Barriers to the Implementation of Knowledge Management in Iranian Institutions

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ARTICLEINFO	ABSTRACT
	Knowledge management in Iranian institutions is almost a new subject. Unfortunately this concept in Iranian institutions has grown slowly and as a result, it has reached to the point where a significant number of institutions never have used it and it caused their inefficiency and ineffectiveness. This article tries to find the root barriers to the implementation of knowledge management in Iranian institutions. To this end, the process of knowledge management through process approach was analyzed and then the main barriers and difficulties were identified. Then through information obtained from 114 selected Iranian institutions, to improve their systems, some proper recommendations were suggested.

1. Introduction

Two economic cycles has been passed for human beings. At first, human economic was agricultural based. Then through technological breakthrough and with the help of mechanical and electronic knowledge, industrial based economy was established. During these periods land and labor were the most important human being instruments and capitals (Sarvary, 1999). A successful institution was the one which had the best use of these two elements. But undoubtedly these elements do not play the most important role in today's society. Although

land and labor forces are considered as two proper advantages in the search of excellence, recent era which is known as "information and knowledge" era, creates the main advantages in "knowledge capital" (Elearn, 2009). Nowadays the largest companies in the world have sought their main advantages not only from their investment in new technologies and even broad market share, but in "the implementation of knowledge in their processes"(Pai, 2005).   While scholars have focused on new interesting topics of knowledge management such as thinking and knowledge management (Gessinger, 2009), knowledge management in virtual enterprises (Pollalis and Dimitriou, 2008), and wireless sensor networks in knowledge management (Martinez et al., 2010) is playing increasing roles.   Therefore regarding to increasing importance of knowledge management, some scholars have focused on successful knowledge management implementation.   For example Berdrow and Lane (2003) invested on creating value through successful knowledge management in international joint ventures. Bixler (2005) developed a foundation for successful knowledge management system. Lindner and Wald (2010) studied success factors of knowledge management in temporary organizations. They found that besides IT-support and formal elements of the organization, it is cultural factors that strongly influence knowledge management success.

Unfortunately, Iranian companies have not grown much in this regard and they have problems in the initial principles of implementing of successful knowledge management. There are some studies about the usage of knowledge management in different countries. For example (Kao et al., 2006) had a survey about the differences of Taiwanese executives in China and in Malaysia from the point of view of knowledge management usage. The results showed that executives in China have higher scores in knowledge management tools than executives in Malaysia, which means the former executives practice knowledge management more than the later executives. Stankosky (2005) worked on the state of knowledge management practice in Taiwan. Liu et al. (2004) also had a research about usage of knowledge management in Taiwan's industries. They studied the correlation between knowledge management capability and competitiveness in Taiwan's industries. This research showed the impact of knowledge management capability on competitiveness of organizations. There are other studies about the usage and implementation of knowledge management in other countries such as China (Glen et al., 2005), Australia (Zhou and Fink, 2003), Europe (Mertins et al., 2001), and India (Singh and Soltani, 2010), but mostly they have focused on the usage of knowledge management and the impact of it. There is no unique study about the obstacles and barriers on knowledge

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management especially in a third world country such as Iran. Therefore this study tries to find the main barriers to the implementation of knowledge management in Iranian institutions.

2. Process approach in knowledge management field

Regarding to systematic and process approach, it is claimed that each process is the fundamental part of a system. The main objective of a system is to transmit a specific input to a specific output. Each step taken in the manufacturing process or rendering service must create added value (specific output) to the old one. Therefore, it is highly important to pay attention to what a company does. The effective performance of each company depends on the recognition and administration of efficient and related process. Therefore, it is possible to define knowledge management as an organizational process. Figure 1 has tried to describe the structure of knowledge management in institutions with the process approach. Based on this diagram, knowledge management in institutions consists of five different processes. These are knowledge creation, knowledge discovery, knowledge maintenance, and knowledge sharing and knowledge implementation.
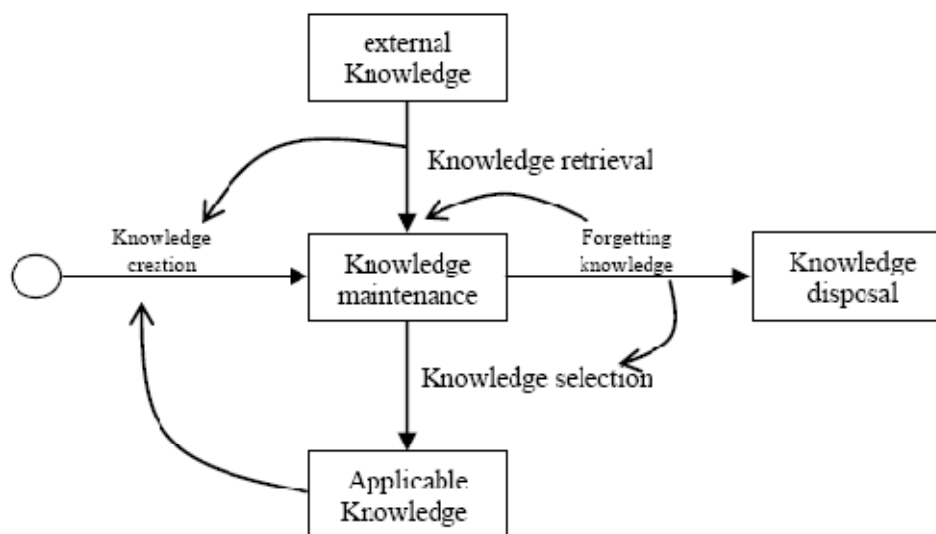

