

## Examine the Gaps between Current and Ideal State of Knowledge Management in the Department of Physical Education

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### Abstract

In today's competitive world, knowledge has become the strategic resource in many organizations. Nonaka believes that in today's volatile situation, the only viable source of sustainable competitive advantage is knowledge. Thus, the knowledge management has become a major task for organizations that are looking to take advantage of this valuable asset. In this case the goal of this study is to examine the gaps between current and ideal state of knowledge management in the Department of Physical Education in Iran. Research's method was descriptive-menstruation. Study sample consisted of all employees of the Department of Physical Education of Kurdistan that were 320 members and it was selected by using Morgan table that were 175 members. The reliability of the questionnaire was measured and verified based on Cronbach's Alpha for the knowledge management dimension equals 0/89. Also a questionnaire to be standardized and be normalized in internal research, ensure validity of test. Used statistical methods in current study is use SPSS software and descriptive statistics to describe sex, age, education level and staff's job precedence variables and Kolmogorov – Smirnov test (K-S) to verify data to be normal and to verify or reject hypothesis, Paired t-test is been used. Research results showed, there are meaningful differences among knowledge management Dimensions, including Technology infrastructure,

organizational culture and organizational structure from the perspective of the Kurdistan's physical education staff in current situation with the ideal situation.

**Keywords:** Knowledge management, technology infrastructure, organizational culture, organizational structure

## **Introduction**

Today knowledge is supposed to be the main key of competition among organizations, modern organizations are based on knowledge and this means that they must be designed in a way that can know their organizational knowledge, save it and use it in proper time and know their knowledge needs and use new science and information in the best way. These factors establish a new paradigm in management course that is known as knowledge's management (Rao, 2005). Davenport and Prusak as knowledge domain thinkers measure knowledge as a flexible combination of experiences, values, and meaningful information as well as specialists' insights that give framework for assessing and providing meaningful information and new experiences (Davenport and Prusak, 2000). Among various definitions that are stated in knowledge management domain, human factor as a common factor is perceivable and clearly this states the need to regard using knowledge in organizations (Hassanzadeh, 2009). Knowledge management technologies, provide processes and databases to create, share and distribute gained knowledge to customers, as well as leading the development of new products or services based on identified needs of employees and value their and facilitate flow of knowledge of employees among working groups and in this way facilitate continuity knowledge of staff in more effective and quick manner (Plessis, 2004). Since knowledge's general birth, there are various definitions for this meaning till now, each show one aspect of the subject. Stated definitions' amplitude about knowledge includes useful, meaningful and philosophical aspects and in the case of purpose, it is from limit to widespread. Some definitions about knowledge are following: Organizational knowledge is given to processed information from normal processes and stages that have ability to act and obtained knowledge of organizational systems, stages, productions, rules as well as culture (Leo, 1996). Knowledge consists of realities and values, meanings and thoughts, judges and expectations, methodology or science of procedure and how to do tactics (Afrazeh, 2005). Simple definition of knowledge management is: to motivate people to share their knowledge with others (Gottshalk, 2006). Regarding managers, consultants and specialists, customers and employees, organizational knowledge is one of the most important assets that worth more than the value of tangible assets. Balance sheet and financial statement simply shows the value of tangible assets, but to show the value of knowledge assets simply is not possible (Malhotra, Y, 2002). Based on importance of this asset with emersion of information age, knowledge management stated, since famous magazine called Harvard Business Review Magazine (HRB) published an article about knowledge management, then various clear sighted like Nonaka and Takeushi, Peter Drucker, C. Argyris, Seely - Brown, Davenport and Prusak published important works in this case that is continuing till now. However knowledge management helps promoting organizational effectiveness, in fact conscious strategy to gain needed knowledge is useful to people and useful in time and help people to share their experiences and date as well as their knowledge to improve organization's function (APQC, 1996). Waltz argues that organizational knowledge refers to various organizational aspects, processes and necessary information to gain, create and dissemination of knowledge to achieve mission, strategies and companies appointed actions. He also stated that the main

