

Relationships among Critical Success Factors of Knowledge Management and Organizational Performance

¹Mojtaba Naghavi, ²Amir Hossein Dastaviz and ³Hossein Nezakati

¹Graduate School of Management, University Putra Malaysia, Malaysia

²Institute of Graduate Studies, University Malaya, Malaysia

³Department of Management and Marketing, Faculty of Economics and Management, University Putra Malaysia, Malaysia

Abstract: The main objective of this study is to find relationships among critical success factors of Knowledge Management (KM) include; organizational factors and KM processes with organizational performance. The research proposes that KM in the public sector is still in its infancy and has a long way to go in the KM journey. However, the study has identified a certain number of factors that are essential to the success of the KM initiative and program in the public sector. The study also explain current situation in terms of KM activities in the public sector in Iran and sustain the discussion about KM processes in the public sector. The result of this investigation could have significant implications for KM programs in public sector organizations in Iran. The paper describes and develops a framework of KM process in the public sector as well as recommendations to practitioners about planning and implementing KM programs and initiatives.

Key words: Organizational factors, KM processes, organizational performance

INTRODUCTION

Nowadays in various developing countries including Iran, managers are eager to create KM programs in organizations with the aim of taking advantage of its useful results (Kazemi and Allahyari, 2010). One of the main objectives of managers in the use of KM in organizations is to improve knowledge sharing between individuals in organizations and between individuals and organizations in order to create competitive advantage (Lin and Lee, 2009). Effective KM reduces costs in production of knowledge and ensures to publish the best practices working in organization and enables organizations to solve their problems (Cummings and Worley, 2008). Due to lack of enough experience in the field of KM in many organizations, managers must understand the problems when creating KM programs in their organizations (Davenport and Prusak, 1998). This study attempts through literature review some main factors are extracted that these factors show how to succeed in KM programs.

KM IN PUBLIC SECTOR

Although, academics and practitioners extensively talk about KM, there is not a lot of information on KM in the public sector. Cong *et al.* (2007) have stressed that

KM in the public sector is still in the early stages of development and it has to go a long way. Cong and Pandya (2003) mentioned governments are now realizing the importance of KM in its policy-making and service delivery to the public and some of the government departments are beginning to put KM high on their agenda. However, implementation is not as easy as would have been expected.

There are many issues that need to be addressed relating to KM in the public sector, the chief of which is the lack of awareness (Cong and Pandya, 2003). Awareness is one of the key components of successful KM. It should be raised not only for managers at all levels, but also for frontline personnel. There is a need for KM to be better understood and the concept and benefits of KM should be much talked about by everyone in the organization in order for the organization to be conducive for KM practices. According to Syed-Ikhsan and Rowland (2004) one of the most important issues that should be paid attention to is to have a systematic training for all employees and to develop a culture that can promote knowledge sharing. Based on the Chawla and Joshi (2010) and Cong *et al.* (2007) there are barriers to effective KM in the public sector. The most important of them are structural and cultural barriers exist in public organizations. Rigid organizational structure and hierarchy, lack of formal information sharing mechanism,

accountability to higher government organizations, leadership capabilities, resources, reward and recognition and trust and knowledge sharing environment are major factors that inhibit KM in this sector.

KM in public sector in Iran: Iran has strongly stressed on pushing forward its fourth and fifth 5-year development plan to be focused on a knowledge-based economy. In a study, Gharibi (2006) says though, there is quite a long way to get assured of real knowledge-based approaches in all aspects of the country's managerial system but a tiered structure is beginning to form within the Iranian information industry. Despite a great number of governmental organizations and private firms are busy with installation of computers of their business processes and to develop databases built, a few groups of the various industries are moving towards knowledge management.

CRITICAL SUCCESS FACTORS OF KM

Organizational factors: Every organization has a unique environment and particular key organizational factors such as structure, culture, technology and so on which play a crucial role in the overall performance of the organization (Rhodes *et al.*, 2008). Synthesis some of studies related to organizational factors show that, there are various views about the key organizational factors effectively on KM processes but most of researchers such as (Akhavan *et al.*, 2009; Anantatmula and Kanungo, 2010; Jafari *et al.*, 2007; Rhodes *et al.*, 2008) have focused on five factors organizational leadership, culture, structure, people or human resources and IT as the most effectively factors. Therefore the key organizational factors selected for this study, based on the literature analysis are: organizational leadership, culture, structure, people and IT.

