Evaluating the Possibility of Establishing Knowledge Management in State Welfare Organization of Iran

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ABSTRACT

Today, knowledge is seen as the only assuring source of a competitive constant merit for organizations. Organizations have realized that their knowledge of methods for accomplishing tasks and of providing services is an important asset to be managed like their other valuable assets. In other words, organizational knowledge is a value-producing resource (for the beneficiaries) and an instrument in producing a product and in providing innovative services to attain and retain competitive constant merit. Before exercising knowledge management, vast studies on the field seem necessary. In doing so, this research has been done with the purpose of evaluating the possibility of establishing the knowledge management in State Welfare Organization of Iran (SWOI). For this study, descriptive research method was used for gathering data. In doing so, 208 managers and experts from SWOI were selected using stratified random sampling me*thod; and, they answered 80* question *questionnaire. This instrument was developed based on research literature and by the researcher. Its* Content Validity *has been approved by the experts. The Reliability (Cronbach's Coefficient* Alpha) *of all the factors was more than 0.7 which is in an acceptable limit. After performing Shapiro and Wilk test and after being sure that* data *are normally* distributed, *results from data analysis using* One Sample t Test *showed that from 7 factors of Bukowitz and Williams knowledge management model, conditions of 6 factors (finding, use, learning, evaluation, development /maintenance, and the removal of the knowledge) of the research hypotheses are not acceptable and only knowledge sharing and exchanging calculated average, 3.18, is above the average line. Moreover, there is no significant difference, (p>0.05), observed among subjects' averages based on cognitive factors of sex, position, etc. But there is a significant difference, (P<0.05), in education level variable in indices of knowledge finding, knowledge learning, and removal of knowledge. Effect size index, too, shows that the biggest difference is related to subscale of removal of knowledge. Finally, we can evaluate conditions of processes necessary for establishing knowledge management in Iran as not acceptable which makes it as a necessity for those in charge to pay attention to it. At the end of the research, applied suggestions are provided too.*

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INTRODUCTION

Knowledge management delivers many benefits to an organization, creates opportunities for fundamental savings, makes substantial improvement in the individual performance, and other competitive advantageous. Using knowledge management programs, organizations enjoy its benefits including increased collaboration, improved organizational relations, improved skills of employees, better decision-making, and increased innovation.

Following human and ethical principles and Islamic values, and considering certain values such as knowledge-orientation, strategies of SWOI emphasize on seeking participation, collective intelligence, developing human resources, meritocracy, helping development of non-governmental organizations; and, they are going to make this organization an specialized, developed, and responsible one in guiding its target group in getting access to the relevant services and introducing these services as provided in 20 year perspective, (Strategic Planning Document of SWOI, 2012, 8-37). This organization is also going to accelerate organizational learning through establishing knowledge management, facilitating knowledge sharing and exchanging process and providing suitable workplaces.

Iranian government's approach in 5-year development plan and in 20-year prospective plan is prioritizing knowledge-orientation and movement toward a knowledge–based economy in order to become the top country in Asia in all economic, social, and cultural aspects in 2026. This revolutionary ideal to be realized requires that developing and exercising strategic plans to be knowledge-oriented, and this in turn requires necessary infrastructures importance of which is referred to in clause 16 of Iran's general policies of office system-to make office system of the country knowledge-oriented through implementation of knowledge management principles and information integration (Iran supreme leader's notified general policies of office system, 2011, 9). Also, through knowledge management and emphasize on Iranian-Islamic models, 4th macro strategy from 13 strategies in Iran's science and technology prospective plan document in 2026 horizon has been developed to be Institutionalized in scientific, economic, political, social, cultural, defense, and security organizations (Iran's General Scientific Plan, 2012, 23).

Privatization of more than 95% of SWOI centers, developing non-governmental centers, retirement of the organization's specialized forces, government policies to decrease its size, necessity of human resource management (General Amendment Plan of Office System, 2015, 7-15), and society's need for services provided by this organization could be some good reasons for knowledge management to be established in SWOI. The main question arose here is related to the possibility of establishing knowledge management in SWOI?

The research background

Study of knowledge management aspects in different periods show that no unity of views has been reached in the field. Scirem views knowledge management as a systematic and express management of vital knowledge and its relevant processes include creating, gathering, organizing, diffusion, use and exploitation. Knowledge management requires personal knowledge to become organizational knowledge to be shared across the organization and used appropriately (Ralf, 2008, 29). Most of the introduced models in knowledge management field have some similar content but in different words and with stages made of different combinations. The point seen in the most of these models is their emphasis on use and application of knowledge. Other phases are considered as a setup for establishing necessary infrastructures to use knowledge.