elements of people, operations, information and technology are information that becomes data and information knowledge. Importance of security's brief knowledge and trust in the companies, mentioned by him as well (Waltz, 2003). Based on findings of management science, it can be concluded that organizational success and effectiveness noticeably depend on knowing organization, organizational factors and optimum use of organizational potential abilities. There are many factors that contribute to the success of organizations in applying knowledge management strategies, but perhaps one of the most important factors is the development of appropriate information technology infrastructure (Checkland, 1999). Information technologies provide two main functions to knowledge management, first, by showing knowledge they can create a genius system or decision protector, Second, they help people with special proficiencies to be familiar with activities of each other and quick connection be provided among them (Milton, 1999). Knowledge management refers to efforts that systematically is done to find, organize and reaching organization mental assets and reinforcing continuum learning culture and to share knowledge in organization (Nonaka, 2000). In this case sport organizations by focusing on knowledge management and widespread asset in information technologies can look for reaching advantages of knowledge management and they can try to improve their function by implementing knowledge management strategy. A challenge in this case is that knowledge management is a systematic subject; a category that its successful implementation needs comprehensive and widespread attitude toward various organizational factors. Most of organizations that are seeking to implement knowledge management, proceed to have widespread investments in infrastructure technologies, IT as well as communication and coordination technologies. But it must be remember that information technology is only a part of knowledge management and successful implementation of this strategy requires that various organizational factors in an organization such as organizational structure, organizational culture, technology and human resources have peculiar features and have needed coordination and solidarity. Therefore, in this study, the researcher sought to answer this question, is there meaningful difference among knowledge management Dimensions, including Technology infrastructure, corporate culture and organizational structure from the perspective of the Kurdistan's physical education staff in current situation with the ideal situation one or not?

### **Knowledge Management**

Based on the classification made by experts in the field of job, 1980 decade was named quality movement decade (emphasizing on using mental power of personnel to achieve better quality), 1990 was named Re-engineering decade (using technology to improve work process and diminish costs), finally 2000 is known as knowledge management decade. Knowledge is the mental aspect of saved ideas, realities, concepts, data and techniques in human memory. Its source is human mind and it is based on the information which is obtained through experience, beliefs and personal values. It is transformable in association with decisions and actions and would become mature and fruitful. Two persons' knowledge which receive the same information is not identical. (Due to the increasing importance of knowledge in the age of knowledge economy, organizations inevitably have to be attentive about concepts like creativity, innovation entrepreneurship, gaining sustainable, competitive advantage. Issues of knowledge production and knowledge processing has challenged organization in the current time. Knowledge management is a set of processes for understanding and applying knowledge strategic resources in an organization. It is a structured approach which proposes

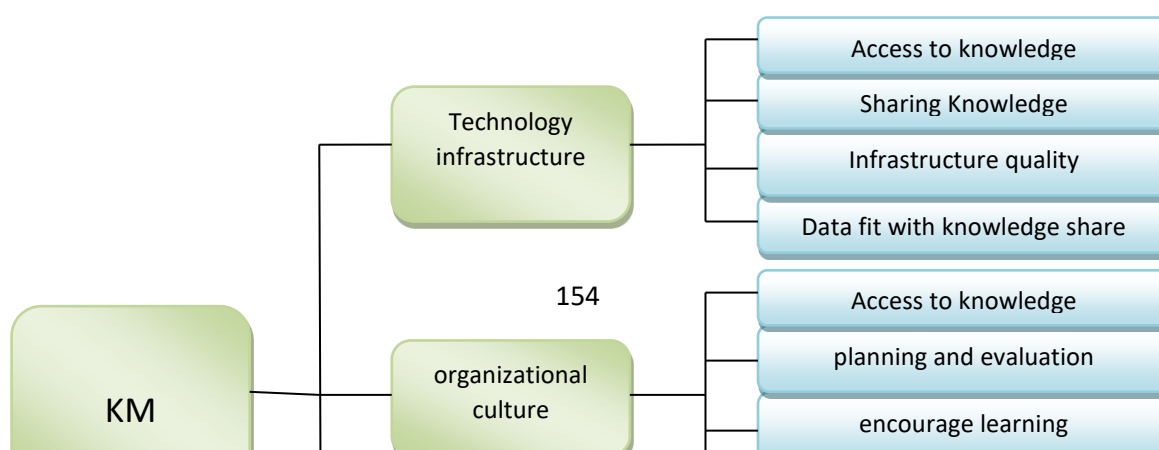
methods for recognition, assessment, organizing storing and applying knowledge in order to meet the needs and aims of the organization. (Davenport and Marchard, 1999). Knowledge management is a process by which organizations are able to detect, select, organize, distribute and transmit vital information and experiences which would be used in activities like problem resolution, dynamic learning, strategic programming and decision making. (Gupta ,2000). Today knowledge management is considered as the main source of competitiveness. This does not mean that in the present competitive world, knowledge management can not be used for gaining competitive advantage, accomplishing goals and being creative, but decisively it can be claimed that today knowledge management skills could be used for entering inventiveness in organizations. In modern economy, knowledge is the source of economical, industrial developments and other traditional factors like land, workforce and money are standing at subsequent levels of importance (druker,1993).

