

## Measuring the Relationship Between Organizational Culture and the Establishment of Knowledge Management (Case Study: Payame Nour University of Tehran-Varamin)

<sup>1</sup>Amir Hossein Amirkhani, <sup>2</sup>Aida Songhori and <sup>2</sup>Yusuf Karimi

<sup>1</sup>Payame Nour University, Tehran, Iran

<sup>2</sup>Department of Management, Payame Nour University, Tehran, Iran

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**Abstract:** This study entitled “Measuring the Relationship Between Organizational Culture and the Establishment of Knowledge Management in Payame Nour University of Tehran-varamin” has been done in the form of a main hypothesis and 6 sub-hypothesis. The methodology was a field research and questionnaires were used to collect data. The population in this study were employees of Payame Nour University. The results indicate that there is a significant relationship between organizational culture and knowledge management and sub hypotheses were confirmed. In other words, the significant relationship between organizational culture, individual creativity, management support, conflict, coordination and leadership styles and knowledge management were approved.

**Key words:** Knowledge management, culture, KM, competitive field, creativity

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### INTRODUCTION

In recent years, knowledge management has become the subject of scientific and practical fields. Scientific and practical societies, both believe that the power of knowledge can lead to long-term competitive advantage in their field. Today’s competitive landscape reflects the effects of these views in the promotion of business organizations. Knowledge management can also feature a range of organizational performance, by enabling companies to more intelligently improve the performance. So, it’s important to pay attention to corporate culture and it cannot be ignored. Organizational culture can be used as a powerful lever to strengthen organizational behavior. In this case, culture is important to facilitate the participation of people and creation of organizational knowledge. Weak organizational culture prevents people trying to share and publish their knowledge for maintaining personal power and performance. Analyzing the value of knowledge in organizational performance, shows that knowledge is an essential element for the survival of an organization. Superior knowledge management organizations should make rational decisions and improve their knowledge-based functions. Therefore, knowledge management is an important issue and will be used to transform personal data to group or organizational information. A good cultural pattern, changes the method of interaction between people and uses knowledge management to achieve competitive advantage (Abtahi and Salvati, 2006). Promoting a culture of openness,

sharing, cooperation, trust and learning in the organization, played a significant role in facilitating knowledge management within the organization. Academic institutions as centers of production and dissemination of knowledge requires knowledge management more than any other organization. Given the importance of knowledge management and organizational culture to facilitate participation in the creation of knowledge, the research question arises as follows: how is the relationship between organizational culture and its components and implementing knowledge management in the Payam Nour University of Varamin?

#### Research objectives

**The main objective:** The purpose of this study was to investigate the relationship between organizational culture and knowledge management in Payam Nour University of Varamin.

**Secondary objectives:** Explain the relationship between reward, management support, individual creativity, leadership styles, conflict reconciliation, harmony and cohesion and knowledge management at the University of Varamin.

#### Literature review

**Corporate culture:** A system of values and beliefs that interact with human resources, organizational structure and control systems and thus builds norms of behavior in the organization (Mami-Zadeh, 1996).

**Knowledge management:** Knowledge management is a process through which organizations create value from their intellectual and knowledge-based assets (Davenport and Prosa, 2000).

KM is becoming a growing concern in management research and practice because of its role in determining firm innovation capability and in enhancing working life quality of knowledge workers. KM may be particularly relevant for SMEs. SMEs tend to be relatively more dynamic and agile than larger organizations and more ready to learn. How to effectively establish and sustain good KM practices in SMEs in order to ensure their competitiveness is important. KM refers to managing the corporation's knowledge by means of a systematic and organizational specified process for acquiring, organizing, sustaining, applying, sharing and renewing both tacit and explicit knowledge by employees to enhance organization performance and create value. Tiwana claims that 'KM can be extended to management of organizational knowledge for creating business value and generating a competitive advantage', 'KM enables the creation, communication and application of knowledge of all kinds to achieve business goals', KM is the ability to create and retain greater value from core business competencies'. KMS supports the use of information through knowledge acquisition, knowledge sharing and knowledge application for improvement. This captured knowledge is then stored in knowledge repositories to be shared between individuals and departments. Subsequently, the knowledge is applied in business situations and introduces other ideas and frames of reference to ultimately create new knowledge. As new knowledge is created, it needs to be captured and stored, shared and applied and the cycle continues KM practices are applied to help the organization strengthen its competitive advantage, and assist knowledge workers to leverage their skills and their ability to offer business value. Therefore, KM is the process through which an organization uses its collective intelligence to accomplish its strategic objectives (Nager and Mostafa, 2007).

