



## THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN IMPROVING THE EMPOWERMENT

Soheila HASHEMZEHI<sup>1\*</sup>, Saeed ROUHANI<sup>2</sup>

<sup>1</sup> Mehralborz University of Tehran, Tehran, Iran,

<sup>2</sup> Faculty of Management, University of Tehran, Tehran, Iran.

**\*Corresponding Author**

### ABSTRACT

Nowadays, using modern technologies and information technology has made university undergo major changes and that is why universities adopt a knowledge-oriented and scientific approach. In fact, the role of development of information and communication technology in the growth and development of any society and in promotion of Empowerment of organizations, including universities, is undeniable. Given the advancements of information technology, it is necessary to study the role of these factors and their impacts on employees' job Empowerment process. The present study has aimed to review the role of information and communication technology in the improvement of Empowerment of administrative employees of Islamic Azad University of Zahedan. The statistical population of this study has been composed of all of the administrative employees of Islamic Azad University of Zahedan (260 employees). 152 of these employees have been selected using the Morgan's table method. At first, the application of information technology in organizations was reviewed and after reassuring that it is applied in the organizations under study, the effect of information technology on the Empowerment of employees was studied. According to previous studies, the indexes associated with the Empowerment of organizational employees were identified and divided into six groups. Then, a questionnaire was used as a tool to collect the necessary information and ultimately, the collected data were analyzed using statistical tests. Also, the SPSS software was used for analyzing the research data. The obtained results indicate that using information technologies in the Islamic Azad University of Zahedan has led to the Empowerment of employees.

**Keywords:** Empowerment, Information Technology, Employees, Islamic Azad University of Zahedan

### INTRODUCTION

In the 21<sup>st</sup> century, it is completely obvious that information and communication have become strategically significant. Information technology has influenced different aspects of our everyday lives and today, we are somehow forced different types of information technologies (Lak, 2007). Until 1970s, it was believed that providing countries and organizations that wish to better the potential and power with advanced technologies easily leads to growth and development. Therefore, numerous organizations have attempted to equip themselves with the most advanced technologies. However, soon after this theory was completely rejected; because it would be followed by huge debts and important problems and it became clear that using improper technologies for improving the performance of organizations will have many indirect costs for the developing organizations (Davis, 2012).

Organizations that aim to be reinforced seek a pattern or a model that would be in proportion with their own specific needs and culture. In order to successfully transfer and use information technology, it is necessary for the organizations to analyze their capacity and ability for

improving and the cultural, organizational and economic factors that are involved (Ryu et al, 2017).

Management theorists and scholars all agree that accurate and proper application of information technology increases the effectiveness of employees and management in the organization and therefore, responsibilities would be clearer, employees and managers would be more responsive in the respect of facilitating presentation of services. Fundamental changes that are being made in the nature of information technology and how it is use in many countries all over the world are also changing the attitude of individuals towards improving their job skills and abilities. On the other hand, manpower Empowerment is one of the most amazing approaches to human resource development which leads to the growth of manpower in an organization. Empowerment is a permanent move and its importance is always increasing because the basis of today's business development is the alignment of business with social changes, technological achievements and the demands of the competitive environment. Organization need people who would be able to get the best use of advanced technologies, be innovative and also be able to improve their products and services. There are numerous environmental stimuli that encourage organizations to reinforce their employees; one of the most important of which is the effect of information technology in the work environment; because rapid growth of technology somehow influences all of the aspects of organizations. In today's world, which is known as the age of information technology, one of the most obvious indexes of improvement is people's information literacy and the coordination between the society and modern technologies in different occupations (Dolati et al., 2013).

The information technology phenomenon has been rapidly and significantly influenced by the demands and requirements of human beings and it has created many new needs. Today's challenging world has been founded based on qualified and powerful human resources of the organizations. Nowadays, information technology can be used as a strong and powerful tool for improving the quality and efficiency of employees. Because of the daily increasing development of tools that are based on these technologies and the high speed of their compatibility with the needs of human beings, a new form of a creative, active, inclusive and interactive learning environment has been created. Currently, information is one of the most important sources of power in the organizations; accordingly, being able to gather information, especially information that seem to play a basic and strategic role in the organization, can be used for building a powerful database and for influencing the organization (Ardalan, 2011).

