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**INFLUENCE OF SOCIOCULTURAL FACTORS ON KNOWLEDGE SHARING  
BEHAVIORS AMONG DIRECTORS OF RESEARCH PROJECTS IN TEHRAN  
UNIVERSITIES**

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**ABSTRACT**

This study aims at investigating the socio-cultural factors affecting the knowledge sharing in research project executors at universities of Tehran. According to the statistics and documents, the statistical population consists of 1185 research project executors involving the faculty members at state universities of Tehran. The sample size is obtained equal to 291 according to Kerjcie and Morgan table. The researcher-made questionnaire is the data collection tool in this research, and its content validity is confirmed by academic experts and its reliability by Cronbach alpha of 0.97. The factor analysis, Student's t test, Pearson correlation and multiple-linear regression are utilized for data analysis. According to the separation of dimensions, the findings of socio-cultural factors indicate that there is a highest correlation between the organizational culture and climate of universities with a correlation coefficient of 0.608. Furthermore, the standardized coefficients indicate that the organizational culture variable has the highest effect with coefficient of 0.563. The trust, economic situation and then the goals have the highest importance respectively.

**Keywords: Socio-cultural factors, knowledge sharing behavior**

## INTRODUCTION

We live in the information and knowledge era when the perspective of "knowledge is the power" is replaced by perspective of "Sharing knowledge is the power" [5]. Furthermore, we are living in a knowledge-based economy where the organizations have considered the need for knowledge generation, sharing and management as the source of sustainable competitive advantage [1]. The change of attitudes to knowledge has led to the effective attempt at knowledge management (Kotelnikov, 2001). Due to the influence of knowledge in the organization, the business can strengthen the continuous flow of service and innovative products and maintain the competitive advantage [10].

An informal culture of knowledge sharing, which is not inherently supported by information systems, is critical for the success of knowledge management [3].

The knowledge flows through the staff and individual consultants by the knowledge sharing behavior-based organizational practices (Minbaeva, D., & Pedersen, T., 2010; Tivana, 2002). The knowledge sharing behavior indicates that the process of knowledge management among people and the degree of knowledge sharing between the staff and colleagues (Ryua, S., Ho, S. H., & Han, I., 2003).

The information and communication technology is appropriate for connection of

research groups, but it is still incomplete identification of knowledge sharing factors in terms of socio-cultural aspect. Despite the identification of effects by the socio-cultural factors of knowledge sharing, there is the lack of empirical research in this regard.

## MATERIALS AND METHODS

The statistical population of this research consists of 1185 research project executors (employed at state universities in Tehran including Alzahra, Tarbiat Modares, Tehran, Khaje Nasir Toosi University of Technology, Shahid Beheshti, Amirkabir University of Technology, Sharif University of Technology, Allameh Tabatabaei, and Science and Technology universities. The sample size is obtained equal to 291 based on Kerjcie and Morgan table. The researcher-made questionnaire is the collection tool and its validity is confirmed by academic experts and its reliability by Cronbach's alpha coefficient of 0.97.

## RESULT

### Correlation between the trust and knowledge sharing

Pearson correlation coefficient is applied to investigate the correlation between the knowledge sharing and trust.

The results of this test are shown in the table 1. Since the significant level of table is smaller the error level of 0.05, it can be

concluded that the null hypothesis is rejected at the significance level of 0.05; therefore, the research hypothesis based on the correlation between knowledge sharing and trust is confirmed.

This correlation is equal to 0.539 indicating that this correlation is direct and relatively strong.

#### **Correlation between the goals and knowledge sharing**

Pearson correlation coefficient is applied to investigate the correlation between the knowledge sharing and goals.

The results of this test are shown in the table 2. Since the significant level of table is smaller the error level of 0.05, it can be concluded that the null hypothesis is rejected at the significance level of 0.05; therefore, the research hypothesis based on the correlation between knowledge sharing and goals is confirmed.

This correlation is equal to 0.526 indicating that this correlation is direct and relatively strong.

#### **Correlation between the beliefs and knowledge sharing**

Pearson correlation coefficient is applied to investigate the correlation between the knowledge sharing and beliefs.

The results of this test are shown in the table 3. Since the significant level of table is smaller the error level of 0.05, it can be concluded that the null hypothesis is

rejected at the significance level of 0.05; therefore, the research hypothesis based on the correlation between knowledge sharing and beliefs is confirmed.

#### **Correlation between the cooperation and knowledge sharing**

Pearson correlation coefficient is applied to investigate the correlation between the knowledge sharing and cooperation.

The results of this test are shown in the table 4. Since the significant level of table is smaller the error level of 0.05, it can be concluded that the null hypothesis is rejected at the significance level of 0.05; therefore, the research hypothesis based on the correlation between knowledge sharing and cooperation is confirmed. This correlation is equal to 0.254 indicating that this correlation is direct and relatively weak.

