The effect of the use of information and communication technology skills with empowerment indicators on staff in the Ministry of Sports and Youth of Islamic Republic of Iran (Case Study in Youth and Sports General Directorate of Guilan Province)

O efeito do uso de habilidades de tecnologia da informação e comunicação com indicadores de empoderamento de pessoal no Ministério do Esporte e Juventude da República Islâmica do Irã (Estudo de Caso na Direção Geral de Juventude e Esportes da Província de Guilan)

Vahid Bakhshalipour[1,*]
Siavash Khodaparast Sareshkeh[2]
Bisotoon Azizi[3]

Author's Affiliation

[1]Sama technical and vocational training college, Islamic Azad University, Lahijan Branch, Siyahkal, Iran.
[2]Department of Physical Education and Sport Science, Lahijan Branch, Islamic Azad University, Guilan, Lahijan, Iran.
[3]Department of Physical Education, Piranshahr Branch, Islamic Azad University, Piranshahr, Iran.

* Corresponding author

e-mail:
vahidbakhshalipour@yahoo.com

Abstract

Information and communication technology (ICT) is one of the most important areas of development in the world. The purpose of this study was to survey the effect of the use of ICT Skills with empowerment indicators on staff in the Ministry of Sports and Youth of Islamic Republic of Iran. This study was an applied research and its method was descriptive correlational. The statistical population of this study was all staff in Youth and Sports Departments of Guilan Province. The Cronbach's alpha coefficient was reported above 0.90 in both questionnaires. The collected data were analyzed by K-S test and Pearson and Spearman correlation coefficient. The results showed that 59.43% of subjects were men and 40.57% of them were women and 90.10% of them were married, and 9.90% were single. The bachelor's degree (49.82%) had the highest mean of academic education and doctorate (35.0%) had the lowest mean. The performance improvement index (4.461) had the highest mean and job variety (3.851) had the lowest mean among variables. Therefore, it is suggested that high level managers of the Ministry of Sports and Youth can empower their staff through the creation of a climate for staff's more participation of ICT, the sufficient freedom for job responsibilities, the allow for the creativity and innovation, and the attention to low level staff's comments and suggestions.

Keywords: performance improvement, job variety, responsibility, self-determination, ICT.

