



## Study of an investigation on factors influencing human resources productivity in Shiraz University of Medical Sciences

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Received 2 Jun 2015; Accepted 3 Sep 2015

### ABSTRACT

**Introduction:** Human resources development is one of the most important components of any organization and detecting important factors influencing human resources management plays an essential role in the success of the firms. In this study, we investigated different factors influencing human resources productivity of Shiraz University of Medical Sciences staff.

**Method:** The present research was a cross-sectional study. Sample size was calculated 208 individuals. To access information about the human resource productivity, a valid and reliable questionnaire was used. The data were analyzed using SPSS software. Pearson correlation was used for statistical analysis of the data ( $p=0.05$ ).

**Results:** The results showed that there was a statistically significant relationship ( $p\text{-value}<0.001$ ) between human resources productivity and factors affecting the productivity of human resources (motivational factors, leadership style, creativity and innovation, general and applied education, and competitive spirit). Motivational factors ( $r =0.89$ ) and general education ( $r =0.65$ ) had the most and the least effects on human resources productivity.

**Conclusion:** Considering the fact that motivational factors were the most effective factors on human resource productivity, we recommend that managers should care more than before about this factor; also, in order to motivate the employees, they should consider the staff's individual differences.

**Keywords:** Resource, Human resource, Productivity

### ► Please cite this paper as:

Ghasemi Z, Moadab N, Keshtkaran V, Keshtkaran A, Nabeiei P. Study of an investigation on factors influencing human resources productivity in Shiraz University of Medical Sciences: Short Communication. *J Health Man & Info*. 2016;3(1):30-32.

### Introduction

Productivity has attracted a great deal of attention during the last decade. Generally, productivity is the rational relationship between the produced items or goods by the producer and the required input items like the cost and energy used for producing them (1). In other words, productivity is expressed as the ratio of output to input(1). On the other hand, the mission of management and the main objective of all managers is the most effective and efficient use of resources such as labor, capital, materials, energy and information. According to the management mission, making optimum use of human resources (human resource productivity) is very important(2). The most important factor in productivity improvement is the improvement of human resource quality. The desire to progress and gaining new skills through training and teamwork ability are essential points which should be improved by the management in different ways, such as

encouragement and giving rewards to employees, creating friendly working atmosphere and providing ongoing training alongside the work(3).

According to Chlivickas (2014), in order to build effective public services, it is essential to systematically improve human resource system, through innovations since it could guarantee success in pursuing objectives and priorities in the state management and for improvement of public administration system(4). Based on the study conducted by Okoye and Raymond, human resource development is very vital to any organization ranging from small to large scale enterprises since it is well known that no business can exist entirely without human beings; also, one of the major functions of human resource development is the engagement of people to work in order to achieve sales growth and profitability(5).

So due to the importance of productivity, with emphasis on human resource productivity and its effective factors, we decided to investigate the factors affecting the

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productivity of human resources including motivational factors, leadership style, creativity and innovation , general and applied education and competitive spirit. These findings will help the organization managers to recognize and strengthen these factors.

**Methods**

The present research is a cross-sectional study conducted at Shiraz University of Medical Sciences on 8 vice-chancellors including educational affairs, development & resource management affairs, health, research, student affairs, clinical affairs, and food drug and cultural affairs. The subjects of this research included all personnel in these 8 departments. In this study, we used a stratified random sampling method. The size of the sample was calculated 208, using information from previous studies and considering the confidence level =0.95, SD = 25, mean=125 by software power Ssc.

To access information about the human resource productivity, one questionnaire was used. This questionnaire was designed by an Iranian scholar named Tahmasebi based on a combination of human resource productivity questionnaires of Hanisch thesis (2008), Ahmadi's thesis (1380), and indicators outlined in the comprehensive management model about the factors affecting the productivity of human resource of Ahmadi and Alvani. This scale has 47 items. Employees would be asked about human resource productivity for a five-point scale (1 to 5), which includes options of so much (5), much (4), average (3), low (2), very low (1). Finally, the score of each response was added and for each factor one score and for human resource productivity one total score was obtained.

Factors affecting the productivity of human resources, the item numbers of each factor in the questionnaire and the minimum and maximum scores of each factor are shown in Table 1.

