

Knowledge Management: The ability of Knowledge Sharing in Nursing and Midwifery Faculty

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Abstract

Knowledge management is a crucially influential factor in helping organizations survive and gain success in such a competitive environment and in this Information Age. Also, considering the fact that Sharing Knowledge in Nursing and Midwifery Faculty plays the role of a sample for others, tacit knowledge of Nursing Professors is a knowledge that is produced inside the mind of Professors and not saved in any database. The research method used in this study is a quantitative method. Sampling is purposeful. The sample was selected according to random sampling method with Cochran formula from 350 students and Professors. According to this sampling method, there are 205 students and Professors in seminaries over 2011-2015 in Nursing and Midwifery Faculty of Jahrom Azad university. This is a survey research which has been carried out by employing a questionnaire and SPSS for windows to analyze data. The main challenge of Nursing and Midwifery Faculty knowledge management is transferring tacit knowledge inside the mind of Professors to the others – especially scholars and researchers. This study evaluates Professorss tacit knowledge transfer to nursing experts. To investigate knowledge management and the ability of knowledge sharing in nursing and midwifery faculty between professors and students the method of " Mann-Whitney and Kruskal-Wallis test " has been applied. The results showed that there a positive relationship between Factors of the ability of knowledge sharing between Professors and Students, between men and women, between age groups, between different degrees.

Keywords: Knowledge Management, Knowledge Sharing, Tacit Knowledge, Professors Nursing Knowledge, Nursing and Midwifery Faculty.

Introduction

Studies show that success in organizations rely on the exploitation of knowledge systematically (Alavi and Dorothy, 2001; Earl, 2001). Furthermore, significant relationships were found between a tacit knowledge index (TKI) in an organization and its performance.

Recent studies done by Abdul-Rahman and Wang (2010) demonstrate a poor functioning of industries in managing knowledge resulting in an enormous waste of resources and undesired effects to quality. Knowledge management can be regarded as one factor influencing and hence shaping and covering an organization's workforce (Hislop, 2009). It has been proved that knowledge management is an advantageous factor in creating a useful and

efficient environment in today's business (Pathirage, Amaratunga, & Haigh, 2007). The objective of knowledge management is to create an environment for individuals enabling to communicate and exchange knowledge more efficiently (Margaryan, Milligan, & Littlejohn, 2011).

Alvan Sabet Company is the biggest producer of textile dyes in the Middle East to cover the textile and leather coating. This company started to enhance its technical knowledge and recruited experienced experts and also upgraded the quality of its production to the level of international standards in 2002. According to the participation of the company in the Middle East markets and also regarding the fact that the company is trying to take part in European markets, implementation of knowledge management can help the organization get prepared to face up to its rivals.

Moreover, a preliminary study conducted by a researcher in Alvan Sabet Company demonstrated that the data is blocked in different units and for different individuals and others, there is not easy access to the data. The strategies and programs developed to acquire, distribute and share knowledge have not been very effective and it can be claimed that no knowledge has practically been created. It also seems that the current knowledge is a collection and processing of the prior knowledge present in the organization. Furthermore, according to the interview conducted with the staff, it has turned out that in this organization management is performed in a totally traditional way and innovative styles are not much applied.

Role of Knowledge and Knowledge Management (KM) in Change Process

On the one hand, globalization and the development of information and communication technology in all aspects of life, and developing concepts and terms such as information society and knowledge economy on the other, have greatly affected the conditions governing the work place and organizations (Eftekhar, & Ziaei, 2016). Therefore; to be responsive to this condition and to maintain its competitive benefits, the organizations have to create some changes in the performances of organization and work force which is simply impossible without applying an appropriate knowledge management. Therefore; it can be mentioned that in the present competitive condition, performing the techniques of knowledge management can be regarded as a suitable response to the phenomenon of knowledge economy and to the daily increasing external environment of the organization (Canter, Joel, & Schmidt, 2009).

Along with the transition from an industrial society to a knowledge society, acting knowledge out can be regarded as one of the most significant factors in success and development of business in the societies. In environments experiencing rapid change and being affected by ambiguity and uncertainty, knowledge is considered to be the most valuable property of the organizations (Eftekhar, & Hayati, 2016).

