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The role of the use of information and communication technology skills on the share of productivity components of human resources for the improvement of the functional system of management of the department of power distribution Centers In Districts Of Guilan Province

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Objective: Information technology (IT) can be effective on employees' productivity and executive activity. Therefore, the purpose of this study was to examine the role of the use of information and communication technology (ICT) skills on the share of productivity components of human resources for the improvement of the functional system of management of the department of power distribution centers in districts of Guilan province.

Methods: This study was a descriptive-correlational research. The statistical population was included all employees in the power distribution centers of Guilan province. The instrument of this study was included the Human Resources Questionnaire based on the ACHIEVE model (Hersey and Goldsmith) and the questionnaire of Information and communication technology for development (ICT4D). The collected data were classified by descriptive statistical methods and were analyzed by the Kolmogorov-Smirnov test and Pearson and Spearman Correlation Coefficients. The SPSS software (version 23) was used for data analysis ($\alpha \leq 0.05$).

Results: 75.22% of subjects were men and 24.78 of them were women. The correlation coefficient was 0.58 between ICT and productivity, 0.59 between administrative services and productivity, 0.48 between electronic services and organizational productivity, 0.49 between communication networks and productivity and 0.37 between the use of system hardware and productivity.

Conclusions: It is suggested that the traditional methods of executive work should be avoided due to the continuous productivity and there will be closer relationship with productivity if the specialized training increases in service and executive organizations.

Keywords: Administrative services, electronic services, communication networks, distribution centers, ICT

O Papel do Uso das Competências em Tecnologia da Informação e da Comunicação na Participação dos Componentes de Produtividade dos Recursos Humanos na Melhoria do Sistema Funcional de Gestão do Departamento de Centros de Distribuição de Energia nos Distritos da Província de Guilan

Resumo

Objetivo: A tecnologia da informação (TI) pode ser eficaz na produtividade dos funcionários e na atividade executiva. Portanto, o objetivo deste estudo foi examinar o papel do uso de habilidades de tecnologia da informação e comunicação (TIC) na participação de componentes de produtividade de recursos humanos para a melhoria do sistema funcional de gestão do departamento de centros de distribuição de energia em distritos da província de Guilan.

Métodos: Este estudo foi uma pesquisa descritivo-correlacional. A população estatística foi incluída todos os funcionários nos centros de distribuição de energia da província de Guilan. O instrumento deste estudo incluiu o Questionário de Recursos Humanos baseado no modelo ACHIEVE (Hersey and Goldsmith) e o questionário de Tecnologia da Informação e Comunicação para o desenvolvimento (ICT4D). Os dados coletados foram classificados por métodos estatísticos descritivos e analisados pelo teste de Kolmogorov-Smirnov e Coeficientes

de Correlação de Pearson e Spearman. O software SPSS (versão 23) foi utilizado para análise de dados (α≤0,05).

Resultados: 75,22% dos sujeitos eram homens e 24,78 deles eram mulheres. O coeficiente de correlação foi de 0,58 entre TIC e produtividade, 0,59 entre serviços administrativos e produtividade, 0,48 entre serviços eletrônicos e produtividade organizacional, 0,49 entre redes de comunicação e produtividade e 0,37 entre o uso de hardware e produtividade do sistema.

Conclusões: Sugere-se que os métodos tradicionais de trabalho executivo devam ser evitados devido à produtividade contínua e que haja uma relação mais próxima com a produtividade, se o treinamento especializado aumentar em organizações executivas e de serviços.

Palavras-chave: serviços administrativos, serviços eletrônicos, redes de comunicação, centros de distribuição, TIC

El papel del uso de las habilidades de tecnología de la información y la comunicación en la participación de los componentes de productividad de los recursos humanos para el mejoramiento del sistema funcional de gestión del Departamento de Centros de Distribución de Energía en los distritos de la provincia de Guilan

Resumen

Objetivo: la tecnología de la información (TI) puede ser efectiva en la productividad y la actividad ejecutiva de los empleados. Por lo tanto, el propósito de este estudio fue examinar el papel del uso de las habilidades de las tecnologías de la información y la comunicación (TIC) en la participación de los componentes de productividad de los recursos humanos para la mejora del sistema funcional de gestión del departamento de centros de distribución de energía en Distritos de la provincia de guilan.

