

Investigating the impact of human resources development in achieving organizational agility in the urban water and sewage company of Ilam province

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Abstract

Background and purpose: If an organization wants to be successful and agile, it should firstly attract an efficient workforce and secondly pay special attention to their maintenance and development so that they will be more motivated to serve in the organization. Therefore, the current research was conducted to determine the impact of human resources development in achieving organizational agility in the urban water and sewage company of Ilam province. **Methodology:** In terms of purpose, the present research is applied, and in terms of method and descriptive nature, it is survey type. The statistical population in this research is managers, employees, and supervisors of different units at different organizational levels in the water and sewage company of Ilam province. The statistical population's total size is 420 people (N = 420). The statistical sample size was 201 people using Morgan's table. In this research, Tonke Nejad and Davari's human resource development questionnaire (2018), with a reliability coefficient (0.87), and the organizational agility questionnaire by Sharifi and Zhang (1999), with a reliability coefficient (0.81) were used to collect data. In order to investigate the issue, one main hypothesis and seven sub-hypotheses were formulated, and Pearson's correlation coefficient, linear regression and structural equation model were used to analyze the collected data. **Results:** The obtained results showed a positive and significant relationship between the components of human resource development (coherence, coordination, adaptation, identity, intellectual, attitudinal, and occupational) and organizational agility of the urban water and sewage company of Ilam province. **Conclusion:** There is a significant relationship between the development of human resources and the organizational agility of the urban water and sewage company of Ilam province.

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Introduction

Human resource development can be defined as the process of developing and stimulating human expertise through organizational development and employee training and development in order to act; Or in another definition, human resources development can be called a short-term or long-term process or activity in order to develop knowledge, expertise, productivity and job satisfaction at different individual, team, organizational or national levels (McLean, 2011). As a forerunner of human resource development theories in 1960, Nadler defined human resource development as organized learning experiences provided by employers in a specific period of time to improve performance and individual growth (Nadler and Nadler, 1998). According to Nadler and Nadler (1989), three key activities form the axis of the human resources development process. These three core activities include: education, education and development. Training: includes learning focused on the learner's current job. Cultivation includes learning that focuses on the learner's future job, and development, which does not focus on the job (Nadler and Nadler, 1989).

Technological and business changes threaten the survival of organizations. Few intelligence organizations can change their internal forces and control external influencing forces. Although most organizations have been aware of the importance of responding quickly to changing market conditions, they have never been designed to be able to do so. Every organization must design itself in an agile manner in order to respond to a set of internal and external forces. Virtual organizations are a perfect example of agile organizations that are being formed at a high speed today and can be a response to this new need (Fathiyani et al., 2006). Agility is a new paradigm in the production environment. The production environment has gone through several transitions (from manual industry to mass production and now the latest complete example i.e. agility) and has come into existence mainly due to the desired demands to maintain superiority in a constantly changing environment. Finally, it has been replaced by small modular sizes and expensive information generation (Ngai, Chau, & Chen, 2011).

Agility is the ability to thrive in a constantly changing and unpredictable environment. For this reason, organizations should not be afraid of changes in their work environment, avoid them; Rather, they should consider change as an opportunity to gain a competitive advantage in the market environment (Khosh Sima, 2003). A company's agility is the ability to perform profitable operations in a competitive environment full of continuous, unpredictable, and variable opportunities (Jaafranjad and Shehnai, 2006).

The current environment of organizations has become more complex and difficult, and leaders of organizations have faced unpredictable problems that require their high flexibility in solving problems and facing the turbulent environment around organizations. In some organizations, it is observed that there is no alignment between the underlying

beliefs, values, and assumptions of the organization members and leaders, which causes problems in the commitment of employees to the organization and causes low performance, absenteeism, and employee resignation (Korte, 2012). Today, the development of human resources in various organizations has a special place because, in the last few decades, science and technology have progressed more than in any other era in human history. That is, an era where half of human information becomes obsolete every five years and is replaced by new information and knowledge. About half of the jobs we see today in many countries did not exist fifty years ago. Changing professional activity several times during work is becoming more and more normal for people. The possibility that a young person will learn and continue a skill for about thirty years of his work with a fundamental change is very weak and possible. In a rapidly changing society, the development of human resources is desirable, and an activity for which every organization must consider resources to always have efficient and informed human resources.

