# Investigate the relationship between knowledge management and organizational commitment among staff of Khaje Nasir Toosi University of Technology

# Maryam Langari Moghadam<sup>1</sup>, Mosayyeb Samanian<sup>2</sup>

 $^1\mathrm{Graduated}$  from Department of Education, Islamic Azad University of Bojnoord Department of Educational Management,Bojnourd , Iran

Email Address: maryam.moqadam44@gmail.com

<sup>2</sup>Assistant Professor of Department of Educational Administration in Islamic Azad

University of Bojnourd , Bojnourd, Iran Email Address: samanianmosayeb@yahoo.com

#### Abstract

Today, knowledge is known as a key valuable competitive asset, which is the basis for sustainable growth and a key to sustainable competitive advantage in an organization. So knowledge and human capital management must be considered as a key factor in any activity. This study has been done aimed to investigate the relationship between knowledge management and organizational commitment among the employees of Khajeh Nasir University in Tehran. This study is applied in terms of goal and in terms of descriptive method in the correlation type. The target population included all employees of Khajeh Nasir University in Tehran, and according to Kerjecie and Morgan table, 100 individuals were selected randomly and of proportional stratified type. Research tools included Probst et al (2000)'s standard questionnaires of knowledge management, and endemic questionnaire of Allen and Meyer (1997), whose reliability was measured using Cronbach's alpha coefficient 0.942 for knowledge management questionnaire and 0.716 for commitment. The research data were analyzed by the software 19 SPSS, using

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Pearson's correlation coefficient in descriptive and inferential statistics using the Kolmogorov-Smirnov test. Comparing the 74% significance level obtained with a coefficient error of 0.50 can be concluded that there is no significant relationship between knowledge management and normative commitment, and there is no significant relationship between knowledge management and continuous commitment and affective commitment, except knowledge and affective commitment sub-indexes.

**Keywords**: knowledge management, organizational commitment, Khajeh Nasir University in Tehran employees

#### Introduction

With the development of information and communication technologies and evolving the space and creating borderless global organizations, need to manage knowledge to help information technology tools seems obvious, and organizations will be successful which utilize desirably the opportunities created by new technologies and knowledge management tools.

Knowledge management is a process that helps organizations in finding, selecting, organizing, sharing and transfer of information for activities such as problem solving, dynamic learning, strategic planning and decision-making (Bahmani, 2012: 14-11). Horwitch & Armacost (2002) consider knowledge management as an act of creating, providing, acquisition, transfer and access to accurate knowledge and information for better decision making, operation and achieving results regarding strategic objectives (Samanian and Pazuki, 2015: 84-85). Organizational commitment is an attitude towards employee loyalty to the organization and an ongoing process, which through participation in organizational decisions, represent and attention of employees towards organization and its success and prosperity (Majidi, 1998: 17).

Knowledge management seeks to capture knowledge, wisdom and valueadding experience of the staff and also implement retrieval and maintenance of knowledge as assets of the organization.

According to Peter Drucker "The success secret of organizations in the 21st century is knowledge management". Therefore, top organizational management should find, be based on wisdom, the possibility of adopting a more rational decisions on important issues and improving knowledge-based functions. Hence, concept of knowledge management is more important than wisdom that organizations are looking for, to explain and clarify how to determine transformation of individual and organizational information and knowledge into individual and collective knowledge and skills (Glaser 4, 2003: 211).

Allen and Meyer believe that the commitment is a mental state that is a tendency, need and requirement in order to continue employment in an organization. The scientists has been divided commitment into three dimensions if affective commitment, continuous commitment and normative commitment (Khoshnoud, 2011: 2). Knowledge management is effective in improving the quality, efficiency, having updated information, increase effectiveness, customer satisfaction and improve decision-making.

If an employee is given value placed on them, its commitment to the organization will increase and it leads to the development and progress of organization. Knowledge Management achievement in universities is more and more utilization of the expertise and knowledge of faculty and staff members, and storage and sharing their knowledge. Furthermore, knowledge management is a presupposition of the turning universities into centers of excellence in higher education, and of the factors that helps the university achieve its mission and creates centers of excellence in an environment that stimulate the growth of knowledge and competent, innovative people who committed to excellent ethical values. According to Petrids and Nodine, the use of knowledge management in higher education will help stimulate more contemplation and speculation, access to technical knowledge and effectiveness of training management (Arasteh, 2011: 3).

