

Human Resource Management and Productivity: Situational Analysis of Tabriz University of Medical Sciences, Iran, 2008

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Abstract: Human resources are the most important factor in the raise of productivity in the organizations in particular in organizations that offering special services like health care services. Based on this importance, the present research is following to clarify effective factors in the raise of human resources productivity in Tabriz Medical University, whether there is a suitable base for human resources productivity and the best performance of the employees in Medical University or not? The eight fold factors have been examined and measured as the effective factors in human resources productivity, including: innovation and creativity opportunities, welfare facilities; performance assessment, reasonable payment, attitude to the work and organizations, professional factors, partnership, effective management, leadership and human resource training. Total 363 of employees involved through Kokaran method as study group and t-test and F-test used to measurement and to clarify correlation among variables. The results showed that 6 factors have been forgotten in the organization and do not have suitable state now, those factors were: performance assessment, reasonable payment, effective management, leadership; human resource training, innovation and creativity, welfare facilities. But about two factors, attitude to the work and organizations, partnership atmosphere and group working the opinions of staff were completely positive and prideful. The employees also believed that the improvement of the state of effective management and leadership factor will have most effect on the raise of human resources productivity in the university. It seems that Tabriz University of Medical Sciences as a health organization needs to focus on human resources development to enhance productivity. The result of this research has been highlighted focus areas to work in order to support of organizational culture development to get high productivity. Of course existences of positive attitude to work and also group working are important factors and opportunities to support projects related to building capacity within the university to improve productivity.

Key words: Productivity, human resources, effective factors, health organization

INTRODUCTION

Productivity is the best use of different resources (as the inputs of the system), among them human resources, in the fulfillment direction of the organization goals. In this definition, the best use of the resources is mentioned first that its main part is the beneficial use of human resources, because the best use of the other resources like machinery, materials, energy and have got their limits and under a condition one cannot exceed their limits but manpower is the only agent of production and services that there is no limits in his actions (Moheb, 2002). Human resources are the most important factor of organization success and its durability, continuation and the success of the organization depend on the productivity of its group works (Linda, 2003). The official

reports available in our country show that more emphasis is not laid on the human resources productivity as the most important factor in the improvement of total productivity. The index of 1.2% human sources productivity against 4.5-5% of that in Asian countries (Farahmand, 2000) and also the fact that the value of one hour production of the developed countries' employees is \$ 25 against \$ 0.6 of Iranian employees (about 40 times as much), show the unsuitable situation of human resources productivity in context of Iran (Farahmand, 2003). Considering the nature of the service organizations human resources has got admirable importance in giving services to the customers and consumers, especially when these kinds of organizations, health organization, undertake giving specialized services like health care and treatment and educational services.