Available models for execution of knowledge management include Hisig, Mark McElroy, 7 Cs, Beckman, Nonaka and Takeuchi, Newman and Bukowitz and Williams among them (Afrazeh, 2006, 38). In this research, the model introduced by Wendi R. Bukowitz and Ruth L. Williams (1999) is used. This model was selected due to better development and expansion of its stages to make knowledge management applied, on one hand, and its more degree of appropriateness for non-profit environment, on the other hand. Bukowitz and Williams model includes seven elements: knowledge finding, use, learning, sharing, evaluation, development /maintenance, (Atashak, Mahzadeh, 2006, 436) and the removal of the knowledge (Keshavarzi, Rezaeian, 2015, 458).

Lots of research has been done on evaluation of establishing knowledge management resulting from understanding the importance and value of knowledge and its management. Here, the researches sharing more similarities with the present study have been referred to.

In a research titled called" process model for transferring knowledge using theories related to knowledge communication and knowledge translation" by Liyanage et al. (2009) an advanced model for knowledge transfer process has been considered in six principal stages based on the theoretical advanced model (Liynage et al., 2009).

In a research, ElHamad et al. studied knowledge sharing in Jordan universities. To measure knowledge sharing, these researchers determined seven elements of bilateral relations, organization's routines, sense of affinity, innovation, positive feeling about knowledge sharing, enthusiasm around knowledge sharing, and having knowledge sharing behavior. The results showed that Instructional staff have less tendency toward knowledge sharing than office staff (ElHamad et al., 2009).

Using TOPSIS, Mirfakhroddini et al. (2009) evaluated and prioritized knowledge management elements, knowledge innovation and innovation performance. In a research, Mirghafoori et al (2011) evaluated dimensions of knowledge management process in health care centers in Yazd, Iran. They concluded that knowledge application among the employees of those centers is desirable but in other dimensions of knowledge management process they didn't show the same result. There is also a significant difference among different dimensions of knowledge management process. Based on Hissig model (Knowledge Creation, Storage, diffusion, and Application). Hosseinzadeh (2011) compared and determined the degree of knowledge management application among of libraries staff of universities of medical sciences in Isfahan and Tabriz. The results showed that library of Isfahan University of Medical Sciences with average 2.8 and Tabriz University of Medical Sciences with average 2.9 both are below the average level.

In their research, Shirvani et al. (2010) concluded, too, that in six considered elements (knowledge identification, acquisition, development, sharing and distribution, exploitation, and storage) necessary infrastructures is less than average level for establishing knowledge management in Isfahan University of Medical Sciences.

Based on Bukowitz and William model, on the possibility of exercising knowledge management in libraries of universities of Isfahan city some research by Mohammadi Ostani (2012) showed it as less than average level, meanwhile, there is no possibility of uniform execution. Moreover, observed difference among subjects based on demographic factors of sex, major, occupational background, education level, work type and library type are not significant but for education level variable in knowledge sharing and evaluation there are some significant difference. In other words, librarians with diploma degree see more possibility of knowledge sharing and evaluation in comparison with librarians with BA or MA degree (Mohammadi Ostani et al., 2012).

Abzari and Kermani Elghoreishi (2006) studied variables of information gathering and storing, knowledge organization, continuous refining of available knowledge and knowledge exploitation in Isfahan Iron Melting Company. The result showed that average scores of necessary infrastructures for execution of knowledge management in Isfahan Iron Melting Company in all six variables are less than the average level.

By presenting a paper titled "Studying the degree of applying knowledge management elements by managers of Khozestan Province Education Organization" in International Conference of Management, Challenges, and Strategies, Ramazan Alipoor and Norooz Moradi (2014) provided that knowledge management is a science which contributes in easy and fast information communication and transfer in an organization, and it is also a representation of innovation, ability, and efficiency in that organization, in schools in particular.