Understanding the relationship between knowledge management and organizational commitment and its impact on organizational commitment, guarantees growth, higher efficiency and effectiveness, which ultimately will bring prosperity in educational organizations such as universities. Study of factors affecting organizational commitment, especially knowledge management in the organization is very effective step that can be used for its results.

Bordbar and Bahmani Bohlooli , in a study as to examine the relationship between knowledge management and organizational commitment showed relationship between knowledge management and organizational commitment and professional dedication was desirable and meaningful with each other.

In a study by Shafaghat and colleagues, the impact of organizational commitment on performance of industrial companies based on Meyer et al., based on the results of the analysis of questionnaire data, it was found that the among dimensions of organizational commitment, emotional and normative commitment if effective on financial and non-financial performance of industrial firms and continuous commitment have no effect on performance.

Sabbaghi (2011), in a study as "The relationship between knowledge management and financial affairs of the organization's human capital", indicates that knowledge management has a positive and significant relationship to human capital. Thaani Khalil (2009) conducted a research as "The framework for knowledge management in Indian schools"; the study concluded that if the schools are community-based, efficiency Increases and quality of knowledge will be improved which has led to a leap in knowledge management in India schools and coordination with international standards is a need for a guide. To strengthen the basic framework of analysis, knowledge management tools are used in management process.

Chen (2008) in a study titled as "The impact of organizational commitment on organizational policy and organizational justice among state bank staff" concluded that organizational justice has a significant positive relationship with organizational commitment. Eric et al (2007) in a study to evaluate the effect of knowledge on job satisfaction and organizational commitment of employees in the United States found that procedural justice had a direct impact on job satisfaction. But the satisfaction was affected directly by distributive justice, and distributive justice and procedural justice both have a direct effect on organizational commitment, and the effect of procedural Justice on organizational commitment was much more of distributive justice. Barrett (2003) in a study titled Evaluation of job satisfaction, commitment and knowledge management among teachers and staff of Golf clubs came to the conclusion that there is a significant positive relationship between knowledge management and organizational commitment and job satisfaction. The findings of Mayer et al (2002) showed that there is a positive relationship among experience and affective commitment, obligation and duty staff in the field of organizational commitment.

According to the research findings mentioned earlier, all researches have reached a meaningful relationship between variables of knowledge management and organizational commitment which indicates that with increased knowledge management, organizational commitment changes successfully. So, according to these cases, this study aims to examine whether there is a relationship between knowledge management and organizational commitment.

## Research objectives

Identify the relationship between knowledge management and normative dimensions of organizational commitment Khajeh Nasir University experts.

Identify the relationship between knowledge management and organizational commitment with continuous components of Khajeh Nasir University experts.

Identify the relationship between knowledge management and organizational commitment with emotional component of Khajeh Nasir University experts.

### The research hypotheses

Between knowledge management and organizational commitment K.N.Toosi University of Technology experts there is meaningful relationship. Between knowledge management and normative dimensions of organizational commitment K.N.Toosi University of Technology experts have a significant relationship.

# Research Methodology

This research is descriptive, and is of descriptive and correlational category. The study population included all employees of Khajeh Nasir University in the years 2003-04 that their number was 139 and 100 people were selected according to Morgan table and a stratified random sampling. The tools in this research are to examine the documents and questionnaires.

- 1. Probst, Rob and Romhardt's knowledge management questionnaire (2002) is questionnaire with 63 questions that it is possible to measure knowledge management processes of Probst, Rob and Romhardt's that includes 8 of knowledge management including knowledge creation, knowledge storage, knowledge sharing, knowledge utilization, information technology, corporate culture, human resources, and training, of course, 4 process (information technology, organizational culture, human resources, education) of the factors affecting knowledge management. The questions are multiple-choice based on the Likert scale (very high, high, somewhat, low, low, very low) is.
- 2. Organizational Commitment Questionnaire of Allen and Meyer (1990) is a questionnaire with 24 questions. In Organizational Commitment Questionnaire, three variables including emotional variable, continuous variable and normative variable be considered. In relation to emotional variables, 8 questions, and continuous variables 8 questions and the normative variable 8 question have been proposed, which its validity were already confirmed by professors and experts and their reliability using Cronbach's alpha coefficient was 0.942 KM and organizational commitment questionnaires were 0.716.

To analyze the data, descriptive statistics (frequency percentage and mean), Kolmogorov–Smirnov test for normality of variables and Pearson correlation coefficient using SPSS version 19 software package is used.

