

STUDY OF THE RELATIONSHIP BETWEEN MANAGEMENT OF KNOWLEDGE DEVELOPMENT AND INFORMATION TECHNOLOGY WITH PERFORMANCE IMPROVEMENT AMONG THE PERSONNEL OF DEHDASHT CITY IMAM KHOMEINI HOSPITAL IN 2015**Kykavos Arzanin¹, Rahim Ostvar^{2*} and Ali Mousavizadeh³**¹Department of Healthcare Management, Fars Science and Research Branch, Islamic Azad University, Marvdasht Iran.¹Department of Healthcare Management, Marvdasht Branch, Islamic Azad University, Marvdasht Iran.²Associate Professor, Social Determinants of Health Research Center, Yasuj University of Medical Sciences, Yasuj, Iran.³Assistant Professor, Department of Epidemiology, Yasuj University of Medical Sciences, Yasuj, Iran.**Corresponding Author: Rahim Ostvar**

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ABSTRACT

Knowledge management is a process by which people create knowledge in different environments with various users using multi-dimensional information classification. The aim of performing this project is to examine the relation between management of knowledge development and information technology by performance improvement among personnel of Dehdasht Imam Khomeini Hospital in 2015. This project has been performed by survey method and in descriptive analytical form. For determining sample content by statistical method, 400 samples were selected from the statistical population. After collecting information in the format of information technology standardized questionnaires, knowledge management and performance improvement, linear regression has been analyzed with the aid of SPSS 19 software and correlation coefficient statistical tests in the format of descriptive and analytical tables. The results obtained from multiple regression, linear regression and Pearson correlation coefficient show that there is a significant relation between knowledge management and its dimensions (including knowledge acquisition, creating knowledge, storing knowledge, distributing knowledge, maintaining knowledge) and information technology with performance improvement ($p < 0.05$).

KEYWORDS: information technology, knowledge management, performance improvement, hospital.**INTRODUCTION**

Knowledge management is a process by which people create knowledge in different environments with various users using multi-dimensional information classification (Daphy, 2000, quoted from Jafarimoghadam, 2004). Training development though could be useful by itself, but if knowledge is not managed, it has low effectiveness. Attention to knowledge management seems necessary and required for access to fast scientific progresses in the country, synergy in studies and reducing the scientific gap with advanced countries, so that we are able to use all resources continuously and optimally for access to the considered knowledge and the created incident knowledge turns to apparent knowledge for researchers and besides preventing from knowledge waste, we can also help in its dissemination (knowledge management, Fathian & Ehsani, 2015).

Usually, managers focus on the process optimization and try to organize and manage human resources and projects y structure reconstruction and management of human

resources and project. Therefore, we can use knowledge in organization for modifying or solving people problems, processes and projects or their guidance method (Whilk, 1996, quoted from Afraze, 2007).

Knowledge is a mobile mixture of values and new information. Knowledge is created and used in the scholar mind. Knowledge is figured in organizations not only in knowledge documents and reservoirs but also in working procedures, organizational processes, actions and norms. Knowledge is imaginable in dynamic and also stockpile and static forms (Alem Tabriz & Mohammadrahimi, 2008).

If this knowledge is accompanied with information technology and new technologic progresses, it could have a very important and fundamental role in making the organization qualitative especially in production. Particularly that today development of information technology has created a deep revolution.

Information technology is a word with which developing countries are faced with a different degree of complexity comparing developed countries, but generally, small media technologies are more prevalent in these countries than big Media technology.