**MATERIALS AND METHODS**

In this study, survey and library research methods were used. Data were collected through questionnaires. This study is an applied research and examines the correlation between variables. Applied research aims to develop knowledge in a particular field. In other words, they are redirected to the practical application of knowledge (Bazargan *et al.*, 1997).

Table 1: A 5-point likert scale

Rates	Extremely low	Low	Moderate	High	Extremely high
Scores	1	2	3	4	5

Table 2: Cronbach's alpha coefficients

Variables	Sample	N	Cronbach's alpha
Organizational culture	18	24	0.892
Knowledge management	18	21	0.883
Total	18	45	0.973

**Measurement tools:** To collect data in this study, a questionnaire was used. The questionnaire contains 24 questions about corporate culture and 21 questions about knowledge management. A 5-point Likert scale is used.

**Questionnaire validity:** Validity is the extent to which a concept, conclusion or measurement is well-founded and corresponds accurately to the real world. In measuring the questionnaire, the 5-point Likert scale was used. Then, the scale is shown as follow (Table 1).

**Questionnaire reliability:** Reliability refers to the accuracy of the measuring tool. To determine the reliability, Cronbach's alpha coefficient was used. We consider the 18 pre-test sample, and calculated the Cronbach's alpha coefficient values (Table 2). Since, Cronbach's alpha coefficient is greater than 7%, reliability is confirmed (Khaki, 2000).

**Population and sample:** The population of this research is consisted of about 153 people. Stratified random sampling method is used. The formula for calculating sample size is as follows: Since the values related to ratios are not certain and the primer estimations are not available, we have used the maximum amount of 25% for PQ and the related accuracy has been maintained (Amidi, 1999). In the above formula, we have:

$$P = 0.5 \quad Q = 0.5 \quad PQ = 0.25 \quad t = 1.96 \quad N = 13$$

Where:

- N = The volume of the population
- n = The volume of the sample
- Z = Normal distribution
- P = The probability of having a property

**Data analysis method:** Descriptive and inferential statistics have been used to analyze the data. Descriptive statistics provides relevant indicators and graphs. Inferential statistics used for data analysis were as follows: Kolmogorov-Smirnov for data normality test, Pearson correlation coefficient for testing hypotheses, and multiple regression models for analytical tests (Behboodan, 1996).

Table 3: Descriptive statistics of individual creativity

Statistical indicators	Personal creativity
Average	2.45
Mode	2.25
Standard deviation	0.88
Domain	0.32

Table 4: Descriptive statistics of leadership style

Statistical indicators	Leadership style
Average	2.60
Mode	2.75
Standard deviation	0.78
Domain	3.50

Table 5: Descriptive statistics of coping with conflict

Statistical indicators	Coping with conflict
Average	2.60
Mode	2.00
Standard deviation	0.79
Domain	3.25

Table 6: Descriptive statistics of coordination

Statistical indicators	Coordination
Average	2.80
Mode	3.00
Standard deviation	0.98
Domain	4.00

Table 7: Descriptive statistics of management support

Statistical indicators	Management support
Average	2.79
Mode	3.00
Standard deviation	0.95
Domain	4.00

Table 8: Descriptive statistics of reward employees

Statistical indicators	Reward employees
Average	2.42
Mode	2.80
Standard deviation	0.84
Domain	4.00

Table 9: Descriptive statistics of organizational culture

Statistical indicators	Organizational culture
Average	2.61
Mode	2.63
Standard deviation	0.74
Domain	3.25

## RESULTS AND DISCUSSION

### Data analysis

**Descriptive study of variables:** In this study, specifications and descriptive statistical indicators related to six main variables of the model and its subfolders are provided (Table 3-10).