So far there have been numerous studies on the effect of information technology on employees and different individuals including the research conducted by Ahmadi et al. (2011) who had reviewed the effect of information technology education on the productivity of employees. Another one is the research done by Naderian Nasab et al. (2015) who studied the effect of information technology on the performance of the employees of the investment staff. However, the role of communication and information technology in the improvement of administrative personnel and employee Empowerment has not be focused on much. Islamic Azad University is a university system in and out of Iran and it is one of the biggest educational centers in Iran. This system is considered as one of the most valid universities in Iran. Since Islamic Azad University of Zahedan has investment so much on information technology, thus, this research is extremely important because it brings more awareness to the role of communication and information technology in the improvement of employee Empowerment and also because the necessary



strategies for using the communication and information technology can be extracted from the results obtained from this review. Therefore, the present study has aimed to answer the following question: does the communication and information technology have an impact on the improvement of Empowerment of employees of Islamic Azad University?

## THEORETICAL PRINCIPLES OF THE RESEARCH

### *Theoretical background of information technology*

Konntz and Weihrich (1988) believe that technology refers to knowledge and the specialty for doing the work and it includes innovations, creation, techniques and a broad range of knowledge and information. In general, technology is an arbitrary term which has many notions and concepts and different authors have presented different definitions of this term and they have looked at it from different angles. Some of these authors have focused on the machines that are used while defining this term and some others have put emphasis on knowledge. A group of them have concentrated on the interactions between human beings and machines and another group of authors have focused on a specific part of technology (Secretariat, 2005).

In fact, computers are regarded as the main infrastructure for evolution of information technology and computers have played a significant role in this evolution. This role includes adapting and encouraging broader information perspectives and how they change and evolve in time and place. Since 1950s, computers have replaced traditional accounting methods and record and data storage methods through a newly found data processing industry. Generally, the term information technology is used for describing technologies which are used for recording, processing, recovering and transferring information through fax, micrographs and other remote communication tools as well as older technologies such as document archiving, mechanical computing, printing and engraving machines (Turban, 2009). Other scholars, such as Sleezer, Wentling and Cude (2011), have introduced information technology as an umbrella which comes in different forms including software, hardware and the services used for collecting, storing, recovering and sending information. After the development of such technologies and because of their exponential impact on all of the aspects of business, information technology obviously plays a crucial role in the global economy. Despite all of the optimistic predictions about the future of information technology, Weil and Ross (2009) argue that information technology, as a leverage, can only help the organization reach its anticipated effectiveness and give the organization added value when the organization has the five key assets, i.e. workforce, financial assets, physical assets, spiritual ownership and relations.

Eatan (1983) states that information technology includes tools and devices that are used for exchanging information in the organization. However, care must be taken that information technology is a cultural and intellectual system before being a hardware system and a series of patterns and it can be called the information production culture. Without this culture, the technology system cannot be permanent. Thus, what is important in information technology is an information-oriented way of thinking. Information technology is generated and created by connecting and combining a set of useful thoughts and it is not composed of computers, super computers, wires, cables and tools as such. In information technology, it is the thoughts of wise men that produces information (Smart Organizations in the Digital Age, 2006).

### *Theoretical background of employee Empowerment:*



Gro (1971) has referred to the common definitions that have been presented for Empowerment in different dictionaries. These definitions include legal delegation of power, delegation of authority, giving employees different missions and empowering employees. In 1990, Gandez conceptualized Empowerment by making employees responsible for making decision. On the other hand, Zeimerman (1990) refers to the ease and impossibility of defining this terms and believes that while providing a definition of Empowerment, it is easy to ignore words such as “frustration”, “powerlessness” and “alienation” and it is quite difficult to define it when we want to take into consideration different individuals (same).

The literature on Empowerment has evolved and changes so much over time. Finally, in 2001, Lee defined Empowerment as a field for increasing dialogues, critical thinking, and small group activities and stated that it is allowing some activities in order to move towards sharing, dividing and polishing experiences, thoughts, seeing and conversations which are some of the main components of Empowerment.

