

## Impact of Organizational Factors on Employees' Job Satisfaction of Health Information Technology Department: A Conceptual Model

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**Abstract:** No study has been conducted yet to identify the organizational factors that increase employees' job satisfaction of health information technology departments and to measure the impact of the factors on employees' satisfaction in developing countries. This study was aimed to determine and model the relationship between organizational factors and job satisfaction of staffs working in health information technology department. This study was performed in affiliated hospitals of Semnan University of Medical Sciences in Semnan, Iran in 2015. In this study, a census method was used. The data collection tool was a researcher made questionnaire. The findings showed that facilities ( $B = 0.786$ ), job nature ( $0.60$ ) and communications and management methods ( $B = 0.767$ ) have direct relationships with job satisfaction.

**Key words:** Organizational factors, job satisfaction, health information technology departments, conceptual model, Iran

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### INTRODUCTION

Human resource is one of the most valuable resources to achieve the objectives of every organization and system (Tazhibi and Zardoeigolanbary, 2011; Farzaneh *et al.*, 2011). In recent years, advanced and successful organization have dedicated a large part of their time and capital to their human resources and utilized them to increase the productivity and efficiency of organization. To achieve such objectives it is necessary to clearly identify the human resources not only in terms of quantity but also in terms of quality and their attitude toward their jobs in the organization. People's attitude towards their job can help them to meet the needs of their job in accordance with their capabilities and desire it also has a direct relationship with job satisfaction and sometimes these two are used interchangeably (Tahavori, 2006; Kahouei *et al.*, 2014a, b).

Today, managers who manage the affairs of their employees at all levels are dealing with employees whose states, tastes and moods have an extensive impact on the general performance of the organization or institution (Tazhibi and Zardoeigolanbary, 2011; Mehdi *et al.*, 2011). People who do not work willingly and are faced with the lack of enthusiasm and motivation to perform their duties can cause the most damages to the objectives and plans of the management because employees' incentive is directly associated with the effectiveness of their

performance (Ashkan *et al.*, 2013; Mozghan *et al.*, 2012). Job satisfaction is an essential prerequisite which provides the primary conditions for working in an organization. Job satisfaction is important because it has an important role in increasing productivity and commitment to the organization it also guarantees physical and mental health, accelerates the learning of new skills and increases employees' spirit (Dehghani and Dehghani, 2013; Kahouei *et al.*, 2013a-c).

Job satisfaction is one of the very important factors required for the progress of works in an organization. Studies in this area have shown that the increase in job satisfaction and its determinant factors such as independence, job tools and organizational culture can lead to a reduction in absenteeism and increase individual creativity and productivity (Mahboobe *et al.*, 2012).

The increased level of job satisfaction of human resources in all organizations, particularly in hospitals which are the most important and the main provider of health care and treatment services can lead to increased level of effectiveness and efficiency among hospital staff.

In a study by Tazhibi and Zarduee Anbari in 2006 which was entitled as "job satisfaction among the staffs working in units of health information technology in hospitals of Kermanshah", the researchers found that 71.4% of employees were satisfied with their work (Tazhibi and Zardoeigolanbary, 2011).

Studies have shown that that some employees of health information technology departments were not satisfied with their jobs (Faraji *et al.*, 2008; Kahouei *et al.*, 2013a-c).

Some researchers found that health information technology staffs had the highest level of satisfaction with supervisors and the lowest level of satisfaction with salaries and rewards (Farahmand and Sharifian, 2006; Mehdi *et al.*, 2012).

At the present time, health information technology are the most important source of information that can fulfill a large part of the needs of managers at various levels of the health system including hospitals and other health centers as a consequence, it is very important and critical to pay attention to the job satisfaction of the staffs working in health information technology department. The increased level of satisfaction among these people not only enhances their mental and physical health but also improves the quality of the work and promotes the health information system. The staff working in this department should have patience, tolerance and comfort to be able to carry out their duties efficiently hence evaluation of their satisfaction can help them to improve the quality of their performance. It can also motivate the staff to develop a sense of commitment toward their organization and helps them to become more interested in their tasks and make more efforts to achieve the organization's goals.

