Integrated Framework for Implementing Knowledge Management in Contemporary Organizations

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Abstract

Knowledge Management (KM) is an integral part of contemporary business environment which ensures growth and competitive advantage for an organization. Today many organizations are losing sight of competitive advantage to grow and compete with other players because of mismanagement of their experiences, expertise and knowledge assets. In present day competitive business environment, besides being innovative an organization must be able to make use of its prior experiences and learning in an effective manner to gain over its competitors. KM is an effective tool to manage organization’s knowledge assets which in short run generates profits and in the longer run fosters creativity. KM leverages organization’s knowledge internally and externally to create and sustain a competitive advantage. Hence, organizations must have an effective KM System in operation, which can create, capture, store, disseminate and document the knowledge assets of an organization and help in business intelligence, business process re-engineering and decision making. However, most organizations focus mainly on Information and Communication Technologies (ICT), thereby giving lesser emphasis on other important factors which are must for gaining significantly from a KM System. An effective KM is result of interplay of both technological and behavioral aspects. KM System must have holistic approach i.e. it must emphasize all three important factors of organization - People, Process and Technology. Hence, while implementing KM in organization, all three factors must be considered and handled effectively and efficiently. This paper proposes an integrated framework to implement KM involving technological as well as behavioral aspects of an
organization. It addresses all three aspects (People, Process and Technology) of KM and provides holistic approach of KM.

**Keywords**: Knowledge, Knowledge Management, SECI Model, Integrated Framework, Behavioral Aspect, Technological Aspect.

1. **Introduction**
Knowledge Management (KM) has become an important and integral part of all organizations. It is a fast emerging field which is giving its significant contribution in an organization’s growth and competitiveness. Competitive Advantage (CA) is important for an organization’s performance and growth. Many contemporary organizations are losing sight of competitive advantage to grow and compete with domestic and global players because of mismanagement of their experiences, expertise and knowledge assets. Hence, they are in process of implementation of various KM initiatives, which leverages organization’s knowledge internally and externally to create and sustain a competitive advantage. However, most organizations while implementing KM focuses mainly on Information and Communication Technologies (ICT) giving lesser emphasis on other important factors which are must for gaining significantly from KM system and making efficient use of their knowledge assets. Many organizations fails to understand the various aspects and their needs for KM. Rather than focusing on some factors, an organization needs to have a holistic approach of KM. KM is much more than information system (IS) of an organization. KM needs to be understood in integrated manner which consists of people, process and technology.

This paper proposes an integrated framework to implement KM consisting of all three major components i.e. People, Process and Technology. Section 2 of the paper provides the literature survey in this area. In the section 3, various concepts related to KM have been explained and discussed. Section 4 gives the proposed integrated framework for implementation of KM in an organization. Section 5 provides the conclusion.

2. **Literature Survey**
Resource advantage theory recognizes knowledge as strategic resource of the firms (Grant, 1996). KM as a discipline got its major root from the work of the Japanese professor Ikujiro Nonaka. He published his work and developed SECI model (socialization, externalization, combination, and internalization) for knowledge creation (Nonaka, 1994). In 1995, he published his book, together with Hiroteka Takeuchi, under the same title. SECI process of knowledge creation describes dynamic interaction between tacit and explicit knowledge (Nonaka, 1994; Nonaka & Takeuchi, 1995). Earlier, Michael Polanyi had proposed a knowledge continuum between the two extreme states of tacit and explicit knowledge (Polanyi, 1966). Knowledge
Management is a fairly young management discipline, but many people believe that it has already reached its zenith (Schutt, 2003). There is even less agreement on what is the most desirable KS for a firm to pursue competitive advantage subject to either internal conditions or environmental characteristics (Bierly and Chakrabarti, 1996). The bulk of knowledge management literature is concerned primarily with the role of information technology (Raub & Ruling, 2001). In order to increase productivity, there is need to understand the work environment of knowledge workers (Schutt, 2003). It is clear that KM is not just about technology, and cannot be realized simply through information systems (Raghu & Vinze, 2007). Knowledge and management of it emphasize and expect collaboration between a wide spectrum of contributors that ranges from people and processes to supportive technologies in an organization (Raghu & Vinze, 2007). In order to overcome issues and encourage KM tools for being (rightly) used, support elements such as culture, leadership and knowledge-oriented HR practices have to develop (DeTienne, Dyer, Hoopes & Harris, 2004).

3. Knowledge Management and Organization
3.1 Knowledge
The most critical word in KM is Knowledge. It is the one on which entire discipline of knowledge management is based. The meaning of the word “Knowledge” has been subjected to different interpretation by different scholars. Knowledge is a broad and abstract notion that is debatable in Western and Eastern philosophy from ancient time. There is as yet no generally accepted definition of knowledge, although many have tried to pinpoint what knowledge is and how it can be classified into different kinds of knowledge. Nanaka and Takeuchi defined knowledge as “Justified true belief- the belief is that knowledge can be justified by facts”. Knowledge is a mix of framed experience, values, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information (Agresti, 2000). A comprehensive view that can be taken to study the KM is: “Knowledge is an insight derived from data, information, and observations, which is usually reflected through action.” To put it more simply, knowledge is simply actionable information. Actionable refers to the relevant information being available in the right place and the right time, in the right context and in the right way.

