FACTOR ANALYSIS OF HUMAN RESOURCE PRODUCTIVITY MEASUREMENT INDICATORS WITH EMPHASIS ON DIMENSIONS OF ORGANIZATIONAL ENVIRONMENT AND LEADERSHIP QUALITY IN SERVICE ORGANIZATIONS

ANÁLISE FATORIAL DE INDICADORES DE MEDIÇÃO DA PRODUTIVIDADE DE RECURSOS HUMANOS COM ÊNFASE NAS DIMENSÕES DO AMBIENTE ORGANIZACIONAL E NA QUALIDADE DA LIDERANÇA NAS ORGANIZAÇÕES DE SERVIÇOS

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Abstract: The present study aims to identify and do a factor analysis of human resource productivity.This research was conducted by mixed-method (qualitative-quantitative). In the qualitative stage, 18 factors in terms of organizational climate (environment) and leadership quality were identified and classified by analyzing studies conducted inside and outside Iran by purposive sampling method with 20 experts and university professors. In a quantitative stage with the aim of validating the qualitative results, a researcher-made questionnaire was administered to 250 managers and staff experts of the General Directorate of Education of Ardabil province with Cronbach's alpha of 0.988 and analyzed by SPSS softwareThe results of confirmatory factor analysis for both dimensions show that all indicators related to variables have a significant correlation coefficient with latent variables (dimensions)and the fit indices of NFI, CFI, IFI in both dimensions are greater than 0.9These results show that the model is good for measuring research variables on organizational atmosphere and leadership quality.

Keywords: Organizational environment; Productivity indicators; Leadership quality; Organizational atmosphere.

Resumo: O presente estudo tem como objetivo identificar e fazer uma análise fatorial dos indicadores de produtividade de recursos humanos, com ênfase no ambiente organizacional (ambiente) e na qualidade da liderança nas organizações de serviços. Esta pesquisa foi realizada pelo método misto (qualitativo-quantitativo). Na etapa qualitativa, 18 fatores em termos de clima organizacional (ambiente) e qualidade de liderança foram identificados e classificados pela análise de estudos realizados dentro e fora do Irã pelo método de amostragem intencional com 20 especialistas e professores universitários. Numa etapa quantitativa, com o objetivo de validar os resultados qualitativos, um questionário elaborado por um pesquisador foi aplicado a 250 gerentes e especialistas da Diretoria Geral de Educação da província de Ardabil com o alfa de Cronbach de 0,988 e analisado pelo software SPSS. Os resultados da análise fatorial confirmatória para ambas as dimensões mostram que todos os indicadores relacionados às variáveis têm um coeficiente de correlação significativo com variáveis latentes (dimensões), porque seus valores estatísticos T mostram a significância das relações no nível de 0,05 e os índices de ajuste de NFI, CFI, IFI em ambas as dimensões são maiores que 0,9. Esses resultados mostram que o modelo é bom para medir variáveis de pesquisa em ambiente organizacional (ambiente) e qualidade de liderança. os resultados do presente estudo podem ser usados para medir e avaliar a produtividade de recursos humanos das organizações de serviços para melhorar a produtividade e o crescimento organizacional.

Palavras-chave: Ambiente organizacional; Indicadores de produtividade; Qualidade da liderança; Atmosfera organizacional.

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Introduction

Skilled and efficient manpower is the most valuable wealth and property of any organization. In recent years, the relationship between productivity and quality of work has been considered and studied in management fields all around the world (Talebian & Vafaei, 2009). Man has long been thinking of useful, efficient and fruitful use of his abilities, facilities and available resources (Taheri, 2008, p. 17).

Manpower is the most important factor in increasing and decreasing the productivity of the organization. This role becomes more important in service organizations. Now, if this person is motivated, capable and productive, he can achieve all kinds of productivity (Alvani, 2014). Lack of productivity indicators in an organization causes ambiguity in the status of that organization and a scale gap to match current performance with the past with other organizations (Karimi, 2008). Paying attention to the effective factors of motivation in financial dimensions (such as wages, rewards, welfare facilities, physical work environment, safety) encouragement and characterization of staff should be an integral part of the productivity system (Samari, 2006).

Components such as intellectual and personality development, organizational support, organizational culture, motivation, evaluation and performance feedback, ability, environment, personal health, education, job clarity are the most important in increasing the productivity of the organization's human resources (Mastary et al., pp. 75-86). To increase the productivity and the nature of business life, human resource management provides access to positive developments using various indicators in relation to the workforce in terms of productivity and the nature of business life (Taheri, 2005). Numerous researchers in the field of human resource management show that proper human resource management is directly related to increasing organizational productivity (Kargar, 2009).

In general, every manager needs to evaluate the performance of employees, whether formally or informally. Given the inevitability of this task, the condition for the effectiveness and efficiency of the performance evaluation is that managers gather accurate and reliable information. (Rasooli, 2003, p. 193).

The organizational atmosphere is a set of characteristics that describe an organization and distinguish it from other organizations, is almost stable over time and affects the behavior of people in the organization (Forehand & Gilmer, 1964). Organizational atmosphere can be expressed more simply: "Organizational atmosphere is the employees' perception of the environment in which they work." (Baker, 1992).