That how organizations should be led in order to generate and nurture knowledge and that how one is able to interact with the increasing number of companies can be regarded as the main issues that many organizations are facing in the millennium. One huge challenge that transformational leaders are facing in the millennium is the huge number of force labor and also finding ways to encourage each employee to put his potentials like his knowledge into practice (Goudarzvandchegini, 2011).

The importance of knowledge and knowledge management in today's preceding organizations cannot be neglected. In order to obtain competitive advantage and to survive in

changing contextual conditions, many organizations around the world have turned to applying innovative management tools, new techniques and principles. Enterprise resource planning, process reengineering and Total Quality Management (TQM), ... can be named as a few. It is obvious that knowledge management is not an exception and increasing literature in the field of knowledge management in recent years demonstrates the attempt of the organization to apply them. In the present era, knowledge has been recognized as one of the major sources of organizations and there are hundreds of organizations around the world which have changed their structures by developing departments of knowledge management (Tikhomirova, Gritsenko, Pechenkin, & Alexander, 2008). Since accepting the processes of knowledge management needs some changes in the structure of the organization and also in the behavior of the members of the organization (Siemieniuch & Sinclair, 2004). In order to be successful in creating change are in need of transformational leaders to create motivation to change and through permanent investment in staff development prepare a sufficient prospect ahead of the individuals to obtain the desired goals (Goudarzvandchegini, 2011).

Knowledge and knowledge management in today's competitive context and also in dynamic environments are considered to be the most important strategic resources of the organizations. What's more, one of the most important distinctions between successful and unsuccessful organizations is in their effective and dynamic leadership. It can also be mentioned that to survive in such a condition in which environments are in constant mode of change, organizational changes are necessary and leadership and management play important roles in helping these changes occur. Organizational changes need transformational leaders and the related studies prove the crucial role of leadership in these conditions (Nguyen & Mohamed, 2011).

Ultimately, it can be concluded that knowledge management can help create and develop new knowledge in the organization. The created new knowledge after being shared and applied in the organization can create some changes in the organization and organizational processes.

Although most researches have been done about tacit knowledge and work experiences in industrial companies, this issue has a significant importance in health field, and nursing particularly. In nursing, experiences, skills, occupational attitudes, and value-based and mental system are the most important keys for providing better services to patients. In most cases, nurses are faced with complex and unpredictable conditions as a result of having contacts with patients. This would lead to an increasing need for personal experiences among nurses.

Tacit knowledge of nursing which is created by subjective methods, is highly experimental, vague, related to action and usage, personal, difficult to formulate, and related to producer's aspect for transfer. In fact, tacit knowledge of nursing is a knowledge that is produced inside the mind of nurses and it is not saved in any databases. Also, the main challenge of knowledge management in nursing is to transfer tacit knowledge produced inside the mind of nurses to the others and researches particularly. For example, there are some experienced nurses in hospitals who have precise nursing skills about types of diseases, experimental – commonly based on *trial and error*. This knowledge is not written in any document but it is so worthwhile. These nurses use this knowledge as a competitive advantage. Thus, this knowledge that, is hardly classified by other people, leads to heavy reliance on the nurses and is hardly transferred to other nurses. Another example of this kind

of knowledge is enabling processes in different parts of hospitals. Creating optimized processes is possible only when a coherent group of nurses try to implement, monitor and improve the processes over a relatively long period. These processes include knowledge of all individuals in the form of team values, how to deal with patients, methods of organizing, and information systems. Knowledge gained from these processes can be considered as an advantage for organizations, and these organizations use this advantage as their own superiority over other hospitals and try to keep it much as possible. Also, this knowledge is an example of knowledge production that known as “Top Patterns” or “Best Practice” in knowledge management literature.

Although investigation of the ability of knowledge sharing in Nursing and Midwifery Faculty are faced with some complexities according to above reasons, determining the best methods of transferring tacit knowledge and obstacles to their transfer could play an important role in increasing nurses’ knowledge and improving nursing services. Furthermore, generating a proper method for transferring knowledge inside Nursing and Midwifery Faculty and among them can provide appropriate context for growth of organizational knowledge and competitive advantages. Since, the ability of Knowledge Sharing has been less addressed in previous researches, this study aimed to investigate the ability of Knowledge Sharing and its barriers in Professors nursing of Iran’s Nursing and Midwifery Faculty and to present some solutions for improving this kind of knowledge transfer.