#### **Correlation between the economic situation and knowledge sharing**

Pearson correlation coefficient is applied to investigate the correlation between the knowledge sharing and economic situation.

The results of this test are shown in the table 5. Since the significant level of table is smaller the error level of 0.05, it can be concluded that the null hypothesis is rejected at the significance level of 0.05; therefore, the research hypothesis based on the correlation between knowledge sharing and economic situation is confirmed. This

correlation is equal to 0.267 indicating that this correlation is direct and relatively weak.

### **Correlation between the organizational culture of universities and knowledge sharing**

Pearson correlation coefficient is applied to investigate the correlation between the knowledge sharing and organizational culture of universities.

The results of this test are shown in the table 6. Since the significant level of table is smaller the error level of 0.05, it can be concluded that the null hypothesis is rejected at the significance level of 0.05; therefore, the research hypothesis based on the correlation between knowledge sharing and organizational culture is confirmed.

This correlation is equal to 0.608 indicating that this correlation is direct and relatively strong.

### **Correlation between the information technology and knowledge sharing**

Pearson correlation coefficient is applied to investigate the correlation between the knowledge sharing and information technology.

The results of this test are shown in the table 7. Since the significant level of table is smaller the error level of 0.05, it can be concluded that the null hypothesis is rejected at the significance level of 0.05; therefore, the research hypothesis based on the correlation between knowledge sharing and information technology is confirmed. This correlation is equal to 0.329 indicating that this correlation is direct and relatively weak.

**Table 1: Results of Pearson correlation test between the trust and knowledge sharing**

		<b>Trust</b>
<b>Knowledge sharing</b>	<b>Pearson correlation coefficient</b>	<b>0.539</b>
	<b>Two-sided significance level</b>	<b>0.000</b>
	<b>Total</b>	<b>275</b>

**Table 2: Results of Pearson correlation test between the goals and knowledge sharing**

		<b>Goals</b>
<b>Knowledge sharing</b>	<b>Pearson correlation coefficient</b>	<b>0.526</b>
	<b>Two-sided significance level</b>	<b>0.005</b>
	<b>Total</b>	<b>275</b>

**Table 3: Results of Pearson correlation test between the beliefs and knowledge sharing**

		<b>Beliefs</b>
<b>Knowledge sharing</b>	<b>Pearson correlation coefficient</b>	<b>0.406</b>
	<b>Two-sided significance level</b>	<b>0.000</b>
	<b>Total</b>	<b>275</b>

**Table 4: Results of Pearson correlation test between the cooperation and knowledge sharing**

		<b>Cooperation</b>
<b>Knowledge sharing</b>	<b>Pearson correlation coefficient</b>	<b>0.254</b>
	<b>Two-sided significance level</b>	<b>0.000</b>
	<b>Total</b>	<b>275</b>

**Table 5: Results of Pearson correlation test between the economic situation and knowledge sharing**

		<b>Economic situation</b>
<b>Knowledge sharing</b>	<b>Pearson correlation coefficient</b>	<b>0.267</b>
	<b>Two-sided significance level</b>	<b>0.000</b>
	<b>Total</b>	<b>275</b>

**Table 6: Results of Pearson correlation test between the organizational culture and knowledge sharing**

		<b>Organizational culture</b>
<b>Knowledge sharing</b>	<b>Pearson correlation coefficient</b>	<b>0.608</b>
	<b>Two-sided significance level</b>	<b>0.000</b>
	<b>Total</b>	<b>275</b>

**Table 7: Results of Pearson correlation test between the information technology and knowledge sharing**

		<b>Information technology</b>
<b>Knowledge sharing</b>	<b>Pearson correlation coefficient</b>	<b>0.329</b>
	<b>Two-sided significance level</b>	<b>0.000</b>
	<b>Total</b>	<b>275</b>

The significance of regression coefficients should be investigated in linear regression model in order to apply them. If each of the coefficients are significant, they can be entered into the model; if not, they cannot

$$\begin{cases} H_0 : \beta_i = 0 \\ H_1 : \beta_i \neq 0 \end{cases} \quad i = 0,1,2,\dots,6$$

This test can be done for constant regression coefficient and each of the other regression coefficients. The Student's t statistic and significance level are provided in the table 34-4 for testing the equality of each regression coefficient to zero. (Appendix 1)

The trust, goals, economic situation and organizational culture variables have the significance levels less than the error level of 0.05 for the equality of regression coefficients and constant value with zero, thus the equality of regression coefficients

$$\text{Sharing.Knowledge} = (-2.035) + 0.496 \times \text{Trust} + 0.307 \times \text{Goals} + 0.276 \times \text{Economy} + 0.834 \times \text{Culture}$$

**CONCLUSION**

**First main question**

be included despite the low correlation between them and criterion variable.

