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**The role of organizational learning and knowledge sharing on intellectual capital  
development in islamic Azad university of Khorramabad**

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## Abstract

The purpose of this study was to evaluate the role of organizational learning and knowledge sharing in the development of intellectual capital at Islamic Azad University of Khorramabad in the form of factors related to organizational learning (individual skills, mental models, shared vision, team learning, systems thinking) and sharing of knowledge (culture, structure, information technology, confidence, attitude, social relationships, personal relationships, group relations) on the one hand and intellectual capital components entitled human capital, structural capital and relational capital on the other side. Sharing knowledge and organizational learning as the independent variables and intellectual capital is dependent variable. Data required by a standard questionnaire on organizational learning, sharing of knowledge and intellectual capital by referring to the 102 employees (faculty and staff) Islamic Azad University of Khorramabad collected and analyzed, in addition to describing the role of each of the components and indicators related to the development of intellectual capital was examined using factor analysis and LISREL software. As a result, it was determined that organizational learning and sharing of knowledge in Islamic Azad University of Khorramabad have an intermediate level and the role of organizational learning on the intellectual development is more than the role of knowledge sharing on intellectual development.

**Keywords:** organizational learning, sharing of knowledge, intellectual capital development, organizational culture, Islamic Azad University of Khorramabad

## O papel da aprendizagem organizacional e compartilhamento de conhecimento sobre o desenvolvimento do capital intelectual na universidade islâmica Azad de Khorramabad

### Resumo

O objetivo deste estudo foi avaliar o papel da aprendizagem organizacional e compartilhamento de conhecimento no desenvolvimento do capital intelectual na Universidade Islâmica Azad de Khorramabad, na forma de fatores relacionados à aprendizagem organizacional (habilidades individuais, modelos mentais, visão compartilhada, aprendizagem em equipe e pensamento sistêmico) e compartilhamento de conhecimento (cultura, estrutura, tecnologia da informação, confiança, atitude, relações sociais, relações pessoais e relações grupais), por um lado, e componentes de capital intelectual intitulados capital humano, capital estrutural e capital relacional, do outro lado. Compartilhar conhecimento e aprendizado organizacional como variáveis independentes e capital intelectual como variável dependente. Dados exigidos por um questionário padrão sobre aprendizagem organizacional, compartilhamento de conhecimento e capital intelectual por referência aos 102 funcionários (corpo docente e funcionários) da Universidade Islâmica Azad de Khorramabad, coletados e analisados, além de descrever o papel de cada um dos componentes e indicadores relacionados para o desenvolvimento do capital intelectual foi examinado usando análise fatorial e software LISREL. Como resultado, identificou-se que o aprendizado organizacional e o compartilhamento de conhecimento na Universidade Islâmica Azad de Khorramabad têm um nível intermediário e o papel do aprendizado organizacional no desenvolvimento intelectual é mais do que o papel do compartilhamento de conhecimento no desenvolvimento intelectual.

**Palavras-chaves:** Aprendizagem organizacional; Compartilhamento de conhecimento; Desenvolvimento de capital intelectual; Cultura organizacional, Universidade Islâmica Azad de Khorramabad

## **El papel del aprendizaje organizacional y el intercambio de conocimientos sobre el desarrollo del capital intelectual en la universidad islámica de Azad de Khorramabad**

### **Resúmen**

El propósito de este estudio fue evaluar el papel del aprendizaje organizacional y el intercambio de conocimientos en el desarrollo del capital intelectual en la Universidad Islámica Azad de Khorramabad en forma de factores relacionados con el aprendizaje organizacional (habilidades individuales, modelos mentales, visión compartida, aprendizaje en equipo y pensamiento de sistemas) y el intercambio de conocimiento (cultura, estructura, tecnología de la información, confianza, actitud, relaciones sociales, relaciones personales y relaciones de grupo) por un lado, y los componentes de capital intelectual titulados capital humano, capital estructural y capital relacional del otro lado. Compartir el conocimiento y el aprendizaje organizacional como las variables independientes y el capital intelectual es una variable dependiente. Datos requeridos por un cuestionario estándar sobre aprendizaje organizacional, intercambio de conocimiento y capital intelectual al referirse a los 102 empleados (profesores y personal) de la Universidad Islámica Azad de Khorramabad recopilados y analizados, además de describir el papel de cada uno de los componentes e indicadores relacionados para el desarrollo del capital intelectual, se examinó utilizando análisis de factores y software LISREL. Como resultado, se identificó que el aprendizaje organizacional y el intercambio de conocimientos en la Universidad Islámica Azad de Khorramabad tienen un nivel intermedio y el papel del aprendizaje organizacional en el desarrollo intelectual es más que el papel del intercambio de conocimiento en el desarrollo intelectual.