### **Empirical literature (Review of Related Literature)**

In these part researchers examined the records of research and work of other researchers in this field. In 2000, Ravel in a research concluded that effective knowledge management requires serious changes in the culture and values, organizational structure and systems of evaluation and reward (Rowley, 2000). Pauleen, D. & Mason, D (2002) in his research concluded that if an organization wants to act in a manner of organizational knowledge management, it must use management methods that is coincide with it, in a way that knowledge management meanings be understood and acted in the organization. One of needed factors in this case is that knowledge management has proper reflection in organizational strategy and beside that needed technology infrastructures must be prepared in a way that staffs can emprise in information connection, knowledge and their experiences (Pauleen, D. & Mason, D, 2002). Khandelwal, V. & Gottschalk, P (2003) in a research concluded that there is direct relation between using information and correlation technologies in these companies and the rate of knowledge communalization (Khandelwal & Gottschalk, 2003). John S. Walton And et al (2007) in their research concluded that knowledge exchange facilitate in a time when universities have automation organization structure, have static and solid culture, have proper purposes and connection be based on trust and confidence (John S.Walton, 2007). Li Yulong (2007) in his study concluded that technology infrastructures, organizational infrastructures and environmental features have direct and positive relation with communion knowledge management methods (Li Yulong, 2007). Michael Zack and et al (2009) in their research concluded that found knowledge management methods is directly related to organization function and organizational function is related to financial function and there is no direct relation between knowledge management methods and financial function (Michael Zack, 2009). The research findings of Edda Tandi (2010) showed that KM models can be used to manage and integrate IK with other knowledge systems, taking the differences into account (for example, gender, location, culture, and infrastructure). The paper concludes with recommendations for the application of KM approaches for the management of IK and its integration with other knowledge systems for agricultural development in developing countries, including Tanzania (Edda Tandi, 2010). The results of Darshana Sedera and et al Research in 2010 showed a positive relationship between competence and knowledge management systems and organizational success there (Darshana Sedera, 2010). Allameh & et al in 2011 conclusion that significant relationship between different types of organizational cultures, including culture, developmental culture,