Wysocki and Kepner(2006) consider human resource productivity influenced by the nature of work and the personality of individuals, job fit, motivation, material and spiritual, job awareness, job satisfaction, quality of work-life, individual participation in the benefit of action or activity, fair treatment of people. Stainer considers human productivity as speed of operation, quality of operation, unit cost, work flexibility, individual's commitment, correct communication, understanding the necessity of productivity, satisfaction and quality of working life, and good participation. Productivity and its promotion are one of the main goals of any active and living organization (Mizani & Bandak, 2013, p. 1).

In order to achieve high productivity, basic measures are necessary to improve the culture of the organization (Mablaghi & Danesh, 2014). Hersy and Goldsmith have introduced seven factors for measuring human resource productivity: job ability, job perception, organizational support, motivation, feedback, credibility, and environmental appropriateness (Taavoni Guilan, 2012). Manpower productivity has the maximum appropriate use of manpower in order to move towards the goals of the organization with the least time and minimum cost (Bordbar, 2013).

Managing a changing work environment requires not only improved knowledge, technology, but also a need for self-awareness and interpersonal skills (Budlaei, Hassan et al. 2014).

The nature and quality of communication between employees, the issues between them, the feeling of tension, the relationship between employees and clients, work norms, evaluation criteria and quality level are some of the expected components of the internal work environment. So such an environment is determined by nature and quality of individuals, the

degree of purity created when arguing over activities, the relations between customers and the organization, the level of employees 'pride in their jobs, the employees' norms about the amount of work expected of them and the level of accountability for the quality of work. Through thoughtful leadership and effective leadership, we can adjust variables such as reward systems, workflow, communication, hiring patterns, performance standards, etc. in a way that it leads to a productive work environment (Budlaei, Hassan et al. p. 44, 2014).

To create a productive work environment, we need team building, creating free information communication channels throughout the organization, creating a flexible norm, and improving the quality of work-life programs (Budlaei, Hassan et al., p. 44, 2014).

Human factors such as; Interpersonal relationships, employees' motivation, work skills, empowerment attitude, and the quality of effective work-life plans strike a balance between the needs of the organization and the needs of employees. In other words, they make people eager to work and also want to be productive. To create a productive environment, it is necessary to provide incentives to people to provide this environment in the best possible way, so the specific return on investment to develop a productive work environment, in turn, will be high (Holzer et al., 2014, p. 72). Since the goal of human resource management is to increase the success of the company with the success of employees using existing resources, five basic goals should be considered, including productivity, competitive advantage, legal compliance, quality of working life and workforce compliance (Satin & Ozken, 2014).

Environmental factors affecting the productivity of human resources include "participation, social relations, content of work and job satisfaction" (Emami Meybodi, 2000). The factor of social relations affects productivity through more communication between people. This means that the more relationships, the more motivated people will be under the influence of altruism, so productivity will increase. The factor of job satisfaction can have a positive effect on productivity in the sense that the more satisfied a person is, the better his productivity will be, and vice versa. (Abbaspour, 2005).

Effective leadership and management are the principles of effective manpower and the active presence of successful, competent and efficient managers in the organization and are more important than other factors (Nourizadeh, 2008). Factors affecting manpower productivity from the perspective of Hersy and Goldsmith include; Ability, clarity, assistance, evaluation, motivation, valid credentials and personnel rights, environment (environmental appropriateness) (Hersy & Blanchard, 1999).

Factors affecting the productivity of human resources from the perspective of Wysocki and Kepner(2006) are the nature of work and personality of individuals (job and occupation balance), motivation (material and spiritual), job awareness and knowledge, job satisfaction, quality of work-life, individual participation in profit or action and treating people fairly.

Steiner considers good communication, satisfaction and quality of work-life, good participation as factors of people's productivity. Knowledge and acceptance of organizational goals, initiative in achieving goals and objectives, teamwork and productive cooperation are the key factors that affect Employees' productivity (Holzer et al., 2014, p.p 72-73).

Productive organizations form distinct cultures that enable them to use existing resources efficiently (Budlaei et al., 2014).

Organizational Atmosphere is closely related to the concept of close communication because the way to communicate determines the organizational atmosphere. The amount of communication and the degree of coordination determine if this issue will improve productivity. In cold atmospheres, less social work is done and more employees stop working. The higher the dismissal rate, the lower the productivity.

Open communication channels that provide easy and free access to information between the bottom and top lines of the organization, clear and meaningful commands, encourage employees to be more productive and feel proud of their jobs. It seems effective communication between employees satisfies basic social needs, communication with others, and enables effective exchange of communication with the environment. (Budlaei et al., 2014).

Quality of work-life is a term that includes programs, policies and practices that improve the quality of work of employees by which quality of work-life can increase the quality of work

of employees and is ultimately effective on the general part of the organization. Therefore, creating a balance between the needs of the organization and employees can be effective in shaping a productive work environment (Budlaei, et al., 2014).

According to research by Yaghoubi et al. In 2011, there are four dimensions to productivity. These dimensions include creativity, job satisfaction, commitment and cooperation.

If there are friendship and intimacy in the workplace and the organization, employees will endure very hard work. One of the perfections of management in any organization is due to the commitment of management to the organization. (Rezaian, Ali, 2008, p. 429).

