

Feasibility of implementing knowledge management based on the basic model of knowledge building: a case study in Payam Noor University, Iran

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Abstract

Knowledge management is one of the achievements of today's information age and knowledge with regard to the characteristics of the organizations and institutions specifically require the use of highly for the success of it. Therefore investigated the possibility of implementing knowledge management in organizations is the impact of high importance. In this context, the aim of the present study the feasibility of implementing knowledge management in university of Aran & Bidgol in building knowledge-based research model was used. Statistical research, university staff and faculty were 46 patients who were studied in the census, all the statistical community. Possibility of implementing knowledge management in the statistical model based on the variables of knowledge goals, knowledge identification, acquisition, development, sharing, use, maintenance and evaluation of knowledge was evaluated and The analysis results showed that the visibility of female employees, the average main hypothesis of male employees is higher than average scores on the staff of the faculty is the main hypothesis. The main assumption of the highest average scores among employees with an 11-15 record and the lowest among employees with 1-5 years work experience can be seen. The main hypothesis of the employees with the highest scores and lowest among employees with a doctorate degree is observed and the implementation of knowledge management. The proposals were presented to facilitate and strengthen the areas of knowledge management.

Key words: knowledge, knowledge management, knowledge goals, knowledge identification, knowledge acquisition, knowledge development, knowledge sharing, knowledge application, knowledge maintenance, assessment of knowledge.

Introduction

We live in an age where everything is changing. According to experts, organizational change, the only constant thing in this age is considered. The new era, information technology and transform it into knowledge and use of knowledge in all elements and aspects of social life and organizations. These features have led to a new era as the era of knowledge to be named. Working in all aspects of your organization to systematically manages and can be utilized (Afrazeh, 2005).

The expression

Knowledge is growing very fast in recent times so that 80 percent of the twentieth century technology and knowledge as well as 90% of all knowledge and technical information has been produced in the world, and every five years and a half, double the volume of knowledge is the age of

knowledge explosion. However, the average life expectancy is less than a few years (Afrazeh, 2005). Rapid changes in today's world, organizations are faced with different challenges that organizations are successful in the management tools and technologies that help create new opportunities to use their benefit is one of these tools for knowledge management. Knowledge as a resource for the survival of organizations is vital for success in global business organizations, to achieve a deep knowledge and understanding at all levels. To have dominance of the intellectual capital, knowledge management process these organizations. Therefore, this study is trying to implement the knowledge management process is examined to determine whether the University of Payam Noor possible implementation of knowledge management Aran and Bidgol Payam Noor University and Bidgol there or not.

Importance and necessity of research

Today, as a source of knowledge is valuable and strategic assets and provides a good quality and economical products and services without proper management and use of this valuable resource, it is difficult and sometimes impossible. Organizations with knowledge of the scientific community believe that the long-term advantages can maintain itself in the competitive arena. If the organization can easily identify the correct knowledge in its specific position in the competitive arena will be difficult (Abzari, 2005).

Higher education institutions also need to implement knowledge management in their countries to compete in the rear left of the turntable and also gains knowledge management, including improved quality of work, having updated information, increase efficiency, improve decision making and improve the effectiveness part, better use of existing human resources and knowledge with them, flexibility in the face of rapidly changing conditions and environmental its core functionality that is certainly stay and access to education and training human resources professionals to achieve success in different sectors of industry, economy and agriculture, and to take effective steps in the progress of our country Iran. Successful implementation requires the knowledge management strategy to ensure there are appropriate and the underlying factor is needed. The first step in implementing knowledge management is the process of feasibility.

Research objectives

Investigator of the study raised the issue of knowledge management and the factors underlying the various processes and Aran and Bidgol is in light of the results of this review the following objectives are achieved.

