J. Appl. Environ. Biol. Sci., 5(12S)761-767, 2015

ISSN: 2090-4274
Journal of Applied Environmental and Biological Sciences
www.textroad.com

The Assessment of Information Technology Impact on the Empowerment of Social Security Organization Experts

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Received: July24, 2015
Accepted: September 31, 2015

ABSTRACT

Wisdom, accessibility and useful application of tools based on information technology by the experts are the most important factors of organizational life and survival. Therefore, the quality and empowerment of human resources in utilization of information technology in order to take responsibilities and implement duties, is of great importance. The objective of the present study is the evaluation of information technology impact on social security organization experts' empowerment. This functional research was implemented in social security organization's head quarter. Researcher–made questionnaire ($\alpha = 0.912$) was used with 30 questions in two axes empowerment and information technology, in Likert scale in 5 axes. Research population in 2014 was 531 persons. Then, 224 people were selected through using probable relative classified sampling. In order to analyze the results of Pierson correlation tests, linear regression and Freidman ranking was used through SPSS software – edition 17. It was specified in this research that information technology has impact on all experts' empowerment dimensions (self- governance, confidence, effectiveness, competence and significance). The results of empowerment dimensions' ranking were respectively equal to staff competence (3.49%),significance (3.22%), confidence (2.93%), self-governance(2.71%)and effectiveness (2.66%). According to this, it can be resulted that staff's skills using information technology tools impact on their abilities, there is a strong relationship and the significance among information technology and five empowerment dimensions in social security organization.

KEY WORDS: Information Technology, Empowerment, Social Security Organization, Experts.

INTRODUCTION

Information distribution in the organization while makes staff aware of the problems and occurrences, it makes staff as capable individuals [1]. For this reason it is required that the organization provides an atmosphere which is the supporter of the cooperation and staff communication. Therefore, the organization should have a communication infrastructure so that it can assist the bilinear communication. The compilation of these components creates a real and strong empowerment because in powerful organization, the complete bilateral communication is noticed there. Communication system in an organization includes: functional software programs such as; internal portal, internal network or intranet of staff, simultaneous conversation, virtual work environment and video conference which are used as a powerful communicational – management tool while facilitating organizational communication [2]. Social security organization is considered the most widely expanded institution in insurance systems through its most communication with the population body in the country. This social institution, provides their wide range of qualitative and quantitative services through two insurance networks to main and subordinate insured ones. Therefore, there are numerous cases of insured ones and pensioners of social security organization have to attend social security branches or its other institutes. These widespread attendances not only impose transportation costs, increase in traffic, wasteful gas and energy consumption, air and noise pollution increase, but also cause dissatisfaction of employers, delay in insured services, inefficiency of administrative system and workforce outwear in the organization, while there is a possibility to meet the requirements not in person and develop this method (not in person services) through using virtual capacities, information technologies and empowered staff and attain people's satisfaction. This

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organization has implemented many development plans within recent years and has updated and upgraded its software and hardware technologies.

Staff empowerment is one of the effective tools to increase the staff efficiency and optimized use of their capacities and individual and group capabilities towards organizational objectives. It is obvious that towards this, social security organization requires skilled, professional and the power of best thinking. Therefore, the staff capability in using modern informative technologies makes the task implementation more optimized and effective [3]. Therefore, considering what was stated in this research is after the answer of this question that what impact information technology has on the empowerment of social security organization staff.

A review on similar researches 'literature, shows that Mohsen Hamedi's [4] research on the assessment of information technology impact on the empowerment of the staff in Ministry of economy and Finance showed that information technology and communications have a positive impact on the staff in Ministry of economy and Finance. Fazlollah Ardeshiri[5], also showed in his assessment on the role of information technology and its impact on the empowerment of Mazandaran Province Educational Staff, that there are a significant relationship between hardware factors, software factors and staff training regarding information technology and the amount of information technology impact on educational staff empowerment in high level and sometimes it is observed at high level. In a research on the impact of information technology application on the career empowerment of Islamic Azad University –area 5 library staff which is done by Hamidi and et al. [6], application of information technology has caused the increase speed in providing services by the personnel, targeting tasks and responsibilities, job satisfaction and finally professional creativity of library staff.