### **Findings**

There is a meaningful relationship between knowledge management and organizational commitment of K.N.Toosi University of Technology experts. For finding whether the correlation between two variables is statistically significant or not, hypotheses were tested.

Table 1 The Pearson correlation values

		Organizational Commitment
knowledge management	correlation coefficient	0.473 **
	level of significance	0.001
	number	0.473 **

By comparing the 0.001 significance level obtained with a coefficient of 0.05 (less than 0.05), we can conclude there is a significant relationship between knowledge management and organizational commitment. The correlation coefficient is equal to 0.473. Given the positive numbers, the correlation coefficient indicates a positive relationship and direct. This means that by increasing the knowledge management can increase organizational commitment.

Table 2. Correlation Study of the sub-criteria

Organizational		
Commitment		
knowledge creation	correlation coefficient	.162
	level of significance	.106
	number	100
knowledge storage	correlation coefficient	.315**

	level of significance	.001
	number	100
sharing knowledge	correlation coefficient	.331**
	level of significance	.001
	number	100
application knowledge	correlation coefficient	.448*
	level of significance	.000
	number	100
Information Technology	correlation coefficient	.334**
	level of significance	.001
	number	100
Organizational Culture	correlation coefficient	.317**
	level of significance	.001
	number	100
human resources	correlation coefficient	.410**
	level of significance	.000
	number	100
Education	correlation coefficient	.664**
	level of significance	.000
	number	100

By comparing the 0.001 significance level obtained with a coefficient of 0.05 (less than 0.05), we can conclude there is a significant relationship between

knowledge management and organizational commitment. The correlation coefficient is equal to 0.473. Given the positive numbers, the correlation coefficient indicates a positive and direct relationship. This means that by increasing the knowledge management organizational commitment increases.

## **Test of Sub-hypotheses:**

There is a significant relationship between knowledge management and normative dimensions of organizational commitment K.N.Toosi University of Technology experts.

Table 3. Pearson correlation value

Normative commitment		
knowledge management	correlation coefficient	.180
	level of significance	.074
	number	100

By comparing the 0.074 significance level obtained with a coefficient of 0.05 (higher than 0.05), we can conclude there is no significant relationship between knowledge management and normative commitment. This means that changes in knowledge management, normative organizational commitment of Khajeh Nasir University experts will not be followed to change.

Table 4. Study of correlation sub-criteria

Normative commitment		
knowledge creation	correlation coefficient	093
	level of significance	.357
	number	100
knowledge storage	correlation coefficient	.025

	level of significance	.808
	number	100
sharing knowledge	correlation coefficient	.025
	level of significance	.807
	number	100
application knowledge	correlation coefficient	.180
	level of significance	.072
	number	100
Information Technology	correlation coefficient	.120
	level of significance	.234
	number	100
Organizational Culture	correlation coefficient	.169
	level of significance	.093
	number	100
human resources	correlation coefficient	.223
	level of significance	.026
	number	100
Education	correlation coefficient	456**
	level of significance	.000
	number	100

There is a significant relationship between knowledge management and organizational commitment to continuous component of Khajeh Nasir University of Technology experts.

Table 5. Pearson correlation coefficient

Continued commitment		
knowledge management	correlation coefficient	**.474
	level of significance	.001
	number	100

By comparing the 0.001 significance level obtained with a coefficient of 0.05 (less than 0.05), we can conclude that there is a significant relationship between knowledge management and continuous commitment. Given the positive numbers, correlation coefficient indicates a positive and direct relationship. This means that changes in knowledge management, the continuous commitment and organizational commitment K.N.Toosi University of Technology experts will increase.

Table 6. Pearson correlation coefficient value of the sub-criteria

Continued commitment		
knowledge creation	correlation coefficient	**.345
	level of significance	.001
	number	100
knowledge storage	correlation coefficient	**.397
	level of significance	.001
	number	100
sharing knowledge	correlation coefficient	**.364
	level of significance	.001

	number	100
application knowledge	correlation coefficient	**.519
	level of significance	.001
	number	100
Information Technology	correlation coefficient	**.375
	level of significance	.001
	number	100
Organizational Culture	correlation coefficient	*.223
	level of significance	.026
	number	100
human resources	correlation coefficient	**.312
	level of significance	.002
	number	100
Education	correlation coefficient	**.506
	level of significance	.001
	number	100

By comparing the obtained significance level all error coefficient of 0.05 (less than 0.05), we can conclude there is a significant relationship between the sub-indexes of knowledge management and continuous commitment. Given the positive numbers, correlation coefficient indicates a positive and direct relationship. This means that with changes in knowledge management sub-indexes, continuing commitment of Khajeh Nasir University experts commitment will increase.