1. Feasibility of the process of knowledge management in university of Aran & Bidgol,
2. Identify barriers to implementing knowledge management Aran and Bidgol Payam Noor University and Bidgol

3. Strategy provided to facilitate the implementation of knowledge management in university of Aran & Bidgol

History and Background Investigation

An example of research in the field of knowledge management is as follows:

(Ali Tabarsa, 2008) study the factors underlying the establishment of machinery as knowledge management: a case study in the national company distributing oil products in Iran, the Tehran region, having given three IT systems, processes and organizational culture organizational structure, reward systems, processes, people and leadership. The purpose of this study and were selected because of Payam Noor Payam Noor University in the middle of the Aran Bidgol number of students and academic at the country level are , The results it can be expanded to most universities in Iran (Sarлак, 2008).

Theoretical framework

In the present thesis research framework theoretical model based on building the knowledge base is based on this model by (Rope and Rampart 2002) has been proposed. In this model of knowledge management as a dynamic cycle that is in permanent rotation. This process consists of eight component model, consisting of two cycles of internal and external.

1. The internal cycle, discovered by the block (recognition), acquire, develop, share, use and maintenance of knowledge can be built.

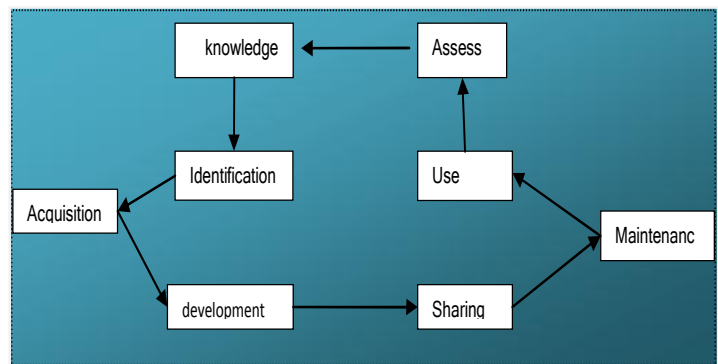


Fig.1. Basic model for knowledge management

2. Includes blocks of the outer cycle and cycle assessment is to identify knowledge management. Completion of these two, the feedback cycle (Fig.1).

The basic functions of this model are as follows:

A) Determine the goals of knowledge: knowledge management purposes should be originated from the major organizations in both strategic and operational levels were determined. Strategic level: conversion and maintenance organization and a culture based on knowledge management and policy needs to be done in this field. Operational level: at this level, the target should be how to swim shaving, use, distribution, use, and maintenance of knowledge and programs necessary to achieve them in time, be designed and implemented in coming.

B) Identify the knowledge, with the question (you know what you know!) Must perform the task of knowledge management began the process of knowledge discovery. Many organizations, due to being unfamiliar with their knowledge, in their investment decisions and the problems are.

C) Knowledge: At this stage, knowledge of domestic and foreign markets, such as knowledge about customers, products, partners, competitors and ... The resources identified in the discovery phase, the business also specify what features it can be purchased from abroad and made and used, are considered.

D) Development of knowledge: the knowledge base of existing organizations should be expanded. This includes developing the capabilities, products, new ideas, and processes and ... And these are issues. Knowledge of the group and organizational knowledge, including that part of knowledge management is placed on the agenda.

C) Use of knowledge: the use of knowledge is relevant to this section. In this section, the obstacles in the way of useful new knowledge are used for shaving and removing the need to swim to the concrete in order to provide services and products (knowledge) can be used.

G) Maintenance of knowledge: Save maintenance and updating of knowledge in this sector is concerned. This method prevents the destruction of knowledge and let it get used to it.

C) Assessment of knowledge: how to achieve a specific goal and use the results as feedback to determine, or amendment of this section is concerned. Looking at some of the results of this process is essential qualitative and quantitative results with respect to cost them done in this area can be assessed (Abbaszadeh, 2006).

Research hypothesis

Investigating the original hypothesis based on "Building a knowledge base model" to implement knowledge management in university of Aran & Bidgol there.

Subsidiary hypothesis

- 1 - The knowledge objectives in university of Aran & Bidgol is clarified.
- 2 - In the light of knowledge is available to identify areas of Aran and Bidgol.
- 3 - In the light of Aran And Bidgol background knowledge is provided.
- 4 - In the light of background knowledge is provided Bidgol and Aran.
- 5 - In the light of knowledge sharing Aran and Bidgol areas is provided.
- 6 - The University has provided Pyam Noor Aran and Bidgol systems of knowledge.
- 7 - The University of Payam Noor Aran and Bidgol maintenance background knowledge is provided.
- 8 - In the light of knowledge of the field is Bidgol and Aran.