Using the factors described above, this study investigated the ability of Knowledge Sharing among Nursing and Midwifery Faculty. The main purpose of this study is to investigate Nursing and Midwifery Faculty among Professors and its limitations. First, the most important methods of the ability of knowledge sharing were determined in Nursing and Midwifery Faculty of Jahrom Azad University in Iran.

Knowledge management

Knowledge Management (KM) was introduced about two decades ago to assist companies to create and use knowledge more effectively.

According to Yang's definition of the term (2011) Knowledge management can be defined as "the process of identifying/creating, assimilating, and applying organizational knowledge to exploit new opportunities and enhance organizational performance".

KM includes the managerial efforts to enhance the performances of the companies and also to create, store, share, and develop knowledge by individuals and groups (Zheng , Yang, & Mclean, 2010).

One may associate KM's goals with innovation and knowledge retention in the organization resulting in maximized productivity and hence minimizing cost.

It should be noted that the expected benefits are related to the pre-planned objectives. Several authors consider the measurement of the benefits of KM as a step in the KM process (Goldoni & Oliveira, 2010).

Many theories regarding knowledge management have been suggested all containing diverse processes. Models classification occurs in two ways: one is from the view that underlies the pattern and the other is formed according to the stages of provided patterns of the process. Nonaka and Takeuchi bring up the issue by classifying the models of exchanging knowledge in an organization by the employees which lead to organizational knowledge creation into four parts:

1. Socialization
2. Externalization
3. Combination
4. Internalization (Nonaka & Takeuchi, 1995).

Kakabadse, Kakabadse, and Kouzmin (2003), classified the patterns of knowledge management into four groups including: Network Models, Cognitive Models, Community Models, and Philosophic Models. In network model, the main focus is on the communication, acquisition and subscription sending in a horizontal communication mode. In cognitive model knowledge is considered to be the main property of the organization which has to be presented, saved, measured, and protected in a careful manner. The community model also discusses characteristics of professional groups who possess abilities like self-organization, current learning, and informal interactions. The philosophic mode is based on two-way interaction in a strategic way, search and question in field of market activity and the related processes and the way of dealing with rivals.

Bukowitz & Williams model classifies the process of knowledge management into two groups of strategic and tactical. The tactical model includes acquiring appropriate knowledge necessary for the activities, applying knowledge in creating value, learning, exchanging and sharing knowledge among individuals. The strategic model includes acquiring value from tactical model where the organization strategy is applied along with organizational purposes. The model of Newman and Conrad in year 1999 divides knowledge into four main areas: knowledge creation, retention, transfer and utilization (Newman & Conrad, 1999) (Gelard & Boroumand and Mohammadi, 2014).

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advantage for organizations, and these organizations use this advantage as their own superiority over other hospitals and try to keep it much as possible. Also, this knowledge is an example of knowledge production that known as “Top Patterns” or “Best Practice” in knowledge management literature.

Many studies have been published about tacit knowledge transfer in the health field. Yet, to the best knowledge of the authors, there has been no comprehensive investigation in the literature regarding this issue. But according to previous studies, it might be possible to identify main subjects in this field. Although, knowledge is a general concept and has almost the same definitions in different fields of industry and services, its characteristics and the relationship between these characteristics show some differences (Dehghani, Basirian Jahromi, Ganjoo, Akhundzadeh, Ganjoo, 2013).

Reis Karimian and Rostami Nejad (2003) investigated the quality of knowledge management in hospital infection control in Yasuj (Iran). The results showed that infection control has been weakened. The researcher found that training classes and educational pamphlets available for putting nurses in their knowledge management has been effective.

Tsai and Tsai (2005) studied critical success factors in nursing knowledge transfer. The findings indicated that students who already had the knowledge, operated more independent than other groups. Also, among these students self-learning was preferred. This study showed that the existence of the previous tacit knowledge among groups of nursing students resulted in increased effectiveness of nursing knowledge transfer.