**Palabras clave:** Aprendizaje organizacional; Intercambio de conocimiento; Desarrollo del capital intelectual; Cultura organizacional; Universidad Islámica Azad de Khorramabad

### **1 Introduction**

The pattern of global growth, and the technology and information revolution have a major change in the World 1998 report published by the World Bank: The importance of knowledge in the leading countries in the world economy (as a supplier) has increased in comparison with other sources, and become the most important factor determining the standard of living (World Bank, 1998; Hassanzadeh, 2007). Combined intellectual capital is intangible resources include activities that allow organizations to change their financial and human resources forms and used as a valuable resource and through them create value (Ramirez *et al.*, 2007). In other words, in the age of knowledge-based economy in the wake of extensive economic - social changes, organization success and style are not limited financial resources, but much of it is related to intangible assets to achieve a sustainable competitive advantage (Pederin, 2007). The

organizational new strategic environment development will have to become a learning organization and one of the most important goals is improving their intellectual capital (Senge, 2003). An organization that is able to increase their intellectual capital is not able to survive (Mirkamali, 2008). The growing importance of intellectual capital as a critical source of competitive advantage, organizations are becoming more determined than ever but there is a limited understanding of it. In other words, although the measurement and management of intellectual capital management organizations, allows to create, develop, control and planning in different areas in fact, as a strong source of competitive advantage, less protection from the scientific and practical efforts related to intellectual capital is done (ibid, 1999).

Authorities in the field of intellectual capital are divided into three elements:

1. Human capital: intellectual capital employee through competence, attitude and agility makes their thinking. Human resources and think of the soul as the most important elements of human capital skill set of the workforce, depth and breadth of their experience (Ghelich Lee and Moshabaki, 2006).

2. Relational capital: including all relationships between the organization and any other individual or organization; these relationships may be between customers, employees, agents, suppliers, regulatory authorities, communities, creditors, investors and others.

3. Structural capital: includes all non-human reservoirs of knowledge that includes databases, organization chart, operating instructions, processes, strategy and action plan (Ross *et al.*, 1998). In accordance with the definition of knowledge management, knowledge sharing, knowledge management is one of the key areas in which the interaction between the individual and attracted widespread distribution of knowledge and experience is efficient and pleasant. In this dynamic process, individuals faced by the difficulties but in front benefit from the enduring values and knowledge (Senge, 2003).

Large and complex organizations with traditional structures flexible to align with changes in the environment especially regarding issues of globalization and to survive they have or do not have the structure or the tools with which we have to deal with globalization. One of the most important tools is create a learning organization and institutionalization of organizational learning. Organizational learning is the methods and mechanisms and processes that are used within the organization in order to accomplish learning. Because the ability to experience is the essence of learning so organizational learning is knowledge sharing and experience. Organizations that do not care to knowledge observed the loss of confidence in the people and their lack of innovation in this regard universities as well as a goal of knowledge production

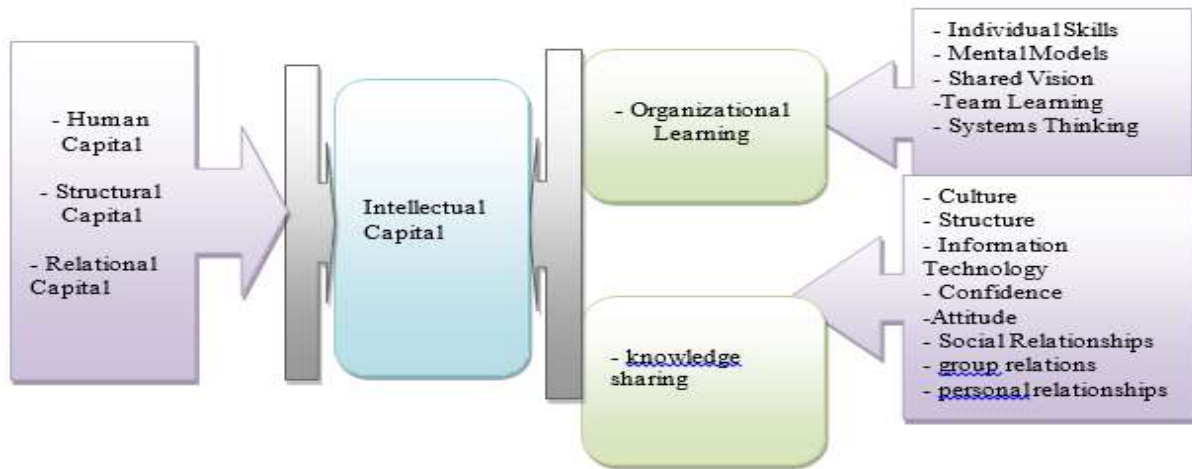
and investment in research and development. However, the process of globalization of universities with numerous challenges, including competition from other organizations such as public and private universities, corporate training provided by universities, internationalization of education in research has faced (Ramirz *et al.*, 2007).