Method

The survey design is a case study. In the university of Aran & Bidgol studied from different directions to the status quo light of knowledge, knowledge of the availability of different processes to be studied the feasibility of implementing knowledge management.

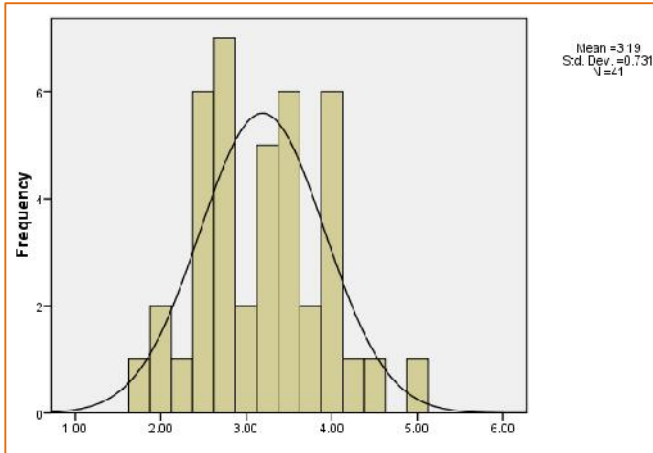


Fig. 2. Histograms with normal curve score goals related to knowledge

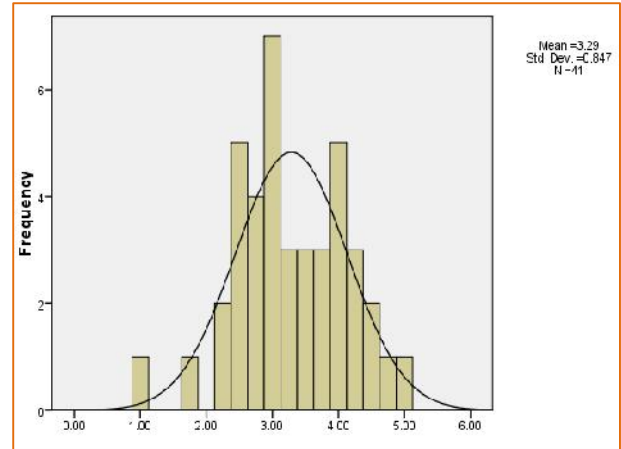


Fig.3. Histograms with normal curve score student responses to knowledge objectives