John Lent says: some predications are in this view that information technology will lead to Global Village and some believe that new information technologies will help international understanding, peace and fraternity. Some mention technology as a factor for reinforcing independence and promoting democratic thoughts and some have considered technology as a factor redeemer of third world mass and for this reason in their view achieving information through greater communication systems is goal which should be pursued. But, developing countries besides the problem of access to technology are faced with structural and behavioral issues relating to it too. Efficiency in the field of technologies depends on political, cultural, economic and technical factors and software development level and method of their internalization and utilization (Hanson & Rola, translated by Heidari, 1994). Knowledge management is one of key requirements of each organization which should be produced, attracted and developed. Utilizing new knowledge and information is an inevitable necessity for each organization survival. Today postindustrial society is a society in which refreshing technology has given its place to knowledge increasing technology. In today changing world, that society and organization could have an onward movement in the development route which mobilize its human resources by knowledge and skill of productive entrepreneurship by preparing suitable beds so that by utilizing their valuable abilities, they guide and manage other resources of the society and organization towards creating value and achieving growth and development (Ablfazli, 2008:34).

Knowledge development is one of highly significant and fundamental elements of knowledge management which is focused on developing new skills, new products, better ideas and more efficient processes. Knowledge development includes all management efforts through which the organizations consciously try to acquire some capabilities, they lack them or create capabilities which don't still exist inside and outside the organization (Proets et.al, 2006:12).

21th century world will in fact be the world of information technology domination and the world of history acceleration in respect of hastily scientific, economic and cultural changes. Training systems in a society won't be able to separate themselves from other social and national institutions and wide international interactions in global village. Information and communication technology (ICT) is a means for storing, processing and presenting information which is electronically and based on some media. Though information technology is a new term in conceptual

respect its antiquity reaches human craving for establishing relationship. At the present time, information systems enable us to create efficient information systems. Without logical utilization of information techniques, activities will be almost futile and unfruitful. We need information for ease of decision making. Main goal of information systems is to acquire information, their process usefully and making them available for performing various tasks (Proest et.al, 2006, 12).

Information process speed is among components of information technology. In the current world in which the organizations produce data and information with an unprecedented speed and it is truly called information era. Invasion of various information and data has created a hard way for efficiency and their correct use for men.

Undoubtedly, information society is the same utopia which has been the aim of thinkers for many years and now with progress of technology and communication development, grounds of such utopia formation are provided. Thinkers believe that the third wave of Toffler has been started and today with growth of technologies and extension of communication and information facilities, we have been located in an information society. a society whose features includes: very high density of information in citizens life, using current or consistent technology in a wide range of personal, social, educational and commercial activities and the ability of fast transfer and receiving digital data in different locations without attention to distances (Firestone, 2007).

Today, utilizing information and communication technology, as the most important element of interaction with world society, participating in others knowledge, exchange of experiences, awareness about the environment, forerunning in technology and extension of public welfare have been emphasized. In this between, main pillar of production and development of knowledge that is, instruction, has a very significant position. Since production and distribution of knowledge and its start point ICT (Information and communication technology) instruction is the prerequisite of reaching to information society, the personnel should use computer and internet as an effective tool in working life to be able to extend their ability, practice effective required skills of life in today world, recognize other cultures and bring up the international ability, interaction and cooperation in themselves, be active in learning- teaching process, learn problem solving skills and Project Based Learning, learn the behavior of using information and communication technology and extend self-training habits in themselves by utilizing information and communication technology (Joys, 2003).

Issues of knowledge management and organizational performance have a close relation with each other and they are correlative to each other. In one side, knowledge

development causes performance improvement in the organization since people with required knowledge will have suitable performance and on the other hand suitable performance makes resources and facilities ready for facilitating knowledge growth in the organization.

Performance improvement is noted due to role and significance which have in economic development and social welfare and other positive impacts on the whole society and organizations and it is mentioned as the driving force of societies economic, social and cultural development.

In today's changing world, that society and organization could have an onward movement in development route which mobilize its human resources with productive knowledge by preparing required beds so that they guide and manage the organization towards creating value and achieving growth and development by utilizing their valuable abilities (Abolfazli, 2008:9).

Performance concept has been defined by efficiency and effectiveness, since effectiveness indicates the rate of achieving goals and efficiency points this matter that in economic respect how resources have been used for acquiring goal and they could be considered two main dimensions, i.e. both internal reasons (efficiency) and external reasons (effectiveness) for special performance sections could be existed. So, performance is a function of effectiveness and efficiency of performed activities. Banks should use leading indicators for achieving better performance (Ghaemi et.al, 2011, p 29).

