

The importance of knowledge management on innovation

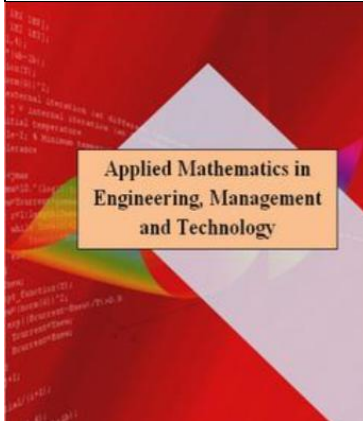
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Abstract

Knowledge management and innovation are two key activities for companies. Knowledge management has been regarded as one vital management approach in new era of knowledge-based economy. The need for organizations to innovate comes from increasing competition and customer demands and new market areas. Knowledge management has important implications for innovation; therefore it is imperative that we understand the role of Knowledge management in innovation. This paper focuses on the importance of knowledge management on innovation in organizations.

Keywords: knowledge, knowledge management, innovation.

Introduction

Knowledge plays an increasingly important role in modern organisations. Business processes are complex and dynamic, manual labour is being replaced by knowledge work, requiring a high level of skills and expertise. Knowledge and skills that are of value to the organization tend to be embodied in individuals difficult to substitute. In new economics of the world creativity and knowledge become important factors of production, beside resources of capital, workforce, land and nature. The importance of knowledge for the development will probably increase; and knowledge might influence the difference between prosperity and poverty (Sedziuviene & Vveinhardt, 2010). In today's complex and turbulent environment the need for innovation in products and processes is widely recognised (Massa & Testa, 2004). Organisations are required to apply new technologies and to innovate timely in anticipation of changes in the marketplace rather than as a reaction to business decline. Knowing when, how and what to innovate therefore is a key competence for organisations (Amidon, 1997).

Knowledge is the key resource that must be managed if improvement efforts are to succeed and businesses are to remain competitive in the global markets (Drucker, 1993; Davenport & Prusak, 1998). Knowledge management is about supporting innovation, the generation of new ideas and the exploitation of the organization's thinking power (Parlby & Taylor, 2000). The essence of knowledge management (KM) with respect to innovation is that it provides a framework for management in their attempt to develop and enhance their organizational capability to innovate. (Leal-Rodríguez et al, 2013). Therefore we are going to in this article discuss the importance of knowledge management on innovation.

Knowledge

The concept of knowledge has gained in interest since industrialized economics have induced a shift in importance from (natural) resources towards intellectual assets (Hansen et al., 1999). Knowledge is defined as information in context with understanding to applying that knowledge (Brooking, 1999). Nanaka and Takeuchi (1995) defined knowledge as "Justified true belief- the belief is that knowledge can be justified by facts".

Knowledge consists of truths and beliefs, perspectives and concepts, judgments and expectations, methodologies and know-how. (Wiig1993). Knowledge is justified personal belief that increases an individual's capacity to take effective action. (Alavi & Leidner1999).

There are two different kinds of knowledge, that is, tacit and explicit (Polanyi 1958). Tacit knowledge is personal and, therefore, difficult to formalise, communicate and share with others. Tacit knowledge consists of a technical dimension often referred to as know-how and a cognitive dimension that includes schemes, mental models and beliefs, in short a conception of reality. Explicit knowledge can be conceptualised and stored in information systems. Western thinking has concentrated on explicit knowledge. This tradition stems from the cartesian dualism, which makes a clear distinction between mind and matter and, accordingly, body and mind. In the Japanese thinking tradition, knowledge is traditionally seen primarily as something not easily visible and expressible, that is, tacit by its nature. (Nonaka and Takeuchi 1995)

Knowledge management

Knowledge management is not new. For thousands of years, parents in the countryside shared experience with their children forecasting the weather, owners of family businesses passed commercial wisdom to next generations, master craftsmen destroyed temples and rebuilt them so that construction skills would live on, and workers exchanged know-how on the job. But it wasn't until the 1990s that corporate executives, university professors, national leaders and even the World Bank started talking about knowledge management. What is new is that knowledge management has become a consciously promoted and organised practice attached with strategic significance for organisations to pursue innovation, gain competitive advantage and improve performance (zhu,2008).

