge from two different viewpoints, that is, the structural perspective and the processual perspective. According to them, the structured viewpoint suggests that knowledge is a discrete, objective, largely cognitive entity, while the processual perspective views knowledge as rooted in action and social practice.

Likewise, Empson (2001) discusses two alternative perspectives on organizational knowledge:

- knowledge as an asset; and
- knowing as a process.

Empson (2001) identifies several dimensions in order to discuss the perspectives on knowledge. These dimensions help to understand the
two broad alternative perspectives on knowledge. These dimensions surrounding the perspectives include:

- purpose of research;
- disciplinary foundations;
- underlying paradigm;
- epistemological assumption;
- models of knowledge; and
- main levels of analysis.

Table 1.2 shows the six dimensions provided by Empson (2001) in discussing the two distinctive perspectives on knowledge in organizations.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Knowledge as an Asset</th>
<th>Knowing as a Process</th>
</tr>
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<tbody>
<tr>
<td>Purpose of research</td>
<td>Normative — to identify valuable knowledge and to develop effective mechanisms for managing knowledge within organizations</td>
<td>Descriptive — to understand how knowledge is created, articulated, disseminated and legitimated within organizations</td>
</tr>
<tr>
<td>Disciplinary foundations</td>
<td>Economics</td>
<td>Sociology</td>
</tr>
<tr>
<td>Underlying paradigm</td>
<td>Functionalist</td>
<td>Interpretive</td>
</tr>
<tr>
<td>Epistemological assumption</td>
<td>Knowledge as an objectively definable commodity</td>
<td>Knowledge as a social construct</td>
</tr>
<tr>
<td>Models of knowledge</td>
<td>Exchanges of knowledge among individuals are governed by an implicit market within organizations</td>
<td>Knowledge is disseminated and legitimated within organizations through an ongoing process of interaction among individuals</td>
</tr>
<tr>
<td>Main levels of analysis</td>
<td>Organization and its knowledge base</td>
<td>Individual in social context</td>
</tr>
</tbody>
</table>

*Source: adapted from Empson (2001, p. 813).*
Moreover, Jakubik (2007) provides complementary views of knowledge, based on a review of the extant knowledge management literature. Her framework represents the four major views of knowledge together and their relationships. These complementary views of knowledge entail the ontological, epistemological, commodity and community views. Her analysis of various perspectives of knowledge are displayed below:

- **The ontological view of knowledge.** “Ontology studies the nature of phenomena, in this case ‘knowledge’. Objectivity and subjectivity in the ontological sense are predicates of entities (brute facts, e.g., ‘river’, ‘mountain’, or institutional facts, e.g., ‘company’, ‘marriage’) and they describe the modes of existence. Knowledge is the products of the individual mind and it is subjective in the ontological sense.”

- **The epistemological view of knowledge.** “The epistemological view of knowledge is a scientific, philosophical view of the nature of knowledge itself. Knowledge is an institutional fact because it requires human institutions (e.g., language) for its existence. … We can make objective and subjective statements about knowledge. For those who believe that knowledge can be acquired, shared, knowledge is ‘explicit’ (knowledge is a more objective concept) and for those who believe that knowledge needs to be personally experienced, knowledge is ‘tacit’ (knowledge is a more subjective concept).”

- **The commodity view of knowledge.** “The commodity view of knowledge is a managerial approach to knowledge, where knowledge is understood as a static organizational resource as a commodity. This entitative view of knowledge has an epistemologically objective assumption, i.e., ‘knowledge is an objectively definable commodity’. In the knowledge management literature, the commodity view of knowledge is also referred to as the ‘product-centered’ approach, the ‘content-centered’ or as the ‘codification’ approach.”

- **The community view of knowledge.** “The community or social view of knowledge assumes that knowledge is not static, but rather a
dynamic concept and that it is created in social interactions: ‘knowledge is a social construct’. This approach is also referred to as the ‘process-centered’ approach. The processual view of knowledge is interpretive and it focuses on individuals in a social context.”

Jakubik (2007) successfully illustrates in her framework how different views and types of knowledge prescribed by knowledge management scholars are related to each other, further claiming that “the ontological (reality), epistemological (science), commodity (managerial), and the community (social construct) views of knowledge are not mutually exclusive views, but rather they are complementary to each other” (see Figure 1.2).