Table 1: The effective factors in productivity and subset of each factor

The effective factors in the employees' productivity	The subsets of each of the factors
Professional learning of the employees (Taheri, 2004)	1. The quantity elevation of the employee education 2. The rate of education effect in efficiency 3. The rate of education importance in organization 4. The rate of profession's connection with professional educations
The suitable context for innovation and creativity (Agdasi, 2002)	1. The rate of educations related to creativity 2. The rate of directors' reception of the employees' creativity 3. the rate of the employees' creativity influence on their evaluation 4. The existence of suitable context for the appearance of creativity 5. the practical accomplishment of the employees creative plans (the execution risk)
Management and the useful leadership of the employees	1. Suitable encouragement and punishment 2. The rate of directors' entrusting and confidence to the employees 3. Creation of a cooperation atmosphere 4. Having the power of influence 5. Leading and guiding of the employees 6. The capability and worthiness of the directors 7. The rate of giving importance to quality and efficiency
The improvement of the professional factors	1. Taking polls from the employees in determining a profession 2. The improvement of the course of the professional promotion 3. The improvement of the qualifications of the appointments 4. The rate of professional security 5. The rate of the employees' power of authority 6. The appropriate distribution of the work 7. The rate of the profession with the field of study 8. The familiarity rate of the employee from his duties 9. The proportion between the employee and the employment.
The employees' attitude to the work, co-workers and organizations (Heisleg <i>et al.</i> , 1988)	1. The attractiveness rate of the profession 2. The importance of the profession in the organization 3. The satisfaction rate from the professional position 4. Having a positive feeling towards the organization 5. Looking towards the importance of the organization 6. Looking towards the value of the profession 7. The rate of satisfaction feeling from working in the organization 8. The commitment rate of the employees to the organization
Welfare and supportive facilities	1. The welfare facilities rate 2. The access rate to the informational sources 3. The state of the physical condition of the working environment 4. State of the justly access to the welfare facilities 5. The directors looking towards the welfare facilities of the employees.
Performance assessment and the reasonable payment of the wage (Rezaiyan, 2004)	1. The proportion rate of the salary with performance 2. The justice rate in the payments 3. The providing possibility of cost of living with the paid salary 4. The quality of performance assessment 5. The state of encouragement and punishment system 6. The distinguished nature of the standards of performance assessment
Existence of the partnership and group works atmosphere in the organization	1. The polling rate from the employees 2. The rate of the practical application of the employees points of view 3. The mutual confidence rate of the employees 4. The mutual cooperation rate of the employees 5. The friendly communications rate 6. The communicational state of the directors with the employees

As you know, Iran has integrated health system and in fact all medical science universities have both responsibilities to education and to provide health care services in all level of community.

In spite of the importance of the human resources factor in the medical universities in national level, the state of the human resources management is not given considerable importance. In recent years it has been observable that the employees of the medical classes among them nurses and nurses aid have proclaimed their dissatisfaction in different ways such as union gatherings, written complaints to the ministerial authorities and the parliament members to the management situation of the health and treatment system especially the payment system of the salaries, wages and earnings. Considering the main and determining role of the human resources of the medical universities and health services of the country in the quality presentation of the health and remedy services one can acknowledge that the improvement of the state of the effective factors in the human resources productivity and the increase of the medical universities human resources satisfaction can play a determining role in the improvement of the employees function and consequently the increase of the

customers satisfaction and the total productivity. The importance of the human resources factor on the one hand and dissatisfaction of the customers and also employees of the medical realms on the other hand made the researcher to examine the most important reasons of the decrease of the human resources productivity of the university and with attaining the results of the research give the necessary suggestions for the improvement of the examined state of the factors to the directors and decision makers of the university. The experts believe that the perception of the productivity form the point of view those who play a role in that and the application of their ideas is the most important primary action for the increase of productivity (Williamson). On this base in this research, the effective factors in productivity will be examined form the employees' own points of view.

The effective factors in productivity and the relative kinds of each one of the eightfold factor are given in the following table. The kinds of each one of the factors are in fact the elements that with their achievement the possibility of the improvement of the state of each one of the eightfold factor will be practical. The available questions in the research questionnaire have been designed on the basis of below questions in the Table 1.

MATERIALS AND METHODS

The aim society of this research, were all the office, health and treatment employees working in Tabriz township in the organizational ranges of director, expert, incumbent and the other organizational ranges who were working with the employment state of official, contractual and project plan in the faculties, hospitals, main office of the assistances and health and treatment centers. The statistical sample of the present research includes 363 persons that is estimated through the formal of sample volume estimation (Kokran method) with the index of 95% and the meaningful level of $d = 5\%$. The sampling was done by the method of appropriate categorical and accidental sampling.

Considering the multiplicity of researchers and experts views about the effective factors in the human resources productivity, after surveying of the others works and researches we extracted the directors, employees, masters and management experts views about the effective factors in human resources productivity and the well known kinds of each of these factors. In order to evaluate the state of the eightfold effective factors in the human resources productivity of the university, we compared as criterion the obtained average from the measuring of the state of the each of factors (D) with the obtained average (C) from the maximum (the most satisfactory state) and minimum (the least satisfactory state) possible point for each of the factors; that the distance between them (D and C) shows the variance difference. The following (Fig. 1) as a general model expresses the recent explanations.