Métodos: Este estudio fue una investigación descriptiva-correlacional. La población estadística se incluyó a todos los empleados en los centros de distribución de energía de la provincia de Guilan. El instrumento de este estudio fue el Cuestionario de Recursos Humanos basado en el modelo ACHIEVE (Hersey y Goldsmith) y el cuestionario de Tecnologías de la información y la comunicación para el desarrollo (ICT4D). Los datos recopilados se clasificaron por métodos estadísticos descriptivos y se analizaron mediante la prueba de Kolmogorov-Smirnov y los coeficientes de correlación de Pearson y Spearman. El software SPSS (versión 23) se utilizó para el análisis de datos (α≤0.05).

Resultados: el 75,22% de los sujetos eran hombres y 24,78 de ellos mujeres. El coeficiente de correlación fue 0.58 entre las TIC y la productividad, 0.59 entre los servicios administrativos y la productividad, 0.48 entre los servicios electrónicos y la productividad organizacional, 0.49 entre las redes de comunicación y la productividad y 0.37 entre el uso del hardware del sistema y la productividad.

Conclusiones: se sugiere que los métodos tradicionales de trabajo ejecutivo deben evitarse debido a la productividad continua y que habrá una relación más estrecha con la productividad si aumenta la capacitación especializada en organizaciones de servicio y ejecutivas.

Palabras clave: servicios administrativos, servicios electrónicos, redes de comunicación, centros de distribución, TIC.
Palabras clave: servicios administrativos, servicios electrónicos, redes de comunicación, centros de distribución, TIC.

Introduction

The world today is a world with massive transformations and the future imagination seems unlikely without the support of ICT. We have witnessed the information and communication revolution in the last decade, so that the current century has been called ICT due to the transformations. IT is creating a new revolution all over the world that has created new and remarkable capacities in the field of the human's knowledge and has created tools that have changed the nature of work and life and have undergone massive transformation in all the social and economic arenas of humanity (Niazazari, Behnamfar, & Andy, 2012).

In recent years, science and knowledge are rapidly changing in the world and the huge successes of information have transformed the world into a global village. That things were impossible and unthinkable in the past, but those are a part of our everyday life now (Murtaza, Shafqat, & Ud Din, 2011). What can be observed today shows the ascending and amazing development of transformation through ICT and the increase of human knowledge and awareness. The most important and effective advantage of the ICT use is the reduction of the information poverty in the community, the access to a variety of information and knowledge, and the increase of the level of public awareness in the community (Cohen & Olsen, 2013). ICT plays a vital role in the survival of organizations in the era of environmental accelerator transformations and changes. ICT provides this opportunity for service organizations that be able to fast processing of information and the ability to control and coordination of more complex structures. In addition, it causes that the organization performance and management be accomplished with a coherence state and a quick feedback (Wang, Klein, & Jiang, 2007).

The new phenomenon of ICT has affected different aspects of life and has led to the emergence of some fundamental changes in the relationships of human societies (Qudah & Melhem, 2011). This phenomenon has affected the human's demands with a remarkable speed and has created new needs (Ataran & Ayati, 2006). ICT is an instrument in staffs' hands to increase their ability (Abedi Jafari, Asadnezhad Rokni, & Yazdani, 2011). On the other hand, any organization that ignores this issue will fall due to the rapid growth of ICT and the need of organizations for their survival in today' s era. Nowadays, the attention to this technology is inevitable and necessary to achieve the goals of the organization (Nadifard & Shahtalabi, 2016).

The concept of information has had a vital importance in the history of organizations and the slogan of information is power and it has proved its validity throughout history. According to this metaphor and the intellectual information processing theory, there are organizations that can process information that provides more effective decision-making for them (Gougatas, 2012). The huge and surprising developments in science and technology have revolutionized organizations. This change will continue with an increasing speed. The acceptance of the transformation in the present world is one of the biggest factors in the survival of the organizations, so that the intensity and depth of these changes are so great that it creates the need for new and evolutionary methods for coping, coordination, and adaption with it (Miker, 2011).