Dehdasht Imam Khomeini hospital is among medical and training centers which have an important and vital role in patients' health and life. Attention to performance and working trend of the hospital and factors effective on it is important. Since production of knowledge and updating medical information could have an important role in developing hospital services development, using information technology and transfer of scientific findings may lead to qualitative and quantitative improvement of services and causes promotion of hospital performance.

Regarding the special situation of Dehdasht city in Kohkiluyeh & Boyerahmad province in geographical respect with other cities and hospital centers, the author believes that addressing such an issue could have important consequences for increasing hospital services quality and the role which knowledge and information technology has on hospital performance improvement leads to promotion of patients welfare and providing more desirable services.

Methodology

The present study is a descriptive- analytical research and describes the current status of personnel of Dehdasht city Imam Khomeini hospital and examines the relation between knowledge and information technology development management and performance

improvement. This study is applied in respect of aim since its results will finally help solving hospital problems.

Population, sample and sampling method

This study statistical population includes personnel working in Dehdasht Imam Khomeini hospital in 2015 which contains 500 persons. For determining sample content Cochran formula was used. On this basis, sample content contains 400 persons of Dehdasht Imam Khomeini Hospital which were selected by simple random method and then they were inquired.

Data collecting tool

This study has three questionnaires, knowledge management questionnaire which includes 38 questions which is designed with 5- option Likert range method including:

1- Quite disagree, 2- disagree, 3- neither disagree nor agree 4- agree, 5- quite agree, and it has 5 dimensions as follows:

Knowledge acquisition questions 1 to 6

Knowledge creation questions 7 to 12

Knowledge storage questions 13 to 22

Knowledge distribution questions 23 to 33

Maintaining knowledge questions 34 to 38 (Moghimi, Seyed Mohammad, Ramazan, Majid, 2013:70).

Information technology questionnaire

This questionnaire includes 32 questions which have been regulated as 5- choice answers (very high, high, moderate, low and very low). In this questionnaire factors like infrastructure factors such as internet rate, technology required hardware, computer workshop) have been considered (Seyedpour, 2011).

Performance improvement questionnaire

This questionnaire has been designed in the format of 18 questions and evaluates performance improvement variable in the format of 5-level Likert range.

The statistical method of data analysis

Analysis was performed in two levels of descriptive and inferential statistics. In descriptive statistics level, sample people specifications were analyzed using many diagrams and tables. And in inferential statistics, the research hypotheses were analyzed using statistical software SPSS 19 and Pearson test.

Findings

Statistical data extracted from the questionnaire have been presented in the format of the following table and diagrams.

38.3 % of sample (153 persons) was woman and the rest 61.8% (427 persons) man. Most people of examined sample (152 persons) are 30 to 40 years old. Also, 148 persons of studied sample have been older than 40 years old. Most people (348 persons) have bachelor's degree and complementary educations of master's degree or

higher. Also, 80 persons have had antecedent more than 20 years old and 173 persons have had between 1 to 10 years of service record.

Inferential statistics

The results of main hypothesis test

There is a significant relation between knowledge management and personnel performance improvement

Table 1. Simple correlation coefficients between knowledge management and personnel performance improvement

criteria variable	statistical indicator predicting variable	correlation coefficient (r)	significance level (p)	sample number (n)
personnel performance improvement	knowledge management	0.67	0.001	400

Table 2. The results obtained from regression analysis on research variables (the relation between knowledge management and personnel performance improvement)

criteria variable	predicting variable	factor determination (RS)	F ratio and its probability	regression factors		
				beta rate (B)	t	significance level
personnel performance improvement	knowledge management	0.452	F=327.6 P<0.001	0.753	18	P<0.05

As it is observed in table 1, there is a significant and positive relation between knowledge management and personnel performance improvement, so that significance level and correlation coefficient of knowledge management with personnel performance improvement is $r = 0.67$ and $P=0.001$ respectively. So, main hypothesis is confirmed. Also, according to the results obtained from regression with stage method which is observed in table 2, 45.2% of personnel performance improvement changes are relating to knowledge management.

