

Knowledge Organizations

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INTRODUCTION

An important endeavor within the field of knowledge management (KM) is to better understand the nature of knowledge organizations. These are variously called knowledge-based organizations, knowledge-centric organizations, knowledge-intensive organizations, knowledge-oriented organizations, and so forth. One approach to doing so is to study the characteristics of specific organizations of this type such as Chaparral Steel (Leonard-Barton, 1995), Buckman Labs, World Bank, or HP Consulting (O'Dell, 2003). A complementary approach is to study various frameworks that have been advanced for systematically characterizing the elements, processes, and relationships that are found in knowledge organizations. Here, we examine three such frameworks that are representative of the variety in perspectives that have been advocated for understanding the nature of knowledge organizations. These frameworks share a view that sees knowledge as a key organizational asset that enables action. However, they differ in emphases (e.g., asset vs. action) and constructs.

This article is organized as a systematic review of the three frameworks. The content relies heavily on the original presentations found in the referenced publications. Space limitations do not permit a comparative analysis or synthesis of the frameworks. Nevertheless, taken together, the reviews do offer valuable vantage points for studying knowledge organizations and useful departure points for more detailed consideration of these as well as other frameworks concerned with knowledge organizations.

The Intangible Assets Framework of Knowledge Organizations, as developed by Karl Sveiby (1997), is considered first. It relies on the concept of intangible assets and characterizes companies for whom these assets are important. Second, the Knowledge Management Cycle Framework introduced by Wiig, de Hoog, and van der Spek (1997) emphasizes the cyclical nature and means of managing an organization's knowledge assets. Third, the Knowledge Flow Framework advanced by Newman (2003) emphasizes flows of knowledge

assets in the sense of agents performing transformations on knowledge-bearing artifacts.

Each framework description starts with a brief overview of the framework from the perspective of its creator(s). It continues by describing and defining the elements, processes, and relationships of the framework in encyclopedic format. Additional references to related works by other authors also are provided for readers who wish to further explore the framework's perspective. Where pictorial renditions of a framework are available, they are reproduced to visually tie together the concepts.

BACKGROUND

Frameworks are cognitive structures used to organize our thinking about a particular domain of interest. They give us concepts pertaining to the domain and guidance about relationships among those concepts, thereby forming a basic understanding of what is observed in a domain, for formulating new ideas about a domain, and for operating or managing in a domain. As such, KM frameworks are useful to academicians in framing research and building theory, to practitioners in learning about and executing KM, and to educators for organizing and presenting KM. Here, the KM domain of interest involves knowledge organizations.

The notion of organizations that explicitly recognize and cultivate knowledge as a key resource began to gain prominence in the 1980s (Holsapple & Whinston, 1987; Paradice & Courtney, 1989). It was seen as being on a par with the traditional organizational resources of people, materials, and finances. Knowledge was seen as pervading all functional areas of organizational management from strategy to operations, from human resources to technological systems, from economics and accounting to finance and marketing. The processing of an organization's knowledge resources was seen as an important (or even indispensable) aspect of nearly all organizational work. A confluence of forces led to the widespread rise of knowledge organizations in the 1990s,

and the accompanying interest in more fully understanding these organizations and their possibilities (Bennet & Bennet, 2003).

Growing out of this interest, various frameworks of the knowledge organization have been advanced by researchers and practitioners. Although we do not exhaustively survey them here, we do review three that represent a diversity of views about an organization's knowledge assets and its use of those assets. Thus, the article serves as an introduction to the realm of knowledge organization frameworks and a foundation for review, comparison, and contrast of perspectives on organizational knowledge assets and their utilization.

AN INTANGIBLE ASSETS FRAMEWORK OF KNOWLEDGE ORGANIZATIONS

Within the intangible assets (IA) framework, people are the only true agents in business. All assets and structures, whether tangible or intangible, are seen as being the result of human actions. The intangible assets of an organization are those embedded in the competences of its human resources and in its internal and external structures of interactions among these people. Knowledge organizations are those for which the greatest value lies in intangible assets (Sveiby, 1997).

Knowledge and Intangible Assets

The IA framework regards knowledge as being the capacity to take action. It is seen as tacit, action-oriented, supported by rules, and constantly changing (Sveiby, 1997). These assets are invisible in the sense that there is typically no accounting for them. They are intangible in that they are neither brick, nor mortar, nor money. They are comprised of two components: the competences of the organization's personnel and the organizational structures (internal and external) that allow them to interact (Sveiby, 1997). The IA framework does not regard structures as objects, but rather as being constructed in a constant process by people interacting with each other (Weick, 1995). They are not statically visible, but are events that link together. Knowledge management, based on the IA view, is "the art of creating value from intangible assets" (Sveiby, 1997, p. 1).

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The IA framework conceives of knowledge organizations as having relatively few tangible assets, and having intangible assets that exceed tangible assets in value. In Figure 1, the dark line separates the visible and tangible from the invisible and intangible. The professional services or business services sector is a close equivalent of knowledge organizations (e.g., DeTore & Balliet-Milholland, 2003). Most employees of these companies are highly qualified and highly educated professionals, that is, they are knowledge workers. Their work consists largely of using their own competencies to produce or transfer knowledge, sometimes with the assistance of suppliers of information or specialized knowledge (Sveiby, 1997).

As indicated in Figure 2, the IA focus in a knowledge organization is on the key concepts of employee competence, internal structure, and external structure. They are defined as follows:

- **Individual competence:** Employee competence involves the capacity to act in a wide variety of situations to create both tangible and intangible assets. Individual competence is comprised of five interdependent elements: (1) explicit knowledge, (2) skill, (3) experience, (4) value judgments, and (5) social network (Sveiby, 1997).
- **Internal structure:** Internal structure includes patents, concepts, models, and computer and administrative systems. These are created by the employees and are generally owned by the organization. However, they may be acquired elsewhere. In addition, organizational culture is part of the internal structure, as are management, legal structure, manual systems, attitudes, and R&D software (Sveiby, 1997).
- **External structure:** External structure includes relationships with customers and suppliers. It also encompasses brand names, trademarks, and the company's reputation or image. In the IA framework, to manage the external structure is to manage the flows of knowledge in customer and supplier relationships (Sveiby, 1997).

Value is created through knowledge transfers and conversions between and within these three elements. A knowledge organization would not exist if not for their

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