Knowledge management refers to a systematic and organizational specific framework to capture, acquire, organize, and communicate both tacit and explicit knowledge of employees so that other employees may utilize them to be more effective and productive in their work and maximize the organization's knowledge (Alavi and Leidner, 1999; Davenport et al., 1998).

Nonaka (2007) prefers to call knowledge management as knowledge-based management, connecting people to people and people to information to create competitive advantage.

Knowledge management processes

The following steps are followed to represent the cyclical model of KM processes:

- (1) **Create knowledge** . The knowledge comes primarily from the experiences and skills of the employees. Knowledge is created as people determine new ways of doing things or develop know-how. Sometimes if the knowledge is not residing in the organization, external knowledge is brought in, for example, technology transfers that take place from the research laboratories to the business organizations.
- (2) **Capture knowledge** . The knowledge that is created needs to be stored in its raw form in a database. Most organizations use many different types of knowledge repositories to capture the knowledge.
- (3) **Refine knowledge** . New knowledge must be placed in context so that it is actionable. This is where human insights or tacit knowledge is captured and refined along with explicit knowledge .
- (4) **Store knowledge** . Codification of tacit and explicit knowledge helps in making the knowledge under standable and which can be used later on.
- (5) **Manage knowledge** . Like a library, knowledge must be kept current. It must be reviewed to verify that it is relevant and accurate. So, most for tune companies have well defined departments that actually take care of keeping the knowledge current.
- (6) **Disseminate knowledge** . Knowledge must be made available in a useful format to anyone in the organization who needs it anywhere and anytime. The new technologies like groupware, Internet/intranet and other DSS technologies help in the dissemination of knowledge.(Bose,2004).

Innovation

Innovation is widely recognised as a core renewal process within organisations. Unless managers continuously look for ways to change or at least improve offerings (product/service innovation) or create and deliver those offerings (process innovation), organisations risk becoming increasingly vulnerable to hostile and turbulent environments (Tranfield et al,2003).

There are many definitions given to innovation. Drucker (1975) defines innovation as the process of equipping in new, improved capabilities or increased utility. Thompson defines innovation as the generation, acceptance, and implementation of new ideas , processes, products, or services.(Thompson,1965). Innovation can be viewed as the application of better solutions that meet new requirements, inarticulated needs, or existing market needs. (Maranville,1992).

Drucker (2004) notices that innovation – is not a genial thought, but it is intensive work, which has to be organised so that it would become the component of every organization's unit and every level of management system. (Sedziuviene & Vveinhardt,2010).

Herkma (2003) stated that foremost and basic purpose of innovation is to produce new knowledge which can develop and find out the doable solutions for society. Innovation is a practice and process which capture, acquire, manage and diffuse knowledge with aim to create new knowledge which will support to produce and deliver distinctive and idiosyncratic kind of products and services. (Gloat and Terziovski, 2004).

Schumpeter (1934) identified five different types of innovations:

- ❖ New product;
- ❖ New methods of production;
- ❖ The exploration of new market of production;
- ❖ New source of supply;
- ❖ New ways to organise business.

The innovation process involves the acquisition, dissemination, and use of new knowledge (Damanpour,1991). There seems to be wide agreement that knowledge management and firm innovation are highly correlated.

The importance of Knowledge in innovation

Innovation process highly depends on knowledge , specially on tacit knowledge . New and valuable knowledge is created and converted into products, services and processes , by transforming general knowledge into specific knowledge. Works on knowledge creation by Nonaka consider knowledge as a main requisite for innovation and competitiveness (Lopez-Nicolas & Merono-Cerdan,2011).