Secondary hypotheses

First secondary hypothesis

There is a significant relation between knowledge acquisition and personnel performance improvement.

Table 3. Simple correlation coefficient between knowledge acquisitions with personnel performance improvement

criteria variable	statistical indicator predicting variable	correlation coefficient (r)	significance level (p)	sample number (n)
personnel performance improvement	knowledge acquisition	0.45	0.001	400

Table 4. The results obtained from regression analysis on variables between knowledge acquisitions with performance improvement

criteria variable	predicting variable	factor determination (RS)	F ratio and its probability	regression factors		
				beta rate (B)	t	significance level
personnel performance improvement	knowledge acquisition	0.204	F=101.9 P<0.001	0.435	10	P<0.05

As it is observed in table 3, there is a significant and positive relation between knowledge acquisition and personnel performance improvement, so that significance level and correlation coefficient of knowledge acquisition with personnel performance improvement is $r = 0.45$ and $P = 0.001$ respectively. Therefore, main hypothesis is confirmed. According to the results obtained from regression with stage method which is observed in table 4, 20.4% of changes of personnel performance improvement are related to knowledge acquisition.

Second secondary hypothesis

There is a significant relation between knowledge creation and personnel performance improvement.

Table 5. Simple correlation coefficient between knowledge creation and strategic planning

criterion variable	Statistical indicator	correlation coefficient (r)	significance level (p)	sample number (n)
	predicting variable			
personnel performance improvement	knowledge creation	0.56	0.001	400

Table6. The results obtained from regression analysis on research variables (the relation between knowledge creation and personnel performance improvement)

criterion variable	predicting variable	factor determination (RS)	F ratio and its probability	regression factors		
				beta rate (B)	t	significance level
personnel performance improvement	knowledge creation	0.307	F=176.3 P<0.001	0.447	13	P<0.05

As it is observed in tables 5 and 6, there is a significant and positive relation between knowledge creation and personnel performance improvement, so that the significance level and correlation coefficient of knowledge creation with personnel performance improvement is $r = 0.56$ and $P = 0.001$ respectively. Therefore, the main hypothesis is confirmed. According to the results obtained from regression by stage method, it is observed that 30.7% of changes of personnel performance improvement are related to knowledge creation.

Third secondary hypothesis

There is a significant relation between knowledge storage and personnel performance improvement.

Table7. Simple correlation coefficients between knowledge storage and personnel performance improvement

criterion variable	statistical indicator	correlation coefficient (r)	significance level (p)	sample number (n)
	predicting variable			
personnel performance improvement	knowledge storage	0.54	0.001	400

Table 8. The results obtained from regression analysis on research variables (the relation between knowledge storage and personnel performance improvement)

criterion variable	predicting variable	factor determination (RS)	F ratio and its probability	regression factors		
				beta rate (B)	t	significance level
personnel performance improvement	knowledge storage	0.294	F=165.3 P<0.001	0.456	13	P<0.05

As it is observed in tables 7 and 8, there is a significant and positive relation between knowledge storage and personnel performance improvement, so that the significance level and correlation coefficient of knowledge storage with personnel performance improvement is $r = 0.54$ and $P = 0.001$ respectively. Therefore, main hypothesis is confirmed. According to the results obtained from regression with stage method, it is observed that 29.4% of changes of personnel performance improvement are related to knowledge storage.

Fourth secondary hypothesis

There is a significant relation between knowledge distribution and personnel performance improvement.

Table 9. Simple correlation coefficient between knowledge distributions with personnel performance improvement

critierion variable	statistical indicator predicting variable	correlation coefficient (r)	significance level (p)	sample number (n)
personnel performance improvement	knowledge distribution	0.62	0.001	400

Table 10. The relation between knowledge distribution and personnel performance improvement

critierion variable	predicting variable	factor determination (RS)	F ratio and its probability	regression factors		
				beta rate (B)	t	significance level
personnel performance improvement	knowledge distribution	0.384	F=284.3 P<0.001	0.614	16	P<0.05

As it is observed in tables 9 and 10, there is a significant and positive relation between knowledge distribution and personnel performance improvement, so that the significance level and correlation coefficient of knowledge distribution with personnel performance improvement is $r = 0.62$ and $P = 0.001$ respectively. Therefore, main hypothesis is confirmed.