![Figure 1.2 Emerging Views of Knowledge](image)

*Source:* adapted from Jakubik (2007).
Although there are still many unresolved issues regarding our understanding of knowledge, academics and practitioners are focusing much more attention towards comprehending the role of knowledge in organizational success. This will be dealt with next.

1.6 The Role of Knowledge in an Organizational Context

The role played by knowledge in an organization has been receiving growing recognition in the management literature (e.g., Bell, 1979; Hayes-Roth et al., 1983; Toffler, 1990; Drucker, 1992, 1993; Brown and Duguid, 1998; Nonaka and Takeuchi, 1995; Choo, 1996, 1998; Binney, 2001; Jasimuddin et al., 2005; Hsieh et al., 2009; Spender, 1996; Wang-Cowham, 2008; Grant, 1996; Teece et al., 1997; Kogut and Zander, 1992; Prahalad and Hamel, 1990; Argote and Ingram, 2000; Singh et al., 2008; Bhagat et al., 2002).

Scholars — most notably Kogut and Zander (1992), Bell (1979), Prahalad and Hamel (1990), Starbuck (1992) and Drucker (1993) — argue that, in a post-industrial society, the knowledge within an organization is the main source of its competitive advantage. Similarly, academics such as Earl (2001) and Hayes-Roth et al. (1983) claim that knowledge is a source whose refinement and reproduction create wealth, and furthermore that knowledge management is the enabler that turns knowledge as a crucial input into a valuable industrial output.

Drucker (1992) argues that knowledge is a fundamental resource for people, while conventional production factors such as land, labor and capital are secondary. In his words, “In this society, knowledge is the primary resource for individuals and for the economy overall. Land, labor, and capital — the economist’s traditional factors of production — do not disappear, but they become secondary” (1992, p. 95). Drucker continues by arguing, “The basic economic resource — ‘the means of production’ to use the economist’s term — is no longer capital, nor natural resources (the economist’s ‘land’), nor labor. It is ... knowledge” (1993, p. 8).
This point is also underscored by Quinn (1992, p. 241), who puts it thus:

With rare exceptions, the economic and producing power of a modern corporation lies more in its intellectual and service capabilities than in its hard assets — land, plant and equipment. ... Virtually all public and private enterprises — including most successful corporations — are becoming dominantly repositories and coordinators of intellect.

This view is an extension of that of Toffler (1990), who recognizes the fact that, in a knowledge-based society, knowledge is the source of the highest-quality power. Many other scholars (e.g., Grant, 1996; Baden-Fuller and Pitt, 1996; Nonaka and Takeuchi, 1995; Hendriks, 2001) also emphasize the role of knowledge in organizations. Or, stated differently, organizational knowledge is one of the main, strategically significant resources that eventually leads to the generation of competitive advantage for firms. In explaining its role in an organization, Tsoukas and Vladimirou (2001, p. 976) claim that “organizational knowledge is the capability members of the organization have developed to draw distinctions in the process of carrying out their work, in particular concrete contexts, by enacting sets of generalizations whose application depends on historically evolved collective understanding”.

Likewise, Hamel and Prahalad (1991) maintain that an organization’s value stems from knowledge and competencies which are embedded in people. This coincides with the development of the knowledge-based theory of the firm, as postulated by Grant (1997), who argues that the transition from an industrial society to a knowledge-based society has led to an increasing focus on knowledge as the most important resource for organizations. Reflecting this view, the UK Department for Education and Employment (2000, p. 4) asserts, “Knowledge is crucial because at the cutting edge of innovation in the new economy are knowledge producers: universities and businesses whose fundamental products are the ideas and research which provide the engine for change in goods and services”.

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In fact, it could be argued that an organization’s knowledge is the strategic resource in intelligent decision making (Tversky and Kahneman, 1981), forecasting (Rowe and Wright, 1999), planning (Buckley and Carter, 2000) and intuitive judgment (Tiwana, 2002). Marquardt (1996, p. 129) further elaborates on this, commenting:

Knowledge has become more important for organizations than financial resources, market position, technology, or any other company asset. Knowledge is seen as the main resource used in performing work in an organization. The organization’s traditions, culture, technology, operations, systems, and procedures are all based on knowledge and expertise. Employees need knowledge to increase their abilities to improve products and services to provide quality service to clients and consumers.

In connection with this, Choo (1996) identifies three critical reasons underlying the utilization of knowledge within an organization:

(i) to make strategic decisions;
(ii) to make sense of changes in its external environment; and
(iii) to create new knowledge.