Conger and Kanungo[7] also mentioned the issue of staff empowerment in a research about theory and exercises in university centers' management and provided three main viewpoints: rational, motivational and empowerment. Bugler and Somech[8] outlined six dimensions of: professional growth, self-effectiveness, autonomy, job application, decision- making and impact in the assessment of dynamic systems. In Mishra and Spreitzer[9] theoretical framework regarding the staff empowerment in association with trust and miniaturization in organizations, they expressed that organizations' development depends on the management capability to involve staff and a high level of staff empowerment and confidence.

In this research the following definitions have been considered:

1. Information Technology

Information Technology is a series of tools, equipment, knowledge and skills which are used for gathering, saving, recovering and information transfer [10]. In fact, information technology with its specific features requires unique experts who can go through today's complex issues with their sophisticated minds [11]. Generally, organizations benefit information technology through non- retreat measurements and innovation [12].

2. Empowerment

Staff empowerment is a series of systems and proceedings which is applied through individual's development of capability and competence towards the improvement, increase in efficiency and the flourishing organization and human force considering organization's objective [13].

Research conceptual model

The conceptual research model is based on Whetten and Cameron [14]in figure 1 which is codified by Thomas and Velthouse[15]and Spreitzer[16] through utilization of psychological empowerment.

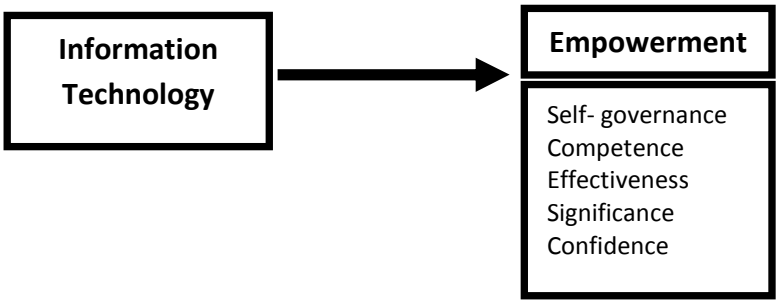

Fig. 1. Research conceptual model [empowerment psychological pattern, Whetten and Cameron (1998)]

Self-Governance: having the sense of the right of selection, meaning freedom and individuality which indicates to determination of required actions to do the job [15].
Competence: it refers to a degree that an individual can do their jobs skillful and successfully [15].
Effectiveness: it is a degree that an individual can impact on strategically, administrative and operational results. Effectiveness is unlike the incapability of effectiveness [16].
Significance: it is a chance that people feel that they follow important and valuable occupational objectives [16].
Confidence: It refers to the confidence in the relationships between elites or employers and subordinates (Manager's confidence on the employee and vice-versa)[16].
Main hypothesis of this research has been the assessment of information technology impact on the empowerment of social security organization experts. Therefore, evaluation of the impact of information technology has been done by the measurement of the variables; self- governance, competence effectiveness, significance and confidence.

MATERIAL AND METHODS

This research is in descriptive survey method of field survey branch and regarding the objective, it is functional. Statistics population includes all experts of social security headquarter, that their numbers have included 531 ones, according to the organization's administrative statistics. Then, the sample volume was determined using probable and classified sampling using random number table according Cochran formula. Considering that, the experts provided services in deputies and independent offices, in proportion with the number of expert in in each department and independent office, their share in samples was determined according to table 1 and the samples in each section have been selected by simple random method.

Table 1. Sample number in each Department / Office

Deputies/ independent offices	Statistics population (individual)	Sample volume
Administrative and financial department	170	74
Independent staff offices	93	37
Treatment department	75	32
Technical and revenue department	76	33
Department of Legal and parliamentary affairs	22	9
Social and cultural department	16	7
Economic Department	68	28
Provincial affairs department	11	4
Total	**531**	**224**

In order to gather data from the researcher–made questionnaire has been used, which its reliability has been assessed. This questionnaire had 30 questions which were in two axes of information technology and empowerment that the questions were asked of 5 dimensioned likert scales. In order to analyze results, Spearman correlation tests, linear regression and Freidman classification were used through SPSS software version 17.

