

KNOWLEDGE MANAGEMENT: REVISITING THE PANDORA BOX

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ABSTRACT

Knowledge management (KM) is a tool to achieve competitive advantage and retain the valuable human assets in the organization through continuous development and up gradation of knowledge. The focus of the present paper is to give a holistic view of KM because the earlier research on KM is still incomplete with regard to what constitutes KM. Some authors have measured KM only through use of technology (Tseng, 2008) and others through knowledge sharing (Ipe, 2003) and creation (Choi, B. and Lee, 2003). So, the available literature does not provide a holistic approach about KM. Hence, keeping this in mind an attempt has been made to identify all dimensions of KM and find its impact on employee performance, innovation, competitive advantage and organizational performance. KM is such an area that needs to be further explored and exploited for its full benefits to be reaped.

INTRODUCTION

Knowledge is regarded as the critical resource of firms and economies (Quinn, 1992). Several decades after introduction of human resource management, organization have failed to see knowledge management (KM) as an asset, but with the advent of information and technology, organizations have been forced to see KM as a valuable process to develop, organize and utilize the employees capabilities (Sher and Lee, 2004)). It enhances and support s the ability of employees by availing them recent concepts regarding theory and practice that help in innovating new techniques and gain competitive edge (Tseng, 2008). Within KM, maturity and the use of information technology development facilitates new methods and applications such as groupware, intranets etc, allows firm to deliver products and services better in quality through innovation, which helps to achieve competitive advantage (Hendriks, and Vrients, 1999).

CONCEPTUAL ANALYSIS

Knowledge Management (KM) is a complex and interdisciplinary issue that needs special focus. There has been a lot of thinking on defining the term and some attempts have been made by the researchers (Bhatt, 2001; Rollet, 2003; Dalmaris, 2007). In the most basic form 'KNOWLEDGE' can be thought of as an information that changes something or somebody either by becoming grounds for actions or by making an individual capable of different or more effective action (Drucker, 1998). It is a fluid mix of framed experience (Davenport and Prusak, 1998). On the other hand 'MANAGEMENT' is the creation and maintenance of an internal environment in an enterprise where individuals, working in groups, can perform efficiently and effectively towards the attainment of group goals. Therefore KM is broadly understood as any process and practices of creating, acquiring, capturing, sharing and using knowledge wherever it resides to enhance learning and performance in the organization (Newman, 1991). KM is leveraging of collective wisdom to increase responsiveness and innovation. In simple term KM is the process of transforming information and intellectual assets into enduring value.

TYPES OF KNOWLEDGE

KM authors have classified knowledge in different ways. Some authors differentiate technical and strategic knowledge (Liebeskind, 1996). However; the more common types of knowledge are tacit, explicit and implicit knowledge (Nonaka, 1994; Nonaka and Konno, 1998; Cavusgil et. al, 2003).

TACIT KNOWLEDGE: The term 'TACIT KNOWLEDGE' was first coined by Polanyi in 1958. It can be described as experience that is embedded in an individual working in an organization. People working in an organization have maximum knowledge in their mind. It involves perceptions, insights, experiences and craftsmanship (Kidwell et al., 2000). It can be personal, difficult to manage and transfer.

EXPLICIT KNOWLEDGE: Explicit knowledge is documented information that can facilitate action. It can be expressed in formal, shared language. It can be packed, codified, communicated and transferred. Some of the examples of explicit knowledge are found in commercial publications, e-mail, internet, database, organizational business records and self –study material etc., Information and communication technologies are mainly used to manage the explicit knowledge. Hence it is tangible in nature that can be procured and preserved.

IMPLICIT KNOWLEDGE: Implicit knowledge is hidden within procedures, management and work practices of the organization .It may include human experiences, informal representation, such as images and vision and formal inferences from explicit knowledge. (Baptista,. et. al., 2005).