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There is a significant relationship between knowledge management and organizational commitment emotional component of Khajeh Nasir University of Technology experts.

Table 7. Pearson correlation coefficient

affective commitment		
knowledge management	correlation coefficient	**.502
	level of significance	.001
	number	100

By comparing the 0.001 significance level obtained with a coefficient of 0.05 (less than 0.05), we can conclude that there is a significant relationship between knowledge management and continuous commitment. Given the positive numbers, correlation coefficient indicates a positive and direct relationship. This means that changes in knowledge management, the affective commitment and organizational commitment of K.N.Toosi University of Technology experts will increase.

Table 8. Pearson correlation coefficient value of the sub-criteria

affective commitment		
knowledge creation	correlation coefficient	.171
	level of significance	.090
	number	100
knowledge storage	correlation coefficient	**.347
	level of significance	.001
	number	100
sharing knowledge	correlation coefficient	**.390
	level of significance	.001

	number	100
application knowledge	correlation coefficient	**.436
	level of significance	.001
	number	100
Information Technology	correlation coefficient	**.340
	level of significance	.001
	number	100
Organizational Culture	correlation coefficient	*.355
	level of significance	.026
	number	100
human resources	correlation coefficient	**.446
	level of significance	.002
	number	100
Education	correlation coefficient	**.669
	level of significance	.001
	number	100

By comparing the obtained significance level all error coefficient of 0.05 (less than 0.05), we can conclude there is a significant relationship between all sub-indexes of Knowledge creation, except for affective commitment. Given the positive numbers, correlation coefficient indicates a positive and direct relationship. This means that with changes in knowledge management sub-indexes, except for affective commitment, continuing commitment and organizational commitment of Khajeh Nasir University experts' commitment will increase. By comparing the obtained significance level error coefficient of 0.05 (less than 0.05), we can conclude there is no a significant relationship between the sub-indexes of Knowledge creation and affective commitment.

#### **Discussion and conclusion**

Based on the results of the original test, there is a significant correlation between knowledge management and organizational commitment of K.N.Toosi University of Technology experts. The correlation coefficient is equal to 0.473. Therefore, it can be said that, by increasing the knowledge management experts K.N.Toosi University of Technology increased level of organizational commitment can be achieved. Based on the results of the test, the relationship between sub-indexes of knowledge storage, knowledge sharing, knowledge utilization, information technology, organizational culture, education and human resources is significant. The correlation coefficient is respectively 0.315, 0.331, 0.448, 0.334, 0.317, 0.410 and 0.664. Therefore, it can be said that, by increasing these sub-indexes increased level of organizational commitment. Based on the results of the test, there is a significant correlation between knowledge creation and organizational commitment. As a result of increases or decreases or changes to their knowledge, organizational commitment has no significant effect. As a result, change of knowledge creation has no effect on organizational commitment.

By comparing the 0.001 significance level obtained with a coefficient of 0.05 (less than 0.05), we can conclude there is a significant relationship between knowledge management and organizational commitment. The correlation coefficient is equal to 0.473. Given the positive numbers, the correlation coefficient indicates a positive and direct relationship. This means that by increasing the knowledge management organizational commitment increases. Based on the results of the main test, there is a significant correlation between knowledge management and organizational commitment of K.N.Toosi University of Technology experts. The relationship between knowledge storage, knowledge sharing, knowledge utilization, information organizational culture, education and human resources sub-indexes is significant. Bordbar (2013), Sabbaghi (2012), Bahmani Bohlooli (2011), Bart (2003) results are consistent. Based on the results of the test, no significant correlation exists between knowledge and organizational commitment. The results of the study results Dejkam (2014) Erick et al (2007), and Barrett (2003) is consistent.

Based on the results of the first hypothesis test, there is no significant correlation between knowledge management and normative dimensions of organizational commitment of Khajeh Nasir University staff. The relationship between education and human resources sub-criteria is significant. There is no significant correlation between knowledge creation, knowledge storage,

knowledge sharing, knowledge utilization, information technology and corporate culture with normative dimension commitment. The results of the study results Dejkam (2014) Erick et al (2007), and Barrett (2003) is consistent.