Therefore, workplace conditions have a great impact on the quantity and quality of work and to improve working conditions, measures such as intimacy in the workplace leads to greater obedience to subordinates and thus greater efficiency of the organization (Haman., p. 434).

Factors that have a negative impact on people's spirit, reduce their efficiency, effectiveness and thus reduce their productivity in the organization which are: incorrect management methods, bad treatment of people, lack of attention to people and their efforts, failure to meet the needs of individuals, especially their spiritual needs (Rezaian, Ali, 2008, p. 429).

Nasiri Lakeh quoted by Mohammadzadeh (2007), has made productivity a complex factor by the elements like the low quality of work, inefficient structure, weak management systems, lack of meritocracy in management, lack of appropriate cultural contexts to implement productivity-related projects, job dissatisfaction, lack of job stability of managers and employees, lack of trust between managers and employees, lack of appropriate training and updates in the field of productivity system, lack of long-term vision in management, unclear mission of the organization, lack of work ethic in employees, weakening of employee participation system within the organization, lack of management system quality and other reasons (Mohammadzadeh, 2016).

It is rare for a work environment to be fully productive. To achieve proper productivity in the workplace, continuous effort, proper planning and most importantly, the existence of sincere commitment on the part of employees and also patience will be required (Holzer et al., 2014, p. 122).

In Hersy and Goldsmith model, the level of performance and productivity of human resources in an organization is considered under the influence of the following factors: performance, ability and power to successfully perform a task, clarity, evaluation motivation, credibility, environment.

Creating commitment in employees, paying attention to employees, using talents, paying attention to changes, good behavior of leaders and managers: the serious responsibility of management and leadership should be entrusted to people who have special personality traits, leadership skills and use proper management and be an ethical role model, provide the necessary conditions for career advancement for all people, give adequate authority to employees, involving employees in decision making will make them feel responsible in the implementation of activities and make more efforts to achieve organizational goals (Pedram, 2011).

The most important factors in reducing productivity within an organization are the existence of discrimination between employees (due to poor management, job insecurity, failure and reluctance of medium or long-term planning), poor management, lack of control (instability in control programs), poor management, uncoordinated Field of study and job, not using specialties in the relevant job, lack of management planning. Lack of training (poor management, inconsistency of personal and professional talents, incompetence of supervisor, lack of interest in current work and successive transfer of manpower and manpower inflation (Samari, 2006).

Almost all factors reducing the productivity of human resources are related to poor management. In between, the individual must have a reciprocal relationship with the organization. A successful manager is someone who deeply knows the cultural environment of his organization which is a very effective factor in employees' behavior and understands it and uses it in the organization's plans. (Gholamein, 2012).

Review of previous studies

Table 1. Internal research in Iran

Researcher(s), research year	Title of research	Results
Ramezan Jahanian, Samira Hossein	The role of organizational climate on staff productivity in technical Universities in Tehran province.	There is a positive and significant relationship between the dimensions of organizational climate, i.e. team Spirit, interest in work, consideration in the workplace, intimacy between employees, disturbance in the workplace, distance in the workplace, influence and dynamism of managers, evaluation of knowledge production and employee productivity.
Aghayi, Reza & et al. (2015)	Identify effective factors and criteria for human resource productivity in the military-industrial organization environment.	Identifying 45 indicators affecting human resource productivity and classification in customer, financial, internal processes and learning dimensions.
Mohammadzadeh (2016)	Investigating and identifying the effective factors on improving the productivity of teachers in Hir province.	21 components have significant results on increasing productivity of teachers in Hir such as; having job motivation, capability and competence, adequate education, teamwork, appropriate environment and culture, subordinate participation, organizational justice, appropriate managerial style, organizational commitment, facilitation of communication, delegation, clarity of job nature.
Saied Shojaee et al. (2016)	Identifying Factors Affecting Human Resource Productivity.	Four factors have been identified as factors affecting human resource productivity including management, organizational motivation, empowerment and facilities.
Shekarchi zadeh & Haji Esmaeeli , (2015)	A review of manpower productivity models and its relationship with service quality in service and government organizations.	Some important and influential factors on manpower productivity are improving the quality of services and identifying the perceptions and expectations of the organization's manpower and comparing services with other systems.
Arjmandineszhad et al. (2016)	Exploratory study of the components affecting human resource productivity in the Islamic context from the perspective of Mashhad Municipality staff.	dimensions of organizational indifference, human resource growth, empowerment, structural and occupational issues, management laziness, organizational health and the Islamic context were classified.
Jabbarzadeh (2013)	Identification of effective indicators in measuring employee productivity a case study of NAJA inspection".	17 productivity indicators in 4 dimensions of efficiency, effectiveness, commitment and cooperation, problem solving were identified.