The present research is of descriptive type and has been done through field method. Bukowitz and Williams' knowledge management diagnostic has been used for gathering data. Cronbach's alpha has been used to determine the reliability of the questionnaire with a total result of 96%. Statistical population in this research was consisted of all the managers of Khuzestan Province Education Organization (44 in total). Statistical sample in this research had the same size as the statistical population. Data has been analyzed using t-test and Friedman test on a significant level. The results showed that evaluation of managers regarding application of all the knowledge management elements, namely 7 elements of knowledge acquisition and application, learning from experiences, knowledge sharing and exchanging, knowledge measurement, knowledge stabilization, and optimal use of knowledge, was not

significant and application of all the elements was not on an acceptable level (Iranian Research Institute for Information Science and Technology)

The Research method
Since the purpose of the present research is to determine the conditions of processes required for establishing knowledge management in SWOI, a questionnaire consisting of 80 questions has been used, Based on seven factors in Bukowits and Williams knowledge management process model. In calculating the scores for each of factors, first, the scores for all the questions present in that factor were determined for each individual, then the sum was divided in the number of the questions in that factor. A score of 1-5 (options of Likert scale) was calculated. To test seven hypotheses specified in the research, single sample t-test was used to compare the reported condition by the members of sample group with average score range for the questionnaire (3 scores). In this process, the score of 3 was determined as the average score for each option.

Since normal distribution of data in conducting the research was one of the presumptions of t-test, before analysis, establishing this presumption was studied. As usual, for doing this kolmogorov smirnov test was used. But this test is too sensitive resulting in the rejection of data normality assumption. It has been recommended that Shapiro-Wilk test to be used and if Shapiro-Wilk statistic less than 0.001 be significant the normality of data will be verified (Tabachnick and Fidell, 2010; Meyers, Gamst and Guarino, 2006). Regarding this criterion, table 6 results show that score distribution of all the factors follow a normal distribution, and there is no problem for t-test to be done, and the presumption for this analysis exist in the data.

Data analysis and findings presentation
In this chapter, findings are provided in two levels of descriptive and inferential based on research data. Thus after demographic characterization of the sample group, descriptive findings including the mean, standard deviation, and error of measurement are provided.

Demographic descriptive findings of the sample group
Since examining the significant difference among the subjects based on demographic data (male and female, education level, managerial position, and proficiency and …) is of analytical value for each one of research elements, answers for some of questions raised for the researcher are provided here:

1. Is there any significant difference between Bukowits and Williams knowledge management model profiles of male and female experts and managers?

Descriptive findings produced by research instruments (Bukowits and Williams knowledge management scale) in two groups of male and female are presented in table (1)

Table (1) summary of descriptive findings for sample group in subscales of Bukowitz and Williams knowledge management model scale for two groups of male and female experts and managers

subscale	group	average	Standard deviation
Knowledge acquisition	male	3.01	0.51
	female	2.83	0.54
Knowledge application	male	2.65	0.61
	female	2.48	0.63
Knowledge learning	male	2.94	0.64
	female	2.67	0.76
Knowledge sharing and exchanging	male	3.35	0.81
	female	3.00	0.83
Knowledge evaluation	male	2.72	0.80
	female	2.59	0.76
Knowledge creation and storage	male	2.65	0.63
	female	2.38	0.69
Knowledge transfer	male	2.57	0.67
	female	2.33	0.78

Since by this question the researcher intends to compare two groups by average of more than one dependent variable, the analysis used must be of multivariate variance type. The analysis findings showed that Bukowitz and Williams knowledge management scale profile is not significant

$$\left(W = 0.09, F = 1.92, df = (7, 135), p > 0.05, \eta 2 = 0.09\right)$$

. The effect size of this difference is 0.09. This index is in a very weak range based on Cohen Criterion (1989). This finding shows that there is no difference between these two groups of male and female experts and managers regarding knowledge management model.

2. Is there any significant difference between Bukowits and Williams knowledge management model profiles of experts and managers with different education levels?

Resulted descriptive findings for three education groups (with BA, MA, and Ph.D degree) are provided in table (2).

Table (2) summary of descriptive findings for sample group in subscales of Bukowitz and Williams knowledge management model scale for three groups of education

subscale	group	average	Standard deviation
Knowledge acquisition	BA	3.03	0.50
	MA	2.83	0.56
	Ph.D	2.61	0.31
Knowledge application	BA	2.60	0.62
	MA	2.58	0.61
	Ph.D	2.23	0.69
Knowledge learning	BA	2.87	0.60
	MA	2.84	0.83
	Ph.D	2.17	0.46
Knowledge sharing and exchanging	BA	3.22	0.78
	MA	3.23	0.93
	Ph.D	2.72	0.55
Knowledge evaluation	BA	2.70	0.70
	MA	2.68	0.87
	Ph.D	2.17	0.82
Knowledge creation and storage	BA	2.58	0.58
	MA	2.51	0.77
	Ph.D	2.07	0.65
Knowledge transfer	BA	2.53	0.65
	MA	2.50	0.77
	Ph.D	1.71	0.68