According to the results obtained from regression with stage method, it is observed that 38.4% of changes of personnel performance improvement are related to knowledge distribution.

Fifth secondary hypothesis

There is a significant relation between knowledge maintenance and personnel performance improvement.

Table 11. Simple correlation coefficient between knowledge maintenance and personnel performance improvement

critierion variable	statistical indicator predicting variable	correlation coefficient (r)	significance level (p)	sample number (n)
personnel performance improvement	knowledge maintenance	0.51	0.001	400

Table 12. The results obtained from regression analysis on research variables (the relation between knowledge maintenance and personnel performance improvement)

critierion variable	predicting variable	factor determination (RS)	F ratio and its probability	regression factors		
				beta rate (B)	t	significance level
personnel performance improvement	knowledge maintenance	0.259	F=139.3 P<0.001	0.376	12	P<0.05

As it is observed in tables 11 and 12, there is a positive and significant between knowledge maintenance and personnel performance improvement, so that the significance level and correlation coefficient of knowledge maintenance with personnel performance improvement is $r = 0.51$ and $P = 0.001$ respectively. Therefore, main hypothesis is confirmed. According to the results obtained from regression with stage method, it is observed that 25.9% of changes of personnel performance improvement are related to knowledge maintenance.

Sixth secondary hypothesis

There is a significant relation between information technology and personnel performance improvement.

Table 13. Simple correlation coefficient between information technology and personnel performance improvement

criteria variable	statistical indicator predicting variable	correlation coefficient (r)	significance level (p)	sample number (n)
personnel performance improvement	information technology	0.50	0.001	400

Table 14. The results obtained from regression analysis on research variables

criteria variable	predicting variable	factor determination (RS)	F ratio and its probability	regression factors		
				beta rate (B)	t	significance level
personnel performance improvement	information technology	0.253	F=134.7 P<0.001	0.503	12	P<0.05

As it is observed in tables 13 and 14, there is a significant and positive relation between information technology and personnel performance improvement, so that the significance level and correlation coefficient of information technology with personnel performance improvement is $r = 0.50$ and $P = 0.001$ respectively. Therefore, the main hypothesis is confirmed. According to the results obtained from regression with stage method, it is observed that 25.3% of personnel performance changes are related to information technology.

DISCUSSION AND CONCLUSION

The aim of performing each research is to achieve findings and results which could be in line with solving problems and or answering research base which has other questions in it which has been designed in the format of research questions or hypotheses. Answering hypotheses based on the statistical findings and its adaption with findings of other scholars and discussion and conclusion made based on statistical findings by the scholar could provide some administrative and accessible approaches and suggestions which help the scholar in achieving goals. As it is observed in findings, a significant and positive relation is seen between the variable of knowledge management and personnel performance improvement ($P < 0.5$).

The scholar deduction is that knowledge management has a special significance by creating, reconstructing and conscious, explicit and systematic utilization of knowledge for maximizing effectiveness and efficiency of the organization properties so that we are able to design a planning proportionate to personnel performance improvement and the organization goals based on these features and by codifying proportionate planning for promoting and improving personnel performance which is based on knowledge management, we could predict the organization future conditions and using all the organization power and resources.

The results of this study are consistent with studies of Mazyari *et al.* (2014), Ghanbari (2014), Reisi *et al.* (2013), Ahmadi *et al.* (2012).

Mazyari (2014) showed that there is a significant and positive relation between organizational strategy, knowledge management and personnel job involvement. Regarding this study results, the organizations managers should pay serious attention to organizational strategy and knowledge management and provide required and necessary conditions and infrastructures. Also, they should provide the background of human resources strategy and increasing of personnel job involvement to improve their and the organization performance.

