

## Chapter 3

# Technical Infrastructure of Network Organizations

### ABSTRACT

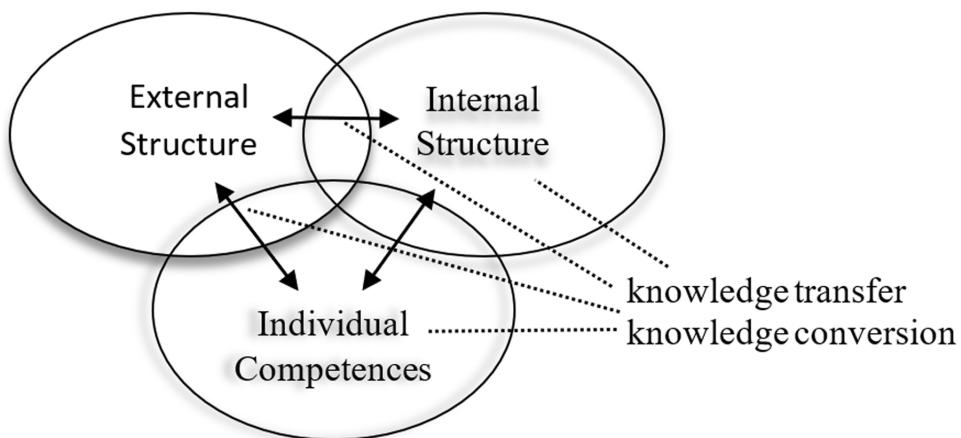
*IT management infrastructure is developing hand in hand with modern information communication technologies (ICT). As with every revolution in the history of mankind, what we call the digital revolution is reflected in virtually every aspect of human life. The digital revolution has covered management to a large extent. This influence is evident both in the take-over of certain areas of organization management by IT systems (e.g., production automation) and through changes in organizations themselves and their organizational structures. Classical organizations, structured in a hierarchical fashion, follow a unique path of evolution. It began in the mid-twentieth century. What could be observed in the 1960s was the transformation of classical linear organizational relationships into matrix structures intended to streamline management and facilitate project management. The matrix structure was a breach of the classical Fayolian principle of unity of command, yet it was more flexible and conducive to cooperation compared to a traditional linear organization, thus marking the first step towards crossing borders. Nowadays, in a world where crossing organizational boundaries is becoming a management paradigm, we can more and more often see organizations of a typically network nature.*

## KNOWLEDGE MANAGEMENT IN ORGANIZATIONS

Since 1966, when P. Tomcsany first used the notion of knowledge management in the context of research works, this issue has continued to enjoy tremendous popularity both in the literature and in the everyday practice of market organizations. There are a number of knowledge management definitions. According to T.A. Stewart, knowledge management means knowing what organization members know (Edvinsson & Malone, 2001, 107). Knowledge management may also be regarded as a business process. M. Levinson defines it as a process whereby organizations create value. They use their intellectual resources to this end (Levinson, 2007). The same approach was adopted by M. Savary (1999). W.R. Bukowitz and R.L. Williams (1999, 43) take a step further, arguing that knowledge management is a process leading to wealth creation by organizations. Company management is a multi-factorial process, and processes within organizations create a value network. This network is based on interactions among organization participants resulting in both tangible and intangible values, including knowledge. Knowledge management in an organization should therefore cover all available spheres of activity, as they are either direct or indirect effect of the impact of knowledge (Figure 1).

Knowledge management, which is one of the paradigms of modern management, was signaled as early as in the 1970s by P. Drucker, who defined knowledge as the effective use of information in action and announced its increased importance in subsequent stages of economic development (Drucker,

*Figure 1. Picture of the company from the perspective of knowledge*  
Source: (Sveiby, 2005)



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