Fox (1998) believes that “reinforcing employees is a process through which the Empowerment culture is developed. In this culture, goals, ideals, decision making borders and the outcome of their influences and their efforts are shared throughout the entire organization. In such culture, resources and competitions are provided and supported for acquiring the resources that are required for the organizational activities to be effective. Blanchard has summarized the Empowerment process in three stages:

- 1- Information sharing: which allows the employees to know and analyze their place and position in the organization. Information sharing begins with building trust in the organization and by breaking the traditional hierarchal thinking and therefore, it increases employees’ capacity for getting information and using it.
- 2- Autonomy and job independency throughout the borders of the organization: organizational borders are specified by objective (why you work), values (what guides you), imaginations (what is your image of your future), goals (what do you do, when, where, how and why you do it), roles (who you are) and organizational system and structure (how much the work you do is supported) (Liu et al., 2010).
- 3- Replacement of hierarchies by self-governing teams: whenever a group of employees with specific responsibilities is selected for the process of working and production, from the beginning to the end of the work will be planned and administrated, everything will be managed and responsibilities will be fairly and equally shared and divided between the employees. Self-governing teams have some advantages, namely: increased job satisfaction, changing attitudes, establishing a better relationship between employees and managers, increased efficiency of decision making processes, improvement of operations, reduction of costs and increased organizational productivity.

## RESEARCH METHOD

The present study is a descriptive survey in terms of how it has been conducted and the data collection tools which have been used in it and it is an applied research in terms of its objective since it aims to solve specific problems societies are faced with. The information gathering methods in this research are field studies, interviews and a questionnaire. In this method, after designing the research questionnaire, the researchers distributed them among some of the employees, experts and managers of the Islamic Azad University of Zahedan. The information



technology questionnaire used in this research has been developed by the researcher and it has two separate sections: the first section is association with information technology and its impacts (21 questions) and the second section is associated with employee Empowerment (15 standard questions). In the first section, how much information technology has been used was reviewed and after ensuring that it has been applied, its effects on employee Empowerment was reviewed. To confirm the validity of the questionnaire, opinions of professors and experts were used and also, its reliability was obtained by computing Cronbach's alpha (0.785) which is indicative of high correlation between the items.

This study is a descriptive survey. The statistical population of this study has been composed of all of the administrative employees of Islamic Azad University of Zahedan (260 employees). The Morgan's table method has been used for estimating the sample size (152 employees). 147 of these 152 employees completely filled out the questionnaires that had been given to them. Data analysis was done using the SPSS software at two levels: descriptive statistics and inferential statistics. In the inferential statistics section, given the type of variables and the information needed for testing the research hypothesis, linear regression statistical tests were used.

***Main hypothesis:***

Using information technology has an impact on the improvement of Empowerment of employees of Islamic Azad University of Zahedan.

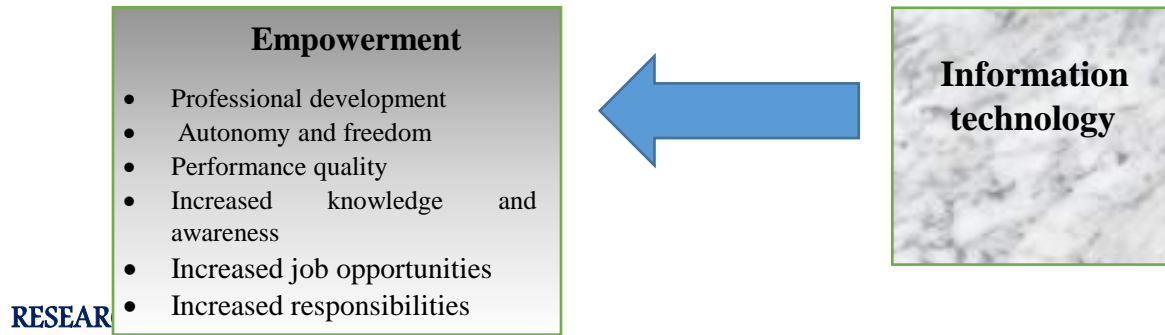
***Secondary hypotheses:***

1. Using information technology has an impact on the Professional development of employees of Islamic Azad University of Zahedan.
2. Using information technology has an impact on the Autonomy and freedom of employees of Islamic Azad University of Zahedan.
3. Using information technology has an impact on the Performance quality of employees of Islamic Azad University of Zahedan.
4. Using information technology has an impact on the increased knowledge and awareness of employees of Islamic Azad University of Zahedan.
5. Using information technology has an impact on the increased job opportunities of employees of Islamic Azad University of Zahedan.
6. Using information technology has an impact on the increased responsibilities of employees of Islamic Azad University of Zahedan.