Resulted findings from multivariate variance analysis showed that profile difference of Bukowitz and Williams knowledge management scale among these three groups are significant

$$\left(W = 0.83, F = 1.82, df = (14, 268), p > 0.05, \eta2 = 0.09\right)$$

. The effect size of this difference is 0.09. This index is in a very weak range based on Cohen Criterion (1989). When we see that total profiles of these two groups are different, it is necessary to determine in which subscales these two groups have significant difference. Doing between subject effect test for this purpose produced results shown in table (3).

Table (3) summary of findings from between subject effect test in average of subscales of Bukowitz and Williams knowledge management model scale for three groups of education

variable	3rd type of sum of squares	Degree of independence	F ratio	Significance level	Effect size
Knowledge acquisition	2.21	2	4.12	0.02	0.06
Knowledge application	1.11	2	1.43	0.24	0.02
Knowledge learning	3.96	2	4.17	0.02	0.06
Knowledge sharing and exchanging	2.17	2	1.58	0.21	0.02
Knowledge evaluation	2.35	2	1.96	0.14	0.02
Knowledge creation and storage	2.12	2	2.41	0.09	0.03
Knowledge transfer	5.43	2	5.36	0.006	0.07

Regarding the statistics of table (3), one can say that these three education groups are significantly different from each other in subscales of knowledge acquisition, knowledge learning, and knowledge transfer. Effect size index, too, shows that these three groups are different most in subscale of knowledge transfer.

3. Is there any significant difference between Bukowits and Williams knowledge management model profiles of personnel with different positions?

Descriptive findings resulted from Bukowits and Williams knowledge management for two position groups (managers and experts) are shown in table (4).

Table (4) summary of descriptive findings for sample group in subscales of Bukowitz and Williams knowledge management model scale for two position groups (managers and experts)

subscale	group	average	Standard deviation
Knowledge acquisition	manager	2.89	0.24
	expert	3.93	0.55
Knowledge application	manager	2.64	0.46
	expert	2.56	0.64
Knowledge learning	manager	2.84	0.65
	expert	2.82	0.71
Knowledge sharing and exchanging	manager	3.07	0.64
	expert	3.21	0.85
Knowledge evaluation	manager	2.46	0.88
	expert	2.69	0.76
Knowledge ceation and storage	manager	2.65	0.67
	expert	2.51	0.67
Knowledge transfer	manager	2.67	0.62
	expert	2.44	0.75

Resulted findings from multivariate variance analysis showed that profile difference of Bukowitz and Williams knowledge management scale among these two groups is not significant

$$\left(W = 0.83, F = 1.82, df = (14, 268), p > 0.05, \eta2 = 0.09\right)$$

. The effect size of this difference is 0.09. This index is in a very weak range based on Cohen Criterion (1989). This finding means that knowledge management models used by two groups of managers and experts working at SWOI are not different.

Inferential findings

Table (5) data normality test for the research based on studied factors

factor	Shapiro-Wilk	Quantity	sig
Knowledge acquisition	0.97	143	0.08
Knowledge application	0.98	143	0.04
Knowledge learning	0.99	143	0.48
Knowledge sharing and exchanging	0.98	143	0.20
Knowledge evaluation	0.99	143	0.15
Knowledge creation and storage	0.98	143	0.10
Knowledge transfer	0.98	143	0.02

The Research hypotheses

Sub-hypothesis (1): knowledge acquisition for establishing knowledge management in SWOI is acceptable.

Table (6) shows that knowledge acquisition average with fixed amount of 3 has a significant difference in a

level smaller than 0.05. On the other hand, since calculated average (2.89) is less the fixed amount, 3, one can say that knowledge acquisition factor in the target population is not in a good condition, thus, first hypothesis is rejected.

Table (6) summary of single group t-test to compare average for knowledge acquisition factor

factor	average	Standard deviation	Measurement error	T statistics	Degrees of independence	Significance level
Knowledge acquisition	2.89	0.52	0.04	-2.77	181	0.006

Sub-hypothesis (2): knowledge application for establishing knowledge management in SWOI is appropriate.