Regarding the levels of impact of each of the above organizational factors on KM processes, there are different findings in prior studies in various environments. For example, the level of impact of IT on knowledge transfer has various findings in different environments. Rhodes *et al.* (2008) conducted a study on knowledge transfer issues in Taiwanese high-tech companies. In this study, they ascertained that IT system had the most significant impact on organizational knowledge transfer. However, Ngoc (2005) investigated in a study on knowledge transfer issues in Vietnam's IT companies and found that the application of IT had the lowest influence on knowledge transfer. Furthermore, Syed-Ikhsan and Rowland (2004) carried out an exploratory study on knowledge transfer issues in the public sector in

Malaysia. Although the study revealed that most respondents are agreed on using different tools that help them share their knowledge, there is no significant relationship between ICT and performance of knowledge transfer in the test. These findings show that there are no same levels of the impact of organizational factors on KM processes. Therefore, the impact of organizational factors on KM processes can be measured and examined in an intended environment.

KM processes: The comparative analysis of knowledge management concepts reveals several distinguished observations (Alavi and Leidner, 2001; Bergeron, 2003; Lee and Kim, 2001; Teece, 2003). Therefore, it is essential to organize and consolidate knowledge management processes in a way that not only describes each process clearly and completely but also identifies their interrelationships. Among these processes, this study intends to describe KM processes adopted based on Alavi and Leidner (2001) include, (a) Creating the knowledge (including knowledge maintenance and updating), (b) Storing and retrieving the knowledge, (c) Sharing (transferring) the knowledge and (d) Applying the knowledge.

Organizational performance: The focus on organizational performance to sustain competitive advantage is necessary for any organization. However, the measurement of organizational performance may take different forms Rhodes *et al.* (2008). There are different approaches for measuring organizational performance. Some papers make use of KM outcome measures like innovation Rhodes *et al.* (2008) or provide a comprehensive set of criteria in measuring organizational performance (Choy *et al.*, 2006). Some of the studies adopted other manners performance measures like 'KM performance index' (KMPI) as a new metric for assessing the performance (Lee *et al.*, 2005) or KM as a coordinating mechanism (Darroch, 2005). Some papers make sure of benchmarking approach or the Balanced Scorecard (BSC) technique for measuring KM performance (Bergeron, 2003).

PREVIOUS RESEARCH STUDIES OF KM

Relationship between Organizational factors and KM Processes: Anantatmula (2008) argued about Leadership role in making effective use of KM. Findings of study stated that choice a competent leader is the vital first step in establishing an effective KM initiative. Singh (2008) indicated that consulting and delegating styles of leadership have positive significant relationship with KM

practices. Crawford (2005) indicated among the various leadership styles there is a strong relationship between transformational leadership and Lee and Kim (2001) found that managerial drivers such as information technology, reward system and top management supports significantly affect the building of supportive organizational climate for KM activities. In addition, this relationship can be explained by the use of social capital theory. Social capital facilitates the development of intellectual capital by affecting the conditions necessary for exchange and combination to occur (Nahapiet and Ghoshal, 1998).

Relationship between KM processes and organizational performance: Rhodes *et al.* (2008) examined the effect of both explicit and tacit knowledge transfer on innovative capabilities and organizational performance. Savvas and Bassiliades (2009) conducted an empirically study in order to test the degree of influence of different knowledge-sharing mechanisms on the innovation capability of firms. Findings of this study show that knowledge sharing is a key issue with the purpose of doing enhance the innovation capability of firms. According to Huang and Li (2009), KM provides a positive contribution to transform tacit knowledge into innovative products, services and processes and thus lead to better technical and administrative innovation performance.

In addition, the relationship between KM processes and organizational performance are supported by Resource Based View (RBV) of the firm. The RBV argues that firms possess resources that a subset of those leads firms to superior long-term performance. According to Holsapple and Joshi (2004), KM can be viewed as an important firm resource because it allows the firm to better leverage its knowledge resources through more efficient knowledge processors and improved knowledge processes involving the activities of generation, acquisition, selection, assimilation and emission of knowledge.

Relationships between organizational factors and organizational performance: The third category emphasizes on relationship between organizational factors and organizational performance. These factors include leadership paradigm Anantatmula (2008), organizational culture (King, 2008), organizational structure Rhodes *et al.* (2008) organizational human resource Syed-Ikhsan and Rowland (2004) and information technology (Sher and Lee, 2004).