Introduction

ICT has been able to be a component of modern society during a short period of time, so that the understanding of ICT along with reading, writing, and counting, and the mastery of basic skills and concepts have been considered as a part of the core of these societies in many countries[1]. Also, human resources should understand that the lack of ICT will lead to inequality in the use of instructional opportunities. The depth of these inequalities has huge differences between the advanced and developing countries. Societies that have no or less ability to use technology are steadily moving back from the participation in a society that moves based on science and technology[2]. ICT is considered as one of the most important areas of development in the world. Many countries in the world consider the development of information technology as one of the most important infrastructures of their development. The integration key of ICT in organizations is the qualifications of ICT and its experiences, so that its skill depends on its professional qualification[3]. Today, the role and effect of ICT is obvious for everybody. In other words, it can be argued that information technology is used for the coordination of affairs and environmental changes commensurate with the community, the thinking speed, the optimal utilization of resources, and the transformation of life-style[4]. It must be admitted that today, ICT is a set of hardware, software, and thoughts that facilitates the flow and efficiency of information, so that ICT at the international level has become a powerful force in social and economic[5], political, and educational developments[6]. On the other hand, many countries and regions of the world do not make any progress without the joining to the era of ICT[7]. It can be stated differently that many of the efforts in the field of ICT in different academic departments have been unsuccessful because the production of thought and creativity[8], the coordination with this changes, and the creation of novel changes require special training capability using ICT tools[9]. Today, the world is a world with enormous transformations and the imagination of the future without the support of ICT seems unlikely. In the last decade, we have seen the revolution of information and communication, so that this century has been called ICT. Information technology is creating a new revolution all over the world that has created new and significant capacities in the field of human knowledge and it has created tools that have changed the nature of work and life and this has led to widespread developments in all social and economic areas of humanity[10]. Today, we can observe the ascending and amazing growth in the rate of changes through ICT and the increase of staff's knowledge and awareness level in sports organization. The most important and effective advantage of the use of ICT is to reduce the information poverty in the society, making a variety of information and knowledge available, and the increase of the awareness level of public in the society. According that the next century is the century of information and the coordination of the information society, this can contribute to the efficiency and effectiveness of the community in the reduction of information poverty and the development of a comprehensive information in the society[11]. Information technology is a tool in staff's hands to increase their ability, but this tool is the main goal in many organizations and staff focus on the use of technology[12]. On the other hand, any organization that ignores this issue will decline due to the rapid growth of information and communication technologies and the need of organizations for their survival in today's era. Today, the attention to this technology is inevitable and necessary to achieve the goals of the organization[13]. In this regard, employees of state institutions are considered as the resources of the organization and it is necessary to pay attention to them in order to achieve the goals. Staff will be able to do their job properly with the proper information and information and communication technologies will provide this opportunity to process and maintain information[14]. We can find with a look to the past that a human has used information technology since the creation till now. The diversity and development in information technology began in the late twentieth century. The most important feature of information technologies is that those continuously increase their technological capabilities and reduce the cost of their use. At the moment, the investment in this sector is dramatically rising, so that the cost of the purchasing of technological products is more than 50% of the costs of an organization in the United States[15]. Today, government organizations of the country require changes in their activities and online services in accordance with the growth of information technology. The provision of fast and up-to-date services has an important place in goals of an organization and staff that are the human capital of an organization must also keep their goals in line with the goals of an organization and lead to the improvement of productivity in an organization in the direction of the synergy of forces and talents. Therefore, the enhancement of staff's capability level of this organization about information and communication technologies is the inevitable requirement[16]. The emergence and adoption of ICT has accelerated the transformations of the world in the age of information and knowledge and affected the different areas of life in societies. ICT is an important issue for the developing countries to improve the productivity and the quality of life[17]. The adoption of ICT is a powerful and effective tool for developing countries in the world and plays a decisive role in executive organizations such as Youth and Sports General Directorate[18]. Government organizations have invested heavily in the use of ICT due to their capabilities that ICT has in the creation of value for them. One of the most important values that organizations can create in their subsystems using these technologies is the empowerment of their subsets with the use of these tools. successful managers use these technologies to develop their staff's capabilities in order to achieve the goals of the organization due to the potential abilities of ICT to meet the needs of the organization in this field[19]. Empowerment means that we simply encourage individuals to play a more active role in their work, so that they take responsibility for the improvement of their activities and can make key decisions without referring to a top responsible[20]. The staff's empowerment has led to specific attitudinal and behavioral outcomes for organizations and enhances their ability to compete in both internal and external environments. The staff's empowerment is an important strategic for the development of different organizations to adapt to external changes and is one of the main issues of organizations. This has led that successful organizations using different tools and mechanisms try to provide empowerment programs for a subset[21]. Successful managers use these technologies to develop their staff's capabilities to achieve the goals of the organization due to the potential ability of ICT to meet staff's needs in this field[22]. The creation of a balance between empowerment and ICT, the provision of background for the maintaining, recording, and transmission of a part of staff and managers' valuable experiences to new employees, the prevention of staff's gradual burnout and the gradual burnout of organization, the avoidance of costs due to staff's lack of awareness from the developmental plans of organization, the conflict or challenges of organization and the continuous improvement of the organization, the balance between powerful staff's needs and needs of the organization, and the use of opportunities and the prevention of waste of human capital and resources are the part of a set of reasons that can be considered for the importance of these two variables in this study. Therefore, the purpose of this study was to survey the effect of the use of ICT Skills with empowerment indicators on staff in the Ministry of Sports and Youth of Islamic Republic of Iran.

Methods

This study was a descriptive correlational research that has been conducted through field method.

Participants

The statistical population of this study was all staff in Youth and Sports Departments of Guilan Province (N= 310). The statistical sample was equal to the statistical population. According to Morgan's table, 175 people completed the questionnaire.