Today, the importance of ICT is clearly identified due to the increase of the speed and accuracy of different activities of organizations and the relationship of its different components with each other and their high productivity (Lee, Huang, Barnes, & Kao, 2010). The main part of debates related to systems and methods of work has changed with the development of IT and the software industry (Rodiguez and Lerounteh, 2011). In recent years, countries have invested heavily to equip organizations with IT facilities, including computer hardware, technical and management computer programs, the development of internal networks, and the connection to global networks to improve the productivity process (Paganetto, Becchetti, & Bedoya, 2003). This has led to an increase in the inputs of organizations, so it is expected that the output and productivity will also increase in the organization (Mansell, 2009). On the other hand, productivity is one of the most important factors of development for all countries (Atrostic, Boegh-Nielsen, Motohashi, & Nguyen, 2004). The productivity of human resources is another factor that is used by organizations and it is very important in addition to the capital factors capital and labor force (Ostadzadeh, 2008). Service organizations need ICT due to survive in the market and retain their competitive power (Taleghani, 2014). It should be accepted that productivity is one of the main effective factors on organizational progress and its improvement is a culture and an attitude towards the whole of life that covers different aspects and is the origin of many of the fundamental changes and developments. Today, increasing productivity and maintaining productivity are the most important goals that managers of organizations pay attention to them (Hitt & Eli, 2009). The use of information systems and new technologies, especially IT is the most important tool in organizations and communities to improve productivity and accelerates the move in this direction (Sharma & Sanjay, 2010).

Therefore, the use of information systems in an organization and the creation of a suitable platform for its implementation is a desirable tool to increase the productivity level of that organization and its incorrect use can impose problems on the organization and leads to the reduction of productivity (Lichtenberg, 2011). ICT as a facilitator factor of organizational activities can be effective on the productivity of human resource and the ICT use for the reduction of costs and the increase of labor force productivity and competitiveness is necessary (Pavlou & Sawy, 2006). The measurement of productivity is essential for all managers of organizations and this is so important that the strengths and weaknesses of an executive organization can be identified by a productivity measurement system and its components (Beaudreau, 2010).

In review of the research evidence, we can refer to several studies that have been conducted in relation to the variables of the present study. Kiani and Sarlak (2017) examined the effect of ICT on capital productivity and total factor productivity in Iran (case study: large industrial workshops of Yazd province). The results showed that the symptoms of the coefficients were consistent with theoretical foundations in all the estimated equations. Capital stock per capita showed a significant and positive effect on all three estimation models. The index of the ICT use was significant that its effect was 0.39 on per capita production, 0.147 on capital productivity, and 0.32 on total factor productivity. Asayesh and Shakibai (2014) examined the effect of ICT on labor productivity in Iran industries using four digit ISIC codes.

The results showed that ICT capital had the most effect on labor productivity in the Iranian economy during the studied period than non-ICT capital. The effect of ICT capital on labor productivity was positive and significant. According to the Atkinson and Mckay' s (2007) study, ICT has an effect on total productivity through the external effects of network, the improvement of supplements with the acceptation of ICT, and the improvement of access to knowledge that the positive effects of each of these factors on productivity will be with time delay. IT can create network effects through the connection of all telephone subscribers to the telephone network that will increase the all users' satisfaction. Abramovsky and Griffith (2009) examined the effect of ICT on growth and productivity. The results indicated that technology and knowledge dissemination had an important effect on productivity, so that the average use of ICT in time periods of (1990-1995) and (1995-2001) increased 3.5 percent in annual growth in the United States. ICT also increased productivity in companies that used more technology and the production potential was higher than ICT. Van Ark (2014) that emphasized on total productivity in a study surveyed productivity in the aluminum industry and its comparison with

the productivity of these industries in the United States or other industries. He concluded that there should be changes in transportation, innovation, IT, and storage in order to improve the productivity of these industries. He mentioned that the human factor was the most important factor alongside ICT in productivity.