Table (7) shows that average of knowledge application with a fixed amount of 3 has a significant difference at

a level smaller than 0.05. On the other hand, since the calculated average (2.54) is less than the fixed amount, 3, one could say that knowledge application in the target population is not in an acceptable condition thus the second hypothesis is rejected.

Table (7) summary of single group t-test results for comparing the average of knowledge application factor

factor	average	Standard deviation	Measurement error	T statistic	Degree of independence	Significance level
Knowledge application	2.54	0.61	0.04	-2.39	197	0.0001

Sub-hypothesis (3) knowledge learning in SWOI is acceptable for establishing knowledge management.

Table (8) shows that average of knowledge learning with a fixed amount of 3 has a significant difference on a level smaller than 0.05. On the other hand, since the

calculated average (2.76) is less than the fixed amount, 3, one could say that knowledge learning in the target population is not in an acceptable condition thus the third hypothesis is rejected.

Table (8) summary of single group t-test results for comparing the average of knowledge learning factor

factor	average	Standard deviation	Measurement error	T statistic	Degree of independence	Significance level
Knowledge learning	2.76	0.66	0.05	-4.96	189	0.0001

Sub-hypothesis (4) knowledge sharing and exchange in SWOI is acceptable for establishing knowledge.

Table (9) shows that average of knowledge sharing and exchange with a fixed amount of 3 has a significant difference on a level smaller than 0.05. On the other

hand, since the calculated average (3.18) is more than the fixed amount, 3, one could say that knowledge sharing and exchange in the target population is in an acceptable condition thus the fourth hypothesis is accepted.

Table (9) summary of single group t-test results for comparing the average of knowledge sharing and exchange factor

factor	average	Standard deviation	Measurement error	T statistic	Degree of independence	Significance level
Knowledge sharing and exchange	3.18	0.78	0.06	3.08	190	0.002

Sub-hypothesis (5) knowledge evaluation in SWOI for establishing knowledge management.

Table (10) shows that average of knowledge evaluation with a fixed amount of 3 has a significant difference in a level smaller than 0.05. On the other hand, since the

calculated average (2.64) is less than the fixed amount, 3, one could say that knowledge evaluation in the target population is not in an acceptable condition thus the fifth hypothesis is rejected.

Table (10) summary of single group t-test results for comparing the average of knowledge evaluation factor

factor	average	Standard deviation	Measurement error	T statistic	Degree of independence	Significance level
Knowledge evaluation	2.64	0.76	0.05	-6.64	195	0.0001

Sub-hypothesis (6) knowledge production and storage in SWOI is acceptavle for establishing knowledge management.
Table (11) shows that average of knowledge evaluation with a fixed amount of 3 has a significant difference on a level smaller than 0.05. On the other hand, since the calculated average (2.53) is less than the fixed amount, 3, one could say that knowledge creation and storage in the target populatio is not in an acceptable condition thus the sixth hypothesis is rejected.

Table (11) summary of single group t-test results for comparing the average of knowledge creation and storage factor

factor	average	Standard deviation	Measurement error	T statistic	Degree of independence	Significance level
knowledge creation and storage	2.53	0.57	0.05	-9.86	188	0.0001

Sub-hypothesis (7) removal of knowledge in SWOI is acceptable for establishing knowledge.
Table (12) shows that average of removal of knowledge with a fixed amount of 3 has a significant difference on a level smaller than 0.05. On the other hand, since the calculated average (2.46) is less than the fixed amount, 3, one could say that removal of knowledge in the target population is not in an acceptable condition thus the seventh hypothesis is rejected.

Table (12) summary of single group t-test results for comparing the average of removal of knowledge factor

factor	average	Standard deviation	Measurement error	T statistic	Degree of independence	Significance level
removal of knowledge	2.46	0.71	0.05	-10.48	192	0.0001

Main hypothesis: condition of each necessary process in SWOI is acceptable for establishing knowledge management.
Results from seven factors of necessary processes, in summing up, showed that condition of six of them is not acceptable for the intended purpose, thus one could evaluate the conditions of these processes totally as inappropriate for the intended purpose.

Discussion, conclusion, and suggestions
The findings show that except for knowledge sharing, all the other elements were less than the average size so they were not in an acceptable condition. Analysis and tests of all the elements or Bukowitz and Williams model somewhat showed that resulted p (0.00) from critical amount of the table on the error level, 0.05, is smaller and the observed difference is significant $(p < 0.05)$. Also, regarding the resulted average (2.71) relative to assumed average $(x = 3)$, respondents believed that the possibility of establishing knowledge management in SWOI is lower than the average level and it is not in an acceptable condition. Thus, paying more attention to appropriate empowerments for establishing knowledge management, appropriate organizational culture and efficient human force in particular is necessary.