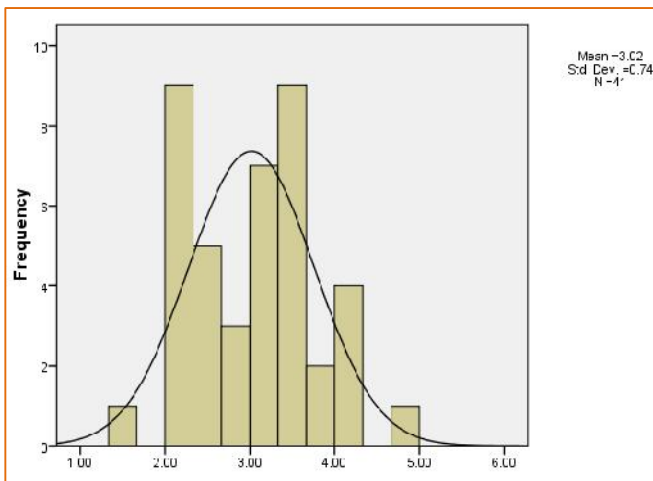


Fig. 4. Histograms with normal curve score related to knowledge

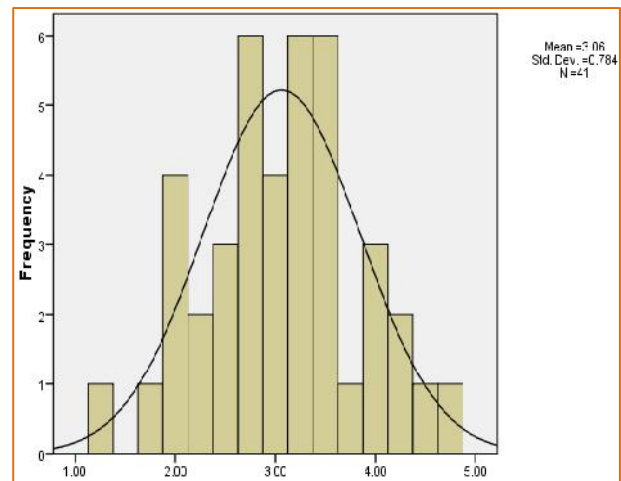


Fig. 5. Histograms with normal curve score related to knowledge

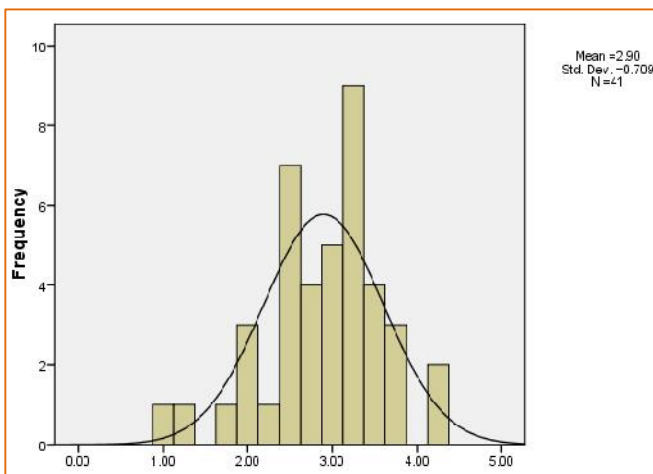


Fig. 6. Histograms with normal curve score related to knowledge

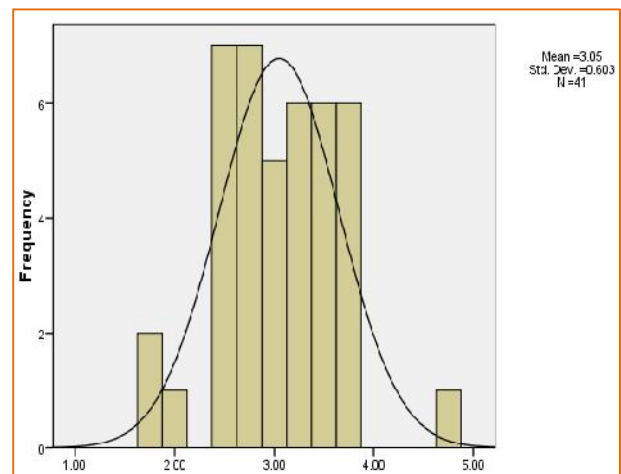


Fig. 7. Histograms with normal curve score related to knowledge

The study population consisted of all staff and faculty members are Aran and Bidgol light that it employs 35 people and 11 faculty members and are a total of 46 patients. In this study, given the vast size of the statistical community (staff and faculty members Aran and Bidgol light) which is comprised of 46 students, all members of society have been reviewed and tested. In other words, the census has been conducted. The sample and sampling in this study has no place. Measurement tool of research, a questionnaire with 35 questions is closed. Formulation based on a Likert type questionnaire to be much, much, somewhat, with less and less grades 1 to 5 was performed. Cronbach's alpha reliability coefficient of 0.89 was obtained with the reliability of this questionnaire is acceptable.

$$\alpha = \frac{K}{K-1} \left[1 - \frac{\sum S_i^2}{S^2} \right]$$

K = questions

$\sum S_i^2$ = Total variance questions

S_i^2 = Variance of the raw scores of pipes tested

Variables

The main variables in this study are as follows: Knowledge goals, knowledge identification, knowledge acquisition, knowledge development, knowledge sharing, knowledge application, knowledge storage, knowledge assessment Demographic variables such as gender, education, work experience and co-workers can be as moderating variables that affect the results is examined (Libovitz, 2008). Analysis results calculated using descriptive statistics and statistical indicators such as mean and variance, and ... and circle graphs, bar and histogram was performed (Adli, 2005).

