

# The relationship between information and communications technology (ICT) and organizational learning in Department of Youth and Sports of Alborz province

Roghaye Ghaloojeei<sup>1</sup>, Reza Nikbakhsh<sup>2</sup>, Shahram Alam<sup>3</sup>

<sup>1</sup>Karaj Branch, Islamic Azad University, Karaj, Iran; <sup>2</sup>Physical Education and Sport Science, South Tehran Branch, Islamic Azad University, Tehran, Iran; <sup>3</sup>Department of Physical Education, Shareray Branch, Islamic Azad University, Tehran, Iran

## Abstract

Organizational learning is a complex process which refers to growth and development of new knowledge and possesses a potential force for behavior change and there are multiple factors which can affect this variable. The aim of the present research is to study the relationship between Information and Communications Technology and organizational learning in department of Youth and Sports of Alborz Province and for this purpose 171 of the managers, deputies and experts of this department have been selected with the use of simple random sampling method and have responded to the organizational learning questionnaire of Neefe (2001) and the author-made questionnaire of Information and Communications Technology. The validity of the questionnaire was confirmed by the experts and professor in this field and their reliability was tested by using Cronbach's alpha test which is equal to 0.89 and 0.82 for the questionnaires of organizational learning and Information and Communications Technology, respectively. Finally, the gathered data from these questionnaires were analyzed by using LISREL software in terms of the analyzed measurement model. The results indicate that there is a significant and positive relationship between Information and Communications Technology and the dimensions of organizational learning, except for systematic thinking dimension.

**Keywords:** Information and Communications Technology, organizational learning, department of Youth and Sports of Alborz Province

## Introduction

Knowledge and how to know are among the strategic resources of an organization which should be developed and managed. Hence, organizational learning and knowledge generation have attracted a great deal of attention for the last few years (Partington, Pellegrinelli & Young, 2006). In an environment full of changes, organizations should be equipped with proper tools and innovative new information technologies in order to survive in the present competitive environment which is rapidly facing changes and provide the information needed by the managers in a timely, concise manner and in the minimum possible time. Information and Communications Technology is a system which integrates various, scattered and heterogeneous data of an organization and can provide analytical and multi-dimensional reports through analytical database formation and with the use of techniques and applications for decision making of the organization's manager (Zamani, 2008). Information and Communications Technology is among organizational capabilities that giving attention to it from various dimensions and giving attention to the factor which affects the performance level can significantly affect the success of organizations (Herschel & Jones, 2005).

Sinkula et al (1997) propose that organizational learning not only leads to causing innovation in an organization but also is the sole effective and influential factor in maintaining competitive advantages (Chang et al., 2010). Also, Buhler (2002), Davis & Daley (2008) and Korth (2007) consider learning organizations as valuable tools for facili-

**Corresponding author:** Shahram Alam, Department of Physical Education, Shareray Branch, Islamic Azad University, Tehran, Iran. Email: rghaloje@yahoo.com

tating learning and knowledge management processes in organizations and name them a one of the most important strategies for creating improvement in organizations' performance and maintaining the competitive advantages they have achieved (Weldy, 2009). It should be noted that it is Information and Communications Technology that empowers us to made decisions regarding all the factors which are effective on an organization (Zamani, 2008). On one hand, knowledge in today's organizations is considered as a valuable asset and knowledge management as one of the priorities of management, on the other hand. For the realization of such a thing, today's organizations implement those strategies which help them to become intelligent.

In the era of knowledge workers, informed managers and experts develop knowledge management in order to created learning and intelligent organizations and in order to develop explicit knowledge and consequently improve the performance of their organizations (Elahi and Rajabzadeh, 2002). These increasing transformations make organizations to shift from traditional management and organization to learning management and organization. Organizations, institutions and sport departments and specifically the Department of Youth and Sports of Alborz Province as one of the most important and vital systems which provides services to the young generation, today are being administered with amazing competitive transformations. Under such conditions, becoming knowledge-oriented and regarding Information and Communications Technology and organizational learning will help them to achieve their goals. Therefore; considering the foregoing, in this paper we seek to study the relationship between Information and Communications Technology and organizational learning in the Department of Youth and Sports of Alborz Province and we hope we have found useful outcomes. For this purpose, first we report some of the studies in line with the present research in the following.