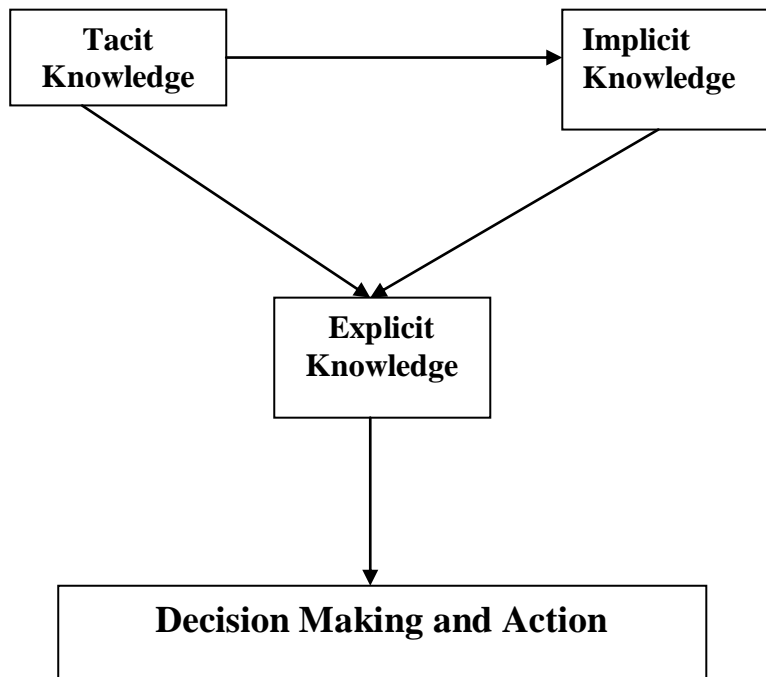


Fig. 1: Role of different Types of Knowledge in Decision- Making Process.

All the above mentioned types of knowledges are present in an organization. The aim of KM practices is to maximize organizational and individual knowledge and use it for the benefit of the organization and optimum combination of these guide the decision – making process in an organization (Fig.1).

KNOWLEDGE MANAGEMENT STRATEGIES

Two different strategies can be used to manage knowledge in order to achieve organizational goal (Hansen et al., 1999) and they are termed as ‘Codification’ and ‘Personalization’.

CODIFICATION STRATEGY

It refers to the codification and storage of knowledge in databases, where it can be accessed and used readily by anyone in the company. Organizations use these strategies investing heavily in ICT like Internet, knowledge mapping, electronic libraries. This increases effectiveness and growth (Hanse et at., 1999). The essence of this strategy, the technical explanation, is to transform the knowledge of organizational members into explicit knowledge so that management efficiency can be enhanced through information technology (Raelin, 2008).

PERSONALISATION STRATEGY

It depends on people to people connection. It refers to the personal development of knowledge through discussions, meeting, conversation etc, this strategy is primarily used to solve unique problems where tacit personal knowledge is needed (Edvardson, 2009). It is this knowledge that can enhance the firm’s competitiveness with the help of implicit knowledge (Raelin, 2008). In this strategic focus is on investment in learning and creation of new capabilities.(Clegg and Clark, 1999).

Hansen et al., (1999) warned against mixing strategies. They suggested using one strategy and applying the second to support the first.

DIMENSIONS OF KNOWLEDGE MANAGEMENT

As already pointed that there is difference of opinion regarding “WHAT COMPRISES” KM. Lee and Choi (2003) adopted only knowledge creation to find the relationships among KM components. Chakravarthy et al., (2005) adopted knowledge accumulation, knowledge protection to propose the relationships between knowledge characteristics, KM process and competitive advantage. It is a broad

area that can be explored from different aspects such as knowledge identification, creation, conversion, transfer, application and protection, which are explained as under:

a) KNOWLEDGE CREATION is concerned with the development of new organizational knowledge in the organization. It includes improved use or new application of existing knowledge. Through dynamic interaction between the two types of knowledges i.e tacit and explicit, personal knowledge has the potential of becoming organizational knowledge. This dynamic process is the key to organizational knowledge creation (Nonaka, 1991). Knowledge creation can take place through any one source or combination of all mentioned below:

- **Socialization** is the process of creating common experiences through shared knowledge.
- **Externalization** is the mode of changing tacit knowledge into explicit such as concepts, models etc
- **Combination** is the mode of combining new and existing knowledge into systematic knowledge.
- **Internalization** is the process of changing explicit into tacit and operational knowledge.

b) KNOWLEDGE ACQUISITION

Knowledge acquisition is the ability to seek and obtain entirely new knowledge or create new knowledge out of existing knowledge through collaboration (Inken, 1996). It represents a flow of knowledge from external stocks of knowledge into the firm. The ability to acquire knowledge is, however, partly based on an organization's absorptive capacity (Gold et al., 2001) and full value in creating potential of new knowledge in the organization.

c) KNOWLEDGE CONVERSION

Knowledge conversion process is the ability to make existing knowledge useful (Gold et al., 2001). It includes filtration, combination, coordination of knowledge.(Davenport and Klahr, 1998). It makes existing knowledge useful with the help of several other processes such as effective and efficient management of knowledge. Proper integration of knowledge (Grant, 1996) is required to help the organization to increase its capabilities and proper distribution of knowledge (Davenport et al., 1996) according to the need of the organization.

d) KNOWLEDGE SHARING/TRANSFER

Knowledge sharing or knowledge transfer is becoming an increasingly popular area of interest to researchers (Dougherty, 1999 and Hislop, 2003). Knowledge sharing links individuals and organisations by transferring knowledge from an individual to organizational level. Knowledge transfer is the process in which knowledge flows from knowledge sources to knowledge recipients. It is the behavior of disseminating one's acquired knowledge with other members within the organization. (Ryu et al., 2003). Knowledge can be shared through publications, organizational meetings, presentation, discussions, internet, debates, informal conversations and others. Knowledge sharing is getting more and more attention because of its potential benefits to individuals and organization.

e) KNOWLEDGE UTILISATION/APPLICATION

Knowledge application is defined as how knowledge is actually used and applied (Gold et al., 2001). Knowledge utilization means the actual use of knowledge in order to achieve the organizational goals in the best and efficient manner. It is used to make knowledge more relevant and accurate for the firm in order to gain goodwill in the market. Effective application of knowledge helps companies in improving their efficiency and reducing the cost (Davenport and Klahr, 1998). Most of the organizations use knowledge for development of new products solve the problems; improve efficiency and taking advantages of new opportunities which give the organization a competitive edge. (Ofek and Sarvary, 2001).

f) KNOWLEDGE PROTECTION

Knowledge protection plays a vital role in KM. It is the ability to secure knowledge from inappropriate or illegal use or theft. It encompasses activities that seek to maintain the proprietary nature of a firm's knowledge stocks which include seeking legal protection via patents, trademarks and copyrights (Appleyard, 1996). When knowledge is applied to existing ends, the size and durability of a firm will be defined by how well protected its knowledge is. (Chakravarthy et al., 2005)

g) KNOWLEDGE APPROACHES

Knowledge approaches are the activities that make knowledge management successful in an organisation. Modern age is the age of science, so IT (information technology) is an important approach

in the KM (Ajiferuke, 2003). Information technology plays a key role in managing knowledge in the firm. It is used by organisation to perform specific tasks as efficiently as possible (Sher and Lee, 2004). Technological tools in KM systems should support knowledge sharing in an appropriate and user-friendly way.

Another approach of KM known as organizational learning. Organizational learning is the process that deals with the generation of new knowledge through free exchange of information, experimentation, and the sharing of existing knowledge (Raelin, 2008).

All these dimensions give full support to Knowledge management (KM), which give strength to organizations in their innovation process and gain the competitive advantage. To manage its knowledge optimally, the organization will have to efficiently combine all the above discussed parameters i.e., creation, acquisition, conversion, sharing, utilization and protection by applying appropriate knowledge approach i.e use of information technology.