Researcher(s), research year	Title of research	Results
Jamshidi, Mazdak, 2013, international management conference, challenges and approaches	The effect of leadership style and organizational climate on the productivity of high school principals in Ilam province.	There is no significant relationship between leadership style and the productivity of services of school principals. There is a significant relationship between organizational climate and the efficiency of services of managers of educational units and also there is a significant difference between leadership style and organizational climate in the efficiency of services of male and female managers.
Taleghani et al. (2011)	Investigating the effective factors in increasing the productivity of Saman Bank.	Paying attention to the basic needs of employees, employee participation in decisions and the managerial leadership style of the manager increases the productivity of employees in the workplace.
Ahmadi (2009)	Model of improving human resource productivity with the attitude of productivity management.	different components of the human resource productivity model are expressed from the dimensions of motivation, competition, innovation, leadership style, applied and general education, gender, current job experience, experience in different jobs and productivity score Manpower.
Mehrabian et al. (2009)	The most important factors affecting the productivity of human resources.	the components are organizational culture, motivational factors, environmental conditions, employee empowerment and leadership style.
Zandkarimi et al. (2012)	The relationship between self-discipline and its levels with the productivity of production workers in the industrial sector.	The correlation between self-discipline and productivity was significant and self-discipline and its levels have a high predictive effect on human resource productivity.
Hajipoor	Factors affecting human resource productivity.	Factors such as; Ability, willingness, organizational support, job recognition, feedback and performance, credibility, quality of work-life, environment, job satisfaction are considered to affect the productivity of human resources.

Table 2. Research done outside the country

Researcher(s), research year	Title of research	Results
Ardil et al. (2011)	Relationship between loneliness and social atmosphere and its effect on staff well-being at Kojali University in Turkey.	there is an inverse relationship between loneliness and social atmosphere and loneliness has a negative effect on the positive mental well-being of employees. social atmosphere and loneliness affect mental well-being.
Lutans et al. (2010)	The effect of positive psychological capital on employee well-being.	Positive psychological capital is effective on employee well-being.
Casti (2012)	The relationship between organizational human resource growth and business.	Innovative human resource management performance measures increase employee productivity.

Shashank et al. (2014)	Analysis of key factors on changes in manpower productivity in the construction project.	Six main groups have a significant impact on the diversity of manpower productivity in the construction project: labor group, management group, motivation group, materials are equipment group, safety group and quality group.
Ryan McGrall (2009)	Productivity and delay in employee job satisfaction and job security.	There is a strong relationship between employee satisfaction and competencies in their jobs.
Ozbilijin (2005)	factors affecting people's productivity.	creativity and wage levels, people's ability and skill, the state of people's work and position, type of management and organizational flexibility.
Latvak et al. (2011)	Investigating the effect of nurses 'health on increasing productivity and quality of work.	Nurses' health leads to increased productivity and quality of care.
Kate Davis & John Newstorm in 1986	Factors affecting human resource productivity.	They mentioned factors such as the quality of leadership, the mutual trust of the worker and the employer, the reciprocity of organizational relations, the fairness of rewards, the clarity of the job and the participation of employees.
Savari (1998)	Items affecting human productivity.	people's satisfaction with work and life, flexibility of working hours, staff cooperation and management, continuous planning and up-to-date technology, training and empowerment of people, effective management, people's intelligence, wages and encouragement systems, management's view of productivity, employees' commitment to work, profession and organization, employee responsibility.

Developing productivity indicators for organizations can provide a clear picture of the situation of the organization, compare the situation annually with other organizations, identify the strengths and weaknesses of the organization and create a healthy competition between human resources (Karimi, 2008).

This study aims to factor analysis of human resource productivity indicators with emphasis on organizational climate and leadership quality.

Method

In this study, the sequential exploratory method, the combined method, was used. First, the library method was used in order to collect productivity indicators from documents, dissertations, researches, articles and books, and statistics and were dedicated to 20 university professors and experts, which 18 indicators in two dimensions obtained from interviews in the group focal points and theoretical saturation of sampling. In the second stage, in order to validate the qualitative stage for data collection, a researcher-made questionnaire was developed and performed on 35 statistical samples with preliminary tests, which were validated by Cronbach's alpha of 0.988 and the validity and reliability of the questionnaire were confirmed and then done on statistical population (all managers and staff experts of the General Directorate of Education of Ardabil Province (250 people). Analyzing the qualitative data of the re-

search was used through content analysis. In the quantitative part of the present study, according to the research questions, descriptive and inferential statistical methods such as central indicators and dispersion such as mean, standard deviation and to determine the relationships between indicators and their coefficients of importance and ranking, factor analysis was used and all analysis is done using SPSS software.

Figure 1. Research procedure

Gathering qualitative data » analyzing the qualitative data » qualitative findings » developing a questionnaire» Gathering quantitative data » results and general interpretation» model

Findings

Indicators and dimensions of manpower productivity measurement with emphasis on the dimensions of the organizational environment (organizational atmosphere), leadership quality in service organizations, 18 indicators were extracted from articles and theoretical foundations.

Table 3. Final list of components and indicators from interview sources and expert opinions

Dimensions	Row	Components and indicators appropriate to the dimensions of the organizational environment (organizational atmosphere) and leadership quality
Organizational Environment (organizational Atmosphere)	1	Environmental adaptation (the extent to which conditions outside the organization affect employee performance) and maintaining a suitable work environment
	2	Creating a healthy and safe environment in the organization
	3	Understanding the environment and the ability to design programs that are environmentally friendly
	4	Having the skills to recognize organizational problems and tensions and establish effective interaction to solve them
	5	Observe the use of economic facilities in the workplace
	6	Quality of work environment and feeling comfortable there
	7	Paying attention to the problems of employees' families and trying to solve them on behalf of the organization
	8	Job rotation in the organizational environment in order to enrich the job