The statistical hypothesis test for investigating the significance of regression coefficients is as follows:

and constant value with zero is rejected and there is no need to get out them from the regression equation. In other words, these predictor variables and constant values affect the knowledge sharing as the criterion variable. However, the beliefs, information technology and cooperation have the significance level of greater than 0.05 indicating that these variables re not significant and should be eliminated from the regression model. Therefore, the fitted regression model is as follows:

What are the socio-cultural factors affecting the knowledge sharing behavior

among the research project executors at universities of Tehran?

In this research, the organizational culture and climate of universities have the highest strong and positive correlation (0.608) with the knowledge sharing behavior in executors; and there is the significant correlation relation between all socio-cultural factors. (Independent and dependent variables) The trust, goals and attitude have strong and direct relationship, and then the other factors and all of these relationships are significant. There is a correlation between the economic situation and knowledge sharing behavior, but this correlation is weak.

### **Sub-question 1**

What is the view of studied community about the impact of trust from the socio-cultural factors on the knowledge-sharing behavior?

The study of research results indicates that among the socio-cultural factors, the trust factor has a positive impact on the knowledge sharing executors. As described in the theoretical background, the study of knowledge sharing is useless regardless of trust. If there is no trust between people, the people will be reluctant to share knowledge ,Anklam [2], claims that the people cooperate with the ones they know or trust in "sharing the knowledge".

The studies consistent to this research are conducted on the effect of trust. According to the research by Ebrahimi (2012), the trust has a positive impact on the knowledge sharing among the employees. According to the research by Pahlavani et al (2010), the mutual trust between people affects the knowledge sharing. Based on the research by Nemati [9], more than a half of respondents (67.5%) have claimed that their collaboration with professors from other organizations (universities or research centers) is based on the trust. According to the research by Hossein Gholizadeh, Mirkamali [7], the obtained results of multiple regression analysis indicate that the organizational strategy, trust and self-sufficiency are three main factors with the highest impact on the knowledge sharing[9].

### **Sub-question 2**

What is the view of studied community about the impact of goals/attitude from the socio-cultural factors on the knowledge-sharing behavior?

The study of research results indicates that from the socio-cultural factors, the goals/attitude has a positive impact on the knowledge sharing in executors. According to Kotelnikov, the change of attitude to knowledge leads to the effective effort in knowledge management. The social exchange theory is usually applied as the

theoretical basis for investigating the individual knowledge sharing behavior [10]. In other words, the individual attitude affects the analysis of benefit/cost of social relationships in which the knowledge is shared. The social exchange theory considers the internal benefits and rewards, and thus it investigates the intangible benefits [10].

**Sub-question 3**

What is the view of studied community about the impact of religious belief from the socio-cultural factors on the knowledge-sharing behavior?

The study of research results indicates that among the socio-cultural factors, the religious belief variable has a positive impact on the executors' knowledge sharing. The individuals valuable tacit knowledge is manifested from the mental insight, intuition and obvious beliefs [1]. The people with the same beliefs, nationalities and language and direct or indirect knowledge of each other, easily share their knowledge.

**Sub-question 4**

What is the view of studied community about the impact of cooperation from the socio-cultural factors on the knowledge-sharing behavior?

The study of research results indicates that from the socio-cultural factors, the cooperation factor has a positive impact on

the knowledge sharing. Casey [4], argues that "The trust and cooperation development is the key element for success of any group project". Every aspect of distance can have a negative impact on the development of trust and prevent the cooperation especially in the workplace of research groups. The knowledge sharing is a group activity; and the common spaces such as the social networks can create the opportunities for mutual exchanges and generate the social capital [8].

**Sub-question 5**

What is the view of studied community about the impact of economic situation from the socio-cultural factors on the knowledge-sharing behavior?

The study of research results indicates that from the socio-cultural factors, the economic situation variable has the weak impact on the knowledge sharing in executors. According to the economic exchange theory, the people behave logically based on their personal interests. Therefore, the knowledge sharing occurs when the rewards exceed the costs [3]. The economic exchange theory justifies the external interest and rewards. Davenport and Prusak have also analyzed the knowledge sharing based on this theory and considered the creation of behavior resulting from the visible benefits and

expectations such the position, job security, and promotion.

### Sub-question 6

What is the view of studied community about the impact of organizational culture (Climate of university) from the socio-cultural factors on the knowledge-sharing behavior?

The study of research results indicates that from the socio-cultural factors, the organizational culture and climate of universities and educational centers have the highest impact on the knowledge sharing behavior in executors. Taylor has defined the culture as the environment and context in which the knowledge management processes are implemented [6], has defined the culture as the collective programming of mind which distinguishes the members of a group or people class from the other class.

### Sub-question 7

What is the view of studied community about the impact of information technology from the socio-cultural factors on the knowledge-sharing behavior?

The study of research results indicates that from the socio-cultural factors, the information technology variable has a positive impact on the knowledge sharing in executors. The information and communication technology (ICT) is an important facilitator for knowledge sharing

[10], Knowledge sharing is a group activity and the common spaces such as the social networks can create the opportunities for mutual exchanges and social capital production [8].

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