Instruments and Tasks

The instrument of this study was included a demographic questionnaire, the Organizational Citizenship Behavior Questionnaire, and the Perceived organizational support questionnaire. The questionnaires were distributed among a number of experts (N=15) to determine the validity of questionnaires and the accuracy of the questions. the questionnaires were distributed in the statistical population after

the reassuring of the obtained result. The reliability of the questionnaires was also calculated using Cronbach's alpha method. Cronbach's alpha coefficient was reported in both questionnaires above 0.90 for the survey of the reliability of the measurement instrument of this study. The ICT questionnaire included 15 items. Its questions were gathered based on Davis's technology acceptance model (Questions 1-3), Chan and Huff's Information Systems Model (Questions 4-10), and Dinev and Koufteros's Internet Self-Efficacy Model (Questions 12-15). Researchers' a valid and combined questionnaire was also used to assess sports teachers' empowerment components. 35 questions were identified in the teachers' empowerment questionnaire. 7 questions from Spreitzer's psychological empowerment questionnaire, 10 questions from Robbins's job satisfaction questionnaire, 5 questions from Paterson's job performance questionnaire, 1 question from Scott and Jaffe's climate empowerment questionnaire, 6 questions of Whetten and Cameron's empowerment questionnaire, and 6 questions from Neefe's organizational learning questionnaire were used in this study.

Procedure

The purpose and the process of this study were explained to subjects. The participants were assured that their data will be kept confidential and those will not be available to anyone. Then all subjects completed a consent form to participant in this study and they attended with the complete satisfaction in this study. The researchers distributed the questionnaires among the subjects. Then, subjects completed the questionnaires.

Data Analysis

The collected data were classified by descriptive statistical methods and were analyzed by K-S test and Pearson and Spearman correlation coefficient. The SPSS software (version 23) was used for data analysis ($\alpha \leq 0.05$).

Results

The descriptive results of this study showed that 90.10% of subjects were married and 9.99% of them were single. The bachelor's degree (49.82%) had the highest mean of academic education and doctorate (35.0%) had the lowest mean. The performance improvement index (4.461) had the highest mean and job variety (3.851) had the lowest mean among variables. 52.65% of staff had a formal contract-agreement and 47.35% of them were contract staff. 34.98% of staff had studied the field of physical education and sport sciences and 65.02% of them had studied other fields.

Table 1
The status of subjects' age.

Age	Number	Percent
Above 50	73	41.71
50-35	60	34.2
35-25	42	24

Table 2
The status of subjects' gender.

Gender	Number	Percent
Men	104	59.43
Women	71	4.57

Table 3
The results of variables distribution (Normality of data).

Variable		K-S Test	Sig
ICT ↔	Empowerment	0.811	0.611
ICT ↔	The performance improvement	2.297	0.001
ICT ↔	Job variety	1.89	0.247
ICT ↔	Self-control	1.324	0.112
ICT ↔	Job development	1.544	0.321
ICT ↔	Responsibility	1.789	0.421
ICT ↔	Self-determination	1.978	0.121
ICT ↔	Fitness	1.711	0.009

Discussion

The purpose of this study was to survey the effect of the use of information and communication technology (ICT) Skills with empowerment indicators on staff in the Ministry of Sports and Youth of Islamic Republic of Iran. The results of this study showed that there was a significant relationship between ICT skills and staff's empowerment indicators. It can be inferred that the development of ICT, especially the Internet has created new conditions in the world and it has had many positive and immediate effects on the behaviors, skills, relationships, and social interactions, especially in staff of a government organization in the executive section. The infinite increase of information has led to that the organization, record, and storage of information be more complex and the access to them be more difficult day to day[23].

Table 4
The results of ICT data and empowerment components.

ICT and Empowerment	Mean	SD
Fitness (ability and willingness)	4.321	0.611
Job variety	3.851	0.689
Self-determination	4.408	1.156
The performance improvement	4.461	0.612
Responsibility	4.123	0.610
Self-control	4.280	0.567
Job development	4.211	0.672
ICT	4.812	0.439

Table 5
The results of Spearman correlation coefficient.