RESEARCH FRAMEWORK

A review of the literature indicates that organizational factors are related resulting in varying degrees of their influence on the KM processes ability of the organization. In relation to the levels of impact of organizational factors on KM processes, there are different findings in the prior studies in various environments. These findings show that there are no same levels of impact of organizational factors on KM processes (Ngoc, 2005; Rhodes *et al.*, 2008; Syed-Ikhsan and Rowland, 2004). So, the role of KM processes in conceptual models is not consistent. The comparative analysis of previous studies related to KM concepts reveals that there are no common or generic KM processes (Lee and Choi, 2003; Lin and Lin, 2006; Singh, 2008; Huang and Li, 2009; Zheng *et al.*, 2010).

Despite the literature findings that helped to identify KM enablers (i.e., organizational factors, KM processes and organizational performance) understanding how these factors interact and influence each other is considered important to develop this study model. Previous research studies have not addressed this concern. Implicitly, an integrative KM model for the public sector is still missing. Although some researchers investigate the relationships among organizational factor KM processes, or organizational performance (Anantatmula, 2008; King, 2008), they don't try to examine the relationships between organizational factors, KM processes and organizational performance simultaneously in a public sector.

Furthermore, the direct and indirect effect of these organizational factors can have significant impact on the organizational performance. Finally, the relationship between KM processes and organizational performance can be determined based on the supportive evidence from literature. The overall conceptual framework for this study is presented in Fig. 1.

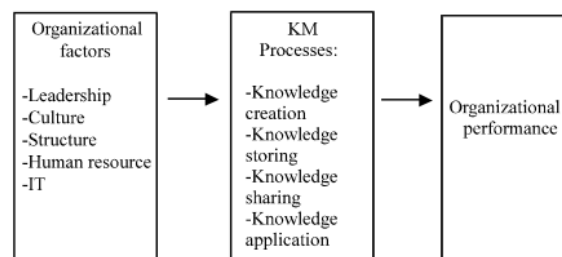


Fig. 1: The overall situation of conceptual framework

CONCLUSION

Policy-making and service delivery have been the two major tasks of government. In these processes, knowledge has been an essential resource of the government and assumes special importance in the every step of the process business of government. Most important of all, effective functioning of government rests on effective sharing and use of knowledge by public sector employees at various levels, central or local (Cong *et al.*, 2007). Moreover, nowadays the importance of KM is clear to many organizations and the leaders search for the main reasons and factors for being successful in KM system design and implementation through their organizations. The various studies showed that KM in public sector of developing countries in comparing with developed countries is still in its infancy and has a long way to go in order to keep pace with private sector counterparts (Chawla and Joshi, 2010; (Cong *et al.*, 2007).

In this study, through literature review some main factors were extracted that these factors show how to succeed in KM programs. A framework can be conceptualized through the findings of this research as shown in Fig. 1. This framework shows building blocks for success of KM in an organization. A plausible reason could be that public sector organizations are traditionally characterized by hierarchies, with few incentives for innovation and team work. Often the incentives to share best practices does not exist or not very clear. On the other hand, private sector organizations make use of internal benchmarking effectively to identify improvement opportunities. Ultimately, the result of this investigate could have significant implications for KM programs in public sector organizations in Iran. This paper is an inclusive addressing and analysis of the process of KM in the public sector in Iran. The paper describes and develops a framework of KM process in the public sector as well as recommendations to practitioners about planning and implementing KM programs and initiatives.