Figure 1: Knowledge management process

An institution which manages this five processes effectively, is called "knowledge institution" or "knowledge oriented institution".   In this institution the personnel value is not in their physical abilities or implementation of rules and regulations, but their abilities to use knowledge based activities and their personnel are called scholars or knowledge oriented personnel.

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Now each step of this process is explained separately as follows:

Knowledge creation: Knowledge creation is a process through which required knowledge is found and most importantly a process which shows a new knowledge is needed called knowledge creation. In this process, recognition of internal and external knowledge resources is vitally important.

Knowledge discovery: A process through which required knowledge is discovered. For example, finding a new method of answering client's claim can be considered or the knowledge in marketing and sales department discovered by logistic personnel.

Knowledge retrieval: A process through which required knowledge is transferred to an institution such as hiring some skilled worker in the field of product design with the help of new knowledge.

Knowledge maintenance: It refers to maintaining and using knowledge in a proper place and time and making it accessible at due time. An institution can keep knowledge in the form of maps, procedures, methods and even keeps it in specialized libraries.

Knowledge sharing and interchange: Knowledge must be easily interchanged in an institution. An issue must be complicated when a large portion of an organizational knowledge is in the scholar's thought and its implementation requires a specific process. Knowledge sharing can be done through group discussion sessions, talking with scholars and sending e-mail to organizational members.

Knowledge implementation and proliferation of knowledge: A process through which the obtained knowledge is applied, proliferated. Therefore this knowledge can solve the institutional problems. The new knowledge must increase organizational efficiency and effectiveness.

Knowledge appraisal: At the end of each knowledge cycle, the obtained knowledge must be appraised in terms of amount of growth created in the organization. Knowledge appraisal can be done through a variety of methods, each of which is performed based on cost& revenue analysis, organizational goals and quality and quantity outcomes. The main point worth mentioning is that sometimes knowledge becomes obsolete and it is the time to set aside this knowledge.

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3. Analysis of barriers in knowledge management implementation

