

Chapter 11

The Role of Creativity, Innovation, and Invention in Knowledge Management

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ABSTRACT

Globalization, fast-paced technological, economic, and social changes, and increased competition have affected the current business environment by changing the role of knowledge, innovation, and creativity in work, learning, and everyday life. Although Knowledge Management (KM) is usually explored separately from creativity and innovation, these concepts are closely related and in practice reinforce each other. Linking KM to innovation and creativity management in a holistic fashion has facilitated the examination of the knowledge management impact on innovation performance of organizations. In addition, this practice makes it possible to examine how creativity and invention can be used to increase the efficiency of knowledge management. This chapter focuses on the analysis of the role and importance of creativity, innovation, and invention in knowledge management. In addition, the chapter investigates the role of KM in innovation, and environmental and personal factors, which contribute to creativity, innovation, and invention in KM.

INTRODUCTION

In recent decades, corporate life has become increasingly intangible. Faced with new challenges, organizations have found themselves at crossroads. In an attempt to find new sources of

wealth and long-term competitiveness, they start to turn to an inexhaustible, intangible source of wealth, such as human knowledge, innovation and creativity (Cabrilo, 2008). This hidden treasure is what really matters in a society that is in constant turmoil, especially in times of global financial cri-

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sis (Cabrilo & Grubic-Nesic, 2010). While assets such as labor, capital, and technology continue to be important, the ability of organizations to innovate has been seen more as one of the key factors to ensure their success (Brown & Eisenhardt, 1998; Cohen & Levinthal, 1990; McGrath, 2001; Tsai, 2001; Shipton, Fay, West, Patterson, & Birdi, 2005). Through innovation, organizations are able to adapt, diversify, and reinvent themselves (Shipton, et al., 2005; Schoonhoven, Eisenhardt, & Lyman, 1990).

Innovation becomes crucial in terms of defining how a company, a city, a region, or a country evolves. However, the concept of innovation is more complex than ever before. Innovation is not something that is only embedded into products and services anymore. It is the input, the output, and the process. Innovation has become a mindset, a way to approach the world.

Knowledge, creativity, and invention are key drivers to the innovation process. Ideas present new thoughts, beliefs, or feelings that are generated as a result of some mental activity. Creativity is about combining these ideas in a unique and unexpected way. Based on these creative ideas, the process of invention creates something that is new and useful. This process is closely related to knowledge creation. Innovation is the result of combining these creative ideas, inventions and knowledge in a novel way for the full intent of creating value. This process of transforming creative ideas into vigor innovation requires just as much creativity as before.

Knowledge Management (KM) should be viewed as a holistic concept which includes a set of knowledge processes (knowledge identification, knowledge generation, knowledge codification, knowledge sharing, knowledge storing, and knowledge application) as well as the functions of supporting creativity and innovation. In KM, both innovativeness and creativity should be viewed as constant processes, as the means for optimum usage of existing knowledge and as the key drivers for generating new knowledge.

According to Nonaka and Takeuchi (1995) effectiveness of knowledge creation especially determines the level of innovation. It is impossible to innovate only by using already existing (old) knowledge and without creating new knowledge. Taking into account that learning is a production process in which knowledge is created (Weggeman, 1997), it becomes quite obvious that knowledge creation and learning are crucial for the innovation process. Analyzing the effect of organizational learning on innovation and creativity, research shows that organizational learning enhances organizations' innovativeness and capacity for adaptation (Hurley & Hult, 1988). In addition, one possibility in creating and developing knowledge is certainly through innovativeness and creativity.

Research of innovation has shown that 'domain relevant' knowledge represents one aspect of creativity (Amabile, Conti, Coon, Lazenby, & Herron, 1996) disclosing the connection between creativity and innovation. Innovation are generated and sustained through the creative efforts of individuals, groups, and organizations (West, Hirst, Richter, & Shipton, 2004). Since innovation and creativity could be viewed as individual and group phenomena, this chapter includes the research of personal and environmental factors, which contribute to individual and group creativity, innovation, as well as invention in KM.

Today, organizational innovation means creating the conditions for a continuous flow of knowledge, inventions, and creativity. Thus, the organization's ability to think and learn as well as to create, transfer, share and apply knowledge through the process of knowledge management is currently widely recognised as crucial for superior organizational performance (Senge, 1990; Drucker, 1993; Nonaka & Takeuchi, 1995; Leonard-Barton, 1995; Castells, 1996; Stewart, 1997; Weggeman, 1997; Weggeman, 2000; Kessels, 2001; Basadur & Gelade, 2006; Stam, 2007).

Creativity, invention, and innovation are connected to the process of creating and applying

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