MODEL OF KNOWLEDGE MANAGEMENT (KM) AND ITS LINKAGE WITH OTHER ORGANISATIONAL PROCESSES

Fundamentally, knowledge- based activities include the creation, acquisition, sharing, conversion, utilization and protection and together these comprise KM (Shieh-chien, et al., 2005). KM is viewed as a cross – functional, multi-faced phenomena with inter-linkage between its different dimensions. Each KM dimension seems to be dependent on one or more other dimensions of KM (Rollet, 2003). Knowledge acquisition and creation influence knowledge application and knowledge acquisition and knowledge sharing influence knowledge creation (Nielsen, 2006).

The flow chart of KM (Fig 2) indicates that Knowledge approach (IT approach) is the most significant component of knowledge management. It is responsible for knowledge creation and conversion. Knowledge creation and conversion is improved by knowledge approach (IT) which increases transmission and response speed (Sher and Lee, 2003). Effective IT infrastructure (groupware, e-mail, document management, data warehouses) can maximize the return on organizational knowledge through continuously creating and converting the available knowledge (Ganes, 2009).

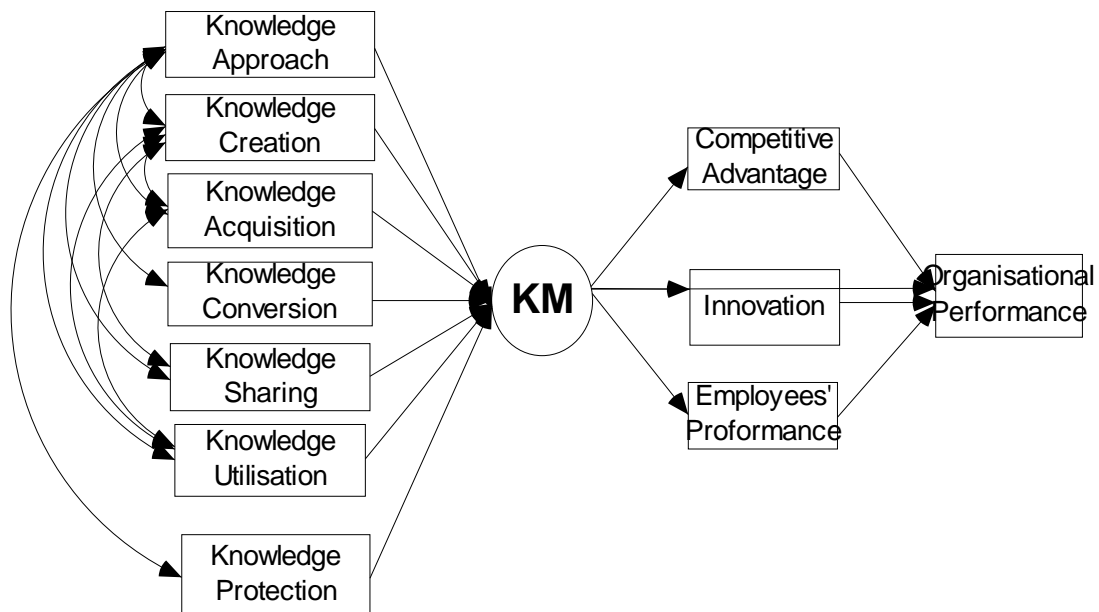


Fig. 2: MODEL OF KNOWLEDGE MANAGEMENT (KM) AND ITS LINKAGE WITH OTHER ORGANISATIONAL PROCESSES

Further knowledge approach also affects knowledge sharing. Information technologies such as intranets, portals and groupware, are often used to facilitate the sharing of knowledge among group of workers (Ajiferuke ,2003 and Ipe,2003).Knowledge approach (IT) helps in acquiring marketing knowledge and supply chain knowledge (Bennet.R, Gabmel .H, 1999). Knowledge approach help in effective application of knowledge by improving their efficiency and reduce costs. (Davenport and Klahr, 1998) Knowledge protection is also supported by IT(Sher and Lee, 2003).