Several studies have been carried out in Iran so far to evaluate the status of job satisfaction among the staff working in health information technology departments and they mainly have assessed the general status of job satisfaction among the staff however, no study has been conducted yet to identify the organizational factors that increase employees' satisfaction and to measure the impact of the factors on employee satisfaction. The results of such a study will help managers to better identify and handle the factors influencing job satisfaction of staffs working in health information technology department. In view of that this study was aimed to determine and model the relationship between organizational factors and job satisfaction of staffs working in health information technology department.

#### Hypotheses:

- $H_1$ : organizational factors have a significant and direct effect on job satisfaction
- $H_2$ : organizational factors are positively and directly correlated with each other
- $H_3$ : organizational factors have a direct and significant impact on each other

## MATERIALS AND METHODS

This study was performed in affiliated hospitals of Semnan University of Medical Sciences in Semnan, Iran in 2015. In this study, a census method was used. Khodayari Fard's Job satisfaction questionnaire has been used in this study. The questionnaire consisted of 25 questions in 4 sections. The first part contained 6 questions related to demographic information including gender, marital status, age, work experience, employment status and education; the second part included 7 questions related to job nature; the third part contained 6 questions related to facilities and the fourth part included 6 questions related to communications and management methods. The attitudes were graded as totally disagree = 1, disagree = 2, neither disagree nor agree = 3, agree = 4 and totally agree = 5, respectively. Then, the primary questionnaire was reviewed for content validity through the content validity index. Next, the questionnaire was revised to be more focused as the experts suggested. Then, we piloted the questionnaire on 20 employees of health information technology department randomly selected from the two hospitals. Participants in the pilot study were excluded from the study. Internal consistencies were expressed as Cronbach's Alpha 0.798 for the questionnaire. Next, further revisions were made and some statements were rephrased. Lastly, the researcher distributed the final version of the anonymous questionnaire among the employees who were working in departments of the hospitals and asked them to complete it. The questionnaire was delivered to the researcher at most 72 h later. Descriptive statistics, t-test, Chi-square, Kruskal-Wallis and regression were used to analyze data.

## RESULTS AND DISCUSSION

All of the employees ( $n = 70$ ) participated in the study. The 45 (64.3%) were satisfied with their job and there was a significant relationship between satisfaction and the participants' demographic characteristics (Table 1). Staff gained highest mean score of the job nature (2.82) and the lowest average score of facilities (1.22). There was a significant relationship between mean scores ( $p < 0.001$ ; Fig. 1). The findings showed that facilities ( $B = 0.786$ ), job nature (0.60) and communications and management methods ( $B = 0.767$ ) have direct relationships with job satisfaction (Fig. 2) they had also a significant relationship with job satisfaction ( $p = 0.01$ ). (Table 2).

The aim of this study was to propose a model of the impact of organizational factors on job satisfaction of staffs working in health information technology

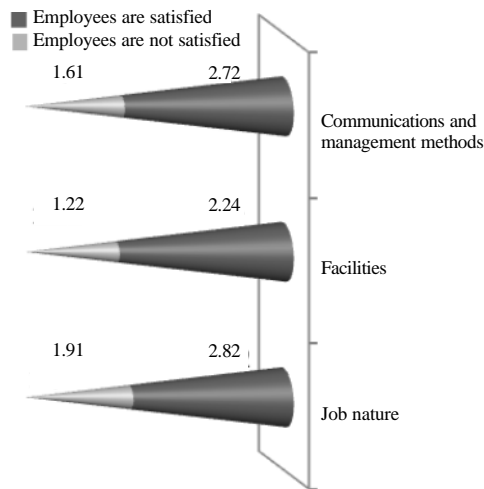


Fig. 1: Mean scores of employee's attitudes toward organizational components

Table 1: Demographic characteristics and their relationships with job satisfaction