Dimensions	Row	Components and indicators appropriate to the dimensions of the organizational environment (organizational atmosphere) and leadership quality
Leadership quality	1	Having informal and effective communication with people in the organization
	2	Optimal use of organizational resources
	3	Job clarity and redesign and job enrichment and the tendency to improve and enrich jobs
	4	Save and reduce various costs of the organization
	5	Applying the right leadership style for employees and proper use of reward and punishment mechanisms
	6	Providing grounds for accepting the leadership model in the organization
	7	Ability to work in a team and work productively with trained staff
	8	Correct and error-free execution of tasks
	9	Having participatory management and having a team spirit
	10	Having organizational flexibility

Table 4. Bartlett and (KMO) test results to determine the adequacy of the sample questionnaire indicators

Bartlett&(KMO) test	measurement adequacy of KMO sampling	0/896
	Approximate chi-square	24813/782
	Degrees of freedom	4950
	The significance level	0/000

According to the approximate chi-square table or the Bartlett sphericity test is equal with 2482/782, which is significant at the alpha level of less than 0.0001. Therefore, it shows that the data correlation matrix in society is not zero and the act of factorization is justifiable, so the assumption that the correlation matrix is a unit matrix is rejected.

Table 5. Results of Kolmogorov-Smirnov test for research variables

dimensions	number	mean	Standard deviation	Significance level	Test statistics	result
Organizational Environment	8	3.94	0.66578	0.005	1.264	normal
Leadership quality	10	4.05	0.60978	0.019	1.676	normal

According to the results of Kolmogorov-Smirnov test, for the research variables in Table (No. 4), the average of the two dimensions of organizational environment (organizational

atmosphere) and leadership quality is higher than the average value. Since the standard deviation of the main variables (productivity dimensions) is less than one, so it can be concluded that the thoughts of the majority of respondents are less scattered than the productivity indicators provided by human resources in service organizations and most respondents agreed with their answers in the questionnaire. The results show that both dimensions had a normal distribution. The significance level was greater than 0.05 (P> 0.05) for two dimensions which indicates that the variables are normal.

Table 6. Descriptive analysis of research variables

factor	mean	Standard deviation	Variance	factor	mean	Standard deviation	Variance	factor	mean	Standard deviation	Variance	factor	mean	Standard deviation	Variance
1	3/99	0/980	0/665	6	4/22	0/843	0/692	11	4/18	0/843	0/670	16	4/09	0/794	0/712
2	4/11	0/871	0/753	7	3/68	1/245	0/793	12	4/04	0/840	0/639	17	4/20	0/792	0/761
3	4/04	0/788	0/735	8	3/66	1/010	0/819	13	4/02	0/914	0/744	18	4/10	0/865	0/766
4	4/10	0/781	0/728	9	3/67	0/984	0/736	14	4/06	0/819	0/748		N=250		
5	3/95	0/858	0/727	10	3/96	0/900	0/709	15	4/24	0/787	0/749				

Figure 2. Model for measuring the dimension of the organization's environment in standard modes and significant numbers
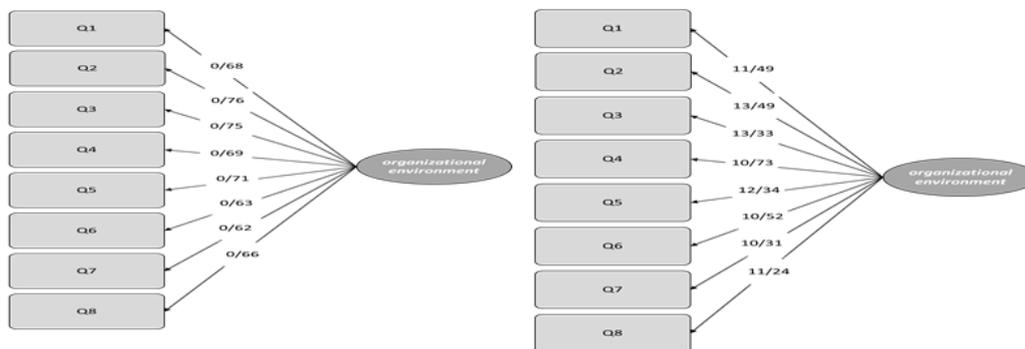

Table 7. Results of confirmatory factor analysis for the organizational environment

Question	Correlation rate with latent variable (factor load)	Statistic T	Result	Question	Correlation rate with latent variable (factor load)	Statistic T	Result
Q 1	0/68	11/49	Confirmed	Q 5	0/71	12/34	Confirmed
Q 2	0/76	13/49	Confirmed	Q 6	0/63	10/52	Confirmed
Q 3	0/75	13/33	Confirmed	Q 7	0/62	10/31	Confirmed
Q 4	0/69	10/73	Confirmed	Q 8	0/66	11/24	Confirmed
Rmsea=0/165 & NFI=0/90 & GFI=0/91 &CFI=0/82 & IFI=0/91							

According to Table (No. 7), all related questions have a significant correlation coefficient with latent variables (productivity dimensions) because the values of T statistic greater than 1.96 or less than -1.96 indicate the significance of the relationships at level of 0.05. On the other hand, all the factor loads of 8 questions are more than 0.5 and the factor loads of all 8 questions are more than 0.6, which are very desirable. The results show that in the dimension of the organization's environment, the highest correlation is related to question number 2 of *"understanding of the environment and the ability to design programs compatible with the organization's environment."* This means that question 2 determines and predicts a greater amount of variance of the relevant variables. Also, the values related to the table show that Rmsea = 0.165 is the average model fit. Also, Chi-square = 155.24 and the fit indices of NFI, CFI, and IFI are greater than 0.9. So this result shows that this model is a suitable one for measuring research variables on the organizational environment and the fit indices are suitable for this variable.