**Table 1.** Factors affecting the productivity of human resources

Factors affecting the productivity of human resources	competitive spirit	general and applied education	Creativity and Innovation	Leadership style	Motivational factors	human resources productivity
The number of items	6	5	9	11	16	45
The minimum score	6	5	9	11	16	45
The maximum score	30	25	45	55	80	235

Cronbach's alpha coefficient was reported 0.91 in Tahmasebi's study and its validity has been approved through different studies. The data obtained from human resource productivity questionnaires was analyzed by SPSS software. Pearson correlation coefficient test was used for statistical analysis of the data.

**Results**

The majority of the staff was female and most of them had bachelor degrees. Also, the majority of the personnel were married and most of them had less than 10 years of experience. Among the factors affecting the productivity of human resources in all the departments, the highest and lowest mean scores belonged to the motivational factors and general education.

The results of this research showed that there was a significant relationship (p-value<0.001) between human resources productivity and the factors affecting the productivity of human resources (Motivational factors, Leadership style, Creativity and Innovation, General education, competitiveness) (Tables 1). Motivational factors (r =0.89) had the most effect on human resources productivity. After that leadership style (r =0.86), creativity and innovation (r =0.79) and competitive spirit (r =0.67) were the effective factors and general and applied education(r =0.65) had the lowest effect (Table 2).

**Discussion**

The primary aim of human resource productivity was to maximize effective usage of the most important factors of production, namely human resources. This paper has presented a survey for identifying the influencing factors on human resource productivity of Shiraz University of Medical Sciences staff.

Findings from various theoretical studies have indicated that human resource productivity was an important issue for all organizations and different factors affect it.

In the study of Lamka et al (2014), 12 critical factors which negatively affect labor productivity were identified. The factors were Management system, Work planning and Scheduling, Incompetent supervisors, (Bilateral) Poor communication, Rework, Labor supply and work crews, Late deliveries of materials and equipment, Workers absenteeism and turnover, Motivation, Lack of training/ skills, Poor site conditions (location, ground conditions, confinement), and safety at workplace(6).

Bahadori et al. (2013) stated that factors affecting human resources' productivity in a Military Health Organization were mental, intellectual and personal growth; organizational support, organizational culture, motivation, evaluation and performance feedback, ability , environment; individual health; training; and job identification (6).

Malmir et al. (2012) in their study mentioned that the effective factors on productivity of human resources were environmental factors (kind of job, job satisfaction, social relationship, partnership), and individual factors (experience related to the job, level of education, age average, learning as a part of service, level of income) (7). Research results of the Shekari et al.'s study (2012) showed that factors affecting the productivity of human resources in KhorasanRazavi Gas Company were health aspects, leadership style, motivational factors, organizational commitment, work experience, general and applied education, demographic characteristics, physical environment within the organization, external environment and competitive spirit, respectively (8). Allah Verdi et al. (2010) stated that consideration of the factors related to the

**Table 1.** Factors affecting the productivity of human resources

human resource productivity	Coefficient Correlation	P-value
effective factors		
Motivational factors	0.88	0.011
Leadership style	0.86	0.012
Creativity and Innovation	0.79	0.023
general and applied education	0.65	0.014
competitive spirit	0.67	0.025

management style was found the most important factor affecting the productivity of labor. Individual factors, culture, organization structure, reward systems, training courses and factors related to the physical environment were important in the next stages (9).

### Conclusion

According to the findings, motivational factors were the most effective factors on human resource productivity of Shiraz University of Medical Sciences Staff. Therefore, we recommend that managers should care more than before about motivational factors and in order to motivate the employees they should consider staff individual differences. Considering the fact that the leadership style of managers had a significant impact on increasing the employees' productivity, we recommend that the managers should use human-centered and participatory management styles that allow the employees to participate more in organization activities. Since increasing the creativity of employees is related to their productivity, managers can increase human resource productivity through holding creativity workshops, appreciating creative staff, allocating funding to creative and innovative measures. Since the existence of competitive spirit in staff can increase their productivity, managers can strengthen the competitive spirit by placing special facilities for successful staff in different fields of science, research and cultur. Whereas the general and applied sciences had the least effect on employees' productivity, we suggest the managers to use some methods as e-learning in staff working hours.

### Acknowledgement

Authors would like to thank the dean of Management School and the management team who provided constructive comments.

### Conflict of Interest

None Declared.

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