For the proof of the satisfactory or unsatisfactory state of the each factor it was necessary to become distinguished whether the middle variance was meaningful or not (distance between C and D)? For determining the meaningfulness we used one-sample-test. In this research, we also used statistics of abundance description and descriptive statistics for the variables that

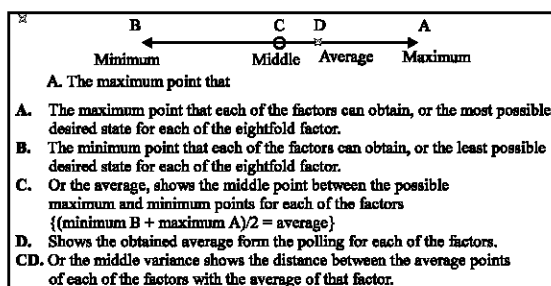


Fig. 1: General model to measure eightfold factor in productivity in organization

were at the level of distance measurement and also for the measurement of the inter-variable we used t-test and one way variance of analysis (F-test) regarding the level of the variable measurement.

RESULTS

Gender distribution was: Female 218 (60.38%), Male 143 (39.61%) and married status was 289 (80.95%) Married and 68 (19.04%) Single. Figure 2 illustrates educational backgrounds of study group. Figure 3 is showing type of services that the group study were providing during this research and Fig. 4 elaborate information about duration of stay in the present position among study group, as it has showed >60% of study group have >5 years experience in their job and their position within the health

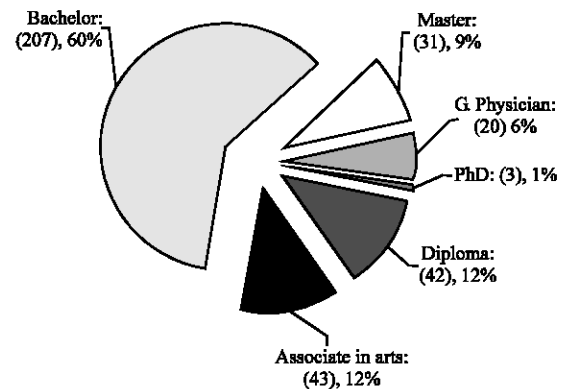


Fig. 2: Distribution and percentage of educational backgrounds of study group in Tabriz Medical Sciences University, Iran

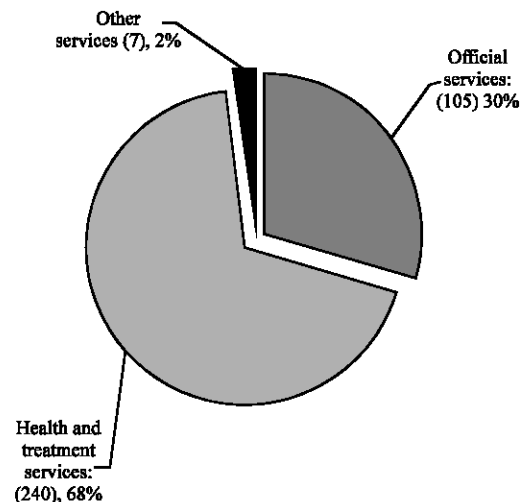


Fig. 3: Type of services providing by study group in Tabriz Medical Sciences University, Iran

Table 2: Results related to the situation of eightfold factor in human resources productivity in Tabriz University of Medical Sciences, Iran

Factors	Meaning-fulness level	Middle variance	Test value (Index)	Average	Scope of changes	Minimum	Maximum	No. of the observations
The suitable base of innovation and creativity	0.000	-2.71	18	15.29	22	6	28	306
Management and useful leadership of the employees	0.000	-2.75	33	30.24	41	11	52	282
The employees' looking manner to the work, co-workers and organizations	0.000	5.95	27	32.95	35	10	45	308
The professional factors of the employees	0.000	-2.06	27	24.93	36	9	45	289
Welfare and supportive facilities	0.000	-4.18	18	13.81	21	6	27	311
Assessment of the performance and the reasonable payment of the wage	0.000	-4.78	24	19.21	25	8	33	285
Partnership and group working atmosphere in the organization	0.000	1.37	21	22.37	20	13	33	291
The professional instruction of the personnel	0.000	-0.1	12	10.98	15	4	19	318

