

# On Knowledge Management: Intellectual Assets as Facilitating Infrastructure

*Mohammad Mousakhani, Faculty of Management, University of Tehran, Tehran, Iran*

*Khadijeh Rouzbehani, Research Scientist, University of Tehran, Tehran, Iran*

---

## ABSTRACT

*Successful implementation of knowledge management for organization requires a systematic and comprehensive 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 the research 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 the research is descriptive and co relational. The research was conducted in petrochemical Company in Tehran. The total number of personnel was 720 and the sample of 265 members of personnel was selected as statistical sampling. According to the research findings, 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 from knowledge management initiatives.*

*Keywords: Customer/Relational Capital, Human Capital, Intellectual Assets, Knowledge Management, Structural Capital*

---

## 1. INTRODUCTION

In the competitive world today, organizations must prepare themselves to face drastic environmental changes. Preparation is not limited to technology and facility. In fact, organizations must well prepare their valuable human resource (Rowley, 2000). 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. If the managers are not effective

enough, a big part of 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

DOI: 10.4018/ijabim.2014100103

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).

Facing the changing world, and going through complicated situations, organizations started to equip themselves with the state-of-the-art 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, they had no values added and that was the very time they realized there must be an emphasis on other key values such as organizational culture and structural capital and other social areas such as human capital in order to make progress. In such conditions, in order to gain competitive advantage and enjoy constant efficiency, a big behavioral change in the attitude and values of individuals is urged. Such a change needs no hi-tech in fact; it just needs an attention toward individual aspects of human as capital. A more precise term is "intellectual capital". Though being an intangible asset, it refers to the management of human capital which can act as an infrastructure to empower an organization to run its activities (Brooking, 1996).

## 2. LITERATURE REVIEW

### 2.1. Intellectual Capacity

OECD has presented one of the most practical definitions of intellectual capacity. According to that definition there are two types of intangible capital in organizations: the first one is organizational structural capital and the second one is human capital. The human capital in

internal organizational environment is labeled as employees and the human capital in external organizational environment includes customers and suppliers. Other scholars such as Roos et al (1997), Bontis (1996), Brooking (1996) and Stewart (1997) have reviewed the literature of intellectual capacity. Intellectual capital is rather complicated and vague but once it is diagnosed and implemented well, it can make an organization highly competitive (Binits, 1999). Brooking (1996) puts it this way: Intellectual and human capital provides a robust infrastructure which empowers an organization to achieve its goals. Intellectual capital is in fact the experience, information and the mental assets which are the drivers of future corporate wealth (Skyrme, 2003). Making comparison between the definitions given by Brooking (1996), Roos (1997), Stewart (1997) and Bintis (1998), there are three key concepts which they all agree on: Human capital, structural capital, and relational capital.

### 2.2. Human Capital

According to Roos G. & Roos J. (1997), staff of organizations can create intellectual capital via meritocracy, their attitude and intellectual agility. Having merits refers to one's education and experience and intellectual agility prepares one in order to welcome changes and come up with innovative solutions in various challenging situations (Lank, 1997). In other words human capital of an organization includes all skills, expertise, problem-solving capacity and styles of leadership (Brooking, 1996). It is a pivotal issue that human capital is the foundation of intellectual assets and if the staff have the right attitude to share their knowledge and experience, it significantly increases the level of efficiency and results in making more profits (Chen et al, 2004). Such expertise and knowledge is something abstract in everyone's mind and this is the organization which should manage it well to activate it to create value in the market for it. In the following part, Table 1 classifies indexes of human capital (Chen et al, 2004).

9 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the product's webpage:

[www.igi-global.com/article/on-knowledge-management/126503?camid=4v1](http://www.igi-global.com/article/on-knowledge-management/126503?camid=4v1)

This title is available in InfoSci-Journals, InfoSci-Journal Disciplines Business, Administration, and Management, InfoSci-Digital Marketing, E-Business, and E-Services eJournal Collection, InfoSci-Select. Recommend this product to your librarian:

[www.igi-global.com/e-resources/library-recommendation/?id=2](http://www.igi-global.com/e-resources/library-recommendation/?id=2)

## Related Content

---

### Internationalization Strategies of Chinese Pharmaceutical Firms

Xiaohui Li, Yunshan Lian and Jingyuan Zhao (2013). *International Journal of Asian Business and Information Management* (pp. 35-47).

[www.igi-global.com/article/internationalization-strategies-of-chinese-pharmaceutical-firms/101142?camid=4v1a](http://www.igi-global.com/article/internationalization-strategies-of-chinese-pharmaceutical-firms/101142?camid=4v1a)

### Understanding the Factors Affecting the Adoption of E-Marketing by Small Business Enterprises

Hatem El-Gohary, Myfanwy Trueman and Kyoko Fukukawa (2010). *E-Commerce Adoption and Small Business in the Global Marketplace: Tools for Optimization* (pp. 237-258).

[www.igi-global.com/chapter/understanding-factors-affecting-adoption-marketing/40625?camid=4v1a](http://www.igi-global.com/chapter/understanding-factors-affecting-adoption-marketing/40625?camid=4v1a)

### Effect of Country-of-Origin and Ethnocentrism on Consumer Cognitive Processing in India

Vaibhav Arora, Jyoti Kainth and Lubna Nafees (2014). *International Journal of Asian Business and Information Management* (pp. 17-33).

[www.igi-global.com/article/effect-of-country-of-origin-and-ethnocentrism-on-consumer-cognitive-processing-in-india/124299?camid=4v1a](http://www.igi-global.com/article/effect-of-country-of-origin-and-ethnocentrism-on-consumer-cognitive-processing-in-india/124299?camid=4v1a)

## Testing Random Walk Hypothesis in Turkish Foreign Exchange Market

Levent Çtak, Veli Akel and Murat Çetin (2016). *International Business: Concepts, Methodologies, Tools, and Applications* (pp. 969-982).

[www.igi-global.com/chapter/testing-random-walk-hypothesis-in-turkish-foreign-exchange-market/147894?camid=4v1a](http://www.igi-global.com/chapter/testing-random-walk-hypothesis-in-turkish-foreign-exchange-market/147894?camid=4v1a)