## Research background

Van Grinsven and Max Visser (2011) have conducted a study of "empowerment, transformation of knowledge and dimensions of organizational learning" and have found that the effects resulting from empowerment have a positive impact on 2nd type of learning; however, the impact of the very same

effects on 1st type of learning is negative. Knowledge transformation has a direct and positive relationship with 1st type learning; however, regarding the 2nd type of learning this very relationship is negative. Therefore, it seems that efforts made for improvement of organizational learning on one of the dimensions, can have unwanted effects on the other dimension. Simpson (2009) also in his study with the title of "adults education and improvement of their presence for organizations' transformation: a case study of a learning organization with introducing an integrated model and a strategic tool for learning empowerment", has found that those organizations who possess trained and empowered individuals are in a situation to achieve their common strategic goals and at the same of can respond to the changes of labor market simultaneously as well. Two models of integrated model and empowerment strategic yearly are among the drivers which encourage and promote systematic changes and transformations in organizations and with the use of these model and the cooperation of the employees an organization can achieve its strategic goals through comprehensive integration with annual performance management system.

A study which has more resemblance with the present research at hand is the study of Robey et al (2000), "Information technology and learning: a review and evaluation research" have found that experience plays an intermediating and a significant role in success. Learning is achieved both through official education and participation in work and performance. Through learning from other organizations, an organization can overcome its barriers to organizational knowledge and learning new technologies is a certain dynamic and active process through rather a limited window of opportunities. Among the local studies which are in line with our aims in the present research the following studies can be mentioned:

Abdollah Zadeh (2010) in his study, "studying the relationship between organizational learning and empowerment of the staff of the department of education of Damghan city", has studied 222 of the employees of the department of education of this city and has found that there is a significant and positive ( $p < 0.01$ ) relationship between organizational learning and sense of competence, sense of efficacy, sense of being significant, sense of having the right to choose and senses of trust.

Hazrati Viri (2010) in his study entitled "study-

ing the relationship between organizational learning with organizational commitment and readiness for change in the Social and cultural deputy of Tehran Municipality in 2010” has studied 265 of the staff of this deputy and has found that in general the relationship between organizational learning with organizational commitment is significant.

Atefi (2008), in his study, entitled “the relationship between organizational learning dimensions with organizational performance of Bank Parsian in terms of learning organization dimensions”, has made use of Marsick & Watkins model and has found that the seven dimensions of organizational learning which are the very same dimensions of learning organization are related to each other and at the same time are related to the dimensions of organizational performance as well.

As it can be seen from the empirical studies as well, little studies have been conducted on organizational learning and the author’s studies of the literature also shows that no study has been conducted regarding the relationship between Information and Communications Technology and organizational learning inside the country and this indicates to the originality of the present research.

## Methodology

The present research is an applied research from aim viewpoint and is a descriptive and non-experimental research from data collection and method of analysis viewpoints and is survey from conduction method viewpoint.

### Research population and sample

The population of the present research includes all the managers, deputies, specialists and employees of the department of Youth and Sports of Alborz Province and as per the obtained statistics from this department, the number of individuals at the time of conducting the study is 300 individuals and from which 171 have been selected with the use of simple random sampling method and have been studied as the sample of the present research.

### Data collection instrument

For measuring the Information and Communications Technology variable in this research an author-made questionnaire with 18 items has been used. This questionnaire has been developed based on the theoretical principles and with the use of the specialists and experts opinions. For studying or-

ganizational learning variable Neefe’s organizational learning standard questionnaire has been used which has 7 dimensions of : common prospect, organizational culture, group learning and work, knowledge sharing, systematic thinking, collaborative leadership and development of employees’ qualifications and have a total number of 21 items. The reliability of these questionnaires have been tested with the use of Cronbach’s alpha test and have been tested on 30 individuals of the research sample, which is equal to 0.82 and 0.89 for information technology and organizational learning questionnaires, respectively.

## Results

For studying the relationship between organizational learning dimensions and Information and Communications Technology, the relationships between these variables are presented as below in standard and significant states.