REFERENCES

- Akhavan, P., R. Hosnavi and M.E. Sanjaghi, 2009. Identification of knowledge management critical success factors in Iranian academic research centers. *Educ. Bus. Soc. Contemporary Middle Eastern Issues*, 2: 276-288.
- Alavi, M. and D.E. Leidner, 2001. Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Q.*, 25: 107-136.
- Anantatmula, V.S., 2008. Leadership role in making effective use of KM. *VINE*, 38: 445-460.
- Anantatmula, V.S. and S. Kanungo, 2010. Modeling enablers for successful KM implementation. *J. Knowledge Manage.*, 14: 100-113.
- Bergeron, B.P., 2003. *Essentials of Knowledge Management*. John Wiley and Sons, Hoboken, NJ USA., Pages: 224.
- Chawla, D. and H. Joshi, 2010. Knowledge management initiatives in Indian public and private sector organizations. *J. Knowl. Manage.*, 14: 811-827.
- Choy, C.S., W.K. Yew and B. Lin, 2006. Criteria for measuring KM performance outcomes in organizations. *Ind. Manage. Data Syst.*, 106: 917-936.
- Cong, X. and K.V. Pandya, 2003. Issues of knowledge management in the public sector. *Electron. J. Knowl. Manage.*, 1: 25-33.
- Cong, X., R. Li-Hua and G. Stonehouse, 2007. Knowledge management in the Chinese public sector: Empirical investigation. *J. Technol. Manage. China*, 2: 250-263.
- Crawford, C.B., 2005. Effects of transformational leadership and organizational position on knowledge management. *J. Knowl. Manage.*, 9: 6-16.
- Cummings, T.G. and C.G. Worley, 2008. *Organization Development and Change*. South-Western College Publishing, Cincinnati, OH.
- Darroch, J., 2005. Knowledge management, innovation and firm performance. *J. Knowl. Manage.*, 9: 101-115.
- Davenport, T. and L. Prusak, 1998. *Know what you know*. <http://km.brint.com/davenport/cio/know.htm>.
- Gharibi, H., 2006. Information, communication and technology and knowledge management in Iran. Islamic Republic of Iran Country Report. <http://unpan1.un.org/introduce/groups/public/documents/APCITY/UNPAN018186.pdf>.
- Holsapple, C.W. and K.D. Joshi, 2004. A formal knowledge management ontology: Conduct, activities, resources and influences. *J. Am. Soc. Inf. Sci. Technol.*, 55: 593-612.
- Huang, J.W. and Y.H. Li, 2009. The mediating effect of knowledge management on social interaction and innovation performance. *Int. J. Manpower*, 30: 285-301.
- Jafari, M., M.N. Fesharaki and P. Akhavan, 2007. Establishing an integrated KM system in Iran aerospace industries organization. *J. Knowl. Manage.*, 11: 127-142.
- Kazemi, M. and M.Z. Allahyari, 2010. Defining a knowledge management conceptual model by using MADM. *J. Knowl. Manage.*, 14: 872-890.
- King, W.R., 2008. Questioning the conventional wisdom: Culture-knowledge management relationships. *J. Knowl. Manage.*, 12: 35-47.

- Lee, J.H. and Y.G. Kim, 2001. A stage model of organizational knowledge management: A latent content analysis. *Expert Syst. Appl.*, 20: 299-311.
- Lee, H. and B. Choi, 2003. Knowledge management enablers, processes and organisational performance: An integrative view and empirical examination. *J. Manage. Inform. Syst.*, 20: 179-228.
- Lee, K.C., S. Lee and I.W. Kang, 2005. KMPI: Measuring knowledge management performance. *Inform. Manage.*, 42: 469-482.
- Lin, H.F. and H.S. Lee, 2009. Evaluation of factors influencing knowledge sharing based on a fuzzy AHP approach. *J. Inf. Sci.*, 35: 25-44.
- Lin, Y.C. and L.K. Lin, 2006. Critical success factors for knowledge management studies in construction. *Proceedings of the 23rd ISARC*, October 3-5, 2006, Tokyo, Japan, pp: 768-772.
- Nahapiet, J. and S. Ghoshal, 1998. Social capital, intellectual capital and the organizational advantage. *Acad. Manage. Rev.*, 23: 242-266.
- Ngoc, P.T.B., 2005. An empirical study of knowledge transfer within Vietnam's IT companies. Internal Working Paper, Department of Informatics, University of Fribourg, Fribourg, Switzerland.
- Rhodes, J., R. Hung, P. Lok, B.Y.H. Lien and C.M. Wu, 2008. Factors influencing organizational knowledge transfer: Implication for corporate performance. *J. Knowl. Manage.*, 12: 84-100.
- Savvas, I. and N. Bassiliades, 2009. A process-oriented ontology-based knowledge management system for facilitating operational procedures in public administration. *Expert Syst. Appl.*, 36: 4467-4478.
- Sher, P.J. and V.C. Lee, 2004. Information technology as a facilitator for enhancing dynamic capabilities through knowledge management. *Inf. Manage.*, 41: 933-945.
- Singh, S.K., 2008. Role of leadership in knowledge management: A study. *J. Knowl. Manage.*, 12: 3-15.
- Syed-Ikhsan, S.O.S. and F. Rowland, 2004. Knowledge management in a public organization: A study on the relationship between organizational elements and the performance of knowledge transfer. *J. Knowl. Manage.*, 8: 95-111.
- Teece, D.J., 2003. Capturing Value from Knowledge Assets: The New Economy, Markets for Know-How and Intangible Assets. In: *Essays in Technology Management and Policy*, Teece, D.J. (Ed.). World Scientific, New York, ISBN-13: 9789810244477, pp: 47-75.
- Zheng, W., B. Yang and G.N. McLean, 2010. Linking organizational culture, structure, strategy and organizational effectiveness: Mediating role of knowledge management. *J. Bus. Res.*, 63: 763-771.