Deployment of knowledge management in universities leads to flexibility and rapid response to changes in the environment (Sanchez *et al.*, 2007). The quality and speed of harmony with the surrounding environment changes, the success of the university and their experience and learning and knowledge through continuous production changes and identify appropriate responses. The emphasis on the creation and sharing of tacit and explicit knowledge through re-engineering the culture within the organization and the use of advanced technology and the necessity of creative and effective leadership are secrets of success in competitive markets are present. The acceptance of a culture of sharing knowledge and experience of interaction with faculty and students to create efficient teaching and effective learning on campus and the hypothesis of students, learning more about their area of expertise and skills needed after graduation on the other hand the process of sharing knowledge and experience in universities and focus attention on ways of collaborative learning, student-centered learning and the formation of groups is similar.

Although the development of a formal system of higher education is not always equivalent to the spread of learning to deal with these problems, the need for a new vision and concept, and on the other hand the higher education system as a complex system with internal and external relationships, has elements that interact with each other constantly are looking for trained people. Higher education undoubtedly as one of the main pillars of economic growth and development considered. Various researchers have tried to acquire the relationship between intellectual capital and organizational learning and knowledge sharing; In this regard, the main issue of this paper is whether it can benefit from knowledge sharing and organizational learning, appropriate field for the development of intellectual capital at Islamic Azad University of Khorramabad? In response to the question of the sharing of knowledge and organizational learning in the Islamic Azad University of explained and we know that this university how important learning and knowledge sharing focuses on two categories; in this context, attention to knowledge management and intellectual capital, organizational learning and knowledge sharing in the development of intellectual capital earned and accordingly can be used to enhance the intellectual capital as the capital of relying on organizational learning and knowledge

sharing components of the effort and planning. The results can be used in the field of research and human resources, for the benefit of students and teachers and the entire collection and the foundation is to improve the level of knowledge and the development of intellectual capital. This leads to an increase in the level of knowledge and expertise of faculty, staff, students and the learning organization will be realized.

The purpose of this study was to evaluate the role of organizational learning and knowledge sharing in the development of intellectual capital at Islamic Azad University of Khorramabad in the form of factors related to organizational learning (individual skills, mental models, shared vision, team learning, systems thinking) and sharing of knowledge (culture, structure, information technology, confidence, attitude, social relationships, personal relationships, group relations) on intellectual capital at Islamic Azad University of Khorramabad and prioritize components of organizational learning, knowledge sharing components, all components of the study and comparative analysis of organizational learning and knowledge sharing role in the development of intellectual capital in Islamic Azad University of Khorramabad included. A lot of work has been done in terms of intellectual capital including: Dadashi and Babaei (2010) model of university intellectual capital, Mirkamaly and ZohorParvande (2010) developed a model for measuring intellectual capital at universities in Iran (Case Study: Mashhad University), Sayed Abbas Zadeh and Azizi (2010) intellectual capital is framework for entrepreneurial learning organization, LotfiZadeh (2006) study the status of intellectual capital among exporters of ceramic and tile, Yazdani (2006) examined the interaction between the components of intellectual capital (human, structural, customer) and their effects on organizational performance (Bank Mellat in Tehran), Alai (2006) assessment of learning capacity office of cooperative in Mazandaran province and ... according to the independent variables and the dependent variable of organizational learning and knowledge sharing intellectual capital, Figure 1 is a conceptual model:



**Figure 1:** Conceptual Model

Organizational learning literally means to detect and correct errors, and includes all the methods, mechanisms and processes that are used within the organization in order to accomplish learning (Senge, 2003). In this study, the interpersonal skills, mental models, shared vision, team learning, thinking systems is based on a standard questionnaire Nifeh (2001) measured and evaluated. Sharing knowledge means the person, another person with the knowledge and insight to help guide your thoughts he sees his position better. The sharing of knowledge in this study factors such as: culture, architecture, information technology, confidence, attitude, social relations, individual, group, which is a knowledge sharing questionnaire. Combined intellectual capital is intangible resources defined activity that allows organizations with a mass of human resources, financial and raw materials transferred to a beneficiary of strong value creation. Three components are human capital, structural capital and relational capital. In this study, the purpose of intellectual capital in terms of operations is score person acquired from intellectual capital questionnaire.