Rincon, Vecchi, & Venturini (2015) surveyed the relationship between research and development and productivity with emphasis on technology in the UK. In this study, research and development variables, trade openness and access to IT technology played an important role in productivity and the results showed that there was a positive and significant correlation between gross domestic product growth, IT technology, training, trade openness, and communication infrastructures. The power industry of Iran is divided into four sectors: production, transmission, distribution, and services of subscribers. The production and service to subscriber sectors operate in a competitive manner and transmission and distribution sectors operate in a natural monopoly. Therefore, the power distribution sector is importance due to its close relationship with subscribers that this indicates the importance of the involved factors in this sector of the power industry at a productivity level. The creation of a balance between ICT and productivity, the preparation for maintenance, the record and transmission of employees and managers' valuable experiences to new employees, the prevention of gradual loss of employees' empowerment and organizational capability, the avoidance of costs due to employees' lack of awareness of developmental plans of the organization, the coping with organizational challenges and the continuous improvement of organization productivity, the creation of a balance between the needs of the organization and employees' needs, the use of opportunities, and the prevention of waste of human capital and resources are a part of a set of reasons that can be mentioned for the importance of these two variables in this study. Therefore, we must pay attention to the use of modern communication tools due to the quick change in the field of ICT and the acceleration of the productivity process. This study surveyed the role of the use of ICT skills on the share of productivity components of human resources for the improvement of the functional system of management of the department of power distribution centers in districts.

Methodology

This study was a descriptive-correlational and applied research that it was conducted through field method.

Participants

The statistical population was included all employees in the power distribution centers of Guilan province. According to the statistics of the General Directorate of Power in Guilan province, they were 550 people that 226 people completed the questionnaire based on Morgan's table.

Instruments and Tasks

Two valid and reliable questionnaires were used in this study. The questionnaires were sent to experts (12 experts) to determine their formal validity and the correctness of the questions. The questionnaires were distributed in the statistical population after the assurance of the results. Also, the Cronbach's alpha coefficient was reported higher than 0.90 in both questionnaires for the survey of the reliability of the research instruments. The instrument of this study was included the Human Resources Questionnaire based on the ACHIEVE model (Hersey and Goldsmith). This questionnaire examines the seven dimensions of productivity dimensions of human resource of this model with 26 questions with Likert scale. Dimensions of the questionnaire: a questionnaire based on the ability, perception and cognition, motivation, organizational support, feedback, validity, and compatibility dimensions (ACHIEVE model) and was designed by Hersey and Goldsmith (1980). The five-point Likert scale was used for the questionnaire completion (very low = 1, low = 2, medium = 3, high = 4, very high = 5). The questionnaire of Information and communication technology for development (ICT4D) consists of 37 items and individual subscale (10 questions), economic subscale (10 questions), social subscale (10 questions) and infrastructure subscale (7 questions) that are used to evaluate the fields of ICT development. According to the evaluations, the readiness of the countries for the access to ICT capabilities and its positive effects largely depends on the environmental, technical, human, social, economic, and geographical conditions of societies. Therefore, it can be said that the existence of individual, economic, social, and environmental fields can facilitate the ICT development (Farahani, Cheraghi, & Asghari, 2012). ICT is a collection of hardware, software, and thought that creates the possible for the circulation and utilization of information. The concept of ICT is obtained from the interaction of the computer, information, and telecommunication sectors (Farahani, Cheraghi, & Asghari, 2012). The five-point Likert scale is used for the scoring of the questionnaire (very little = 1, little = 2, Somewhat = 3, much = 4,

very much = 5). According to this method of analysis, you collect obtained scores and then judge them based on indicators. The scores between 37 and 74 indicates that the fields of ICT development are weak, the scores between 74 and 111 indicates that the fields of ICT development are moderate, and scores higher than111 indicates that the fields of ICT development are strong.

Procedure

The statistical sample of this study was equal to the statistical population and the whole number. The statistical sample using stratified sampling method proportional to the size of population. The library and field methods have been used to collect data in this study.

According to the research objectives, a valid instrument that included subjects' demographic questionnaire was used to collect the required data to test the research hypotheses.