Figure 3. Model for measuring the dimension of the leadership quality dimension in standard modes and significant values
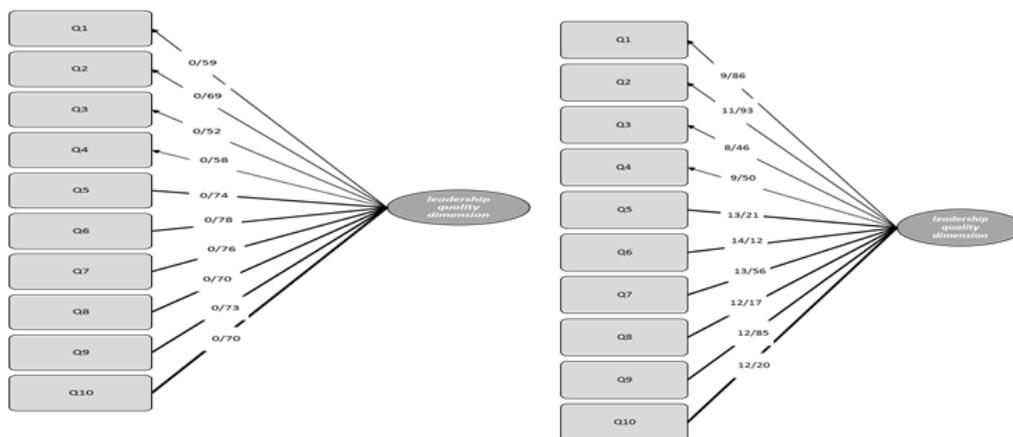

Table 8. Results of confirmatory factor analysis for leadership quality dimension

Question	Correlation rate with latent variable (factor load)	Statistic T	Result	Question	Correlation rate with latent variable (factor load)	Statistic T	Result
Q 1	0/59	9/86	Confirmed	Q 6	0/78	14/12	Confirmed
Q 2	0/69	11/93	Confirmed	Q 7	0/76	13/56	Confirmed
Q 3	0/52	8/46	Confirmed	Q 8	0/70	12/17	Confirmed
Q 4	0/58	9/50	Confirmed	Q 9	0/73	12/85	Confirmed
Q 5	0/74	13/21	Confirmed	Q 10	0/70	12/20	Confirmed
Rmsea=0/119 & NFI=0/93 & GFI=0/95 &CFI= 0/89& IFI=0/95							

According to Table (No. 8), it can be seen that all questions related to variables have a significant correlation coefficient with latent variables (productivity dimensions). T statistics values greater than 1.96 or less than -1.96 indicate significance relationships at the level of 0.05. On the other hand, all factor loads of 10 questions are more than 0.5 and factor loads of 8 questions are more than 0.6, which are very desirable. In the obtained results, it is observed

that in the dimension of leadership quality, the highest correlation is related to question 6 *"providing grounds for accepting the leadership model in the organization"*. This means that question 6 determines and predicts a greater amount of variance of the relevant variables. Also, the values related to the table show that Rmsea = 0.119 is the suitability of the model average. Also, Chi-square = 158.68 and NFI, CFI, and IFI fit indices are greater than 0.9, so this result shows that the model for measuring research variables on the leadership quality dimension is a suitable model and the fit indices are suitable for the variables.
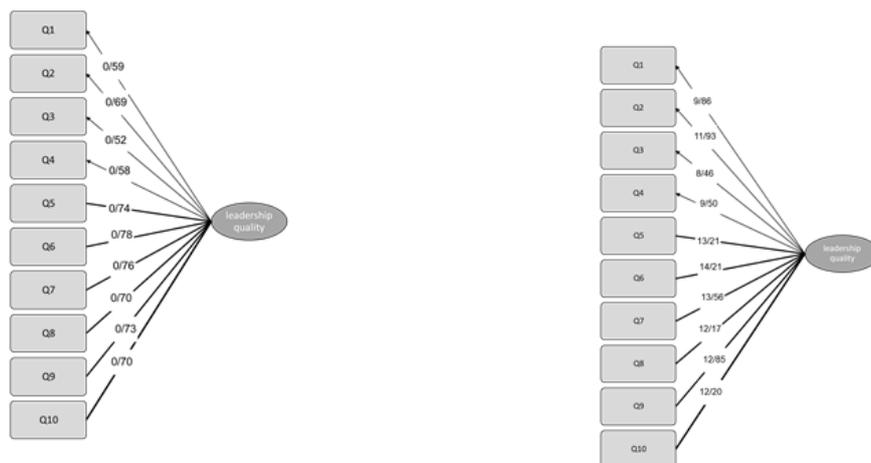