hierarchical culture and market culture and dimensions of knowledge management including knowledge creation, knowledge capture, knowledge organization, knowledge storage, knowledge dissemination and application of knowledge (Allameh and et al, 2011). The results of study Jeevan Jyoti & et al (2011) revealed a significant relationship between knowledge management and innovation. Further, knowledge approach, knowledge protection and knowledge utilization processes of knowledge management affect technical as well as non-technical innovation (Jeevan Jyoti & et al, 2011). Tin-Chang and et al (2011) found the roles of infrastructure capability and business strategy have a positive association with the KM process. They confirmed the relationship between KM and firm performance (Tin-Chang & et al, 2011). The empirical results of Gin-Shuh Liang & et al (2012) show that ‘establishment of a data storage and data mining system’ in the technology dimension is the most urgent requirement for KM implementation at port K in Taiwan (Gin-Shuh Liang & et al, 2012). Yue-Yang Chen & et al (2012) findings showed that the holistic perspective of fit among KM strategy, ITM strategy, and HRM strategy demonstrates a significant impact on business performance (Yue-Yang Chen and et al, 2012). The major findings of Chinho Lin & et al (2012) indicated that: (1) barriers to knowledge flow were inherently different at different KM maturity levels; and (2) various changes in the barriers to knowledge flow were associated with the maturity of the KM (Chinho Lin & et al, 2012). The results of Li-Su Huang & et al (2012) indicate that (i) environments significantly affect organizational characteristics, (ii) environments and IT infrastructure significantly affect KM characteristics, and (iii) individual characteristics, KM characteristics and organizational characteristics significantly influence KM implementation (Li-Su Huang and et al, 2012). The study of Dongmin Zhang & et al (2012) aims to develop an integrated knowledge management and reuse framework for Product-Service Systems business in construction machinery industry. The research shows that the developed knowledge management and reuse system can effectively help Product-Service Systems design for construction machinery (Dongmin Zhang & et al, 2012). As can be seen studies show that in all matters concerning the management of the knowledge management aspects and its impact on the organization's activities were measured. Research strengths in the areas of knowledge management, data collection is subject it is appropriate and useful for the study was provided. The conceptual model proposed in this study is as follows.

Figure 1 - The proposed model research



### **The Research Hypothesis**

1. Between knowledge management based on Technology infrastructure from the perspective of the physical education staff Kurdistan, in the current situation with the ideal situation, there are significant differences.
2. Between knowledge management based on organizational culture from the perspective of the physical education staff Kurdistan, in the current situation with the ideal situation, there are significant differences.
3. Between knowledge management based on organizational structure from the perspective of the physical education staff Kurdistan, in the current situation with the ideal situation, there are significant differences.

### **Methodology**

The research is a descriptive-menstruation method and its target is applicative. The method of data collection is library - field. The study sample consisted of 320 persons, all employees of the Department of Physical Education of Kurdistan/ Iran, in 2012. The sample size was estimated at 175 people. Entered variables in this study include knowledge management Dimensions that include: knowledge management based on infrastructure technology, knowledge management based on organizational culture, knowledge management based on organizational structure, In order to collect data from a sustentative questionnaire that was obtained from knowledge management questionnaires of Sallis KM (2002), and Rampersad, Hurbert (2002). Regarding combination of the questionnaire, 15 management instructors were being asked that after reform in their given advices, the questionnaire was designed. Validity of the used questions including formal validity of the questionnaire and validity or untruthfulness of the questions, which were confirmed by a number of experts and specialists, While that of standard inventories and its standardization in other studies confirmed validity of test. To measure reliability of the questionnaire, Cronbach's alpha was used, obtained alpha for all subjects was 89/0 that was measured and confirmed. SPSS software was used for data analysis. Used statistical methods in this study consisted of descriptive statistics and inferential statistics that in the first section and as a descriptive statistics, frequency distribution tables related to gender, age, education level and job precedence of

organization's staff was showed and inferential statistics section, at first Kolmogorov – Smirnov test (K-S) to verify data's normalization was used and then paired t-test was used to accept or reject the hypotheses.

**Results**

*- Data describing the sample*

Respondents’ descriptive information on the study, in terms of employment status, age, education and work experience, are explained in Table 1.

**Table 1: Description of the demographic variables**

Gender		age		Education		Experience	
level	percent	rel	percent	level	percent	level	percent
		Under 30	4.55	diploma	0	Under 5 years	2.27
male	95.45	30-40	61.36	Up diploma	27.27	10	22.73
		40-50	0.025	Associate of arts	52.27	-15	38.64
female	4.54	Up 50 years	9.09	MA	15.91	15-20	4.55
				PhD	4.55	Up 20 years	31.82
total	0		100		.00		100

The total number of samples (employees): 175

As Table 1 shows results based on the gender of the respondents to the questionnaire, most respondents belong to male employees with 95.45 percent and the lowest female employees with 4.54 percent. On the basis of the questionnaire, respondents’ age 4.55 percent under age 30, 61.36 percent between 30 and 40 years, 025 between 40 and 50 years and 9.09 percent of respondents were over 50 years old. The education level of 27.27 percent of respondents have a high school degree, 52.27 percent have a bachelor's degree, 15.91 percent have master's degrees and 4.55 percent of the doctoral degrees which indicates amount of sample degree associate degree, bachelor's and master's, and can be inferred that subjects with more knowledge questionnaires were filled out and on the basis of work experience, respondents to the questionnaire, 2.27 percent under 5 years, 22.73 percent between 5 to 10 years, 38.64 percent between 10 and 15 years, 4.55 percent between 15 and 20 years and 31.82 percent were over 20 years is shown in Table1.