Since, knowledge sharing element is the gravity center of knowledge management process and the average of this element in SWOI is more than the average level nevertheless it is not in an desirable level thus requiring more attention and preparation for an appropriate infrastructure. This element is consistent with researches done by Abzari and Kerman Alghoreishi (2006) and Alhamad et al. (2009).
Regarding examination of seven factors of knowledge management and their results, it was determined that six of those factors are less than average level and, in general, the condition of this organization was evaluated as inappropriate for establishing knowledge management.

1. Recommendations relevant to the degree of statistical community response to knowledge acquisition element:
   - Since individuals to some degree exchange information with each other and they keep abreast of workings of their colleges thus it is recommended that documentation phases to be performed precisely and this admirable tradition to be continued;
   - Necessary facilities and sources to be allocated to the personnel and to the working groups willing to cooperate in improving knowledge management process in the organization;
   - Organization structure design to be knowledge-based;

- Computer facilities that is one of the instruments in creating and distributing knowledge, to be available for all staff and correct use of it to be instructed in order to organization's facilities to be used optimally.

2. Suggestions based on research findings and degree of statistical community response to the questions related to knowledge application element:
   - Establishing suggestion acceptance and examination system in the organization; and, supporting this system by directors could help to flexibility in treating new ideas;
   - Supporting knowledge-related activities of experts by directors, also encouraging personnel participation in decision making processes.

3. Suggestions based on research findings and degree of statistical community response to the questions related to knowledge learning element:
   - Holding meetings on strategic and executive level of organization to analyze deviation from plans regarding plans objectives and learning from experiences and documenting them to be used by the future comers;
   - Coordination in knowledge and internal and external information acquisition in organization in such a way that work repetition to be minimized.

4. Suggestions based on research findings and degree of statistical community response to the questions related to knowledge sharing and exchanging element:

- Since knowledge sharing and exchanging element hypothesis in the organization has been evaluated as acceptable, directors could promote knowledge sharing and exchanging conditions through encouraging the organization experts with material and non-material incentives, and take the advantages of it as best as possible (knowledge sharing is power).

- Through designing knowledge management system in the organization portal, and teaching experts and managers how to use it, necessary communication networks with sub-organizations could be established through which organization members could share and exchange information in a new order. Creating a network in the organization to connect its different departments for knowledge sharing and exchanging, and creating infrastructure and necessary communication networks with connections to other organizations for the same purpose are of necessities.

5. Suggestions based on research findings and degree of statistical community response to the questions related to knowledge evaluvation element:
   - Since responses abundance sum to the questions of knowledge evaluation index is not on an acceptable level, and, on the other hand, this factor is a component of knowledge management strategic phases and it is of particular importance, so it is recommended that the global and integrated plan of knowledge management of the organization to be developed for the evaluation of indices of the respective performance (designing performance evaluation system through developing general indices to evaluate organizational knowledge), and a committee to evaluate that plan to be formed in the organization.

6. Suggestions based on research findings and degree of statistical community response to the questions related to knowledge creation and storage element:
   - Providing enough space for the personnel to be able to show all of their capabilities in routine affairs, and creating positions in order to draw the organization attention to the intellectual capital;
   - Providing documentation training course and recording individuals experiences to increase knowledge transfer;
   - Developing information documentation and Creating personnel experiences bank in intra-organizational networks;
   - Expanding technology in the organization to speedup knowledge creation, enrichment, and removal;

7. Suggestions based on research findings and degree of statistical community response to the questions related to removal of knowledge element:
   - Developing capabilities of the organization personnel;
   - Removing old and useless knowledge of organization and acquiring new knowledge, an objective which could be achieved through concluding contracts and signing letters of agreement with formal and informal organizations;

Recommendations for future

- Executing projects and extending research scope to sub-organizations of SWOI throughout the country provinces using other models of knowledge management;
- Developing models based on studying other models of knowledge management;
- Studying factors effective on knowledge sharing and exchanging in sub-organizations of SWOI throughout the country provinces.

The Research limits and problems

1. Little acquaintance of personnel and experts of SWOI with fundamentals and concepts of knowledge management;
2. The research results are limited to SWOI and can't be generalized to other organizations;
3. The major problem is the questionnaire which is not a good instrument due to conservative approaches of the statistical samples.

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