Figure 2) Model for measuring the quality of leadership dimension in standard modes and significant numbers.
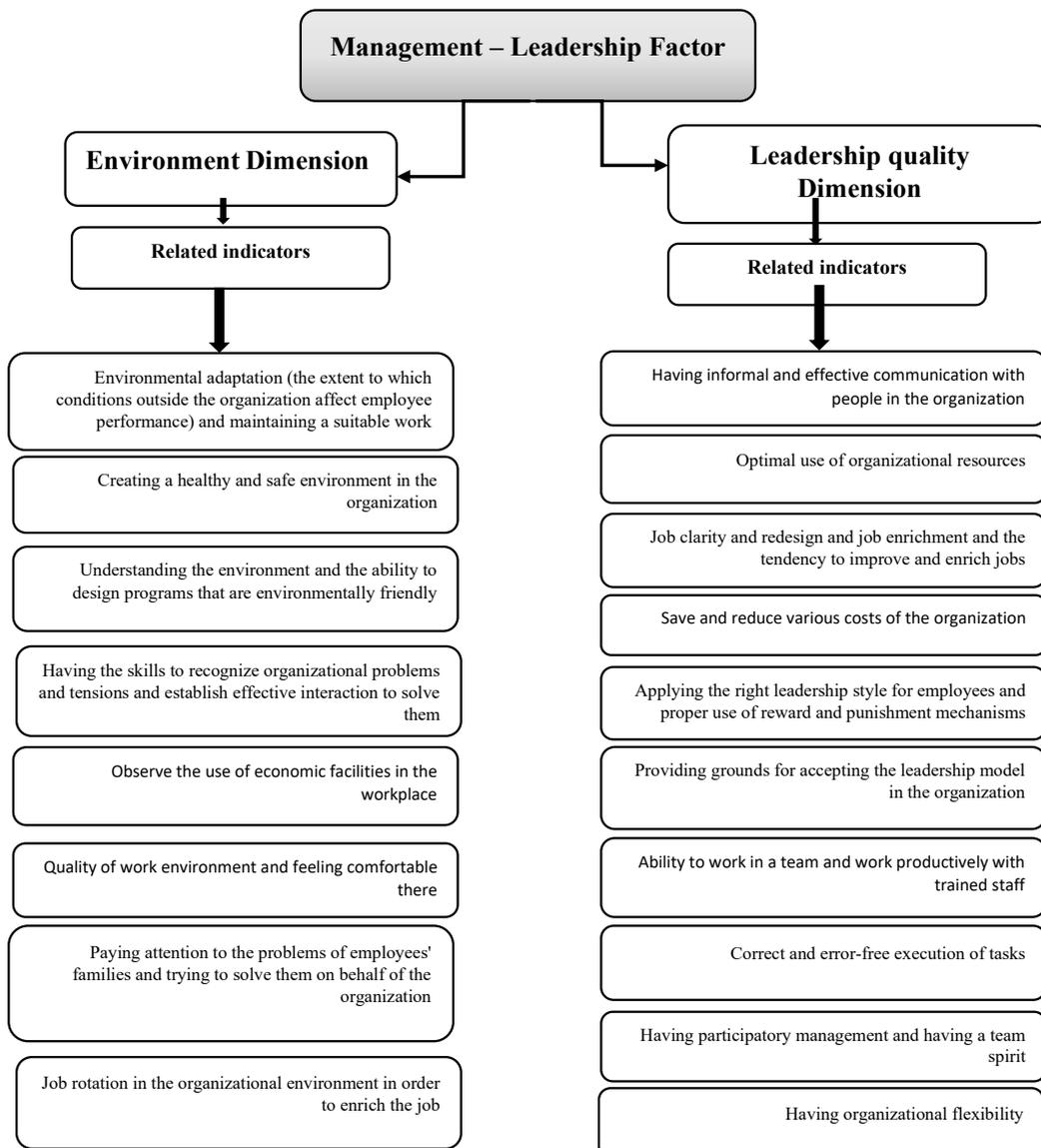
Discussion

This study was considered with emphasis on the dimensions of organizational environment and leadership quality considering the importance of productivity in service organizations and a new look at the classification of dimensions and indicators of human resource productivity. Some questions raised in this study are: What are the indicators of human resource productivity with an emphasis on the dimensions of the organizational environment and the quality of leadership in service organizations? What is the validity of the dimensions and indicators of manpower productivity in factor analysis? In order to achieve a deep understanding of human resource productivity indicators and increase the generalizability of the findings, a mixed research method of exploratory design (identification of human resource productivity indicators) was used. 18 indicators of measuring human resource productivity in service organizations were classified into two dimensions of organizational environment and leadership quality.

The quality of leadership with indicators such as; associating with people in the organization, applying the appropriate leadership style for employees and proper use of reward and punishment systems, correct and error-free execution of tasks, delivery of good quality work and customer satisfaction (individuals or units receiving work output or stakeholder) of employee performance, leadership and leadership quality, support of superiors and senior managers of employees, providing opportunities for acceptance of leadership model in the organization, effective management and optimal allocation of resources to activities and the ability and capacity to improve performance methods Work, participatory management and employee participation, having a team work spirit, organizational flexibility such as floating

working hours, working hours flexibility were identified which were in line with the views of Kate Davis and John Newstorm (1986), Rezaian (2007), Taheri (2008), Bordbar (2013), Jabbar-zadeh (2013), Savari (1988), Steiner (1995), Adson (1999), Ozbilijin (2005), (Budlaei 2014) and with the criteria of evaluation of sample employee selection, culture and guidance of Tehran (2013) and criteria for evaluating the performance of education (2017).