Findings

73.2 percent of male employees and 26.8 percent are women. 22 percent of workers between 1 and 5 years, 24.4% had between 6 to 10 years,

19.5% of 11 to 15 years, 17.1 percent and 17.1 percent had a history of more than 16 to 20 years have 25 years. 73.2 percent and 26.8 percent of the workers as employees if they are working with university faculty.

Sub hypothesis 1: the science of light is Tbbyn Bidgol Aran.

$$H_0: \mu \leq 0$$

$$H_1: \mu > 0$$

Given that the population mean is greater than the mean average of the three provinces reject H0 will be rejected, so it can be concluded that university of Aran and Bidgol (Table 1 & Fig.2).

The second sub-hypothesis: in the light of knowledge is available to identify areas in university of Aran and Bidgol.

$$H_0: \mu \leq 0$$

$$H_1: \mu > 0$$

According to Table 2 and Fig.3 the mean scores on the community character of knowledge is above average 3 H0 is rejected so it can be concluded that in Aran and Bidgol Payam Noor University knowledge is provided.

The third sub-hypothesis: Advertise Aran and Bidgol Payam Noor University background knowledge is provided.

$$H_0: \mu \leq 0$$

$$H_1: \mu > 0$$

According to the hypothesis that the population mean is greater than the mean average 3 H0 is rejected so it can be concluded that Aran and Bidgol Payam Noor University background knowledge is provided (Table 3 & Fig.4).

The fourth sub-hypothesis in Aran and Bidgol Payam Noor University areas of knowledge development.