*-Results of hypothesis testing*

*Normality test data*

To investigate aspects of knowledge management of the testing hypothesis of normality Kolmogorov - Smirnov (K-S) was used and the results are shown in Table 2.

**Table 2: Results of normality test data for knowledge management dimensions**

Dimensions	t	df	Conclusion
Technology infrastructure	157	15	Normal
Organizational culture	126	15	Normal
Organizational structure	118	15	Normal

According to the results in Table 2 because the significant amount of KM 0.05 is larger, we

Variable	t	df	sig	error
knowledge management based on organizational culture	-13.704	173	0.000	0.12509

can conclude that all dimensions of a normal distribution, so we paired t test applied licenses.

*Test hypotheses*

In this section, the hypotheses of the research findings are presented in the following tables. First hypothesis: Between knowledge management based on Technology infrastructure from the perspective of the physical education staff Kurdistan, in the current situation with the ideal situation, there are significant differences.

Paired t-test results, the first hypothesis is shown in Table 3.

**Table 3: Paired t-test comparisons knowledge management based on Technology infrastructure, in the current situation and the ideal situation**

Paired t-test results in Table 3 show that the (95%) confidence level estimate sig base of (0.05%) less . Also, the absolute values of t-statistics 95% confidence level of 1.96 (critical value of this statistic at the 95% level) is more. The result between knowledge management based on Technology infrastructure from the perspective of the physical education staff Kurdistan, in the current situation with the ideal situation, there are different significant, is confirmed.

Second hypothesis: Between knowledge management based on organizational culture from the perspective of the physical education staff Kurdistan, in the current situation with the ideal situation, there are significant differences.

Variable	t	df	sig	error
Knowledge management based on technology infrastructure	-17.548	173	0.000	0.9999

Paired t-test results, the second hypothesis is shown in Table 4.

**Table 4: Paired t-test comparisons knowledge management based on organizational culture, in the current situation and the ideal situation**

Paired t-test results in Table 3 show that the 95% confidence level estimate sig base of 0.05% less . Also, the absolute values of t-statistics 95% confidence level of 1.96 (critical value of this statistic at the 95% level) is more. The result between knowledge management based on organizational culture from the perspective of the physical education staff Kurdistan, in the current situation with the ideal situation, there are different significant, is confirmed.

Third hypothesis: Between knowledge management based on organizational structure from the perspective of the physical education staff Kurdistan, in the current situation with the ideal situation, there are significant differences.

Paired t-test results, the second hypothesis is shown in Table 5.

**Table 5: Paired t-test comparisons knowledge management based on organizational structure, in the current situation and the ideal situation**

Paired t-test results in Table 3 show that the 95% confidence level estimate sig base of 0.05% less . Also, the absolute values of t-statistics 95% confidence level of 1.96 (critical value of this statistic at the 95% level) is more. The result between knowledge management based on organizational structure from the perspective of the physical education staff Kurdistan, in the current situation with the ideal situation, there are different significant, is confirmed.

## Conclusion

The aim of this study was to evaluate the Examine the gaps between current and ideal state of knowledge management in the Department of Physical Education in Iran. Knowledge management as a one of management new perspectives to develop organizations of modern century, is try to help organizations to use their resources in a more useful and efficient manner. To regard knowledge topic in organizations is an essential and critical factor in order to pass from industrial era to knowledge period and organization confirmation based on knowledge as one of main keys in organization duration. Therefore by providing proper infrastructure and processes and by preparing staff as educators, this asset as a key source