Data Analysis

The collected data were classified by descriptive statistical methods and were analyzed by the Kolmogorov-Smirnov test and Pearson and Spearman Correlation Coefficients. The SPSS software (version 23) was used for data analysis ($\alpha \leq 0.05$).

Results

The results in tables (1) and (2) show the status of subjects' gender and their demographic characteristics. 75.22& of subjects were men and 24.78& of them were women. The employment status of the power distribution centers in Guilan province indicated that 34.85% of employees had 1-10 years of service experience, 16.58% of them had 11-20 years, and 48.57% of them had 21-30. The managers and employees' age status also showed that 23.42% of them were less than 30 years old, 17.77% of them were 31-40 years old, 30.28% of them were 41-50 years old, and 28.58% of them were in the age range of 51-60 years old.

Table 1
The status of subjects' gender

Gender	N	Percent
Men	170	75.22
Women	56	24.78
Total	226	100

Table 2
The subjects' demographic characteristics

Variable	The employment/Age/Education status	N	Percent
Employment status	1-10 years	61	34.85
	11-20 years	29	16.58
	21-30 years	85	48.57
Age status	less than 30 years old	41	23.42
	31-40 years old	31	17.72
	41-50 years old	53	30.28
	51-60 years old	50	28.58
Education status	Diploma and under the diploma	12	6.85
	Associate's and Bachelor's degree	92	52.58
	Master's degree	68	38.85
	Ph.D. student and Doctorate	3	1.72

Table 3
The correlation coefficient between ICT and productivity

Method	Sum of squares	df	Mean Square	F	Sig	R	R-squared
Regression	15472.521	1	15472.521	66.413	0.001	0.58	0.51
Remaining	21865.491	225	219.410				
Total	37338.012	226					

The results in table (3) showed that the variance analysis of regression model was significant and ICT could have a significant effect on productivity. This model could predict 0.51% of the variance of the criterion variable. The amount of correlation coefficient was 0.58 between these two variables.

Table 4
The correlation coefficient between administrative services and productivity

Method	Sum of squares	df	Mean Square	F	Sig	R	R-squared
Regression	1531.491	1	1531.491	79.211	0.001	0.59	0.46
Remaining	1967.236	225	18.913				
Total	3498.727	226					

The results in table (4) showed that the variance analysis of regression model was significant and the variable of administrative services could predict 0.46% of variance of productivity variable in power distribution centers of Guilan province. The amount of correlation coefficient was 0.59 between two variables.

Table 5
The correlation coefficient between mechanized administrative systems and productivity

Method	Sum of squares	df	Mean Square	F	Sig	R	R-squared
Regression	5631.311	1	561.311	59.781	0.001	0.598	0.341
Remaining	1236.492	225	9.426				
Total	1797.803	226					

The results in table (5) showed that the variance analysis of regression model was significant and this model could predict 0.34 % of the variance of the criterion variable. The amount of correlation coefficient was 0.59 between two variables.

Table 6
The correlation coefficient between electronic services and organizational productivity

Method	Sum of squares	df	Mean Square	F	Sig	R	R-squared
Regression	341.821	1	341.821	39.181	0.001	0.48	0.31
Remaining	891.942	225	8.598				
Total	1233.763	226					

The results in table (6) showed that the variance analysis of regression model was significant and this model could predict 0.31 % of the variance of the criterion variable. The amount of correlation coefficient was 0.48 between two variables.

Table 7
The correlation coefficient between communication networks and productivity

Method	Sum of squares	df	Mean Square	F	Sig	R	R-squared
Regression	491.123	1	491.123	41.123	0.001	0.491	0.311
Remaining	1291.211	225	10.511				
Total	1782.334	226					

The results in table (7) showed that the variance analysis of regression model was significant and this model could predict 0.31 % of the variance of the criterion variable. The amount of correlation coefficient was 0.49 between two variables.