$$H_0: \mu \leq 0$$

$$H_1: \mu > 0$$

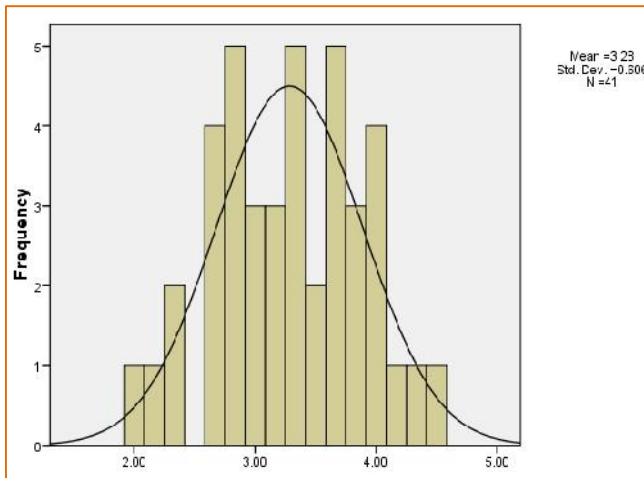


Fig. 8. Histograms with normal curve score related to knowledge

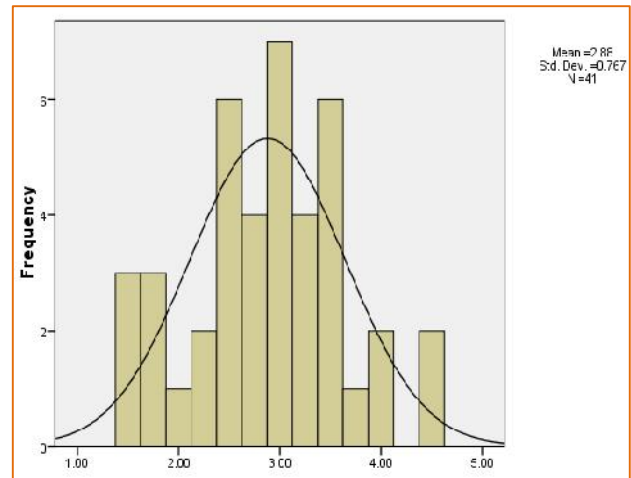


Fig. 9. Histograms with normal curve score related to knowledge

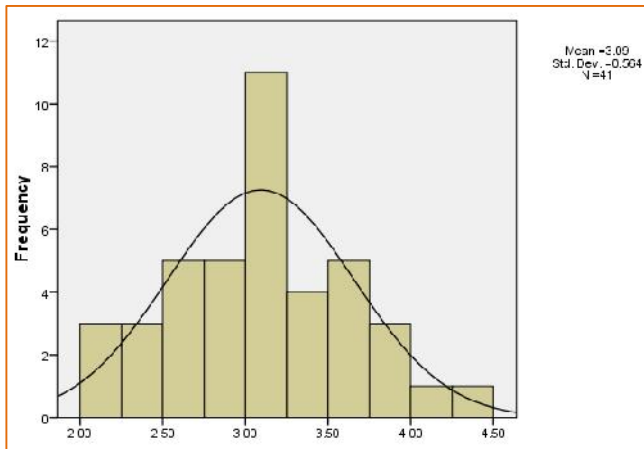


Fig. 10. Histograms with normal curve score related to knowledge

According to the hypothesis that the population mean is greater than the mean average 3 H0 is rejected so it can be concluded that Aran and Bidgol Payam Noor University background knowledge is provided (Table 4 & Fig.5).

The fifth sub-hypothesis in Aran and Bidgol Payam Noor University areas of knowledge development.

H0: $\mu \leq 0$; H1: $\mu > 0$ According to the hypothesis that the population mean is greater than the mean average 3 H0 is rejected so it can be concluded that Aran and Bidgol Payam Noor University background knowledge is provided (Table 5 & Fig.6).

The sixth sub-hypothesis in Aran and Bidgol Payam Noor University areas of knowledge development.

H0: $\mu \leq 0$

H1: $\mu > 0$

According to the hypothesis that the population mean is greater than the mean average 3 H0 is rejected so it can be concluded that Aran and Bidgol Payam Noor University background knowledge is provided (Table 6 & Fig.7).

The 7th sub-hypothesis in Aran and Bidgol Payam Noor University areas of knowledge development.

H0: $\mu \leq 0$

H1: $\mu > 0$

As for as Table 7 and Fig 8 in which the ranks of population points in knowledge maintenance is lower than the average of 3 H0 is rejected so it can be concluded that Aran and Bidgol Payam Noor University background knowledge is not provided (Table 7 & Fig.8).

The 8th sub-hypothesis in Aran and Bidgol Payam Noor University areas of knowledge development.

H0: $\mu \leq 0$

H1: $\mu > 0$

Table 1. Descriptive indicators related to knowledge

N	41
Mean	3.2866
Standard error of Average	1.3228
Median	3.2500
View	3.00
Standard deviation	0.84698
Variance	0.717

Table 2. Descriptive knowledge about knowledge objectives

N	41
Mean	3.1890
Standard error of Average	0.11409
Median	3.2500
View	2.75
Standard deviation	0.73054
Variance	0.534

Table 3: Descriptive indicators related to knowledge

N	41
Mean	3.0195
Standard error of Average	0.11557
Median	3.0000
View	2.20
Standard deviation	0.74001
Variance	0.548

Table 4. Descriptive indicators related to knowledge

N	41
Mean	3.0610
Standard error of Average	0.12247
Median	3.0000
View	2.75
Standard deviation	0.78418
Variance	0.615

Table 5. Descriptive indicators related to knowledge

N	41
Mean	3.2846
Standard error of Average	0.09461
Median	3.3333
View	2.83
Standard deviation	0.60581
Variance	0.367

Table 6. Descriptive indicators related to knowledge

N	41
Mean	3.0488
Standard error of Average	0.09412
Median	3.0000
View	2.50
Standard deviation	0.60265
Variance	0.363

Table 7. Descriptive indicators related to knowledge

N	41
Mean	2.8963
Standard error of Average	0.11077
Median	3.0000
View	3.25
Standard deviation	0.70926
Variance	0.503

Table 8: Table of descriptive indicators related to knowledge

N	41
Mean	2.8780
Standard error of Average	0.11974
Median	3.0000
View	3.00
Standard deviation	0.76673
Variance	0.588

Table 9. Histograms with normal curve score related to knowledge

N	41
Mean	3.0927
Standard error of Average	0.08801
Median	3.0857
View	2.60
Standard deviation	0.56354