**Hypothesis tests:** In this study, hypothesis are tested. There is no impact and relevance between variables in null hypothesis. Also, there is a significant relationship between two variables in. Here, the Pearson correlation coefficient is used. If the probability is  $<0.5$ , the null hypothesis is rejected and is confirmed.

Table 10: Descriptive statistics of knowledge management

Statistical indicators	Knowledge management
Average	2.60
Mode	2.58
Standard deviation	2.48
Domain	3.40

Table 11: The results of tests the main hypothesis

Statistical indicators	Organizational culture
<b>Knowledge management</b>	
Pearson correlation	0.840
Sig.	0.000
N	73.000

Table 12: The results of tests secondary hypothesis

Statistical indicators	Individual creativity
<b>Knowledge management</b>	
Pearson correlation	0.740
Sig.	0.000
N	73.000

Table 13: The results of tests 3 hypothesis

Statistical indicators	Management support
<b>Knowledge management</b>	
Pearson correlation	0.660
Sig.	0.000
N	73.000

Table 14: The results of tests 4 hypothesis

Statistical indicators	Compromise with conflict
<b>Knowledge management</b>	
Pearson correlation	0.710
Sig.	0.000
N	73.000

**The main hypothesis:** There is a significant relationship between Organizational Culture and Knowledge Management in Payam Noor University of Varamin (Table 11). Given the correlation coefficient, significant relationship between the variables of the first hypothesis is confirmed.

**Secondary hypotheses:** There is a significant relationship between individual creativity and knowledge management (Table 12). Given the correlation coefficient, significant relationship between individual creativity and knowledge management is confirmed. There is a significant relationship between management support and knowledge management (Table 13). Given the correlation coefficient, significant relationship between management support and knowledge management is confirmed.

There is a significant relationship between compromise with conflict phenomenon and knowledge management (Table 13). Given the correlation coefficient, significant relationship between compromise with conflict phenomenon and knowledge management is confirmed. There is a significant relationship between coordination and coherence and knowledge management (Table 14). Given the correlation coefficient, significant relationship between coordination and coherence and knowledge

Table 15: The results of tests 5 hypothesis

Statistical indicators	Coordination and coherence
<b>Knowledge management</b>	
Pearson correlation	0.680
Sig.	0.000
N	73.000

Table 16: The results of tests 6 hypothesis

Statistical indicators	Reward employees
<b>Knowledge management</b>	
Pearson correlation	0.730
Sig.	0.000
N	73.000

Table 17: The results of tests 7 hypothesis

Statistical indicators	Reward employees
<b>Knowledge management</b>	
Pearson correlation	0.740
Sig.	0.000
N	73.000

Table 18: Estimated regression coefficients

Model	Variables	Coefficients	t-values	Sig.
1	Fixed	8.088	6.3580	0.000
	Individual creativity	0.619	9.3940	0.000
2	Fixed	0.756	4.5140	0.000
	Individual creativity	0.390	5.0880	0.000
	Rewarding employees	0.369	4.5920	0.000
3	Fixed	0.405	3.6190	0.001
	Individual creativity	0.320	4.3450	0.000
	Rewarding employees	0.269	3.2070	0.002
	Coordination and cohesion	0.193	2.9178	0.005

management is confirmed. There is a significant relationship between reward employees and knowledge management (Table 15). Given the correlation coefficient, significant relationship between reward employees and knowledge management is confirmed.

There is a significant relationship between leadership style and knowledge management (Table 16). Given the correlation coefficient, significant relationship between leadership style and knowledge management is confirmed (Table 17).