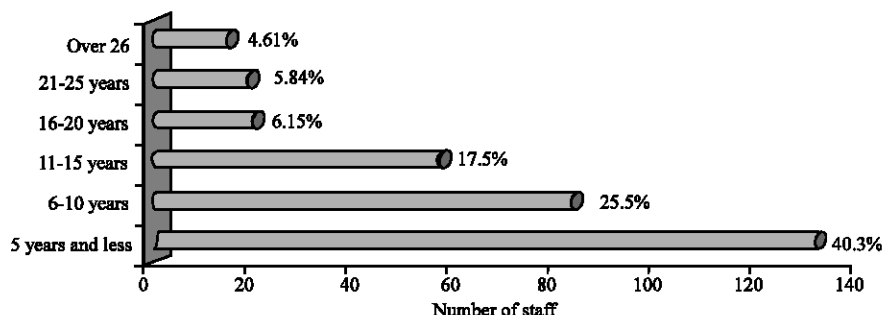


Fig. 4: Duration of stay in the present position among study group in Tabriz Medical Sciences University, Iran

organization. Please note if there is difference in calculation of study group population in each variable, because some items in questionnaire were empty. Total 264 (75.8%) of staff were working in positions which were related with their educational background but in 84 (24.13%) there was not appropriate between their job and their education.

Table 2 shows that other than the two factors: the employees' attitude to the Work, co-workers and organizations and the atmosphere of participation and group works in the organization, the other factors have got undesirable state from the points of view of the employees.

The obtained results show that the two factors: Assessment of the performance and the reasonable payment of the wage and the welfare and supportive facilities, because of having the greatest middle variance, have more undesirable state compared to the other factors (that they have undesirable states themselves).

Also, the accomplished descriptive assessment about: from the points of view of the employees how much is each of the eightfold factors effective in the productivity improvement of the university? Showed that the university employees consider "management and leadership factor with the average of $M = 8.67$ more effective than the other factors in the raise of productivity.

The accomplished evaluation about determining of the difference and the meaningfulness level of the state of the eightfold effective factors in human resources productivity, in the generic separation (male and female) of the employees which was done by t-test indicated that there is a difference with the meaningfulness level of 0.003 about the factor of welfare and supportive facilities and women, as compared with men, have got more feeling of dissatisfaction toward the state of this factor.

The accomplished test about each one of the variables of the kind of employment (office, services and health and treatment) and also the state of the employment (official, contractual, project plan etc) with each of the eightfold effective factors in the human sources productivity showed that there is not a significant difference among the points of view of the different groups on the subject of each of the factors.

DISCUSSION

Based on the research results the human resources of the university believe that there is not a proper basis for the appearance of the employees creativity and innovation. The ruling management and leadership in the university system is not effective and efficient, the employees employment factors, which was composed of nine factors in this research, are not regulated and

organized by standard, the minimum welfare and supportive facilities are not ready for the employees, the assessment system of the employees performance is not done properly and following that the payment of the employees salaries and wages are not accurate and just and also, the professional instruction of the employees does not follow the scientific and logical principles. The employees, in return, have got a good, honoring feeling toward their profession, kind of employment and organization and they also believe that there is an atmosphere of participation and group working in the organization. The other result is that the two factors assessment of the performance and the reasonable payment of the wage and welfare and supportive facilities, which are considered the average of the most important products of the organization for the human resources, have more undesirable state than the other factors.

The result of this research, shows that the women employees of the university who undertake the great part of the treatment and health services in the first line of presenting services have more intense reactions toward the shortage of welfare and supportive facilities so that they are more dissatisfied than men.