Table 10. Histograms with normal curve score related to knowledge

Join type	Employ	Faculty
N	30	11
Mean	3.1305	2.9896
Median	3.1286	3.0286
View	3.00	3.14

Table 11. The comparison of expressive indexes of main hypothesis upon the gender of employees

Gender	Male	Woman
N	30	11
Mean	3.0800	3.1273
Median	3.0429	3.1714
View	6.2	2.06

According to the hypothesis that the population mean is greater than the mean average 3 H0 is rejected so it can be concluded that Aran and Bidgol Payam Noor University

background knowledge is not provided (Table 8 & Fig.9).

The main hypothesis: according to the model of knowledge structure basics, the population mean is greater than the mean average 3 H0 in Aran and Bidgol Payam Noor University areas of knowledge development is provided.

$H_0: \mu \leq 0$

$H_1: \mu > 0$

The comparison of statistical indexes upon sex show that the average points of main hypothesis in employees is higher than the members of scientific board and this average in female are higher than males (Table 9 & Fig.7). The comparison of expressive indexes of main hypothesis upon cooperation ship type of employees is given in Table 10. The comparison of expressive indexes of main hypothesis upon the gender of employees is given in Table 11. Upon Table 13 the mean of main hypothesis between 11-15 experienced employees is higher and in 1-5 experienced is the lowest. The comparison of expressive indexes of main hypothesis upon the experience of employees is given in Table 12. Upon Table 14 the mean of main hypothesis between diploma holder employees is higher and in PhD employees is the lowest. The comparison of expressive indexes of main hypothesis upon the education level of employees is given in Table 13. The comparison of mean scores of processes is given in Table 14. Average scores based on highest and lowest average answer to the knowledge of the process is to assess the knowledge of conclusions is given in Table 15.

Conclusion

Comparison of theory showed that the highest mean knowledge and knowledge sharing and maintenance of knowledge and knowledge have the lowest average. It can be concluded that the visual

Table 12. The comparison of expressive indexes of main hypothesis upon the experience of employees

Experience	1-5	6-10	11-15	16-20	More than 25
N	9	10	8	7	7
mean	2.8476	3.1057	3.4714	3.0490	3.0000
Median	2.8286	3.0143	3.3714	3.1429	2.7143
View	2.06	3.00	2.86	2.60	3.63

Table 13. The comparison of expressive indexes of main hypothesis upon the education level of employees

Education	Diploma	Advanced Diploma	Expert	Master	Ph.D
N	7	4	17	7	6
mean	3.3347	3.1214	3.0353	3.2204	2.8048
Median	3.3429	3.1429	3.0857	3.9143	2.9429
View	3.63	2.54	3.09	2.60	2.06

Table 14. The comparison of mean scores of processes

Processes	Mean	Standard deviation
Knowledge goals	3.2866	0.84698
Knowledge identification	3.1890	0.73054
Knowledge acquisition	3.0195	0.74001
Knowledge development	3.0610	0.78418
Knowledge sharing	3.2846	0.60581
Knowledge application	3.0488	0.60265
Knowledge maintenance	2.8963	0.70926
Assessment of knowledge	2.8780	0.76673

element of staff development processes and application of knowledge and information and knowledge are important. Aran and Bidgol Payam Noor University campus, the staffs have sufficient knowledge and information partners in the professional expert in various problems can easily identify and address potential problems. An ICT facility to provide an acceptable level of knowledge and implementation of staff training is to learn the knowledge needed to provide for them. Exchange of knowledge and information among employees, especially employees of a large unit, they can easily apprehension ambiguities your knowledge with other people to share their knowledge in order to compensate for the shortage. And mutually share information and experiences to their work. All these strengths Aran and Bidgol Payam Noor University advertise on knowledge management implementation from the perspective of employees.