***Conceptual model of the research:***

Since any survey or field study needs a conceptual model and a mental map designed in the form of proper analytical tools, variables and the relationships between them, in the present study, the following model was developed by combining different models developed by different experts:





**Main hypothesis:** Using information technology has an impact on the improvement of Empowerment of employees of Islamic Azad University of Zahedan.

To determine the effectiveness, goodness-of-fit in regression model was analyzed which was discussed below. To propose the model of the relationship between using information technology (Y) and Improvement of Empowerment (X) after investigating its adequacy indicators in below table, the model is presented.

**Table 1. Goodness of fit of regression model between Using information technology and Improvement of Empowerment**

R	R Square	Adjusted R Square	Std. Error of the Estimate
0,216	0,047	0,038	9

The relationship between independent variables and the dependent variable equals to .216. R Square is .047 which shows that 4.7 percent of variation in Using information technology is predicted by improvement of Empowerment. Because this measure do not consider the degree of freedom, adjusted R Square was used which equals to 3.8 in this study. According to the indices, the model was adequate.

**Table 2. Regression equation of improvement of Empowerment**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
1	Constant		0,216	4,82	0,024
	Using information technology			2,29	
Dependent Variable: improvement of Empowerment					

The inserted variable in regression equation is the core of regression analysis which can be seen in Table 2 The regression equation is provided by unstandardized coefficients.

$$\text{Improvement of Empowerment} = 49.38 + (0.374) \text{ Using information technology}$$

It can be said that with increase of one unit of each independent variable depending on the written coefficient, the dependent variable is increased. In other words, with increase of one unit in Using information technology, the standard deviation 0.374 unit of improvement of Empowerment is increased, so they have positive relationship. T-test relating to regression

coefficients are displayed in the table for independent variable as well. The sig. value equals to .024, so Using information technology has a meaningful effect on improvement of Empowerment.

**Sub-hypothesis1:** Using information technology has an impact on the Professional development of employees of Islamic Azad University of Zahedan.

To determine the effectiveness, goodness-of-fit in regression model was analyzed which was discussed below. To propose the model of the relationship between Using information technology (Y) and Professional development (X) after investigating its adequacy indicators in below table, the model is presented.

**Table 3. Goodness of fit of regression model between Using information technology and Professional development**

R	R Square	Adjusted R Square	Std. Error of the Estimate
., ۲۶۵	., ۰۷۰	., ۰۶۸	۹, ۲۹

The relationship between independent variables and the dependent variable equals to .265. R Square is .070, which shows that 7 percent of variation in Using information technology is predicted by Professional development. Because this measure do not consider the degree of freedom, adjusted R Square was used which equals to 6.8 in this study. According to the indices, the model was adequate.

**Table 4. Regression equation of Professional development**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig
		B	Std. Error	Beta		
1	Constant	۶۶, ۵۰	۹, ۲۷	, ۲۶۵	۵, ۱۷	, ۰۴۹
	Using information technology	, ۲۴۸	, ۳۶۶		۳, ۲۱	
Dependent Variable: Professional development						

The inserted variable in regression equation is the core of regression analysis which can be seen in Table 4 the regression equation is provided by unstandardized coefficients.

$$\text{Professional development} = 66.50 + (0.248) \text{ Using information technology}$$

It can be said that with increase of one unit of each independent variable depending on the written coefficient, the dependent variable is increased. In other words, with increase of one unit in Using information technology, the standard deviation 0.248 unit of Professional development is increased, so they have positive relationship. T-test relating to regression coefficients are displayed in the table for independent variable as well. The sig. value equals to .049, so Using information technology has a meaningful effect on Professional development.

**Sub-hypothesis2:** Using information technology has an impact on the Autonomy and freedom employees of Islamic Azad University of Zahedan.

To determine the effectiveness, goodness-of-fit in regression model was analyzed which was discussed below. To propose the model of the relationship between Using information technology (Y) and Autonomy and freedom (X) after investigating its adequacy indicators in below table, the model is presented.



**Table 5. Goodness of fit of regression model between Using information technology and Autonomy and freedom**

R	R Square	Adjusted R Square	Std. Error of the Estimate
0,351	0,123	0,115	8,72

The relationship between independent variables and the dependent variable equals to .351. R Square is .123 which shows that 12.3 percent of variation in Using information technology is predicted by Autonomy and freedom. Because this measure do not consider the degree of freedom, adjusted R Square was used which equals to 11.5 in this study. According to the indices, the model was adequate.