RESULTS

1. Descriptive results

- Sexual distribution of Statistics population of this research includes 84 Women (38%) and 140 men (62%) according to table 2.

Table 2. Sexual distribution of statistics population

Sexuality	number	Percentage
Female	84	38%
Male	140	62%
Total	224	100

According to this, male sexuality has allocated the most share of statistics population percentage 62%.

- The age average among the population of 20-30 years include 15 (7%),31-40 years of age,115 (51%), 41-50 years of age,86 (39%) and in age group of more than 50 years,8 (3%)according to table 3.

Table 3. Age average of statistics population

Age	Number	Percent
20-30	15	7%
31-40	115	51%
41-50	86	39%
More than 50	8	3%
Total	**224**	**100**

According to this the age group of 31-40, has allocated the most share (51%) population statistics.

- Work experience in group having the experience less than 5 years include 13 (6 percent), 6-10 years of experience 17 (7 percent),11-14 years of experience 92 (41%)16-20 years of experience 51 (23%)and in the group having more than 20 years of experience 51 years (23%), according to table 4.

Table 4. The rate of work experience

Work Experience	Number	Percent
Less than 5 years	13	6%
6-10	17	7%
11-15	92	41%
16-20	51	23%
More than 20 years	51	23%
Total	**224**	**100**

According to this, the group with work experience of 11-15 years has allocated the most share of population statistics of 41%.

- The society's knowledge of Information Technology include, a group with little knowledge of information technology 6 (3%), beginner 13 (6%), average 103(46%), good 88(39%) and Advanced 14 (6%), according to table 5.

Table 5. Statistics population's knowledge of information Technology

knowledge of Information Technology	Number	Percent
Little	6	3%
Beginner	13	6%
Average	103	46%
Good	88	39%
Advanced	14	6%
TOTAL	**224**	**100**

According to this the group with average knowledge of information technology has allocated the most share of statistics population 46%.

- The educational level in the society are: 25 high school graduate (11%),Diploma 22(10%)Bachelors 104 (46%), Masters 64 (29%) and Ph.D 9 (4%),according to table 6.

Table 6. Statistics population educational Level

Educational level	Number	Percent
High school Graduate	25	11
Diploma	22	10
Bachelors	104	46
Masters	64	29
Ph.D	9	4
TOTAL	**224**	**100**

According to these results of educational level, bachelor's degree has allocated the most shares in statistics population to itself (46%).

1. Analytical Results

- In order to determine the correlation between information technology and empowerment dimensions, Spearman correlation has been used which is according to table 7.

Table 7. Coefficient Spearman Correlation between information technology and empowerment dimensions

Variable	The number repliers	Spearman Correlation Coefficient	Sig	Results
Competence	224	0.612	0.000	Direct and significant relationship
Self –governance	224	0.820	0.000	Direct and significant relationship
Effectiveness	224	0.61	0.000	Direct and significant relationship
Significance	224	0.72	0.000	Direct and significant relationship
confidence	224	0.74	0.000	Direct and significant relationship

To the participants in this research, there is positive and significant correlation between the use of information technologies and staff empowerment dimensions, which means in case that Information technologies are used for organizational activities , this would assist the managers so that to use technologies in plans and strategies for the empowerment of their staff.

- Also in order to evaluate the impact of information technology on empowerment dimensions regression test have been used according to the tables 8 to 12.

Table 8. Impact coefficient between Information technology and dependent variable "competence"

Variable	Standard deviation	β standard estimates	The amount of T	AMOUNT OF p
Fixed	0.168	-	6.148	0.000
Information Technology	0.057	0.25	3.93	0.000

According to the results, information technology with 25% Beta has impact on experts' competence variable.