In this study, the main question on the basis of these questions, a number of sub-questions were raised:

1. What is the role of organizational learning in the development of intellectual capital in Islamic Azad University of Khorramabad and sub-questions is: what is the role of organizational learning separately in the development of intellectual capital in Islamic Azad University of Khorramabad? It was also considered.

2. What is the role of knowledge sharing in the development of intellectual capital in Islamic Azad University of Khorramabad and and sub-questions what is the role of knowledge sharing

separately in the development of intellectual capital in Islamic Azad University of Khorramabad? It was also considered.

Besides these questions, significant different elements of organizational learning and knowledge sharing component in the development of intellectual capital in Islamic Azad University of Khorramabad were also considered.

## 2. Methods

The study in term of purpose is applied and in term of method is descriptive –correlational and survey. In term of time is cross-sectional and time period of 2014 is considered. Data collection included three questionnaires intellectual capital consists of 42 items and organizational learning include 24 items, knowledge sharing 27 items. The population consisted of all the employees of Islamic Azad University of Khorramabad on all organizational levels (both staff and faculty) are for the purpose of sampling, the total number of members of the population, by staff of 190 people (156 men and 34 women) and academic staff of 132 people (111 males and 21 females) and by Cochran a total of 102 people selected, the sampling method is relative sampling to the number of sample among employees 60 people (49 men and 11 women) and academic staff 42 people (35 men and 7 women)

## 3. Results

According to Tables 1 and 2, demographic results showed that 84 person (82.4%) of the respondents were male and 18 person (17.6%) were female and the job, 42 person (41.2%) of respondents were faculty members and 60 person (58.8%) staff, and age 2 person (2%) less than 30 years and 8 person (7.8%) between 30 and 35 and 19 person (18.6%) between 35 and 40 and 30 person (29.4%) between 40 and 45 and 25 person (24.5%) between 45 and 50 and 12 (11.8%) between 50 and 55 and 6 tons (5.9%) over 55 years old and in terms of experience, 5 person (4.9%) less than 5 years 19 (18.6%) between 5 and 10 and 27 person (26.5%) between 10 and 15 and 31 person (30.4%) between 15 and 20 person and 18 tons (17.6%) between 20 and 25 and 2 person (2%) have more than 25 years of experience.



**Table 1**  
Results of gender and job type

Description	Gender		Type of business		
	Number	Percent	Description	Number	Percent
Man	84	82.4	Faculty	42	41.2
Woman	18	17.6	Employee	60	58.8
Sum	102	100	Sum	102	100

**Table 2**  
Results of the age and experience

Description	Age		Description	Work experience	
	Number	Percent		Number	Percent
26-30	2	2	5 years	5	4.9
31 to 35 years	8	7.8	5-10 years	14	13.7
36 to 40 years	21	20.6	10-15 years	26	25.5
41 to 45 years	34	33.3	15-20 years	25	24.5
46 to 50 years	25	24.5	20-25 years	25	24.5
+50	12	11.8	+25 years	7	6.9
Sum	102	100	Sum	102	100

2-1. Test questions: to describe the results of mean and standard deviation and normality kolmogroph Smirnov test was used to sig calculated equal to 0.762 and that of the normal population was then compared using t-test and regression testing was used to examine the questions.