Variables		Spearman correlation coefficient	Sig
ICT ↔	Self-determination	0.376	0.000
ICT ↔	The performance improvement	0.461	0.000
ICT ↔	Fitness	0.411	0.000

Table 6
The results of Pearson correlation coefficient.

Variables		Spearman correlation coefficient	Sig
ICT ↔	Empowerment	0.492	0.000
ICT ↔	Job variety	0.372	0.001
ICT ↔	Job development	0.361	0.001
ICT ↔	Self-control	0.321	0.001
ICT ↔	Responsibility	0.496	0.001

ICT have become the main focus of human' s attention with the daily change in the hardware and software technology, globalization, competitive stress, the need of an organization for expert staff and their familiarity with the methods of technology, the lack of need for individuals' physical presence at workplace, the need of an organization for the improvement of its staff's efficiency and effectiveness, the development of the scope of information flow and its effective contribution in the decision-making, planning, and the hierarchy of most large government organizations. Therefore, the computer science, storage, retrieval, volume of information, and human knowledge were mixed and information technology was formed[24]. ICT helps staff to be aware of their life. They learn about the role of ICT in daily life and become familiar with similar tools of information technology and use these tools independently and in a group. They become familiar with different methods of information gathering, organization, and presentation that affects their performance, so that todays, the type of human's activities in organizations has been transformed into intellectual work with the development of technology and automation tasks[17]. The results of this study was consistent with the results of Jafari and Nemamyan and Emami[14]; Nadifard and Shahtalabi[13]; Choi, et al.[25]; Dewettinck, et al.[22]; and Srivastava, et al. 's[20]study. It is suggested to avoid the traditional views and methods of training due to the rapid changes in the field of ICT and these methods are continuously evaluated from several points for the continuous optimization and updated trainings in this regard. It can be said in the explanation of this approach that the greatest effect of technology may has been on human relationships in the 21st century and with the advancement of the technology world and humans anywhere on the planet can communicate with each other with the help of this technology[26]. citizens need to manage

the effect of information technology on their social, personal, occupational, and civic life due to it is becoming more widespread in the society. Technologies such as computers, mobile phones, the Internet, multi-media, and other popular media have affected the appearance and inner aspects of human life in the current era. These massive information-communications developments have rebuilt the cultural and social context of the society and have had a deep effect on the existential dimensions of the community[11]. According to the results of the results of this study, it is recommended that the staff announce their information needs and shortcomings in the field of ICT to the authorities to enrich their information load. Also, honorable authorities develop and reform infrastructure structures and provide the necessary facilities for the development of computer literacy among students. The results of Goktas' s[27] study showed that the lack of access to computers, the low speed of Internet, the lack of access to resources in the area of residence are identified as the most important problems in using ICT. ICT is an approach that can be more effective than any other method in staffs' efficiency and it can also meet the needs of an organization with the consideration of training opportunities and facilities better than any other system. ICT uses all factors that play the important role in the process of productivity and tries to create a desirable organizational conditions in terms of goals and intentions through the precision design of factors[28]. The correct use of ICT can have a deep positive effect on staffs' engagement and positive attitudes and the facilitation of executive affairs. Therefore, ICT as an effective resource and a way for the quick sharing of information in today's society can be effective to increase empowerment skills in a society[29]. On the other hand, information technology can also be effective on daily communications and play a role of the facilitator. Also, the emergence of technologies can develop the range of human communications in all fields. The subject of ICT and empowerment has been the subject of debate among researchers of technology field, so that it has affected staffs' knowledge, attitudes, values, and coverings in recent decades[30]. Today, the ascending and amazing development of the rate of changes is observable due to ICT and an increase of the human's knowledge and awareness. The most important and effective advantage of using ICT is to reduce information poverty in the community and make information and knowledge available and increase public awareness of the community. Therefore, this can play an important role in the reduction of information poverty and the development of the inclusive information in the society and the efficiency and effectiveness of the community[7]. the investment and the application of hardware and software of new technologies and its use for information storage are not the emphasized issue in the information society, especially in the executive section of government organizations, but the most important issue is learners' empowerment to achieve self-leadership skills in the learning. An administrative system for the creation of the place of ICT in its system needs to examine the needs of this technology in the interactions of its infrastructures[31]. In other words, it should be possible to identify and explain the role of ICT in the quantitative and qualitative development of the executive field due to the recognition the place of ICT in the country bureaucracy, but we should not expect the extraordinary results in the short term of ICT in the administrative culture[7]. The traditional structure and process does not meet the needs of the human community in the information age of the new millennium, because the knowledge-based is the contemporary human's greatest goal. Therefore, we must find opportunities that would enrich the outcome of the training process, because the illiterates of the new century are not individuals who cannot read and write, but they are who do not know how to learn. The use of training technologies using new methods will enhance the efficiency and effectiveness of administrative systems[32].