Regarding the descriptive results of the research the employees of the university believe that out of the 8 studied factors in this research the factor of management and leadership of the employees has got the most influence in the raise of the employees productivity. In other words, the improvement of the state of the factor of management and leadership of the employees rests in the first priority compared with the other factors.

Study of the similar accomplished researches nearly confirms the obtained results of the present research. Some of them are being pointed here:

Some of the researchers with the examination of productivity process in Iranian clinical nurses concluded that the effective management, appropriate organizational structure and the professional and financial security and also an appropriate social status and dignity can improve the process of the nurses' productivity (Sarmad, 2002). In another similar research the researchers proved that the factors: management; professional satisfaction; stimulation; improving of the human sources; technology; and customer basing are effective in the raise of the productivity in the health and treatment units. In this research, which was done in the health and treatment units of Behshahr, also the state of the factors: professional satisfaction, stimulation of the employees, improving of the human sources and technology were reported as undesirable and the other factors have an average state? (Nayeri *et al.*, 2005). The other research done by another group of the researchers in the main office of the Ministry of Health on the effective factors in human sources productivity shows that the factors:

ability, professional knowledge, motivation, performance evaluation and organizational support are effective in the raise of human sources productivity and the two factors: ability and motivation, which from the point of view of the employees have the most influence in the raise of the human sources productivity, have got undesirable state (Mosazadeh, 2005). The other research shows that the professional instruction of the employees, encouragement of the efficient employees and the correct evaluation of the employees have got positive influence on the raise of the human sources productivity (Aainparast, 2001). The researchers also found that the performance rate and group productivity have got close relation with the powerful atmosphere of management, leadership and guidance (Mohammadi, 2001; Houser, 2003). The others have considered the future of nursing and productivity dependent on the knowledge and skill of this force (Wickstrom *et al.*, 1998). And the manner of leadership that takes into consideration system, people and their efforts in productivity will create the best motivation and productivity (Bloom *et al.*, 1997). In this direction, the other researchers have found that ability and enough authority is the important factor of beneficial action of medical personnel (Grandfield, 1992).

It has also been, proven that ineffective evaluation brings up negative results for the director, personnel and organization. The other researchers have shown that the continuous attention and evaluation (Kramer and Schmalenberg, 2003) timely encouragement and punishment, a respectful atmosphere for the employees (Curtin, 1995) and the confirmation of the employees on the side of directors increase productivity.

A similar research done on the subject of productivity about human sources productivity in Mellat Bank, the Accepted Companies in the Stock Exchanges of Tehran, Tarbiat Modarres University, Tobacco Company, the General Office of Industries in Province, Iranian Zamzam Company and Productive Companies and Industries (Ferris, 1995) on the one hand shows a positive effect of the meant eightfold factors in human sources productivity and on the other hand the obtained results of this study like that one of the present research are generally expressive of the undesirable state of these factors in the governmental companies and organizations.

The obtained results of the present research and similar studies have been emphasized that human resource productivity not only in Tabriz University but also in countrywide need to attention and more focus. The result of this research has been highlighted focus areas to work in order to support of organizational culture development to get high human resources productivity. Of course existences of positive attitude to work and also, group working are important factors and opportunities to

support projects related to building capacity within the university to improve productivity. Based on existence information and situation in Iran's context in particular within health organization and many of related problems in human resources productivity has mostly root on them. These issues are including: Payment Mechanism: There is big gap in payment among different level of organization and as well as staff. It is suggested to pay a particular attention to the factor of welfare and supportive facilities in the university since this factor can be influential in the creation of the employees' obligation, belonging and confidence and on the other hand it is a factor that alleviates the existent pressures and shortages in the state of the other factors especially factor of salary and wage, Gender Aspects: This research illustrated that the female employees have more feeling of dissatisfaction. Stressful working environment of the health centers and hospitals, social behavior, high responsibility at home can be influential in the appearance of this feeling. So, they need more facilities to provide productivity within organization. Effectiveness management and leadership: The employees belief that the improvement of management and leadership factor can have the greatest influence in the raise of the productivity. Lack of performance management and performance assessment and its relation with payment and incentives are challenges on this issue. Thus, the directors should reconsider their management methods and have the necessity sensitiveness toward their environments and the employees opinions.