Ghanbari (2014) showed that the greatest impressibility of human resources strategy is from infrastructure elements of knowledge management from the organization nature respect (competence, organizational culture, tasks classification) and from process elements of knowledge management in respect of knowledge transfer and utilization.

Salavati *et al.* (2011) showed that knowledge management through knowledge resources has a significant and positive impact on various aspects of management strategy of customer relation including customer satisfaction, customer loyalty, customer attraction and customer interaction.

Ahmadi *et al.* (2012) showed that there is a significant correlation between knowledge management, organizational strategy of learner organization and organizational agility.

Secondary hypotheses

First secondary hypothesis

Based on the study results, there is a significant and positive relation between knowledge acquisition and personnel performance improvement ($P < 0.05$).

Each organization success more than being related to physical resources value, depends on the organization intellectual capitals in knowledge acquisition and more than it owes to the power and ability of knowledge transfer with more effectiveness and high speed in knowledge competition. Knowledge management has appeared in the present era as a new approach for utilizing and developing the organization assets with the aim of the organization goals advancement and has exclusively focused on performance improvement, efficiency and choosing strategies and planning for human assets management and its goals are utilizing the present knowledge, including knowledge in training resources and acquisition of knowledge, stuff and services for reinforcing main capabilities and competitive superiority and performance improvement. Ghorbanizadeh *et al.* (2011) showed that learning culture has a positive and significant effect on organizational agility and knowledge management. In this study, the impact of knowledge management on organizational agility by controlling learning culture role was not confirmed.

Findings of Yousefi *et al.* (2012) study are indicative of a significant relation between knowledge management and innovation (the product of a gradual and fundamental process). Therefore, more attention of companies to knowledge management will cause increasing of innovation in them.

Mirzaeie *et al.* (2009) showed that Islamic university by recognizing knowledge value and glorifying knowledge applicants and providers and knowledge acquisition should try to create and reinforce the knowledge-based culture of effort and breed purposive, motivated and postgraduates capable in acquisition, utilization and donation of knowledge. Graduates of such a university should be bound to scientific moral values like believing in God, courtesy, calmness and seeking justice and be free from scientific blights like worldliness, knowledge speculation and reservation, pride and knowledge without action.

Second secondary hypothesis

Based on the results of this study, there is a significant and positive relation between knowledge creation and personnel performance improvement ($P < 0.05$).

Creating effective knowledge is not merely dependent to information or information technology, but it mainly depends on social and organizational environment in which people are working. A review on previous studies of knowledge management shows that first efforts about creating knowledge merely focused on information

technology solutions. Though these technology-based solutions are significant for knowledge creation, but often in achieving goals of knowledge acquisition, it is required that for knowledge creation, some personnel exist in the departments who coordinate themselves with knowledge management, on this basis, performance improvement based on knowledge creation could specify and direct a model of aims, policies, plans, activities, decisions or resources designations that what is an organization, what does it do and why it do that. Tabarsa & Ormozdi (2008) in a study under the title of explaining and assessing background factors for establishment of knowledge management in national company of Tehran oil products distribution concluded that personnel participation doesn't have much impact on knowledge management establishment.

Niyazazari & Amouie (2007) showed that information technology is an effective factor in knowledge management establishment and regarding the significance of organizational culture, organizational learning and human force, these factors haven't had any impact on knowledge management establishment.

Golami (2006) showed that the rate of knowledge management establishment in Isfahan city Education Organization has been less than medium.

Noroozi (2011) in a study under the title of the impact of social capital on development of organizational knowledge management showed that Karaj municipality is in an inappropriate status for knowledge management.

Third secondary hypothesis

Based on the study results, there is a significant and positive relation between knowledge storage and personnel performance improvement ($P < 0.05$).

Shahraki (2009) in a study under the title of factors underlying knowledge management establishment in Boushehr province Education Organization showed that the relation between factors underlying knowledge management establishment is significant. Also, in responders' viewpoint, knowledge processes and organizational culture have more impact in knowledge management establishment in the organization comparing information technology.