**Table 6. Regression equation of Autonomy and freedom**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig
		B	Std. Error	Beta		
1	Constant	43,75	7,53	0,351	5,80	0,000
	Using information technology	1,40	0,361		3,87	0,000
Dependent Variable: Autonomy and freedom						

The inserted variable in regression equation is the core of regression analysis which can be seen in Table 6 the regression equation is provided by unstandardized coefficients.

$$\text{Autonomy and freedom} = 43.75 + (1.40) \text{ Using information technology}$$

It can be said that with increase of one unit of each independent variable depending on the written coefficient, the dependent variable is increased. In other words, with increase of one unit in Using information technology, the standard deviation 1.40 unit of Autonomy and freedom is increased, so they have positive relationship. T-test relating to regression coefficients are displayed in the table for independent variable as well. The sig. value equals to 0.000, so Using information technology has a meaningful effect on Autonomy and freedom.

**Sub- hypothesis3:** Using information technology has an impact on the Performance quality of employees of Islamic Azad University of Zahedan.

To determine the effectiveness, goodness-of-fit in regression model was analyzed which was discussed below. To propose the model of the relationship between using information technology (Y) and Performance quality (X) after investigating its adequacy indicators in below table, the model is presented.

**Table 7. Goodness of fit of regression model between Using information technology and Performance quality**

R	R Square	Adjusted R Square	Std. Error of the Estimate
0,393	0,155	0,152	9,27

The relationship between independent variables and the dependent variable equals to .393. R Square is .155 which shows that 15.5 percent of variation in Using information technology is predicted by Performance quality. Because this measure do not consider the degree of freedom,

adjusted R Square was used which equals to 15.2 in this study. According to the indices, the model was adequate.

**Table 8. Regression equation of Performance quality**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig
		B	Std. Error	Beta		
1	Constant	65,78	7,34	,393	8,95	,008
	Using information technology	,422	,440		,985	
Dependent Variable: Performance quality						

The inserted variable in regression equation is the core of regression analysis which can be seen in Table 8 the regression equation is provided by unstandardized coefficients.

$$\text{Performance quality} = 65.78 + (0.422) \text{ Using information technology}$$

It can be said that with increase of one unit of each independent variable depending on the written coefficient, the dependent variable is increased. In other words, with increase of one unit in Using information technology, the standard deviation 0.422 unit of Performance quality is increased, so they have positive relationship. T-test relating to regression coefficients are displayed in the table for independent variable as well. The sig. value equals to .008, so Using information technology has a meaningful effect on Performance quality.

**Sub-hypothesis4:** Using information technology has an impact on the increased knowledge and awareness of employees of Islamic Azad University of Zahedan.

To determine the effectiveness, goodness-of-fit in regression model was analyzed which was discussed below. To propose the model of the relationship between Using information technology (Y) and Increased knowledge and awareness (X) after investigating its adequacy indicators in below table, the model is presented.

**Table 9. Goodness of fit of regression model between Using information technology and Increased knowledge and awareness**

R	R Square	Adjusted R Square	Std. Error of the Estimate
,421	,177	,169	8,27

The relationship between independent variables and the dependent variable equals to .421. R Square is .177 which shows that 19.9 percent of variation in Using information technology is predicted by Increased knowledge and awareness. Because this measure do not consider the degree of freedom, adjusted R Square was used which equals to 16.9 in this study. According to the indices, the model was adequate.

**Table 10. Regression equation of Increased knowledge and awareness**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig
		B	Std. Error	Beta		
1	Constant	43,25	8,24	,421	9,25	0.000
	Using information technology	,522	,354		,657	
Dependent Variable: Increased knowledge and awareness						



The inserted variable in regression equation is the core of regression analysis which can be seen in Table 2 the regression equation is provided by unstandardized coefficients.

$$\text{Increased knowledge and awareness} = 43.25 + (0.522) \text{ Using information technology}$$

It can be said that with increase of one unit of each independent variable depending on the written coefficient, the dependent variable is increased. In other words, with increase of one unit in Using information technology, the standard deviation 0.522 unit of Increased knowledge and awareness is increased, so they have positive relationship. T-test relating to regression coefficients are displayed in the table for independent variable as well. The sig. value equals to .000, so Using information technology has a meaningful effect on Increased knowledge and awareness.