An organization can encounter with weak knowledge management, because of different causes. These causes can be analyzed and cause and effect diagram (sometimes known as an Ishikawa or "fishbone" diagram) is an appropriate tool to distinguish the main root causes of weak knowledge management in an organization. Cause and effect diagram nowadays is an applicable tool to distinguish the main causes of the problems. This tool has been used widely in different fields such as constructions (Sun and Meng, 2009) health care (Decker et al. 2010; Graves et al. 2010; Ursprung and Gray, 2010), industries (Everett et al., 2008; Hauer, 2010; Thambirajah et al., 2009). Figure 2 shows the main causes of weak knowledge management in a typical organization.
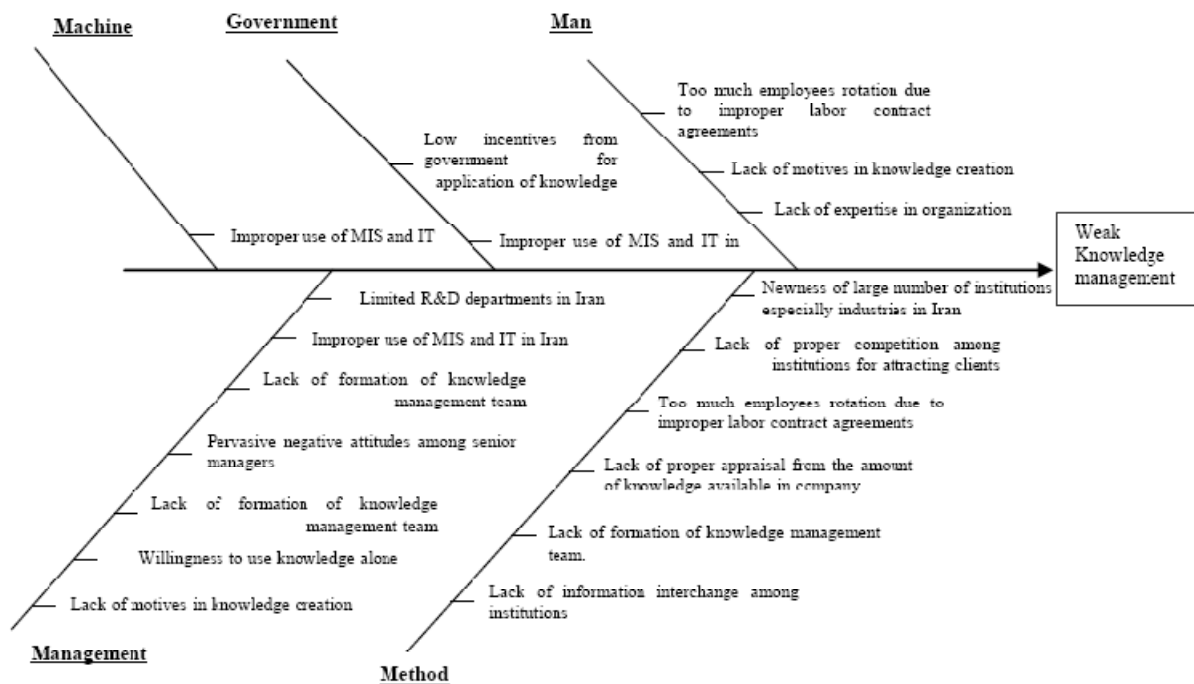
Figure 2: Cause and effect diagram for weak knowledge management

As shown in Figure 1 the main root causes of weak knowledge management is derived with the aid of cause and effect diagram. On the other hand the knowledge management sub processes were explained. Now the relation of these root causes with sub processes of knowledge management is being developed. The results were categorized in Table 1.

Table 1: obstacles and difficulties replacing knowledge management in Iran

No.	Knowledge management sub process	Obstacles
1	Creation	• Newness of large number of institutions especially industries in Iran • Lack of motives in knowledge creation • Lack of expertise in organization • Willingness to use knowledge alone
2	Discovery	• Lack of proper appraisal from the amount of knowledge available in company • Lack of formation of knowledge management teams • Lack of information interchange among institutions • Limited R&D departments in Iran
3	Maintenance	• Lack of proper appraisal from the amount of knowledge available in company • Lack of formation of knowledge management teams • Lack of information interchange among institutions • Limited R&D departments in Iran
4	Sharing	• Lack of proper appraisal from the amount of knowledge available in company • Lack of formation of knowledge management teams • Lack of information interchange among institutions • Limited R&D departments in Iran
5	Application	• Lack of proper competition among institutions for attracting clients • Lack of formation of knowledge management team • Limited R&D departments • Low incentives from government for application of knowledge

At the end, after identification of knowledge management replacement obstacles, a questioner was designed based on these obstacles. Then this questioner was mailed to 114 selected institutions in Iran. The results can be seen in Figure 3.