Characteristics	There is job satisfaction N (%)		p-value
	No	Yes	
	45(64.3)	25(35.7)	
<b>Sex</b>			
Male	29 (64.4)	15 (60)	0.712
Female	16 (35.6)	10 (40)	
<b>Age (year)</b>			
>30	11 (25)	6 (24)	0.596
30-39	22 (50)	12 (48)	
40-49	9 (20.5)	4 (16)	
50<	2 (4.5)	3 (12)	
<b>Employment status</b>			
Temporary	20 (46.5)	11 (47.8)	0.205
Permanent	23 (53.5)	12 (52.2)	
<b>Work experiences (year)</b>			
>5	11 (26.2)	3 (13.6)	0.438
5-9	11 (26.2)	5 (22.7)	
10-14	6 (14.3)	6 (27.3)	
15-19	4 (9.5)	3 (13.6)	
20<	10 (23.8)	5 (22.7)	
<b>Marital status</b>			
Single	7 (15.9)	4 (16.7)	0.935
Married	37 (84.1)	20 (83.3)	
<b>Education level</b>			
Diploma	11 (24.4)	6 (24)	0.168
Bachelor of Science	27 (60)	11 (44)	
Master of Science	7 (15.6)	3 (12)	

Table 2: Regression between organizational component and job satisfaction

Organizational components	R <sup>2</sup>	df	Beta	SE	t-value	p-value
Job nature	0.729	1	0.854	0.044	13.523	<0.001
Facilities	0.655	1	0.809	0.069	11.362	<0.001
Communications and management methods	0.729	1	0.854	0.057	13.542	<0.001

department. The results showed that satisfaction with the facilities in the workplace had a significant impact on job

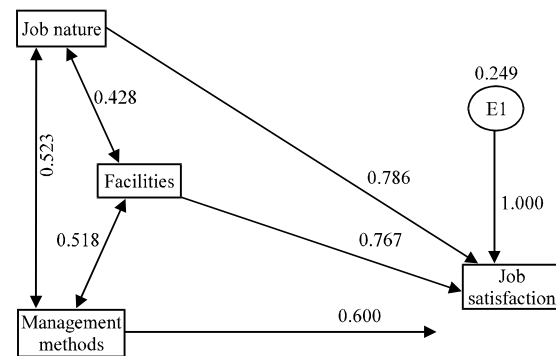


Fig. 2: Conceptual model

satisfaction of staffs working in health information technology department. Accordingly, satisfaction with this group of organizational factors can increase the overall satisfaction of employees by 0.689. This finding confirms the first hypothesis of this study. Other studies have also shown a correlation between the work environment and job satisfaction (Nasrabadi *et al.*, 2009; Al Enezi *et al.*, 2004; Kahouei *et al.*, 2011) for instance, the results of a study by Al Enezi *et al.* (2004) showed that working conditions and rewards including bonuses had a positive and significant relationship with job satisfaction. Job satisfaction achieved in a suitable working environment can promote organizational and moral values, enhance the quality of work and reduce work stress and subsequent burnout but the results of our study showed that a group of employees are not satisfied with facilities and conditions in their workplace. It is in line with the results of other studies which showed that the staffs working in hospitals were not satisfied with their working hours per week, overtime and work facilities (Jahani *et al.*, 2010; Monjamed *et al.*, 2004; Safavi *et al.*, 2012; Kahouei *et al.*, 2013a-c). These similar findings indicate that hospitals have failed to provide a favorable working condition to promote the physical and mental states of the staffs working in health information technology department. Undoubtedly employees prefer a pleasant working condition to achieve physical well-being. They also prefer a condition that provides them with the tools and equipment required to increase their efficiency (Kahouei *et al.*, 2015a, b). Otherwise, an inappropriate organizational environment not only causes job dissatisfaction but also leads to absenteeism from work and job shifts.

The findings of the study showed a significant relationship between health information technology staffs satisfaction with facilities and their overall satisfaction with their job ( $r = 0.566$ ;  $p < 0.001$ ). In addition, satisfaction with facilities can increase the overall satisfaction with the

job by 0.493. These findings confirm the second and third hypotheses of this study. Once again, the results show that good working environment affects the work quality of the staffs.