**Sub- hypothesis5:** Using information technology has an impact on the increased job opportunities of employees of Islamic Azad University of Zahedan.

To determine the effectiveness, goodness-of-fit in regression model was analyzed which was discussed below. To propose the model of the relationship between Using information technology (Y) and Increased job opportunities (X) after investigating its adequacy indicators in below table, the model is presented.

**Table 11. Goodness of fit of regression model between Using information technology and Increased job opportunities**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.381	.145	.14	9.32

The relationship between independent variables and the dependent variable equals to .381. R Square is .145 which shows that 14.5 percent of variation in Using information technology is predicted by Increased job opportunities. Because this measure do not consider the degree of freedom, adjusted R Square was used which equals to 14 in this study. According to the indices, the model was adequate.

**Table 12. Regression equation of Increased job opportunities**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1	Constant	67.21	6.59	.381	.000
	Using information technology	.473	0.398		.000
Dependent Variable: Increased job opportunities					

The inserted variable in regression equation is the core of regression analysis which can be seen in Table 12 the regression equation is provided by unstandardized coefficients.

$$\text{Increased job opportunities} = 67.21 + (0.473) \text{ Using information technology}$$

It can be said that with increase of one unit of each independent variable depending on the written coefficient, the dependent variable is increased. In other words, with increase of one unit in Using information technology, the standard deviation 0.473 unit of Increased job

opportunities is increased, so they have positive relationship. T-test relating to regression coefficients are displayed in the table for independent variable as well. The sig. value equals to .013, so Using information technology has a meaningful effect on Increased job opportunities.

**Sub-hypothesis6:** Using information technology has an impact on the increased responsibilities of employees of Islamic Azad University of Zahedan.

To determine the effectiveness, goodness-of-fit in regression model was analyzed which was discussed below. To propose the model of the relationship between using information technology (Y) and increased responsibilities (X) after investigating its adequacy indicators in below table, the model is presented.

**Table 13. Goodness of fit of regression model between Using information technology and Increased responsibilities**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.520	.270	.268	.36

The relationship between independent variables and the dependent variable equals to .520. R Square is .270 which shows that 27 percent of variation in Using information technology is predicted by Increased responsibilities. Because this measure do not consider the degree of freedom, adjusted R Square was used which equals to 26.8 in this study. According to the indices, the model was adequate.

**Table 14. Regression equation of Increased responsibilities**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
1	Constant	55.69	.347	.520	0.000
	Using information technology	.532	.347		
Dependent Variable: Increased responsibilities					

The inserted variable in regression equation is the core of regression analysis which can be seen in Table 14 the regression equation is provided by unstandardized coefficients.

$$\text{Increased responsibilities} = 55.69 + (0.532) \text{ Using information technology}$$

It can be said that with increase of one unit of each independent variable depending on the written coefficient, the dependent variable is increased. In other words, with increase of one unit in Using information technology, the standard deviation 0.347 unit of Increased responsibilities is increased, so they have positive relationship. T-test relating to regression coefficients are displayed in the table for independent variable as well. The sig. value equals to .000, so Using information technology has a meaningful effect on increased responsibilities.

## DISCUSSION AND CONCLUSION:

The findings obtained from reviewing the primary hypothesis of the research indicate that there is a strong relationship between using information technology and employees' becoming more responsible; meaning that the more information technology is used, the more responsible