Table 9. Impact coefficient between Information technology and dependent variable "self-governance"

Variable	Standard deviation	β standard estimates	The amount of T	AMOUNT OF p
Fixed	0.24	-	4.92	0.000
Information Technology	0.058	0.49	8.55	0.000

According to the results of this test, information technology with 0.49 Beta has impact on staff self-governance variable.

Table 10. Impact coefficient between Information technology and dependent variable "effectiveness"

Variable	Standard deviation	β standard estimates	The amount of T	AMOUNT OF p
Fixed	0.419	-	7.47	0.000
Information Technology	0.1	0.12	1.92	0.000

According to the results of this test, information technology with beta 0.12 has impact on variable of staff effectiveness.

Table 11. Impact coefficient between Information technology and dependent variable "Significance"

Variable	Standard deviation	β standard estimates	The amount of T	AMOUNT OF p
Fixed	0.41	-	4.085	0.000
Information Technology	0.098	0.27	4.218	0.000

According to the results of this test, information technology with beta 0.27 has impact on variable of significance.

Table 12. Impact coefficient between Information technology and dependent variable "confidence"

Variable	Standard deviation	β standard estimates	The amount of T	AMOUNT OF p
Fixed	0.28	-	7.081	0.000
Information Technology	0.068	0.29	4.50	0.000

According to the results of this test information technology with 29% Beta has impact on the variable experts' confidence.

❖ Freidman test was used in order to rank the empowerment dimensions. The results of this test have been shown in table 13.

Table 13. Empowerment dimensions ranking based on Freidman test

Variable	Number of repliers	Average Rank
Competence	224	3.49
Self- Governance	224	2.71
Effectiveness	224	2.66
Significance	224	3.22
Confidence	224	2.93

According to the result of this test, the competence dimension with3.49, has had the higher priority in the empowerment of the staff.

DISCUSSION AND CONCLUSION

Considering the results of the research it could be resulted that there is a direct and significant relationship between information technology and the staff empowerment of social security organization. Also, information technology has impact on all dimensions of the empowerment (competence, self- governance, effectiveness, significance, confidence). Social security organization's staffs have been more empowered in competence dimension of the empowerment and in other dimensions are less empowered. They were in lower level of empowerment for the effectiveness dimension. For this, social security staffs feel that they have the required capability and conversance to do a task successfully and they have the sense of excellence (competence). They value the objectives and tasks they are engaged in and their actions and efforts are of standards and ideologies (significance). They also believe that other staff and managers consider their success (trust), and also they are able to make independent decisions and test new ideas (self-governance) and finally they believe that they can cause changes impacting the environment or the results of the work, and their idea and notion is being considered by the managers in order to do the tasks (effectiveness).

Comparing the results of his research with the ones in past, it was determined that the results the researches were in line, and the impact of information technology on the staff empowerment in various organizations has been observed. The results of this research have been in line with the studies of Misters Ardeshiri and Hamidi and all these researches; consider information technology as an effective variable on the empowerment of the staff. Also, correlation coefficient measured among information technology and 5 dimensions of the empowerment, showed that there is a strong relationship between two variables of social security organization and this is a point which has not been observed in past researches this much intense. Research results, confirms the researches of Misters Bogler, Somech, Mishra and Spreizer. In brief, the comparison of this research results with other studies divided into research variables in details in table No 14.

Table 14. Comparison of this research results with other studies divided into research variables

No.	hypotheses	Confirm	Reject	Assimilated researches
1	Information Technology impacts on social security organization staff competency	✓		FazlollahArdeshiri(2010)
2	Information Technology impacts on social security organization staff self- governance.	✓		Mohsen Hamedi (2010) Bogler and Somech (2004)
3	Information Technology impacts on social security organization staff effectiveness	✓		Conger and Kanungo(1988)
4	Information Technology impacts on social security organization staff significance	✓		Mishra and Spreitzer(1997) Hamidi and et al (2009)
5	Information Technology impacts on social security organization staff confidence.	✓		Mishra and Spreitzer(1997)

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