Jih, Chen and Chen (2008) studied four specificities of knowledge in hospitals. The main purpose of this research was investigating the effects of these variables on each other in Thailand hospitals. The framework of this study involved four structures and each structure included some variables. The most important hypothesis which helped this study was investigating the relationship between knowledge characteristics and knowledge transfer strategies. The results showed that there was a significant relationship between knowledge characteristics and knowledge transfer strategies. The main results indicated that hospitals, on the basis of being tacit or explicit knowledge and also complexity of that, noted knowledge transfer strategies.

In the study conducted on types of nursing knowledge, Mantzoukas and Jasper (2008) showed that five discrete types of nursing knowledge that nurses used in practice included personal practice knowledge, theoretical knowledge, procedural knowledge, ward cultural knowledge, and reflexive knowledge.

Method

This study applied the survey method to investigate the discussed issue. The population for this study included all students and Professors of Nursing and Midwifery Faculty of Jahrom azad university in Iran in 2015 which were 350. For sampling, the Morgan Sample Size Table was employed and finally 205 students and Professors were selected. Data collection tool was a researcher-made questionnaire that makes use of the five point Likert scale. (1= very low and 5= very high).

questionnaire involved two parts: first, enabling knowledge sharing in professors; second, enabling knowledge sharing in students. The parts enabling knowledge sharing in professors, involved two parts: first, demographic information like age, gender, degree; second, the factors of enabling knowledge sharing. The parts enabling knowledge sharing in students,

involved two parts: first, demographic information like age, gender, degree; second, the factors of enabling knowledge sharing.

The factors of enabling knowledge sharing involved: need to allocate appropriate time to transfer tacit knowledge, transfer tacit knowledge on discussion, Concern for problems on transfer tacit knowledge, Lack of knowledge through performance reviews, Unimportance Field of Study on transfer knowledge, The importance of the Team on transfer knowledge, Acquire new knowledge to help others, Exchange of experiences to others, Holding the classroom out of time, Knowledge as Power.

For the assessment of content validity of this questionnaire, the viewpoints of professors and experts have been used. In order to assess the reliability of questionnaire Cronbach's alpha was calculated ($\alpha=0.784$). In data collection process, researchers distributed 205 questionnaires completed questionnaires were returned. For data analysis, descriptive and inferential statistics were applied by using SPSS 23.

Research questions

- 1) Is there any significant relationship between enabling knowledge sharing in students and enabling knowledge sharing in professors?
- 2) Is there any significant relationship between enabling knowledge sharing men and enabling knowledge sharing Women?
- 3) Is there any significant relationship between enabling knowledge sharing in age groups?
- 4) Is there any significant relationship between enabling knowledge sharing in different degrees?

Literature review

According to Yang's definition of the term (2011) Knowledge management can be defined as "the process of identifying/creating, assimilating, and applying organizational knowledge to exploit new opportunities and enhance organizational performance".

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showed that five discrete types of nursing knowledge that nurses used in practice included personal practice knowledge, theoretical knowledge, procedural knowledge, ward cultural knowledge, and reflexive knowledge.

Findings

The results of demographic characteristics indicated that the average age of studied population was 20-30 (% 98.5); Among this population there were 154 females (%75.1) and 51 males (% 24.9). Among this population there were 201 Bachelor (%98), 2 Master of Arts (% 1) and 2 Philosophiae Doctor (% 1). Research findings were divided into four parts.

1) Enabling knowledge sharing between professors & students

The first concept or category under study was Enabling knowledge sharing between professors and students. According to statistical investigation and as it is shown in Table 1, the most important way of Enabling knowledge sharing of students was need to allocate appropriate time to transfer tacit knowledge but the lowest important way of Enabling knowledge sharing among professors and students was Knowledge as Power. Table 1 shows mean, standard deviation, and scores compared to the separation of Enabling knowledge sharing among professors and students.