Each dimension of KM captures a different benefit , the overall benefit obtained from all the dimensions is greater than the benefit obtained from any dimension alone (Wei and Xie, 2008), e.g. if a

company creates knowledge to develop new ideas, it gets some benefit but when this knowledge is protected and utilized, together it gives maximum benefit. Effective knowledge management requires viewing knowledge as a process rather than resource (Davenport and Prusak, 1998). On the basis of above discussion it is hypothesized that:

Hyp. 1 There is linkage between different dimensions of knowledge management.

Hyp(a). IT approach to Knowledge management affects all other dimensions of KM.

Hyp(b). Knowledge application/utilization depends on knowledge creation and acquisition.

Hyp(c). Knowledge sharing and acquisition influence knowledge creation.

Knowledge management has great impact on competitive advantage (Newman, 1991), innovation (Palacios, et.al, 2009) and employees performance (Mohd.Bakhar, 2009). It affects competitive advantage in three ways viz; reduced cost, shortened lead time and product differentiation. First, KM reduces the operating costs of a firm and creates added value to customers by significantly increasing product quality (Ofek and Sarvary, 2001). Secondly, firm shorten time by analyzing current situations and allowing previous knowledge to be grafted in the problem-solving for current situation (Duffy, 2000 and Scarbrough, 1999). Finally, Knowledge Management can be regarded as central to product and process innovation, improvement, executive decision-making and organization adoptions (Earl, 2001).

Hyp.2 Higher the level of KM in an organization greater is its competitive edge.

Knowledge management implantation can enable innovation by competences deployment (Cavusgil et al., 2003). Innovation is crucial to the success and survival of companies (Auernhammer et al., 2001). Different types of innovation can be delivered by companies i.e. product, process and organizational innovation (Palacios et al, 2009). The role of knowledge management in the innovation process is crucial. It can improve decision-making, productivity, market-share, reduce cost and expand innovation (Edvardson, 2009). Through knowledge management, innovation leads to new products introduction in the market, firm can provide a better manufacturing or service process and implement new managerial regulations, systems, practices, methods that increase managerial efficiency (Palacios et al., 2009). The formalization of activities under KM process and access to experience, knowledge and expertise creates new capabilities, enables superior performance and encourages innovation. (Beckmann, 1997).

Hyp.3 Implementation of KM practices influences the innovative capacity of an organization.

Knowledge management provides the opportunity for workers to enhance their skills by working together and sharing knowledge while improving their own performance (Mohd Bakhar and Zawiyah, 2009). An employee in an organization involved in knowledge sharing can gain benefits such as enhanced performance, better salary and a low intention to leave the organization (Reychave and Weisberg 2006).

Hyp.4 Implement of KM applications in an organisation improves employee's performance.

Knowledge management aimed at increasing employee performance by providing them training , good working conditions, (Mohd Bakhar and Zawiyah, 2009) improving process, product and management efficiency by employing innovative techniques (Palacios, et al., 2008) and giving organization a competitive edge help to enhance the organizational performance. There is interdependence among all these processes (Fig.2) as employees developed through implementation of knowledge management practices like knowledge sharing (Reychave and Weisberg, 2006) which affects an organization's innovative ability. Successful innovation of products or processes or services gives a company something unique that its competitors lack (Klein and Sorra, 1996). Knowledge management approach and organizational innovation improve competitive advantage and organizational performance. (Gracias- Morales et al., 2006).

Hyp.5 Knowledge management affects the organizational performance directly as well indirectly with competitive advantage, innovation and employees performance as the mediating variables.

CONCLUSION: Knowledge management is a new concept in the business studies on which work is going on. It is the process of creating, acquiring, capturing, sharing and using knowledge to increase organizational performance. Knowledge creation, knowledge acquisition, knowledge conversation, knowledge sharing, knowledge utilization and knowledge protection are the important dimensions of knowledge management, which are interlinked and interconnected. Effective KM entails an understanding of the interrelationships that may exist among KM dimensions to achieve the

organizational effectiveness through enhanced employees performance, innovative capacity and competitive advantage.

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