

## Chapter 3

# A Revolutionary Look at Knowledge Management: Considering Intellectual Assets as Facilitating Infrastructure

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### ABSTRACT

*The implementation of knowledge management for organization requires a systematic perspective about various organizational factors. Appropriateness of these factors and their integration and coordination is a vital prerequisite to implement knowledge management effectively. The primary purpose of this chapter is investigating the relationship between three fundamental aspects of intellectual assets- human capital, structural capital and relational capital- with knowledge management practices. The method of research is descriptive and co-relational which was conducted in a petrochemical Company in Tehran whose total number of personnel was 720 and the sample of 265 members were selected as statistical sampling. The findings prove there are significant relationships between these intellectual assets and knowledge management practices. These findings support the necessity of preparing the prerequisites of effective implementation of knowledge management. Accordingly an organization characterized by more developed intellectual capitals can benefit more from KM.*

### INTRODUCTION

In this era, organizations must prepare themselves to face drastic environmental changes and this preparation is not necessarily limited to technology and facility. In fact, organizations must well prepare their valuable human resource (Rowley, 2000). Furthermore; they require a combination of convergent, divergent and creative thinking. In other words, as organizations go through changes and evolve; everything would be much more complicated. Even the level of knowledge, as a valuable asset, would be endangered.

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As everyone may know, there are various knowledge aspects and elements which are shared or required in the organization. (Table 1) can simply illustrate knowledge categories, aspects and elements which are shared or required in an organization.

This classification describes the core of knowledge management systems. It goes without saying that if the managers are not effective enough, a big part of this knowledge as a result of all these changes will be certainly lost. This possibility is highly likely to happen more for tacit knowledge rather than the explicit one. (Fei, Meng, & Yoshiteru, 2001). Therefore, there has been a growing attempt in order to maintain a good level of knowledge in the form of knowledge-based economy and it is in fact one of the most critical duties of organizations. That is why organizations make attempts to be learning organizations (Lee & Choi, 2003).

On the other hand, knowledge management refers to a system in which knowledge is gathered systematically, organized and distributed among members of staff in order to encourage the culture of learning and distributing knowledge (Capalli, 2000). It is noteworthy to mention that a lot of organizations try to benefit from MIS (Management of Information System) in order to make this knowledge systematically available to everyone within a system (Rastogi, 2000). In this way the right knowledge goes to the right user in order to improve organizational and/or individual performance and its impact is visible in business processes, strategy, leadership and knowledge content (Jennex, Smolnik, & Croasdehl, 2009).

Facing the changing world and going through complicated situations, organizations started to equip themselves with the-state-of-arts to be both efficient and effective (Nonaka, 1994). But growing aware of the importance of knowledge, they decided to align human resource and their knowledge with high technology. According to Davenport and Prusak (2000) in this regard, organizations began to use IT and high technology in order to achieve efficiency. After a while, however, they had no values added and that was the very time they realized there must an emphasis on other key values such as organizational culture and intellectual capacity to make progress.

*Table 1. Knowledge categories*

Source/References	Sample Values/Attributes	Description	Category
Thalman (2011), Pirkkalainen et al. (2010)	Subject area Type Representation / codification Culture specifics (common, contextualized, ...)	Description of knowledge areas of an organization	Knowledge element
Ryle (1949), Polanyi (1966) Nonaka & Hansen et al (1995)	Knowing that / knowing how Tacit / implicit / explicit Knowledge as object / knowledge as process Importance (routine, important, critical) Complexity (simple, expert, specialized) Group (team, organization, strategic partners, ...)	What kind of knowledge	Knowledge type
Kalz et al. (2010)	Problem description Context Related knowledge, competences, actors	Problems to which knowledge is applied	Problem

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