Table 1

Enabling knowledge sharing between Professors & Students

factors of enabling knowledge sharing	professors		student		P
	mean	SD	mean	SD	
need to allocate appropriate time to transfer tacit knowledge	4.75	.500	3.70	1.246	.061
transfer tacit knowledge on discussion	4.75	.500	3.62	1.052	.144
Concern for problems on transfer tacit knowledge	5.00	.000	3.69	1.084	.002
Lack of knowledge through performance reviews	5.00	.000	3.44	1.161	.003
Unimportance Field of Study on transfer knowledge	5.00	.000	3.66	1.152	.005
The importance of the Team on transfer knowledge	5.00	.000	3.58	1.259	.003
Acquire new knowledge to help others	5.00	.000	3.29	1.275	.002
Exchange of experiences to others	5.00	.000	3.43	1.219	.003
Holding the classroom out of time	5.00	.000	3.39	1.296	.001
Knowledge as Power	4.00	1.414	3.07	1.255	.964

Mann-Whitney test in table 2 showed that there is a significant difference between professors and students average scores of enabling knowledge sharing factors.

Table 2

Mann-Whitney test of Professors & Students

	Factors of Enabling knowledge sharing
Mann-Whitney U	23.000
Wilcoxon W	20324.000
Z	-3.233
Asymp. Sig (2-tailed)	.001

2) Enabling knowledge sharing between Men & Women

The second concept or category under study was Enabling knowledge sharing between men and women. According to statistical investigation and as it is shown in Table 3, the most important way of Enabling knowledge sharing of men was Concern for problems on transfer tacit knowledge. The most important way of Enabling knowledge sharing of women was need to allocate appropriate time to transfer tacit knowledge. but the lowest important way of Enabling knowledge sharing among men and women was Knowledge as Power. Table 3 shows mean, standard deviation, and scores compared to the separation of Enabling knowledge sharing among men and women.

Table 3
Enabling knowledge sharing between Men & Women

factors of enabling knowledge sharing	Men		Women		P
	mean	SD	mean	SD	
need to allocate appropriate time to transfer tacit knowledge	3.47	1.541	3.80	1.122	.000
transfer tacit knowledge on discussion	3.45	1.205	3.71	.996	.065
Concern for problems on transfer tacit knowledge	3.51	1.223	3.79	1.035	.154
Lack of knowledge through performance reviews	3.45	1.346	3.47	1.110	.045
Unimportance Field of Study on transfer knowledge	3.39	1.328	3.78	1.080	.019
The importance of the Team on transfer knowledge	3.33	1.532	3.70	1.150	.001
Acquire new knowledge to help others	3.16	1.405	3.38	1.242	.185
Exchange of experiences to others	2.86	1.357	3.66	1.116	.063
Holding the classroom out of time	2.88	1.351	3.60	1.239	.450
Knowledge as Power	2.84	1.447	3.17	1.187	.009

Mann-Whitney test in table 4 showed that there is a significant difference between men and women average scores of enabling knowledge sharing factors.

Table 4
Mann-Whitney test of Men & Women

	Factors of Enabling knowledge sharing
Mann-Whitney U	3052.000
Wilcoxon W	4378.000
Z	-2.388
Asymp. Sig (2-tailed)	.017

3) Enabling knowledge sharing between age groups

The third concept or category under study was Enabling knowledge sharing between age groups. According to statistical investigation and as it is shown in Table 5, the most important way of Enabling knowledge sharing of 20-30 was need to allocate appropriate time to transfer tacit knowledge and Concern for problems on transfer tacit knowledge. The lowest important way of Enabling knowledge sharing of 20-30 and 30-40 was Knowledge as Power. But The lowest important way of Enabling knowledge sharing of 40-50 was need to allocate appropriate time to transfer tacit knowledge and transfer tacit knowledge on discussion. Table 5 shows mean, standard deviation, and scores compared to the separation of Enabling

knowledge sharing among age groups.

Table 5

Mean and std. deviation of enabling knowledge sharing between Age groups

factors of enabling knowledge sharing	20-30		30-40		40-50	
	mean	SD	mean	SD	mean	SD
need to allocate appropriate time to transfer tacit knowledge	3.70	1.246	5.00	.000	4.00	.000
transfer tacit knowledge on discussion	3.36	1.054	5.00	.000	4.00	.000
Concern for problems on transfer tacit knowledge	3.70	1.085	5.00	.000	5.00	.000
Lack of knowledge through performance reviews	3.45	1.163	5.00	.000	5.00	.000
Unimportance Field of Study on transfer knowledge	3.66	1.153	5.00	.000	5.00	.000
The importance of the Team on transfer knowledge	3.59	1.260	5.00	.000	5.00	.000
Acquire new knowledge to help others	3.30	1.278	5.00	.000	5.00	.000
Exchange of experiences to others	3.44	1.221	5.00	.000	5.00	.000
Holding the classroom out of time	3.40	1.297	5.00	.000	5.00	.000
Knowledge as Power	3.06	1.254	4.50	.707	5.00	.000

Kruskal-Wallis test in table 6 showed that there is a significant difference between Age groups average scores of enabling knowledge sharing factors.