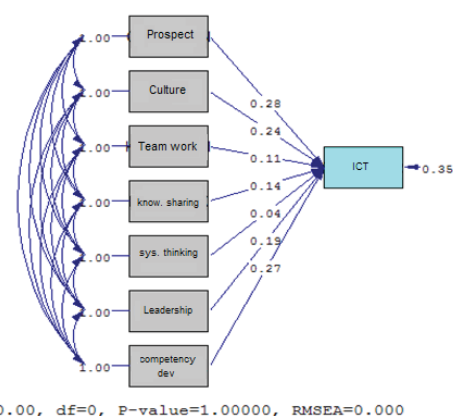
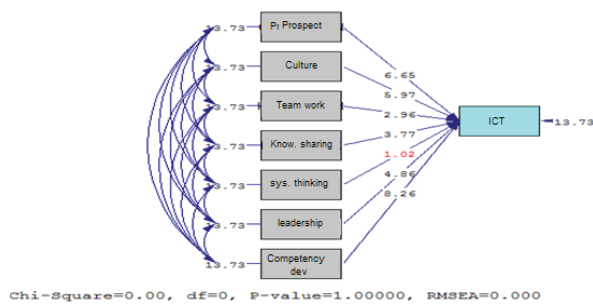


Figure 1. The Model in standard state

The results of the model fit statistics in the standard state indicate that the research model has a proper fit and can be used. The model in significant state has been presented as shown in Figure 2.

Considering the results of the model in the significant state we can see that the relationship between the variables of common prospect, organizational culture, group work and learning, knowledge sharing, collaborative leadership, development of employees’ competencies with information and communications technology is significant and there is no significant relationship between systematic thinking and information and communications technology and the existence of a relationship between these two variables is not confirmed.



**Figure 2. The model in significant state**

## Conclusion

Today, with complete certainty, it can be claimed that using information and communications technology can increase the competitiveness power of an organization and distinguish it from other organizations and this solution allows the managers to achieve pioneer and competitive advantages with the help of using the available information. This solution allows a better understanding of the demands and needs of the customers (clients) and management of their relations. Today managers are shifting toward using information. They are seeking to optimize the processes through the evaluation and improvement of their own performance and their subordinates who are dependent on them and this has caused the information and communications technology to gain a higher importance (Lonnqvist & Pirttimaki, 2006). On other hand,

today's world, specially the world of the organizations is constantly undergoing profound change and transformation and all the organizational dimensions from internal to external environments and from human factors to un-human factors are changing from one state to the other with a mesmerizing speed (McCoby, 1999). Under such conditions, organizations would try to survive and to maintain themselves in the turbulent surrounding environment and constantly are leaving static patterns and shifting toward learning development and creating learning organizations (Jerez-Gomez et al., 2005).

The speed and rate of knowledge generation in the world and the innovative methods of collection, process and distribution of information on one hand and on the other hand the increasing need of human societies to using different manifestations of information have resulted in the creation of a specific social era also named as "information age" (Zaliwski, 1999).

Undoubtedly, information and providing information have accompanied humans from ancient ages. In the contemporary age, information has been replaced gold and raw material. Humans has shifted from industrial age to information age and are always facing different waves of various information in political, economic, social and cultural fields through mass medias including internet and these should be conveyed to the individuals in the society.

**Table 1. Results of model implementation among the research variables.**

Main research model	coefficient (r)	t- value	Results
Common prospect → Information and communications technology	0.28	6.25	Accepted
Organizational culture → Information and communications technology	0.24	5.97	Accepted
Group (team) learning and work → Information and communications technology	0.11	2.96	Accepted
Knowledge sharing → Information and communications technology	0.14	3.77	Accepted
Systematic thinking → Information and communications technology	0.04	1.02	Rejected
Collaborative leadership → Information and communications technology	0.19	4.86	Accepted
Development of employees' competencies → Information and communications technology	0.27	8.26	Accepted

$\chi^2 = .00$   $df = 0$   $RMSEA = .000$   $GFI = 1.00$   $AGFI = 1.00$

Any kind of communication requires some instruments which can go under transformation in any stages of professional and personal life. In today's world there is not much time for spending on information and knowledge collection and everyone should act wisely in this regard and should empower themselves with using proper instruments and information and communications technology is among these instruments. As the findings of the present research indicate information and communications technologies and organizational learning have a significant relationship in Department of Youth and Sports of Alborz Province and this finding is consistent with the findings reported in a number of studies such as Van Grinsven & Max Visser (2011), Simpson et al. (2009), Robey et al. (2006) (, Hazrati Viri (2010) and Abdollah Zadeh (2010). Information and communications technology has always been considered as one of the requirements of welfare and increasing the efficiency. It is also one of the requirements and proper instruments in learning and the findings of the present research indicate that there is a positive and significant relationship between these variables and all these findings indicate to the necessity of making more investment on information and communications technology more than ever.

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