Managing organizational knowledge has recently emerged as a critical concern for organizations. Due to an organization’s ability to explore and exploit knowledge for its benefit, the popularity of the knowledge management field has increased tremendously. Knowledge assets have emerged as the tools with which today’s organizations need to function in order to gain competitive advantage. That is why all organizations have started viewing themselves as knowledge-intensive firms (which will be discussed in Chapter 5) and have adopted knowledge management approaches in every business functional area and corporate action. The next chapter will elaborate on the notion of knowledge management.

1.7 Concluding Summary

Knowledge is considered the most critical resource of an organization in the emerging knowledge-based society. One key area that appears
to be involved in knowledge management is the idea of organizational knowledge, which will be evident throughout the book. This chapter has addressed the notion of knowledge, its philosophical aspects, its relationship with the two related concepts of data and information, and various perspectives on knowledge within the knowledge management field. The word “knowledge” itself is a subject with many different meanings and interpretations. Since knowledge management is a relatively new discipline of the 1990s, there is no consensus in the relevant management literature regarding the definition of organizational knowledge.

There is still a debate about what we mean by the term “organizational knowledge”. Due to its popularity, several scholars have produced definitions of knowledge. Some scholars (e.g., Drucker, 1992; Kanter, 1999; Alavi and Leidner, 1999; Sveiby, 1997; Nonaka and Takeuchi, 1995; Mahlitta, 1996; Vail, 1999; Leonard and Sensiper, 1998; Bourdreau and Couillard, 1999; Gao et al., 2008; Tiwana, 2001; von Krogh et al., 2000; Davenport and Prusak, 1998; Tiwana, 2002; Connell et al., 2003) define knowledge as the decision and power to act. An essential starting point is to mention the working definition of organizational knowledge that is used throughout this book: the interpreted organizational information which is processed from data (i.e., facts and events) that helps organizational members to take purposeful actions and make decisions in order to accomplish their assigned tasks and thereby gain competitive advantage.

Although the terms “data”, “information” and “knowledge” can be used with a similar meaning, knowledge does differ from information and data. While data are facts and events, information is processed data, and finally organizational knowledge is interpreted organizational information that actually helps people to take purposeful actions and make decisions. This chapter has also briefly looked at the hierarchy of knowledge around these three concepts.

Research on organizational knowledge within the knowledge management field has a legacy that spans over 20 years, with more recent exponential growth. However, as suggested earlier, a diversity of perspectives have been used to look at organizational knowledge issues. The theoretical underpinnings of these perspectives are based on the organizational knowledge framework developed by Jakubik (2007).
Having viewed the phenomenon from four different perspectives, Jakubik (2007) offers a comprehensive picture of organizational knowledge. It is worth mentioning that a pluralistic stance is taken when it comes to discussing organizational knowledge, which falls somewhere between the rather divergent perspectives while recognizing the contradictions.

There is no doubt that there has recently been recognition that knowledge is an important strategic component for organizational survival. There is an agreement about the importance of the knowledge available for current and future use. As mentioned previously, the notion of organizational knowledge helps to enhance an organization’s sustainable competitive advantage. Consequently, the concept of knowledge has received much interest in management literature over the last decade or so. This chapter has helped to acquaint readers, be they researchers or managers, with the notion of knowledge and the role of knowledge in organizations.

Apparently, knowledge seems to be a long-lasting phenomenon because academics and practitioners from various disciplines are showing an interest in pursuing research and practice surrounding the topic. Scholars, irrespective of their backgrounds, argue that knowledge is the key resource of the knowledge-based era. A good number of management theorists have contributed to the discussion of organizational knowledge, stressing the growing importance of knowledge as a strategic resource for organizations.

There is still a debate about various aspects of organizational knowledge and its link to the emerging interdisciplinary field of knowledge management. Nevertheless, this chapter has focused on understanding what knowledge is from an organizational perspective, and contrasted knowledge to other concepts such as data and information. Despite the fact that numerous practical questions and challenges concerning organizational knowledge remain unanswered and demand research, knowledge is emerging as one of the vital organizational resources of the firm and there is a growing awareness of the way organizations manage knowledge. The next chapter will focus on the various aspects of the emerging interdisciplinary notion of knowledge management.
Further Reading


References


Beckman, T. J. (1999). The current state of knowledge management. In J. Liebowitz (ed.), Knowledge Management Handbook (pp. 1–22), Boca Raton, FL: CRC Press LLC.


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