In terms of organizational environment, indicators such as; environmental adaptation and maintaining a suitable work environment, creating a suitable environment in the organization, eliminating the fear in the environment and replacing the environment of trust in people and the quality of the work environment (light, noise, humidity and ventilation, etc.), paying attention to employees' families On behalf of the organization, the use of job rotation techniques in the organization are in consistent with the views of Farahmand (2002), Babaian (2015), Henry (2003), Mastari et al. (2013), Ghasemi (2005), Moti Doost Komleh et al. (2014), Faghihi (2000), Bordbar (2013), Nikokar et al. (2013). Alwani et al. (2001).

Figure 4. Final Model of Human Resource Productivity Indicators with Emphasis on Dimensions of Organizational Environment and Leadership Quality in Service Organizations

Conclusion
Human resource productivity indicators help determine the strategy of total productivity management in organizations and improve effective communication and cooperation between different units and parts of the organization. It causes compatibility between managers and workforce and human capital empowerment and evaluation programs and a consistent and uniform in determining the level of productivity. It helps all department managers, inter--sectoral and cross-sectoral human resource productivity and improves it in the headquarters.

Ethical considerations
The researcher ensures that in all stages of conducting research and preparing research reports, the principles of research ethics have been fully observed such as full observance of participants' rights, scientific honesty and trustworthiness, truth-seeking, etc.

Reference
Abbaspour, A. (1994). Advanced Human Resource Management (Approaches, Processes and Functions), Tehran: Semat Publications.

Alwani, M. (2014). The Effect of Organizational Culture on Human Resource Productivity, Management Quarterly, Ninth Year, No. 28, pp. 25-38.

Bastan, M. Ozkan, D. (2014). Machine learning techniques for multimedia: case studies on organization and retrieval.

Bordbar, G. (2013). Factors Affecting Manpower Productivity Using Multi-Criteria Decision Making Case Study Techniques: Staff of Shahid Sadoughi Hospital, Yazd, Journal of Health Management, No. 51, pp. 73-81.

Forehand, Garlie A. Von Haller, G. (1964). Environmental variation in studies of organizational behavior.

Gholamian, Y. (2012). The Role of Social Capital in Labor Productivity, Thesis in Public Management, Azad University, Tehran Central Branch.

Hersey P, Blanchard K.H (1998). Management of organizational behavior: Utilizing human resources, (5th ed.) Prentice hall Inc, Englewood cliffs, New Jersey.

Holzer, M. Seok Hwan Lee, Yi. (1945). Manpower productivity management in the public sector. Translators; Budlaei, Hassan; Khanbashi, Mohammad; Niknam; Mehdi. 2014. Termeh publications.

Imami Meybodi, A. (2000). Principles of measuring efficiency and productivity; Tehran: Publications of the Institute of Business Studies and Research.

Kargar, G & Farajpour, B. (2009), How to increase productivity in an organization, Police Human Development Bi-Quarterly, Year 6, No. 23.

Karimi, A. (2008) Conflict Management in Organizations, Tehran Manpower Training Studies Office.

Mastri, H. Teymourzadeh, E & Bahadori, K. (2013). Components affecting the increase of human resource productivity in an organization. Baqiyatallah University of Medical Sciences, Tehran, pp. 75-86.

Mizani, A.& Bandak, M. (2013). Investigating the Relationship between Quality of work-life and Productivity Performance of Renovation Employees, Presented at the First Virtual Conference of Rahavaran Amuzesh.

Mobaleghi, M.Danesh, E. (2014). Productivity management (beyond management). Winter 2014. 8th period. Issue 31. Pp. 101-124.

Mohammadzadeh, R. (2016). Investigating and Identifying Factors Affecting Improving the Productivity of Teachers (Case Study: Hir District Education), pp. 20-21.

Nourizadeh, M. (2008), Productivity Calculation, Behbood Quarterly, Year 10, No. 24, p.25.

Pedram, M.(. (2011). Improving human resource productivity. Productivity Quarterly, No. 181. pp. 25-28.

Rasouli, R. (2013). Human resources management (1st ed.). Tehran: Payam Noor Publications.

Rezaian, Ali et al. (2008). Investigating the patterns of knowledge management strategy and knowledge strategy in organizations. Bimonthly of Police Human Development 2008. No. 6.

Samari, S., (2006), The study of the relationship between organizational atmosphere and the performance of Urmia primary school staff, M.Sc. Thesis, Islamic Azad University of Tabriz.

Stainer, Alan. , 1955, Productivity Management: the Japanese experience MCB University Press Limited, vol. 33, No. 8, pp. 12-4.

Taavoni Gilani, M. (2013), Examining Organizational Citizenship Behavior on Human Resource Productivity in National Oil Products Distribution Company (East Azerbaijan Province). Master Thesis, (In Persian(.

Taheri, Sh. (2015). Productivity and its analysis in organizations. Tehran: Mastan Publishing.

Talebian, A. R., & Vafaee, F. (2009). Comprehensive human resources empowerment model. Tadbir Quarterly, 20(203), 58–68.