Table 8
The correlation coefficient between the use of system hardware and productivity

Method	Sum of squares	df	Mean Square	F	Sig	R	R-squared
Regression	243.690	1	243.690	18.391	0.001	0.378	0.19
Remaining	1491.167	225	14.701				
Total	1734.857	226					

The results in table (8) showed that the variance analysis of regression model was significant and this model could predict 0.19 % of the variance of the criterion variable. The amount of correlation coefficient was 0.37 between two variables.

Discussion

The purpose of this study was to examine the role of the use of ICT skills on the share of productivity components of human resources for the improvement of the functional system of management of the department of power distribution centers in districts of Guilan province. In recent years, the use of IT has increased the productivity of power distribution centers in many countries and many organizations have invested heavily on productivity to use advantages of IT. Today, ICT is the main factor of human development in the organization and society and determines the basic pillars of human resources development and its nature in accordance with humans' need and the need of a society. The level of employees' intelligence who use ICT increases due to the variety and innovation of ICT skills in the present era and the use of millions of training and research software (Jalava & Matti, 2007). The knowledge of ICT increases productivity and efficiency in various sectors of the industry, especially the power industry. ICT is treasures of human achievements, a key for the development of knowledge and technology, the decision-making and management, the research and development, the production and employment, education, the planning and legislation, and the building a new world where the maximum productivity is considered for the use of physical and human potential forces (Wang, Klein, & Jiang, 2007).

Information is constantly generated, processed, distributed, and managed in the ICT process. Therefore, ICT will be a solvent of problems if serves for humans' development and integrates human capabilities and leads to the development and productivity (Atkinson & Mckay, 2007). The relationship between ICT and employees' productivity is a two-way relationship. It means that we cannot hope for the real development and productivity and national sustainability based on knowledge without a skilled human force who is familiar with methods, literature, and computer literacy and who possesses practical skills. Also, ICT is an effective tool for the training and increase of the productivity of human resources (Sharma & Sanjay, 2010). The coefficient of effectiveness of ICT indicators on the productivity of human resources in the power distribution centers of Guilan province was related to the theoretical foundations in terms of the sign and intensity of the effectiveness. On the other hand, the appropriate intensity of the effectiveness of this index on the total productivity is also indicated

effective factors. ICT can play an important role in the productivity of power distribution centers. Therefore, it is necessary that the organizations and managers of the national power distribution centers designed appropriate programs and a proper strategy in order to effective productivity of these technologies and the use of their capabilities to empower employees and the whole of organization (Beharestan, Akbari, & Shaemi Barzaki, 2012).

The results showed that ICT firstly had an effect on organizational processes and these processes affect productivity. Also, ICT had a significant effect on productivity and the correlation coefficient was 0.58 between ICT and productivity. These results of this study are consistent with the results of Abedi Jafari, et al., (2011); Nemamyan and Emami (2016); Nadifard and Shahtalabi (2016); Dewettinck, Koen, Maaike, and Van Ameijde (2011); and Lee, Huang, Barnes, and Kao' s (2010) study.

It seems that ICT creates new opportunities for the improvement of production and efficiency and new ways for the management, organizing, and increasing productivity. It is suggested that the use of the traditional views and methods should be avoided in the executive section. These methods are continuously evaluated from several points of view for the continuous optimization and updated trainings in this field (Van Ark, 2014). ICT affects the productivity of human force in several ways (Lee & Khatri, 2003). IT plays an input role and it is effective on the reduction of other inputs (labor, land, equipment, transportation costs, postal position and communications, paper and office supplies, time, energy) and the higher quality and cheaper resources (for the access to more suppliers) (Sharma & Sanjay, 2010).