Conclusion

Generally, the implementation of in-service trainings in accordance with the knowledge of the present era and the work areas can help to staffs' self-efficacy in the Ministry of Sports and Youth of the ministry due to the reinforcement of competence sense and the development of staffs' required skills, abilities, and skills in the Ministry of Sports and Youth to prepare them to meet possible work challenges. We can also reinforce the

determination of each employee's role in the Ministry of Sports and Youth and their activities in achieving the goals of the organizational departments by managers, the strengthening of the control sense over the administrative and operational consequences in staff, and the development of the staffs' capabilities to align the environment with their demands through the implementation of training courses for the organizational upgrading. high level managers of the Ministry of Sports and Youth can empower their staff through the creation of a climate for staff's more participation of ICT, the sufficient freedom for job responsibilities, the allow for the creativity and innovation, and the attention to low level staff's comments and suggestions.

References

1. Sharifi A, Islamiyeh F. The survey of relationship between organizational learning and the use of communication and information technologies in Islamic Azad University of Garmsar in the academic year of 2008-2009. Quarterly Journal of New Approaches in Educational Administration 2009; 1(2): 1-22.
2. Soleymani Sh, Mousavi SY. The relationship between the use of information and communication technology with demographic characteristics in faculty members of Mashhadin the academic year of 2009-2010. Journal of Information and Communication Technology 2011;. 6(2): 332-354.
3. Jokar AR, Efatnejad AA. The survey of the rate of the use of students' advanced studies from information technology in the libraries and universities of Shiraz University. Psychology & Educational science 2005; 11(3-4): 83-108.
4. Voogt J, Fisser P, Roblin NP, Tondeur J, van Braak J. Technological pedagogical content knowledge e a review of the literature. Journal of Computer Assisted learning 2012; 29:109-121. http://dx.doi.org/10.1111/j.1365-2729.2012.00487.x.
5. Mithas S, Tafti AR, Bardhan I, Goh J M. Information technology and firm profitability: mechanisms and empirical evidence. MIS Quarterly 2012; 36(1), 205e224.
6. Franz T. Lohrke, Cynthia Frownfelter-Lohrke, David J. Ketchen, Jr. The role of information technology systems in the performance of mergers and acquisitions. Journal Business Horizons 2016; 59, 7-12.
7. Jafari, S, Azmoon, Z. The Relation between Information Technology with Knowledge Management and Communication Skills of Physical Education Teachers. Communication Management in Sports Media 2017,3 (11):11-25.
8. Keshavarz L, Ghasemi H, Haji Ebrahimi R. The role of information technology in developing the goals of physical education course among the female students of high schools. Communication Management in Sports Media 2017;3(10):22-31.
9. Lau S, Cheung PC. Creativity assessment: Comparability of the electronic and paper-and-pencil versions of the Wallach-Kogan Creativity Tests. Thinking Skills and Creativity 2010; 5(3):101–107. http://dx.doi.org/10.1016/j.tsc.2010.09.004.
10. Niazazari K, Behnamfar R, Andy S. The role of ICT Use in learning of primary school students. Information and Communication Technology in Educational Sciences 2012; 3(2):31-43.
11. Cohen JF, Olsen K. The impacts of complementary information technology resources on the service-profit chain and competitive performance of South African hospitality firms. International Journal of Hospitality Management 2013, 34:245-254.