Table 6

Kruskal-Wallis test for three age groups of enabling knowledge sharing

	Factors of Enabling knowledge sharing
Chi - Square	8.067
df	2
Asymp. Sig	.018

4) Enabling knowledge sharing between different degrees

The fourth concept or category under study was Enabling knowledge sharing between different degrees. According to statistical investigation and as it is shown in Table 7, the most important way of Enabling knowledge sharing of bachelor was need to allocate appropriate time to transfer tacit knowledge. The lowest important way of Enabling knowledge sharing of bachelor and Master of Arts and was Knowledge as Power. The lowest important way of Enabling knowledge sharing of Philosophiae Doctor were need to allocate appropriate time to transfer tacit knowledge and transfer tacit knowledge on discussion and Knowledge as Power. Table 7 shows mean, standard deviation, and scores compared to the separation of Enabling knowledge sharing among different degrees.

Table 7

Mean and std. deviation of enabling knowledge sharing between different degrees

factors of enabling knowledge sharing	Bachelor		Master of Arts		Philosophiae Doctor	
	mean	SD	mean	SD	mean	SD
need to allocate appropriate time to transfer tacit knowledge	3.70	1.246	5.00	.000	4.50	.707
transfer tacit knowledge on discussion	3.62	1.052	5.00	.000	4.50	.707

factors of enabling knowledge sharing	Bachelor		Master of Arts		Philosophiae Doctor	
	mean	SD	mean	SD	mean	SD
Concern for problems on transfer tacit knowledge	3.69	1.084	5.00	.000	5.00	.000
Lack of knowledge through performance reviews	3.44	1.161	5.00	.000	5.00	.000
Unimportance Field of Study on transfer knowledge	3.66	1.152	5.00	.000	5.00	.000
The importance of the Team on transfer knowledge	3.58	1.259	5.00	.000	5.00	.000
Acquire new knowledge to help others	3.29	1.275	5.00	.000	5.00	.000
Exchange of experiences to others	3.43	1.219	5.00	.000	5.00	.000
Holding the classroom out of time	3.39	1.296	5.00	.000	5.00	.000
Knowledge as Power	3.07	1.255	3.50	2.121	4.50	.707

Kruskal-Wallis test in table 8 showed that there is a significant difference between different degree average scores of enabling knowledge sharing factors.

Table 8

Kruskal-Wallis test for three degree groups of enabling knowledge sharing

	Factors of Enabling knowledge sharing
Chi - Square	10.450
df	2
Asymp. Sig	.005

Discussion and Conclusion

To investigate knowledge management and the ability of knowledge sharing in nursing and midwifery faculty between professors and students the method of "Mann-Whitney and Kruskal-Wallis test" has been applied. Findings demonstrate a positive relationship between Factors of the ability of knowledge sharing between Professors and Students is meaningful in alpha level of 0.05. In other words, it can be understood that the researcher found that training classes and educational pamphlets available have been effective for nurses knowledge management. Reis Karimian and Rostami Nejad (2003) also emphasized the same idea. Moreover, the existence of the previous tacit knowledge among groups of nursing Professors resulted in increased effectiveness of nursing knowledge transfer. Tsai and Tsai (2005) also emphasized the same idea. According to the present research and other conducted studies, it is certain that tacit knowledge of nursing which is created by subjective methods, is highly experimental, vague, related to action and usage, personal, difficult to formulate, and related to producer's aspect for transfer. Dehghani, Basirian Jahromi, Ganjoo, Akhundzadeh, Ganjoo (2013) also emphasized the same idea. To investigate knowledge management and the ability of knowledge sharing in nursing and midwifery faculty between men and women the method of " Mann-Whitney test " has been applied. There is a significant difference between men and women average scores of the ability of knowledge sharing factors. The most important way of the ability of knowledge sharing of women was need to allocate appropriate time to transfer tacit knowledge. it can be mentioned that in the present competitive condition, performing the