Also, ICT plays a key role in the formation of organizational capabilities that provide performance benefits for the company. On the other hand, IT changes the organizational processes. These changes increase productivity. In other words, organizations consider the benefits of IT in the first stage in organizational processes and ICT firstly affects processes and these processes affect the productivity through the effect on inputs and outputs of the system (Tsutomu, Yukiko, & Harada, 2004). According to the findings of this study, the correlation coefficient between the administrative service variable and the productivity level was 0.59. This result is consistent with the results of Kiani and Sarlak (2017); Faragi, Faraji, and Sehat (2017); 21) Atrostic, Boegh-Nielsen, Motohashi, and Nguyen (2004); and Paganetto, Becchetti, and Bedoya' s (2003) study. It can be argued that for the explanation of consistency of these two variables that employees' productivity of power distribution centers of Guilan province has been affected by a suitable coefficient of ICT indicator and expresses the amount

of efficiency and effectiveness for using effective factors. Also, the index of total productivity and the effectiveness ICT on it indicates the effectiveness on qualitative changes, labor, capital, demand intensity, structural changes created in the power industry (Abramovsky & Griffith, 2009). Productivity is one of the most important effective variables on executive activities and is one of the key advantages for the achieving organizational excellence in power distribution centers of countries. Today, the importance of productivity is more than ever due to the lack of resources, the expansion of competition levels, the increase of diversity in customers' satisfaction (Mansell, 2009).

The status and importance of productivity have been expanded to the extent that it is synonymous with the rationality of the organization (the rational behavior of the organization). Even management is introduced the knowledge of increasing productivity and using the available resources and facilities to achieve the goals (Lichtenberg, 2011). Information in a rational process in the name of ICT can help the creation and the development of new capabilities in human resources. Therefore, it can be expected that employees with functional competences have higher levels of productivity (Abedi Jafari, Asadnezhad Rokni, & Yazdani, 2011).

Thus, it seems necessary that authorities of executive environments should give full support to develop ICT at all levels of training in the power industry due to the employees' familiarity with techniques, modern equipment, and professional development. They also should try to help doing work based on the maximum use of the capabilities and flexibility of IT for the review and promotion of methods of doing work and the pass of the stage of available and old methods (Kamalian, Salarzehi, & Olyaei, 2013).

The amount of correlation coefficient was 0.37 between the use of system hardware and the productivity level variables. This indicates this position that ICT helps to improve processes through the creation of change capacities, the modification and simplification of organizational processes. The use of system hardware will lead to the improvement of variables such as cost, quality, and time (Abramovsky, & Griffith, 2009). The correlation coefficient was 0.48 between e-services and the productivity. This result is consistent with the results of Asayesh, Shakibai (2014); Beaudreau (2010); Hitt, and Eli, 2009); and Atkinson and Mckay' s (2007) study. It seems that one of the important reasons for the consistency of these two variables with the amount of productivity is that electronic services eliminates the need to create additional processes in the organization and electronic services will help to increase the speed of

organizational processes and leads to their more coherence, coordination, and integration through the connection of processes (Rincon, Vecchi, & Venturini, 2015).

Also, the use of these two tools can lead the organization to a high strategic position. This position can increase productivity through the improvement of efficiency and effectiveness and mechanizes and speeds up the processes. It creates virtual jobs and far away cooperation (Pavlou & El Sawy, 2006). It also enhances interactions and enables immediate feedback and leads to the creation, distribution, and effective management of knowledge. It performs the calculation on a large scale without fatigue and shares information at various levels of the organization (Taleghani, 2014). The managers of power distribution centers need a variety of knowledge and skills to carry out their tasks. Therefore, individuals should have the general skills of using technology to work in executive environments proportional to productivity affairs. The many research evidence indicate that the role of ICT in power distribution organizations is drastically out of stagnation now and has been raised as productivity (Sharma & Sanjay, 2010). Also, the use of ICT also increases easier, more accurate and less costly communication, and the human' s mistake reduces in the information processing network of the organization (Wang, Klein, & Jiang, 2007).

Conclusion

Overall, the known components of this study can be a guide for the analysis of ICT effects on organizational processes and the productivity of human force. Therefore, it is suggested that organizations of the power distribution sector should consider the mechanisms of these effects in their investment oi IT and facilitate the field of process changes, because the results of this study show that it is very important and vital the distribution centers that have an optimal use of ICT adapt themselves to the rapid changes of this type of technology. The use of the old hardware and software not only do not increase the productivity of labor force, but reduce the productivity of labor in many cases due to the lack of adaptation of facilities with other available technologies. Therefore, there will be closer relationship with productivity if the specialized training increases in service and executive organizations.

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