In Venturous Australia (2008) the properties of information and ideas which are central to all forms of innovation are described:

- 1) Knowledge is non-rival. An idea, unlike a consumer good or service, has to be produced only once and it can then be used many times without detracting from its value
- 2) Knowledge is cumulative. The current stock of knowledge provides the fertile ground from which further research develops new knowledge
- 3) Knowledge is reproducible at negligible cost, particularly digitised knowledge
- 4) Knowledge is only partially excludable. For example, inspection of patent applications and reverse engineering can reveal most of the information in product innovations
- 5) Knowledge is an intangible asset. It cannot be recovered by an investor in the way that a building or a machine can be recovered
- 6) The generation of new knowledge involves fundamental uncertainty. It takes us beyond what we know.

These properties of knowledge have profound implications for the economics of the knowledge economy. The cumulative nature of knowledge, its non-rivalry and cheap reproduction imply that it is socially efficient for knowledge to be made freely accessible so that diffusion of innovation can occur as quickly and cheaply as possible. Effective application of knowledge can bring faster development of new products and services, optimise

R&D investment, and ensure closer alignment with market needs, more successful product introductions, better anticipation of customer needs and competitor differentiation – all essential for organisational innovation.(Paterson,2013).

Knowledge management and innovation

Abraham (2008) stressed that the major intention of knowledge management is innovation. In addition, Carneiro (2000) proposed a conceptual model that links between knowledge management, innovation, and competitiveness. Carneiro investigates the relationship between knowledge management, levels of innovation and levels of competitiveness in organizations and highlights the strategic nature of knowledge development. He suggests that KM positively influences innovation and competitiveness.

Darroch(2005) successful knowledge management acts as a coordinating mechanism to enhance both innovation and organizational performance . Ju et.al., (2006) argued that in order to get competitive advantage organizations should continuously learn from outside sources. Through the proper knowledge distribution and sharing, organizations can bring the innovation. So, organizations must develop such channels within the organizations through which employees share their knowledge with one another.(Akram et al,2011).

A knowledge management system that expands the creativity envelope is thought to improve the innovation process through quicker access and movement of new knowledge . Also, effective knowledge management is a critical success factor when launching new products. In this sense, present paper supports that one of the factors influencing innovation capacity in organisations is knowledge and its management (Lopez-Nicolas & Merono-Cerdan,2011).

According to du Plessis (2007), the value proposition of knowledge management in the innovation process is as follows:

- Knowledge management assists in creating tools, platforms and processes for tacit knowledge creation, sharing and leverage in the organization, which plays an important role in the innovation process;
- Knowledge management assists in converting tacit knowledge to explicit knowledge;
- Knowledge management facilitates collaboration in the innovation process;
- Knowledge management ensures the availability and accessibility of both tacit and explicit knowledge used in the innovation process, using knowledge organization and retrieval skills and tools such as taxonomies;
- Knowledge management ensures the flow of knowledge used in the innovation process;
- Knowledge management provides platforms, tools and processes to ensure integration of an organization's knowledge base;
- Knowledge management assists in identifying gaps in the knowledge base and provides processes to fill in the gaps in order to aid innovation;
- Knowledge management assists in building competencies required in the innovation process;
- Knowledge management provides organizational context to the body of knowledge in the organization;
- Knowledge management assists in steady growth of the knowledge base through gathering and capturing of explicit and tacit knowledge;
- Knowledge management provides a knowledge-driven culture within which innovation can be incubated.(Eardley and Uden, 2011, p.305).

8.Conclusions

The continuously increasing pressure of competition and global markets is forcing organizations to become more innovative, with a view to increasing overall competitiveness. Innovation is one of the major outcome of effective knowledge management. This study emphasizes the importance of knowledge management and links it with innovation . The review of the literature has shown there is a clear link between knowledge management and innovation. Furthermore, knowledge activities like knowledge gathering, managing, sharing, learning, reuse and retrieval play important role in bringing innovation.

Innovation implies the generation , acceptance, and implementation of new ideas , processes, products, or services. It is obvious that a knowledge management is closely related to organizational innovation. Many scholars stress the

importance of such an orientation to enhancing innovation capability. Organizations that rapidly capture and implement new knowledge across the organization can be able to foster innovation as compared to those organizations that don't focus on this aspect.

In order to pace up the innovation process, organizations must implement the innovation determinants which are actually the cause of innovation. organizations can learn about the positive impact of knowledge management and knowledge management strategy on innovation.

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