techniques of knowledge management can be regarded as a suitable response to the phenomenon of knowledge economy and to the daily increasing external environment of the organization. Canter, Joel, & Schmidt (2009) also emphasized the same idea. Furthermore, the least important way of the ability of knowledge sharing among men and women was Knowledge as Power. A poor functioning of industries in managing knowledge resulting in an enormous waste of resources and undesired effects to quality. Knowledge management can be regarded as one factor influencing and hence shaping and covering an organization's workforce and It has been proved that knowledge management is an advantageous factor in creating a useful and efficient environment in today's business. Abdul-Rahman and Wang (2010) and Hislop (2009) and Pathirage, Amaratunga, & Haigh (2007) also emphasized the same idea. To investigate knowledge management and the ability of knowledge sharing between age groups the method of " Kruskal-Wallis test " has been applied. Kruskal-Wallis test showed that there is a significant difference between Age groups average scores of the ability of knowledge sharing factors. The most important way of the ability of knowledge sharing of 20-30 was need to allocate appropriate time to transfer tacit knowledge and Concern for problems on transfer tacit knowledge. The objective of knowledge management is to create an environment for individuals the ability of to communicate and exchange knowledge more efficiently. Margaryan, Milligan, & Littlejohn (2011) also emphasized the same idea. Additionally, One may associate goals of knowledge management with innovation and knowledge retention in the organization resulting in maximized productivity and hence minimizing cost. To investigate knowledge management and the ability of knowledge sharing between different degrees the method of " Kruskal-Wallis test " has been applied. Kruskal-Wallis test showed that there is a significant difference between different degrees average scores of the ability of knowledge sharing factors. Kruskal-Wallis test showed that there is a significant difference between different degree average scores of the ability of knowledge sharing factors. The most important way of the ability of knowledge sharing of bachelor was need to allocate appropriate time to transfer tacit knowledge. The lowest important way of the ability of knowledge sharing of bachelor and Master of Arts was Knowledge as Power. The lowest important way of the ability of knowledge sharing of Philosophiae Doctor were need to allocate appropriate time to transfer tacit knowledge and transfer tacit knowledge on discussion and Knowledge as Power. The unfortunate point about KM is that the literature regarding this topic has not been fruitful through time. The framework presented in this paper is fundamentally based on the General Knowledge Model Newman& Conrad in year 1999. The model divides knowledge into four main areas: knowledge creation, retention, transfer and utilization.

1. Knowledge Creation

This factor refers to implementing new knowledge into the system and hence by doing so causing knowledge development, discovery and capture (Newman & Conrad, 1999).

2. Knowledge Retention

As the name suggests this element allows knowledge to remain in the system once introduced. It also refers to those activities which retain the practicality of knowledge. (Newman & Conrad, 1999).

3. Knowledge Transfer

Knowledge transfer refers to transferring knowledge from one individual or group to another. This includes communication, translation, conversion, filtering and rendering (Newman & Conrad, 1999).

4. Knowledge Utilization

Again as the name suggests it refers to utilization of knowledge and to make it more practical in business processes (Newman & Conrad, 1999). The findings of this study and other surveys makes it clear that further studies are needed to understand how the ability of knowledge sharing can meet and best support user needs in different social and special contexts.