The findings of this study showed that employees' satisfaction with the nature of the job which they have can increase their overall job satisfaction by 0.448. The results not only confirmed the first hypothesis but also indicated that the range of tasks, diversity, security and social factors were among the factors which affected employees' satisfaction. The results of the study by Farahmand and Sharifian (2006) also showed that the mean value of the factor "nature of job" was significant in staffs working in admission department. The findings of this study suggested that some employees working in health information technology department were not satisfied with their job. The results indicate that when people are not familiar with their job and their main tasks they might become dissatisfied with their job. Generally, job tasks which are fairly diverse can lead to the highest level of job satisfaction. Job tasks which are less various are likely to cause resentment and burnout. On the other hand, job tasks that are extremely diverse may cause mental and physical stress and fatigue in the staff. In addition, jobs that provide employees with a sense of independence can generate a higher level of job satisfaction among workers. It is worth mentioning that job security is the other factor that affects the nature of a job. Job security is a tool that helps a person to become committed to the organization, so that the person appreciate the organization and become interested toward the work. When employees of an organization are not sure about the future of their career their employment status, the future of their job and benefits such as insurance and pension they will be always anxious and stressful. Such an anxiety may affect their working life and result in lower levels of performance and productivity (Tahavori, 2006).

The findings of this study which confirmed the first hypothesis, indicated that management practices at the health information technology departments can increase employees' satisfaction by 0.697. According to the results, some of the staffs were satisfied with the management style. Mogharab *et al.* (2006) in their study found that nurses had the highest level of satisfaction with the management and supervisors, so that most of the nurses were satisfied with their direct supervisor. Other studies showed that most health workers at different levels were satisfied with the management (Zahedi *et al.*, 2000; Kahouei *et al.*, 2015a, b). These similar findings suggest that the technical support and assistance provided by the managers at health information technology department can lead to job satisfaction of employees.

The findings of this study which confirmed the second hypothesis, indicated that there was a significant relationship between the nature of the job of health information technology staffs and the management practices ( $r = 0.492$ ;  $p < 0.001$ ). The observed relationship once again indicates that when the staffs are supported they do their job with less stress; such a condition improves the relationships between the staffs, increases job satisfaction, enhance self-confidence of the staffs and improves work quality (Jahani *et al.*, 2010). The findings of this study which confirmed the third hypothesis, indicated that the nature of the job of the health information technology staff can improve management practices and communications by 0.566. These results suggest that the satisfaction with the structural and managerial factors in the organization depends on regulatory issues and the work structure of the staff in the hospital (Tajvar *et al.*, 2006).

The results of this study showed that there are some employees in the health information technology department who are not satisfied with management styles. Sometimes such dissatisfaction is caused by cumbersome and inappropriate professional rules and regulations for the staff, strict controls and lack of delegation of authority to the staff. In this type of organization it is necessary to reform management structure and revise laws governing the organizational structure (Tajvar *et al.*, 2006; Kahouei *et al.*, 2016). Khodayarifard in his study reported that managers working in public sector are not familiar with the techniques of participatory decision making; the results of his study also showed that there is a weak relationship between the attitudes of managers and their decisions to consult with the staff working in the lower levels of the organization. In addition, the organizational structure of institutes in Iran motivates the managers to make decisions by their own because they are concerned about the legal responsibilities associated with the directors. A large number of manager in public sector to preserve their position in the organization are more willing to consult with senior managers in fact when making decisions, they prefer administrative commands rather than consultation with the staff (Dehbashi *et al.*, 2007). As a result to improve organizations and make the staffs more efficient it is necessary to improve management practices in organizations, especially in health care institutes to achieve this goal, managers must implement appropriate policies and strategies in order to attract specialized forces, distribute the tasks fairly among employees, encourage the staffs to participate in the activities and decision-making and evaluate the organization at different time intervals (Tahavori, 2006). As shown in Fig. 2, the satisfaction with each of the organizational factors in the medical record department is

effective on the satisfaction with the other factors; all these factors, due to their relationship with each other can directly or indirectly affect the job satisfaction of the staff working in medical records department.

### CONCLUSION

The results of such a study will help managers to better identify and handle the factors influencing job satisfaction of staffs working in health information technology department.

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