3.2 Knowledge Management
The term knowledge management was first introduced in a 1986 keynote address to a European management conference (American Productivity and Quality Center 1996). Knowledge management (KM) is an interdisciplinary business model where knowledge is the framework and focus of an organization. KM’s goal is to enable innovative practice at an organizational level by supporting collaboration and communication among knowledge workers in the same domain and across domains (Fischer & Otswald, 2001). KM is a branch of management that seeks to improve performance in business by enhancing an organization’s capacity to learn, innovate
and solve problems. It focuses on managing how knowledge is produced and integrated into the organization. It is a process of capturing and making use of an organization’s collective expertise anywhere in the organization i.e. on paper, in documents, in databases (explicit knowledge), or in people’s mind (tacit knowledge). It is fuel for innovation. Three key elements of KM are people, process and technology in overlapping parts. KM in its broadest sense is a conceptual framework that encompasses all activities and perspectives required to gain an overview of, deal with, and benefit from the corporation’s knowledge assets and their conditions.

3.2 Knowledge Management in contemporary organizations
KM is the soul of the organization as it encompasses expertise, experiences and learning of the organization. It facilitates various aspects of the organization such as business intelligence, business process re-engineering, effective project management as well as innovation and creativity. KM has huge potential for the growth of an organization. It ensures that the organization makes use of its available knowledge in more efficient and effective manner so ad to extract maximum profits. KM helps organization in learning new things and creating new knowledge. KM ensures the right information gets to the right people at the right time to make the right decisions. KM helps the organization to learn from its mistakes and errors and not to repeat them in future. KM enables an organization to have edge over its competitors and to leverage its knowledge to achieve the organization’s objectives and build, grow and leverage intellectual assets of the organization. It helps the organization to learn from its experiences, convert and code the experiences into IT based systems, to share it with others and helps others to make use of these experiences and thus increases their productivity thereby adds new knowledge.

4. Integrated Framework for Implementing Knowledge Management
An effective KM System in an organization must address the issues related to knowledge creation, knowledge capturing, knowledge storage, knowledge synthesis, knowledge sharing, knowledge extraction, and knowledge transfer and knowledge documentation. For effective addressing of these issues, KM System must have holistic approach by emphasizing all three factors of organization which are People, Process and Technology.

Figure 1: People, Process and Technology Factors of KM.
Interplay of both technological and behavioral aspects leads to an effective KM system. Hence, while implementing KM in organization, all three factors must be considered and handled effectively and efficiently.

Information and Communication Technologies (ICT) provide all needed infrastructure and framework for storage of organization’s knowledge into databases and facilitates its transfer to whole organization. It also performs all type of analysis, simulation, modeling and computation to make effective use of knowledge in decision making, knowledge creation and other applications of the organization. It is the people aspect of organization which makes use of knowledge to add value to organization, share it among them so as to increase expertise of organization and also helps in creating new knowledge. KM facilitates to standardize all business processes to make them time and cost efficient.

**Figure 2:** Integrated Framework for Implementing Knowledge Management.

People lie at the heart of each and every KM initiative undertaken in any organization. As has been mentioned earlier, technology is the backbone of any KM system and changes in technology have a profound impact on the various processes like knowledge creation, sharing, storage and retrieval. But this impact on process aspect of KM is mainly caused due to people aspect of the KM system. Dynamism of the human behavior greatly affects KM system; individuals with different personalities, motivation levels, leadership skills, cultural backgrounds etc. react differently towards various components of the KM process. Some being more open to knowledge sharing than others; who are better at knowledge creation and innovation, but are apprehensive about dissemination of newly created set of knowledge. Therefore, individuals within the organization must be acquainted with the benefits of KM and trained in the art of knowledge creation and dissemination.
This proposed integrated framework takes care of both technological as well as behavioral aspect by addressing all three aspects (People, Process and Technology) of KM and provides holistic approach of KM. On the one hand it takes care of SECI Model of knowledge creation on the other hand it gives equal emphasis on organization’s behavior nature. On the one side it makes effective use of technology mainly ICT, on the other hand it provides equal attention to various organizational factors such as organizational culture, leadership, motivation etc. The block diagram of proposed framework as shown in figure 2 shows various components of KM System. It has been shown that ICT is backbone of the system. This technological form of KM System is surrounded by three major components, which are technology, people and process. Technology always keeps on changing and organization needs to take care of this change from cost and investment point of views. The organization’s behavioral aspect equally affects the KM System. It cannot be utilized optimally without the support of organizational culture, effective leadership, motivation, business process reengineering, innovation, learning, training etc. One of the most important factors as shown in block diagram is that it must be in line with organization’s strategy. KM is a means to achieve organizational objectives; hence KM objectives must be derived from organization’s vision and mission. A good KM system must enable an organization to extend benefits to its various parts of the. The major constituents of the proposed framework are: Knowledge Repository, Knowledge Capturing, Knowledge Organizing, Knowledge Applications, ICT Infrastructure, Organization Culture, Training, Learning, Organizational Strategy, Leadership and Personality. Here Technology, Culture, Training and Learning are common influencers on organizational and individual knowledge management. Strategy and Leadership specifically influence organizational knowledge management. Personality has greater influence on individual knowledge management. All these factors work together to have a combined effect on success and effectiveness of KM and its associated areas.

5. Conclusions
In highly competitive environment of 21st century, knowledge is becoming an important asset for every organization. Managing knowledge enables organizations to achieve their objectives in more effective and efficient manner. People are the most important assets of an organization. People within the organizations must be encouraged to share the knowledge and proper incentives must be given to those who are actively involved in the process of creating new knowledge. An effective KM gives competitive edge to an organization and provides relevant information as and when required for effective decision making and reviewing the organization’s strategy to achieve its desired objectives. KM must be incorporated in organization’s culture and people’s commitment. There are great innovations and technological changes taking place each day. These new technologies are make implementation of KM easier, affordable and more cost effective. Although KM is still in its fledgling stages, KM is
here to stay and it will be a determining factor for the success of a business in near future.

References