12. Abedi Jafari H, Asadnezhad Rokni M, Yazdani H. Exploring the effect of using information technology on functional and strategic performances of the human resource management units in automaker and automotive supplier companies in Tehran. Information Technology Management 2011, 3(9): 69-88.
13. Nadifard A, Shahtalabi B. The relationship between application of ICT skills and competencies and psychological empowerment of employees. Information and Communication Technology in Educational Sciences 2016; 6(3):5-24.
14. Nemamyan F, Emami L. The effect of information technology on organizational performance by explaining the mediator of the organizational structure. Ilam Culture Magazine 2016;16(48-49):59-80.
15. Gokalp M. A study on the effects of information technologies on university students. Procedia social and behavioral sciences 2011; 9:501-506.
16. Hamidi M, Sartipi Yarahmadi R. The Application of Information Technology in Empowering Job in Zone Libraries of Azad University. Journal of Knowledge (Library Science and Information Science and Information Technology). 2009;2(5):59-72.
17. Moosivand M, Farazyani F. The impact of ICT on knowledge management within the staffs of Hamedan Organization of Sports and Youth, the application of path analysis. Communication Management in Sports Media 2016;3(10):11-21.
18. Yarahmadi M. The relationship between information technology and information on empowerment bank staff in Tehran [Thesis]. Tehran, Iran: Islamic Azad University, North Tehran Branch; 2012.
19. Kamalian AR, Salarzehi H, Olyaei K. The role of information technology in empowering employees technical and vocational education. University E-Learning Journal 2013;4(2): 39-48.
20. Srivastava A, Bartol KM, Locke EA. Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance1. Acad Manage J 2006; 49(6): 1239-1251.
21. Mohades Kassai S. Identifies the Factors Affecting the Empowerment of Human Resources at the National Iranian Oil Products Distribution [Master thesis]. Tehran: Tehran University; 2008.

22. Dewettinck H. Koen M. Maaike L van Ameijde. Linking leadership empowerment behavior to employee attitudes and behavioral intentions. personnel review 2011;40(3):284-305.

23. Mohammadi S.; Esmaeily N. Prioritization criteria for the introduction and use of information technology in the sports programs of the University. Communication Management in Sports Media 2013;2(6):1-10.

24. Atilgan DO, Bayram G. An evaluation of faculty use of the digital library at Ankara University, Turkey. The Journal of Academic Librarianship 2006; 32(1): 86-93.

25. Choi S; Lee H; Yoo Y. The impact of information technology and transitive memory systems on knowledge, sharing, application and team. MIS Quarterly 2010; 34 (4): 855-870.

26. Miker F. The roles of information communication technologies in education review article with emphasis to the computer and internet. Ethiopian Journal of Education and Sciences 2011; 6(2):1-14.

27. Goktas Z. The Attitudes of Physical Education and Sport Students towards Information and Communication Technologies. Tech Trends 2012; 56(2): 22-30.

28. Fallahi A. The role of information technology in employee empowerment. International Conference on Management and Innovation, Shiraz 2010, 27-28.

29. Sobhani Y, Honari H, Shahlaei J. The relationship information and communication technology and knowledge management in sports federations. Sport Management 2014;17: 55-73.

30. Siddiq F, Ronny Scherer B, Jo Tondeur. Teachers' emphasis on developing students' digital information and communication skills (TEDDICS): A new construct in 21st century education. Journal Computers & Education 2016;1-14.

31. Ghafari Z. Information technology in education area. Resalat Newspaper 2009;3-2:674.

32. Ataran M, Ayati M. Theoretical framework of teacher educating curriculum planning in ICT time based on analysis psychological, social, philosophical principles. Journal of Course Program Studies 2006;3(1):112-133.