Variable	t	df	sig	error
knowledge management based on organizational structure	-14.570	173	0.000	0.11900

must be used correctly. To be successful in this case, creating and providing knowledge management in organization is necessary, and to do this knowledge management must create proper connection among organization's main components means human being, structure and technology and by appointing proper attitudes and methods do its duties means: detection, obtain, development/ creation, allotment, preservation, using and evaluating knowledge in more useful manner. Based on obtained results from this study, knowledge management aspects in term of infrastructure technologies, organizational culture and organizational structure have meaningful differences in the Current situation with the ideal situation, from the perspective of the Kurdistan's physical education department staff. In term of positive effects of knowledge management over other organizations, research's hypotheses result was consistent with results of Rowley in 2000, Pauleen, D. & Mason, D (2002), Khandelwal, V. & Gottschalk, P (2003), John S. Walton and et al in 2007, Yulong Li (2007), 1 Edda Tandi Lowga in 2010, Darshana Sedera and et al (2010). Mohsen Allameh and et al in 2011 Jeevan Jyoti and et al in 2011, Tin-Chang Chang, and et al in 2011, Gin-Shuh Liang and et al in 2012, Yue-Yang Chen 2012, Li-Su Huang and et al (2012), Dongmin Zhang and et

al in 2012. In this case based on first hypothesis' results, can be said, Between knowledge management based on Technology infrastructure from the perspective of the physical education staff Kurdistan, in the Current situation with the ideal situation, there are significant differences, According of research's literature and theoretical frame that hypotheses provided based on it, there are two attitudes in knowledge management that infrastructure technologies such as information and coordination technologies can protect it that are include codification and individualities. In codification manner, organized and apparent knowledge will be collected and saved in knowledge domain. Information technology's main role here is to help people to share knowledge through shared storage, so that it is accessible for optimum use. A sample of these tools is knowledge electronic sources. In individualization manner, most of knowledge is not organized and it will often be share through direct individual connections. Here the role of information technology is to help people to find themselves and to have connection with each other in a way that complex knowledge transformation will be done in best way. Examples of these tools are office expert guides and video conferencing tools. In both of these methods, it is important to understand the role of information technology in knowledge management. Informational and coordinative technologies cause knowledge growth and has direct effect on it so in this case they play a critical role in knowledge management, but they cannot be a critical reasons to solve the problems and their usage must be accompanied by activities predication in management section. Accordingly, it is suggested that the quality of information technologies' infrastructure, the use of expert systems and decision-making tools, electronic tools, print and share information via the reinforced internet, cooperation between organization's units in the form of research projects is promoted and proper sharing with information system should be developed. Based on second hypothesis it can be said, Between knowledge management based on organizational culture from the perspective of the physical education staff Kurdistan, in the Current situation with the ideal situation, there are significant differences, Accordingly related organization can have significant progress by cultural actions and using employees' and retired men experiences in the best way to promote other employees' education. Reciprocal respect to treat with employees and other people in organization by excellent managers must be regarded. To implement methods and models related to knowledge management in organization and providing proper beds to knowledge allotment and transferring knowledge from experienced employees to less experienced employees can improve education culture also employees' mistakes during organization's actions in order to develop knowledge, must be analyzed continuously. Based on the third hypothesis, can be said, between knowledge management based on organizational structure from the perspective of the physical education staff Kurdistan, in the Current situation with the ideal situation, there are significant differences. Implementation of knowledge management in organization requires that organizational factors such as structure and culture, technology, human resources and ... have certain features and have necessary integration and coordination. Knowledge creation and transfer of knowledge are considered to be two key activities of knowledge management. Organizational structure reflects the style and the way that employees and occupations are organized in organization in a way that organizational actions can be provided. Structure can encourage or inhibit knowledge management. In recognition of the above processes, focusing on decision-making, complex relationships is prevented generating new knowledge and ideas, while distribution, power and flexibility in activities caused promoting knowledge creation and facilitate knowledge transition within organization; therefore it is recommended that facilitated structures of

knowledge exploration be created in organization. Employees' function in term of knowledge structure promotion is evaluated continuously and subscription as a key scale must be used in function evaluation. It must be try to promote knowledge transition level from individual level to organizational level in the organization and in term of organizational structure, employees must be promoted based on knowledge merit (meritocracy).

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