Kalinz (2010) in his study about knowledge production concluded that scientists only through direct interaction and personal contact could exchange incident and informal knowledge which is required for their work.

Fourth secondary hypothesis

Findings showed that there is a significant and positive relation between knowledge distribution and personnel performance improvement ($P < 0.05$). Khatamianfar & Parirokh (2007) showed that in the rate of librarians' utilization from these settings, the usage rate in two stages of socialization and combination was more than

the rate of using current settings in externalization stage. Providing the required conditions for creating motivation on behalf of managers for more participation of librarians and using these beds is among suggestions of this project.

Ghaneirad et.al (2008) showed that individual and collective patterns of knowledge production are separated from each other. Knowledge production is along with the challenge of lack of stable scientific communities' formation and at the same time there is no statistically significant correlation between knowledge production rate and people efficiency and their individual and organizational normativity.

Mahdavi (2012) showed that knowledge management dimensions are more influenced by information technology and the organization strategy and for services quality, it is specified that these dimensions are logically more influenced by culture.

Fifth secondary hypothesis

Findings showed that there is a significant and positive relation between knowledge maintenance and personnel performance improvement ($P < 0.05$).

Khansari (2015) showed that components of resources collecting status and the most important necessities in utilizing knowledge management have been generally evaluated better than medium in 4 domains studied by librarians and authorities, but organizing status of knowledge resources and knowledge publication of human force has been evaluated trivial and lower than medium. The studied sample doesn't see the current status suitable. On the other hand, the studied sample of librarians and authorities has evaluated knowledge management administration in electricity affairs domains trivial and considers issues and problems around it high.

Shirani (2002) in a study on knowledge management domain has shown that existence of mutual and multi-directional communication patterns, procedures and flexible structure and existence of a knowledge – admiring manager who protects and supports the organization members against innovation and providing new ideas , help in knowledge production.

Sourani (2009) shows that different features in organizations (goals, strategies, priorities, managers attitude type) makes existence of each of obstacles of implementation challenges in an organization different from another organization and encounter it with strength and weakness.

Salavati, Ganjeh and Salehpour (2011) have shown that the greatest significant impact has been the impact of knowledge management on job satisfaction through knowledge resources.

Sixth secondary hypothesis

Findings showed that there is a significant and positive relation between information technology and personnel performance improvement.

Badri (2005) shows that since the beginning of information technology appearance, especially internet and its wide usage by students, scholars and professors has had a great emphasis on quality and quantity of academic and training performance and scientific activities of these people. Hajfoursh (2004) showed that students have been very active in the field of conducting research, translation, using training CDs, internet and intranet and have had spontaneous innovations. Managers' activities have changed due to utilizing training innovations along with information and communication technology and almost they have undertaken the role of consultant and advisor of students' activities. If we provide research grounds in classrooms for students so that they can freely attend in individual and group activities by using information and communication technology and research about favorite issues relating to their selected training issues, they play an effective role in creating curriculum and especially in deepening training content and learning better than what exist in their formal curriculum with the aid of their manager.

Movahed Mohammadi (2002) concluded that using internet has been effective in facilitating learning, improving academic activities, improving research quality, increasing interest in learning and fast access to information (Asadi & Karimi, 2007, p 278).

Effatnejad (2002) concluded that responders' computer technology and internet use is high. Responders have highly used information technology in performing research activities such as thesis compilation and compiling and translating articles and the rate of using these technologies in activities of such companies have been weak in inside and foreign seminars. Students have evaluated the rate of qualitative and quantitative impact of using information technology in training, research and other activities. Mohagheghzadeh & Abdollahi (2004) have examined the method of using faculty, personnel and students of Shiraz medical sciences university from internet facilities and its qualitative and quantitative impacts on their scientific activities.

Research suggestions

It is suggested to other scholars that:

Examine other dimensions of knowledge management on other organizations.

Conduct similar studies in other work groups.

In performing this study, use other tools for assessing the impact of knowledge management and its dimensions on personnel performance improvement.

Conduct similar studies in other university centers on this issue.

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