employees would be. Thus, given the special place and importance of information technology and also the rapid growth and advancement of technology, which has affected all of the organizational aspects, it must be used in such a way that skills, creativity, changes in the nature of the job and maximum flexibility of employees would be institutionalized in the organization. Using information technology in an organization minimizes human errors in the organization's information processing network, increases the speed of presenting services to the customers, and more importantly, because of IT, customers would be more satisfied with the organization. Thus, using IT increases employees' knowledge and ability for establishing easier, more accurate and low-cost relationships and human errors would be reduced in the organization's information processing network. Nowadays, organizations use computers and automatize some of the responsibilities of line managers, and therefore, traditional management structures are no longer needed for sending orders and messages to other units and people in the organization. As a result, information is much more accessible to the employees and employees have become more knowledgeable and aware and it takes a shorter period of time for them to do their work. That is why when information technology is used in the universities, employees become more responsible. Considering the results of this study, because of application of information technology in the Islamic Azad University, employees have become more responsible in terms of decision makings in the organization because they have better access to the information that is needed for making decisions, controlling the organizations and monitoring organizational processes, and it has become easier to analyze the current conditions. These are some of the incredible and considerable effects of IT. Moreover, in order to prevent routine and repeated tasks, reducing the time needed for responding and making decisions, delegating authorities to lower organizational levels, managers have the opportunity to use information technology and turn to entrepreneurship and designing roles more. Today, traditional management structures are no longer needed for sending orders and messages to other units and people in the organization. As a result, employees have better access to more accurate information. Because of the effect of information technology on the job path of employees, it takes a shorter period of time for employees to do their work which can practically act as a facilitating factor. In addition, job description has a considerable impact on job satisfaction, creating more job opportunities, returns on jobs and individual status of jobs in the organization and society. Given the aforementioned points, it can be concluded that by using IT, university employees would be more responsible and since autonomy refers to an individual's need for using IT in making the decisions that affect their responsibilities and to their role in controlling job opportunities, freedom (both in taking an action and in giving comments) and having the right to vote in association with their jobs, using IT facilitates controlling and monitoring the organization. As the domain of this supervision broadens, the number of line managers reduces and therefore, there would be lesser managerial levels in such units. As a result, it can be concluded that by using IT, employees of Islamic Azad University would be more responsible. Considering what was mentioned before, all of the secondary hypothesis would be confirmed which would then lead to the confirmation of the primary hypothesis. Thus, according to the findings, it can be argued that using information technology in the Islamic Azad University of Zahedan has made employees more responsible.



The results of the present study comply with the results of studies conducted by Paktinat (2008), Ora'ee (2010), Hamidi (2009), (Ramesh, 2014), Nasiri (2011), Ardalan (2011) and Kamalian (2013).

## References

- Ahmadi, M., Yunesi, S., Dadashi, S. (2011). The effect of information technology education on employee productivity (case study: Islamic Azad University, Sari branch). *Quarterly journal of communication and information technology in educational sciences*, 2nd year, no. 3, spring of 2012, Pp. 129-149.
- Ardalan, A. (2011). Reviewing the effect of technology and information on employees' becoming more responsible. Master's thesis, Sanandaj University.
- Davies, D.M. (2012) Appropriate information Technology. *International Information & Library Review International Library Review*, 17.pp. 247-258
- Dolati, S. and Babayi, M. (2013). Futurology in skill training and employment and its role in a resilient economy. *Vocational Education and Training Organization*, Vol. 3, Pp 149-158.
- Hamidi, M. and Yar Ahmadi, R. (2009). Using IT for making employees of district 5 Islamic Azad University more responsible. *Information and Librarianship journal, epistemology (information, librarianship and information technology)*, no. 5, Pp. 59-72.
- K. Ryu, J. Park, JaeHong Park. "The influence of IT investment and IT governance on corporate performance of multibusiness firms". Springer science+Business Media New York 2017. published online: 24 February 2017
- Lak, Behzad (2007). The role of communication and information technologies in the implementation of knowledge management for the police". 2nd conference on the police and communication and information technology, Police University.
- Liu, M. M. Wilson, W. M. (2010). "Enhancing commitment through work empowerment". *Journal: engineering, construction and architectural management*, Vol. 11, No. 6
- Ora'ee Yazdani, Badreddin (2010). Reinforcing and displacement of power base in today's organizations. *Quarterly journal of management studies*, no. 25 and 26.
- Paktinat, A. and Fathizadeh, A. (2008). Becoming more responsible: necessities and strategies. *Quarterly journal of management*, 5th year, no. 11, Pp 33-47.
- R. Ramesh, K. Shyam Kumar. (2014). "Role of Employee Empowerment in Organizational Development" *International Journal of scientific research and management (IJSRM)*
- Secretariat, L., 2005, *Information, Communication and Space Technology for Meeting Development Challenges*, Economic and Social Commission for Asia and the Pacific. Special Body on Least Developed and Landlocked Developing Countries, Seventh session, 10-11, Bangkok.



Smart Organizations in the Digital Age (2006), Erastos Filos, DirectorateGeneral Information Society and Media, European Commission, Belgium, Chapter I.

Turban, E., McLean, E., & Wetherbe, J. (2009). Information Technology for Management: Transforming Business in the Digital Economy (6th ed). Volume 2, Issue 8.