**Table 3**  
Results of the hypotheses analysis

Variables	Average	Standard deviation	N	SE	t	df	P
Organizational Learning	3.32	0.207	102	0.020	15.87	101	0.000
Personal skills	2.88	0.437	102	0.043	-2.644	101	0.009
Mental models	3.20	0.457	102	0.045	4.329	101	0.000
Shared vision	3.907	0.473	102	0.047	19.355	101	0.000
Team learning	3.443	0.358	102	0.026	17.316	101	0.000
Systems thinking	3.193	0.217	102	0.021	8.994	101	0.000
Sharing knowledge	2.813	0.319	102	0.032	-5.92	101	0.000
Culture	2.668	0.451	102	0.045	-7.434	101	0.000
Structure	2.806	0.449	102	0.044	-4.355	101	0.000
Information technology	3.118	0.950	102	0.094	1.251	101	0.214
Confidence	3.042	0.527	102	0.052	0.799	101	0.426
Attitude	2.837	0.558	102	0.055	-2.955	101	0.004
Social Relationships	2.196	0.550	102	0.054	-14.756	101	0.000
Individual Relationships	2.611	0.455	102	0.045	-8.632	101	0.000
Group relations	3.225	0.897	102	0.089	2.538	101	0.013
Intellectual Capital	3.080	0.295	102	0.029	2.731	101	0.007
Human	3.120	0.415	102	0.041	2.878	101	0.005
Structure	3.046	0.291	102	0.029	1.596	101	0.114
Relationship	3.075	0.363	102	0.036	2.081	101	0.004
General	3.073	0.223	102	0.022	3.287	101	0.001

According to Table 3, the average organizational learning more than average and knowledge sharing which is close to the average level of organizational learning and knowledge sharing on intellectual capital involved. All components of organizational learning and knowledge sharing components with the exception of IT and confidence with regard to significant level calculated and in intellectual capital involved.

What is organizational learning role in analysis of development of intellectual capital in Islamic Azad University of Khorramabad? t Calculated at about was 15.87 with degrees of freedom 101 at 95% is significant so that no difference between the averages calculated with

the average questionnaire at confidence level was rejected in other hand it indicated that organizational learning to a greater extent than the average (much and too much) in thinking capital in Islamic Azad University of Khorramabad are effective.

And the examination of individual and organizational learning as well as the  $t$  calculated - 2.644, mental models,  $t$  calculated is equal to 4.329, shared vision,  $t$  calculated is equal to 19.355, team learning and systems thinking with  $t$  calculated is 17.316  $t$  calculated is 8.994 with 101 degrees of freedom are significant at a confidence level of 99%. The lack of difference between the averages calculated from the average of the questionnaire at level of confidence was rejected in other words, it was determined that the components of organizational learning to a greater extent than the average (much too much) are effective in intellectual capital in Islamic Azad University of Khorramabad.

What is the role of analysis of knowledge sharing in the development of intellectual capital in Islamic Azad University of Khorramabad?  $t$  Calculated at about was -5.92 with degrees of freedom 101 at 99% is significant so that no difference between the averages calculated with the average questionnaire at confidence level was rejected in other hand it indicated that sharing of knowledge to a greater extent than the average (much and too much) in thinking capital in Islamic Azad University of Khorramabad are effective. And the examination of sharing of knowledge with culture as well as  $t$  calculated is -7.434,

structure with  $t$  calculated is -4.355 attitude with  $t$  calculated is equal to -2.955, social relations with  $t$  calculated is -14.756-, personal relationships with  $t$  calculated is equal to - 8.632 and group relationships with  $t$  calculated is 2.538 with degree of freedom 101 at 99% confidence level is significant. The lack of difference between the averages calculated from the average of the questionnaire at level of confidence was rejected in other words, it was determined that the components of organizational learning except information technology and confidence greater extent than the average (much too much) are effective in intellectual capital in Islamic Azad University of Khorramabad.

In this analysis, information technology with  $t$  calculated is equal to 1.251 and trust with  $t$  calculated 0.799 of knowledge sharing component is not significant at 95%.

In analyzing the components of organizational learning and knowledge sharing on intellectual capital in Islamic Azad University of Khorramabad there is a significant difference, sig calculated to compare the sum of components 0.001, and showed that they are statistically significant. The difference between the averages calculated with a confidence level of 99%

average in the questionnaire for organizational learning component and sharing of knowledge in intellectual capital in Islamic Azad University of Khorramabad was confirmed. sig calculated for components of personal skills, mental models, shared vision, team learning, systems thinking and organizational learning culture, structure, attitudes, social relationships, personal relationships, and relationships of a group is less than 0.05, and for IT knowledge sharing, confidence in the sharing of knowledge was greater than 0.05. Sig calculated for Friedman test was 0.000 and showed differences between the components of organizational learning and knowledge sharing.

Is there a significant difference in analyzing the role of organizational learning and knowledge sharing in the development of intellectual capital in the Islamic Azad University of Khorramabad?