REFERENCES

- Aainparast, A., 2001. The Examination of the effective factors in human resources productivity of the ministry of health, treatment and medical training from the points of view of the employees in 2000. Scientific, Specialty and Research Magazine of Hospital, 3rd Year, pp: 75-80.
- Aghdasi, M., 2002. The Software Disease and the Text of Human Confession Productivity Raise, Tehran, Publication of the Supreme Institute of Education.
- Bloom, J.R. and J.A. Alexander and A.N. Beverly, 1997. Nurse staffing patterns and hospital efficiency in the United State. Soc. Sci. Med., 44 (2): 147-155.
- Curtin, L.L., 1995. Nursing productivity from data to definition. Nursing Manag., 26 (4): 25-32.
- Dehgan, N. *et al.*, 2005. The process of Productivity in the Iranian Clinical Nurses, the Articles Book of the First National Gathering of Productivity and Development, the Planning and Management Organization of the Eastern Azerbaijan, Tabriz, 2: 131-150.
- Farahmand, F.N., 2000. Management in Iran, Tabriz, Publication of Educational Centre of Governmental Management of Tabriz, pp: 230.
- Farahmand, F.N., 2003. The Permanent Management of the Organization, Tabriz, Foorozesh, pp: 20.
- Ferris, F., 1995. Unlocking Employee Productivity, American Printer, 215 (5): 30. [Http://alpha-5.irandoc.ac.ir/scripts](http://alpha-5.irandoc.ac.ir/scripts).
- Grandfield, S., 1992. Do More with Less: Strategies for Improving Productivity in Community Health Nursing, the Health Care Supervisor, 11 (1): 160-175.
- Heisleg, W.J., W.D. Jones and P.O. Benham, 1988. Managing Human Sources Issues, San Francisco, CA: Jossey-Boss.
- Houser, J., 2003. A model for evaluating the context of nursing care delivery. J. Nursing Administration (JONA), 33 (1): 39-49.
- Kramer, M. and C.E. Schmalenberg, 2003. Magnet Hospital Nurses Describe Control Over Nursing Practic, Western J. Nursing Res., 25 (4): 32-42.
- Linda, H.M.G., 2003. Nursing Intellectual Capita: A Theoretical Approach for Analyzing Nursing Productivity, Nursing Econ., 1 (1).
- Mohammadi, N., 2001s. The Examination of the Effective Factors in Human Resources Productivity of the General Post Office of Mazandaran: A Research Project Submitted as the Requirements for the Fulfillment of M.A. in Governmental Management, Research and Educational Management of the Planning and Management Organization of Mazandaran.
- Moheb, A.D., 2002. The Scientific Methods of the Human resources Productivity. Tehran, Education and Research Institute, pp: 4.
- Mosazadeh, M., 2005. Study of the effective factors in productivity raise of treatment and health centers of behshahr city and determining of the existent state of these factors in 2004, the articles book of the first national gathering of productivity and development. The Planning and Management Organization of the Eastern Azerbaijan, Tabriz, 2: 331-335.
- Rezaian, A., 2004. The basic of organization and management. Tehran, SAMT Publication, 9: 20.
- Sarmad, G.A., 2002. Motivation and Productivity, Tehran, Publication of the Supreme Institute of Education.
- Taheri, S., 2004. Productivity and its analysis in the organizations. Tehran, Mahestan Publication, 2 (52).
- Wickstrom, G., L. Helea Hannus, M. Joki, M. Lain, J. Pentti and L. Tamminen-Peter *et al.*, 1998. Factors related to good group performance in nursing. Int. J. Ind. Ergon., 22 (4-5): 327-331.