Based on the results of the second hypothesis, the continuous component of knowledge management and organizational commitment of Khajeh Nasir University experts are significantly correlated. Given the positive number, correlation coefficient indicates a positive and direct relationship. This means that changes in knowledge management, continuous commitment of Khajeh Nasir University employees will increase. Based on the results, this section of the study ) is consistent with the results of Mayer et al (2002), and do not match the results Mistro et al (1996), Isaakhaani and colleagues (2012), Khorshid et al. (2012).

Based on the results of the third test, there are significant correlations between affective component of knowledge management and organizational commitment of K.N.Toosi University of Technology experts. These results are consistent with Sabbaghi (2012), Bahmani Bohlooli (2011), Bart (2003) results.

In final conclusions, we can say knowledge management and organizational commitment, based on the findings of the research, have a positive, direct and significant relationship among staff of the university. This means that with changes in knowledge management sub-criteria, except affective commitment, continued commitment and organizational commitment of Khajeh Nasir University experts will increase. In this study it was stated that knowledge management, process identification, to capture, organize and process information are to create knowledge. Studies have shown that knowledge management is a social issue, and humans play the most important role in its success. The role of information technology in the success of students cannot be ignored. But it should be noted that human resource is the most important factor in the production and application of knowledge. And knowledge produces not only by means. In fact, effective knowledge management needs to link human and technology. And in this regard, one of the major factors affecting the growth and development of knowledge management in organizations, according to the study results, is organizational commitment.

Organizational commitment in this study implies a positive attitude that comes from a sense of loyalty to the organization, and participation of individuals in organizational decisions, expresses in considering people of organizations their welfare. Studies show that employee commitment to the organization's results will be invaluable, which university managers can using effective factors of this

subject benefit its results. These results along with raising educational organizations will empower different levels of knowledge and organizational goals, and community will benefit organizations and their employees' commitment and knowledge. The results show that knowledge management in organizations is the need to further growth. The findings led us to several important conclusions: In relation to the purpose of this study we can conclude that knowledge management is effective to organizational commitment, and with increased knowledge management, commitment increases as well, and vice versa, and the development and improvement of organizational commitment needs improvement of knowledge management, and in other words, its subcomponents is in the organization. In this regard, the following is suggested:

- 1. Sharing with the public, and public participation in information, to create the ground for empowerment employees, manager must provide them with necessary enterprise information about the tasks. If you really want people to make appropriate and timely decisions and act responsibly, they should be aware about organizational performance, mission, program, goals, funding, results of meetings of managers and policy makers and generally what is happening in the organization.
- 2. Delegation of authority to employees to do works related to their job, and also when the decisions must be taken quickly. To delegate authority and disposal motivates employees. When given the right, employees feel that they can be effective and motivated with the ability to perform tasks. In general, delegating of authority helps to learn the skills, professional growth and confidence.
- 3. Establish a clear set of values and support of employees by senior managers (such as the value of dissemination of knowledge to others and support by financial incentives). In the organization, moral rules must be established to guide employee behavior. So as a result, can distinguish right works from wrong, and provide integration and coordination.
- 4. To create a participative atmosphere by manager to staff, and use their knowledge In the long-term planning of the university.
- 5. Hold meetings and provide the appropriate atmosphere at the university in order to discuss issues and risks.
- 6. Applying appropriate system for collecting information and experiences of staff to facilitate the comprehensive and classified transfer of information.

- 7. Design and implement effective training based on job requirements and capabilities of the job incumbent. By increasing the merits of employees in relation to jobs through these periods, their skills against the challenges ahead would raise. In short, the organization must enhance staff capabilities by organizing training courses for relevant topics about the job and informing them about new employment trends, and also to do team-building through the creation of working groups and the establishment of friendly and cooperative atmosphere among the staff, and finally develop employability through the provision of timely and appropriate rewards and punishment and motivation necessary, so that all lead to commitment and participation in the organization.
- 8. Giving feedback to employees regarding work activities. In this case, employees are aware of their strengths and weaknesses and will try to make nearly optimal conditions.
- 9. Importance and encourage behaviors that help university in transfer and dissemination of knowledge, and reflects the prevailing atmosphere of learning and teaching among staff.
- 10. Knowledge management in organizations to be addressed using a strategic and the dynamic approach. Experts in each unit consider knowledge transfer as a resource for strengthening and separation of their organization from other units of the organization.
- 11. Providing appropriate space and culture at the University in such a way that people help each other conveniently in learning new knowledge and transfer it to other.

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