T-test was used to calculate sig for organizational learning and knowledge sharing component was less than 0.01, the difference between the averages calculated from the average confidence level of 99% in the questionnaire for organizational learning component and sharing knowledge was confirmed. Sig is also calculated using the Friedman test was 0.000 that there are significant differences between the components of organizational learning and knowledge sharing. It should be noted that the analysis based on the results of Tables 4, 5 and 6.

**Table 4**  
Prioritize components

Components	t	df	Sig
Personal skills	-2.644	101	0.009
Mental models	4.329	101	0.000
Shared vision	19.355	101	0.000
Team learning	17.316	101	0.000
Systems thinking	8.994	101	0.000
Culture	-7.434	101	0.000
Structure	-4.355	101	0.000
Information technology	1.251	101	0.214
Confidence	0.799	101	0.426
Attitude	-2.955	101	0.004
Social relations	-14.756	101	0.000
Individual relations	-8.632	101	0.000
Group relations	2.538	101	0.013
Total	3.287	101	0.001

**Table 5**  
Study the significant relationship between components of factors

No	Factors	Rank
1	Organizational Learning	1.97
2	knowledge Sharing	1.03

**Table 6**  
Prioritize Components

No	Components	Rank
1	Shared vision	10.93
2	Team learning	9.80
3	Group relations	7.98
4	Systems thinking	7.94
5	Mental models	7.76
6	Personal skills	5.78
7	Attitude	5.34
8	Structure	5.03
9	Culture	4.22
10	Individual relations	3.98
11	Social relations	32.02

Due to the low level of confidence in the impact of information technology and intellectual capital of Islamic Azad University of Khorramabad, were not included in the priority Friedman.

**Table 7**  
Summary Model

Model	Correlation coefficient	The coefficient of determination	Adjusted coefficient of determination	Standard Deviation
1	0.561	0.315	0.301	0.247

According to Table 7 variance 0:31 intellectual capitals in Islamic Azad University of Khorramabad organizational learning and knowledge sharing can be explained by components, and the rest depend on other factors

**Table 8**  
Regression coefficients and significant model

Model		Non-standard coefficients		Standardized coefficients	t	Sig calculated
		b	Standard Deviation	Beta		
1	Fixed	0.961	0.396	-	2.425	0.017
	Organizational Learning	0.305	0.316	0.214	2.247	0.027
	Sharing knowledge	0.393	0.088	0.425	4.446	0.000

According to Table 8 to examine regression analysis significantly predicted the relationship between organizational learning and sharing of knowledge and intellectual capital in Islamic Azad University of Khorramabad shows the components of organizational learning and knowledge sharing in regression model is significant ( $0.05 > p$ ). Having regard to the standardized coefficient beta of greater sharing of knowledge of organizational learning and a standard deviation of changes in knowledge sharing makes change in intellectual capital standard deviation to 0.425 and a standard deviation of changes in organizational learning makes change in the intellectual capital standard deviation to 0.214. The regression equation (knowledge sharing)  $X0.393 + (\text{organizational learning}) X0.305 + 0.961 = \text{intellectual capital}$

#### 4. Conclusion

Management and development of intellectual capital as necessary within the organization is very important in fact, the development of intellectual capital for any organization with an emphasis on organizing training as an investment is hidden. The results showed that organizational learning in the development of intellectual capital in Islamic Azad University of Khorramabad has a significant impact; the result of the investigation is consistent with GhorbaniZadeh (1999) and Matlabi (2011) and H. Su Feng (2004) and the Khelghati and Hayati (2008). The components of organizational learning (personal skills, mental models, shared vision, team learning and systems thinking) also have an impact on the development of intellectual capital and relationships are meaningful. In this regard, a proposal for the

development and enhancement of intellectual capital in Islamic Azad University of Khorramabad is investment in education and learning at the individual, group and organizational done to the organizational advantage over other organizations is stable. In this context, we can encourage employees to exchange information, capabilities and business skills of their job action, to this must be justified by the importance of organizational learning for all employees.

The results showed that the sharing of knowledge in the development of intellectual capital in Islamic Azad University of Khorramabad has significant influence and relationship with it, the result of the findings is consistent with Lahijanian (2009) and Aligholi and Askari (2011) and Heidari (2009). As well as knowledge sharing components (culture, structure, attitudes, social relations, personal relationships and group relationships) also have an impact on the development of intellectual capital and relationships are meaningful. In this regard, a proposal to increase the sharing of knowledge in the staff encourages them to learn to prepare the team. To do this you must trust between employees and management conditions to increase the sharing of knowledge and facilities are provided.

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