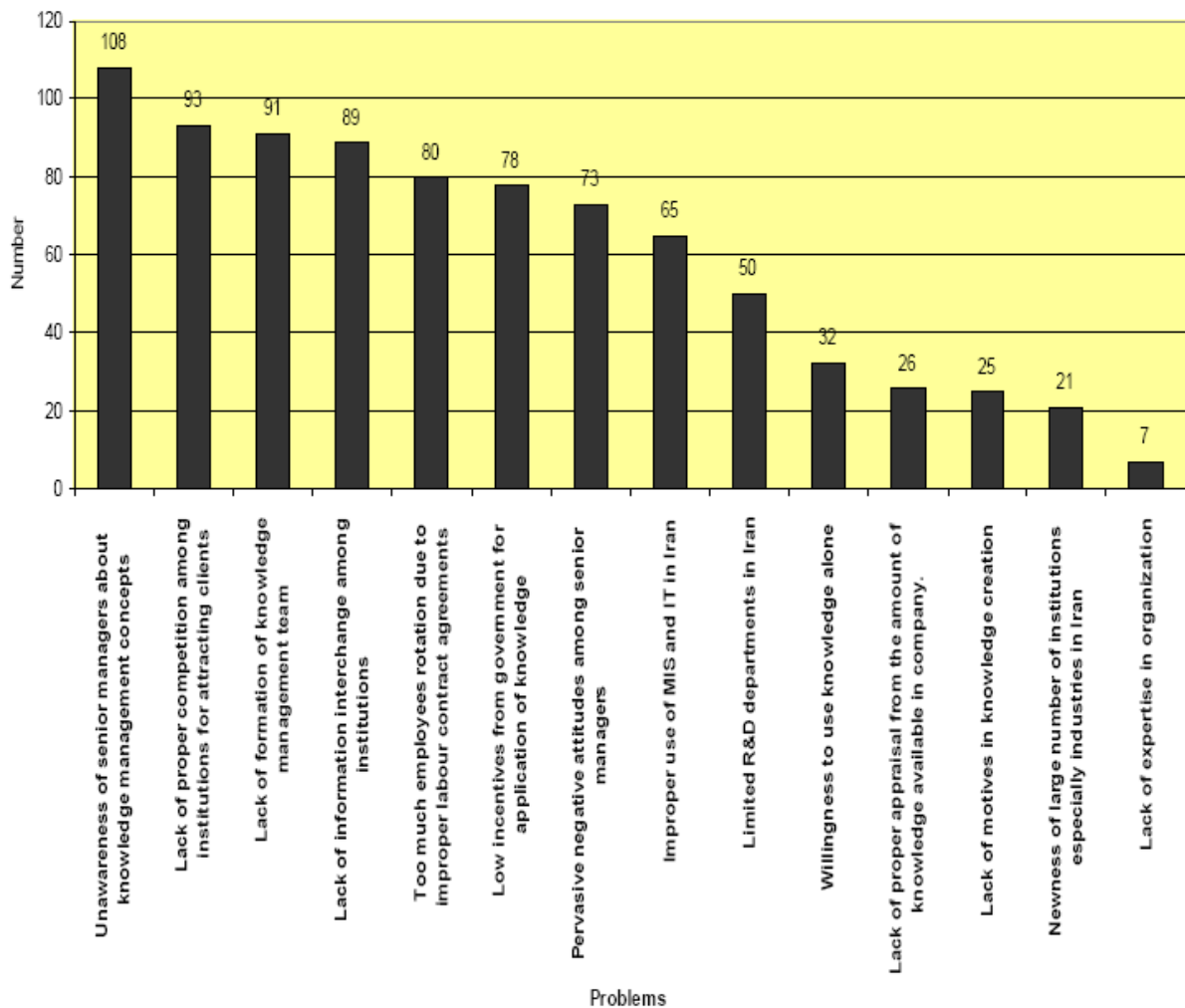**Mohammad Abdolshah, and Saeed Abdolshah**

Figure 3: Results of obstacles of knowledge management replacement in Iran

As it can be seen in Figure 3, the most important obstacles to knowledge management replacement in Iranian institutions are as follows:

- Unawareness of senior managers about knowledge management concepts
- Lack of proper competition among institution for attracting customers
- Lack of formation of knowledge management team
- Lack of proper information interchange among institutions

4. Conclusion

As it is observed in this paper, there are numerous obstacles to the replacement of knowledge management in Iranian institutions. This paper analyzed these obstacles and tried to obtain their root causes. The root causes of these obstacles can be classified into two distinct

parts:

1. Government:

In a developing country such as Iran, government has the key role to develop the knowledge management. Since the Iranian government has not been successful in the privatization implementation, Iranian institutions have not totally successful in implementation of knowledge management. This notion is evident in governmental policies in terms of macro programs and incentive presentation.

2. Institutions:

Institutions due to lack of information about knowledge management especially senior managers and absence of R&D departments and knowledge management teams have faced serious difficulties. In fact, one of the main organizational difficulty is lack of proper vision and strategic programs. This research showed that the main obstacle of most important obstacle to knowledge management replacement in Iranian institutions is unawareness of senior managers about knowledge management concepts. When a manager does not know about concept of an important matter such as knowledge management, other staffs certainly will not know.

To solve aforementioned obstacles, the following recommendations are rendered:

• Establishment of a proper competitive environment

• Government encouragement in the establishment of R&D

• Omission of contractual labour force agreements in Iran

• Establishment of IT department and promotion of IT knowledge

• Encouragement of senior managers to take part in ongoing knowledge management sessions

• Inclusion of knowledge management programs in governmental policies and long term programs

• Widespread privatization

5. Acknowledgement

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