Also see the staff, support staff with experience and with a history of preserving and transmitting knowledge, positive and storage facilities, scientific and research activities and putting them all to

access information in formats that it is possible to reduce is. It will also promote people to people based on knowledge, expertise and considerable experience and value of knowledge and experience from their work processes is relatively negative. The analysis results showed that the visibility of female employees, the average main hypothesis of male employees is higher than average scores on the staff of the faculty is the main hypothesis. The main assumption of the highest average scores among employees with a 11-15 record and the lowest among employees with 1-5 years work experience can be seen. The main hypothesis of the employees with the highest scores and lowest among employees with a doctorate degree is observed. Proposals in order to facilitate the implementation of knowledge management Aran and Bidgol Payam Noor University Bidgol be provided.

The first step in implementing the goals of knowledge management is knowledge. It is recommended that this training to familiarize personnel with the objectives of knowledge management that is aligned with the main objectives of the organization takes place and then at the strategic level of policy formulation process, various programs for the identification, acquisition, development, sharing, use, maintenance and evaluation of knowledge is designed and implemented. The next step in implementing knowledge management, knowledge workers in organizations with existing knowledge and gain knowledge when it is needed. To achieve this goal is recommended that regular meetings be scheduled at the University staff to exchange information and stale their employees and how to deal with potential problems and correct them in order to meet colleagues in the field of creativity and innovation become familiar with work. Also documenting the results of these meetings is to create a comprehensive database for all employees' access to this information, especially for the future maintenance of these experiences can be very useful. To increase the efficiency and effectiveness

of these meetings can be formed into a professional working in different fields.

One of the critical infrastructures to implement knowledge management, information technology and communication to achieve the goal, in addition to the hardware and software requirements, appropriate use of these facilities, it is important and inevitable. Considering that in light of appropriate facilities in this area are proposed to be used for a comprehensive theoretical and practical training in performing the duties of these facilities and their familiarity with related delineate their expertise to be held. Consider the knowledge and competence in evaluating and promoting people to demonstrate their knowledge. Use of stale employees with experience and support them to maintain and transfer their knowledge to others is one way of storing knowledge.

However today do flexible organizations as learning organizations need young. Flexible organizations that is unable to respond effectively to the unpredictable changes. Learning organization in which the organizations continuously over time raise your abilities to achieve organizational goals. Possibility of implementing knowledge management in the statistical model based on the variables of knowledge goals, knowledge identification, acquisition, development, sharing, use, maintenance and evaluation of knowledge was evaluated and the results showed that the implementation of knowledge management in University there. The proposals were presented to facilitate and strengthen the areas of knowledge management.

We live in an age where everything is changing. According to experts, organizational change, the only constant thing in this age is considered. The

new era, information technology and transform it into knowledge and use of knowledge in all elements and aspects of social life and organizations. These features have led to a new era as the era of knowledge to be named. Loan due to instability in this age of environmental organizations; increase their learning capacity and learning using modern information technologies in every individual and institutional member to the organization.

References

1. Abzari, Mahdi and Mohammad Reza Kermani Alqoraishi (2005) feasibility of established knowledge management in the steel industry (case study: Esfahan Steel Co.) *J Admin Sci Econ Depart.*
2. Afrazeh A (2005) Knowledge management (concepts, models, measurement and implementation), Tehran, 1st edition Mehdi Hassan and Alvani and Azar (2004), Individual knowledge quantitative research methodology in management: a comprehensive approach to Tehran, published by Eshraghi Saffar.
3. Sarlak, Mohammad Ali (2008) The knowledge age, Tehran, Payam Noor University Press, first edition.
4. Shahbazi, Sadiq (2007) Associated with innovation and knowledge management, information technology and its role in improving the efficiency and effectiveness of processes, the automotive magazine, and edition 107.
5. Tabarsa, Ali and Nooshin Ormazd (2008) Explain and assess the underlying factors for the establishment of knowledge management (case study: a national company distributing oil products in Iran, Tehran, Payame Modiriat, No. 26.
6. Abbaszadeh, Shahri and Abbas (2009) Knowledge management and its application to exploration and production companies, No. 61.
7. Adli, F (2005) Knowledge management towards knowledge, Tehran, publisher metacognitive thinking.
8. Libovitz J (2008) Knowledge management, knowledge engineering, translated by Seyyed Nasser Alavi, Shahid Bahonar University Press, First edition.