**Regression model fit:** In this model, knowledge management is considered as an outcome variable. The auxiliary variables are as follows: management support, rewarding employees, leadership style, compromise with conflict phenomenon, individual creativity, coordination and cohesion.

**Estimated regression coefficients:** In this study, the coefficients of the regression model are presented with the significance test (Table 18).

**The final form of the regression model:**  $KM = 0.60.5 + 0.33 = \text{creativity} + 0.269 = \text{rewarding employees} + 0.193 = \text{coordination}$

## CONCLUSION

According to the findings of the analysis, conclusions and recommendations are presented. The findings from the analysis of the main hypothesis, confirm the correlation between organizational culture and knowledge management. According to the correlation and p-value 0.000 for the test, the correlation between the two factors are statistically significant at 95%. Therefore, the null hypothesis is rejected.

The findings from the analysis of the first sub hypothesis, confirm the correlation between individual creativity and knowledge management. According to the correlation and p-value 0.000 for the test, the correlation between the two factors are statistically significant at 95%. Therefore, the null hypothesis is rejected.

The findings from the analysis of the second sub hypothesis, confirm the correlation between management support and knowledge management. According to the correlation and p-value 0.000 for the test, the correlation between the two factors are statistically significant at 95%. Therefore, the null hypothesis is rejected.

The findings from the analysis of the third sub hypothesis, confirm the correlation between compromise with conflict phenomenon and knowledge management. According to the correlation and p-value 0.000 for the test, the correlation between the two factors are statistically significant at 95%. Therefore, the null hypothesis is rejected.

The findings from the analysis of the forth sub hypothesis, confirm the correlation between coordination and coherence and knowledge management. According to the correlation and p-value 0.000 for the test, the correlation between the two factors are statistically significant at 95%. Therefore, the null hypothesis is rejected.

The findings from the analysis of the fifth sub hypothesis, confirm the correlation between reward employees and knowledge management. According to the correlation and p-value 0.000 for the test, the correlation between the two factors are statistically significant at 95%. Therefore, the null hypothesis is rejected.

The findings from the analysis of the sixth sub hypothesis, confirm the correlation between leadership style and knowledge management. According to the correlation and p-value 0.000 for the test, the correlation between the two factors are statistically significant at 95%. Therefore, the null hypothesis is rejected.

## RECOMMENDATIONS

Recommendations according to the results of research According to the effectiveness of creativity, the following activities will be useful: encouraging employees by giving monthly rewards and delegation of authority.

According to the effectiveness of leadership style, the following activities will be useful: providing administrative regulations, monthly meetings and tolerance in case of problems. According to the effectiveness of coordination and coherence, the following activities will be useful: create systems such as general solutions and chart review. According to the effectiveness of management support, the following activities will be useful: most managers working on the same things and weekly or monthly internal meetings.

According to the effectiveness of reward employees, the following activities will be useful: eliminating non-work relationships and the correct punishment and reward employees.

#### **REFERENCES**

- Abtahi, S.H. and A. Salvati, 2006. Knowledge Management in Organization. New Peyvand Publications, Tehran, Iran.
- Amidi, A., 1999. Sampling Theory and its Applications. 1st Edn., Tehran University Press, Tehran.
- Bazargan, A., Z. Sarmad and E. Hejazi, 1997. Research Method in Behavioral Science. Agah Publication, Tehran.
- Behboodian, J., 1996. Non-Parametric Statistics. Shiraz University Publication, Tehran.
- Davenport, T.H. and L. Prosak, 2000. Knowledge Management (Translated by: Hossein Rahman Seresht), 1st Edn., Engineering Design and Supplying Iran, Tehran, Iran.
- Khaki, Q., 2000. Research Method with Reference to Thesis. Baztab Publication, Tehran.
- Mami-Zadeh, J., 1996. Organizational culture management. *J. Public Manage.*, 25: 74-89.
- Nager, M.A. and A. Mostafa, 2007. Structures and contents in a knowledge based organization. Proceedings of the 1st Conference of Knowledge Management, November 2007, Tehran.