References

- Abdul-Rahman, H., & Wang, C. (2010). Preliminary approach to improve knowledge management in engineering management. *Scientific Research and Essays*. 5 (15), 1950-1964.
- Alavi, M. and Dorothy, E. L. (2001). Review: Knowledge management and knowledge management systems: conceptual foundations and research issues. *MIS Quarterly*. 25:(1), 107-136.
- Canter, U., Joel, K., & Schmidt, T. (2009). The use of knowledge management by German innovators. *Journal of Knowledge Management*. 13 (4), 187-203.
- Dehghani, L., Basirian Jahromi, R., Ganjoo, M., Akhundzadeh, M., Ganjoo, M. (2013). Investigating Methods of Transferring Tacit Knowledge among Nursing Experts of Iranian Hospitals. *International Journal of Information Science and Management*. 11(2), 77-90.
- Earl, M. (2001). Knowledge management strategies: toward a taxonomy. *Journal of Management Information Systems*. 18(1), 215-233.
- Eftekhari, Z. & Hayati, Z. (2016). Coping with Information Resources: Identifying, Searching, Accessing, Evaluating and Using Information in Academic Libraries. *International Journal of Information Science and Management (IJISM)*, 14(1), 1-11.
- Eftekhari, Z. & Ziaei, S. (2016). Information Seeking Behavior and Information Resources Management: Mental Process of Selecting Subjects and Identifying Information Needs (Case study: Graduate Students in Women Seminaries of Shiraz, Academic Year 1393-1394). *Iranian Journal of Information Processing and Management*, 31(4), 981-1007.
- Gelard, P., Zahra Boroumand, Z., and Mohammadi, A. (2014). Relationship Between Transformational Leadership and Knowledge Management. *International Journal of Information Science and Management*. 12(2), 67-82.
- Goldoni, V., & Oliveira, M. (2010). Knowledge management metrics in software development companies in Brazil. *Journal of Knowledge Management*. 14(2), 301-313.
- Goudarzvandchegini, M. (2011). Knowledge management and transformational leadership in organizational success. *International Journal of Information and Education Technology*. 1(5), 377-379.
- Hislop, D. (2009). *Knowledge management in organizations*, 2nd ed. Oxford: Oxford University Press.
- Jih, W. J.; Chen, C. H. and Chen, A. (2008). *Knowledge characteristics, knowledge acquisition strategy and results of knowledge management implementations: an empirical study of Taiwanese hospital*. Current Issues in Knowledge Management. New York: Information science reference.

- Kakabadse, N.K., Kakabadse, A., & Kouzmin, A. (2003). Reviewing the knowledge management literature: Towards a taxonomy. *Journal of Knowledge Management*. 7 (4), 75-91.
- Mantzoukas, S. and Jasper, M. (2008). Types of nursing knowledge used to guide care of hospitalized patients. *Journal of Advanced Nursing*. 62(3), 318–326.
- Margaryan, A., Milligan, C., & Littlejohn, A. (2011). Validation of davenport's classification structure of knowledge-intensive processes. *Journal of Knowledge Management*. 15 (4), 568-581.
- Newman, B., & Conrad, K.W. (1999). A framework for characterizing knowledge management methods, practices, and technologies. *Paper presented at the Third International Conference on practical Aspects of Knowledge Management*, Basel, Switzerland.
- Nguyen, H. N., & Mohamed, S. (2011). Leadership behaviors, organizational culture and knowledge management practices: An empirical investigation. *Journal of Management Development*. 30(2), 206-221.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company*. New York: Oxford Press.
- Pathirage, C. P., Amaratunga, D. G., & Haigh R. P. (2007). Tacit knowledge and organizational performance: construction industry perspective. *Journal of Knowledge Management*. 11(1), 115-126.
- Reis Karimian, F. and Rostami Nejad, A. (2003). Assessment Of Knowledge And Practice Of Nurses In Yasuj Hospitals About Nosocomial Infections. Armaghane-Danesh, *Journal Of Yasuj University Of Medical Sciences*. 8 (31), 49-56.
- Siemieniuch, C.E., & Sinclair, M.A. (2004). A framework for organizational readiness for knowledge management. *International Journal of Operations & Production Management*, 24(1)79-98.
- Tsai, M.-T. and Tsai, L.-L. (2005). The critical success factors and impact of prior knowledge to nursing students when transferring nursing knowledge during nursing clinical practise. *Journal of Nursing Management*. 13 (6), 459–466.
- Tikhomirova, N, Gritsenko, A., & Pechenkin, A. (2008). University approach to knowledge management. *Publisher of Emerald Group Publishing Limited*. 38 (1), 16-21.
- Yang, D. (2011). The effect of knowledge management on product innovation evidence from the Chinese software outsourcing vendors. *IBusiness*. 3, 16-22.
- Zheng, W., Yang, B., & McLean, G.N. (2010). Linking organizational culture, structure, strategy and organizational effectiveness: Mediating role of KM. *Journal of Business Research*. 63, 763-771.