Organizations and institutions are forced to seek agility to compete because modern organizations are facing increasing pressure to find new ways to compete efficiently in the dynamic global market. Agility improves the organization's ability to supply high-quality products and services and thus becomes an important factor for the organization's effectiveness. Considering the importance of human resource development and agility, no unique research has been done in this regard during the investigations carried out in the urban water and sewage company of Ilam province. Due to the ever-increasing expansion of tools and ways to serve the people, as well as due to the increase in the level of education and the increase in the number of employees of this company, the aforementioned research has focused its attention on this issue; that if an organization has all the resources and requirements. However, if he cannot have an efficient human force, he will not be able to succeed in his work. Therefore, if an organization wants to be successful and agile, it should first attract an efficient workforce and pay special attention to its maintenance and development to be more motivated to serve.

We live in an era where turbulence and complexity are increasing. More than ever before, the world is constantly changing. In other words, today's world is characterized by continuous changes. In order to face such a challenge, organizations must be aware of the vital role of learning and development in their survival and growth. In fact, organizations should pay more attention to the development of knowledge, skills, and abilities of their employees (Tsang, 2008). The development of human resources means the production of ideas by the organization's employees, and its new concept requires employees to be equipped with the qualities and skills to put their abilities, energy, expertise and thought in line with the realization of the organization's missions with compassion and total commitment. Constantly create new intellectual and qualitative values for the organization. Human resource development aims to create skills that a person can prepare for higher jobs

or heavier responsibilities. One of the perspectives of strategic human resource management is the resource-oriented theory, which focuses on gaining a competitive advantage through valuable and different resources. Competitors' resources are based. Therefore, researchers have paid attention to human resources as an important competitive advantage and a complex and unique resource that cannot be imitated (Kainak, 2007). In recent years, the concept of agility has led to various and wide definitions of it. Perhaps the basic elements of the presented definitions can be summarized as follows: response to change and uncertainty, creation of basic competencies, supply of fully customized products, a combination of different technologies, and inter-organizational and intra-organizational coherence (Azer and Rajabzadeh, 2010). Therefore, the definition of an agile organization can be presented as follows: "an agile organization is a technological organization that, by creating internal and external coherence, can provide customer satisfaction by supplying customized products, despite the sharp changes in the market." A large number of researchers have measured the level of perfection of the variables that are expected to lead to agility (enablers), and some of them have used the expected capabilities of an agile production system (capabilities) as the basis of measurement by presenting a result-oriented approach (Fotohi, 2010). Considering the above contents and the importance of human resource development and agility, the mentioned research has also focused on this issue. Therefore, an organization must have all the resources and requirements but have efficient human resources to succeed in its work. Therefore, if an organization wants to be successful and effective, it must first attract efficient personnel and pay special attention to their development. Therefore, this research aims to investigate the relationship between human resource development and organizational agility in the urban water and sewage company of Ilam province.

Methodology

The current research method is of the correlation type, and the distribution and relationships between the predictor variables and the research criterion in the society are investigated. Finally, the multivariate regression method is used to predict the criterion variable. The statistical population of this research includes all managers, employees, and supervisors of different units at different organizational levels in the water and sewage company of Ilam province. The sampling method in this research is simple random sampling in which questionnaires are randomly distributed among the participants. In this research, the Karjesi and Morgan table was used to select the number of representative samples, and according to the number of 420 employees (statistical population), 201 people were selected. In this research, descriptive statistics and inferential statistics have been used for data analysis. Here, descriptive statistics include frequency tables and graphs. In the field of inferential statistics, Pearson's correlation coefficient, multivariate analysis, structural equation model,

and Kolmogorov-Smirnov's test have been used, especially for hypothesis testing. All statistical calculations were done through SPSS software.

Materials

1- Tonke Nejad and Davari Human Resources Development Questionnaire. This questionnaire was prepared and compiled by Tonkenejad and Davari in 2018, which includes 35 questions and 7 components: identity (6 items), coordination (8 items), success (4 items), adaptation (5 items), intellectual (4 items), attitude (4 items) and job (4 items). This questionnaire uses a five-point Likert scale for each subject, which is assigned points from 1 to 5, respectively. The validity of this questionnaire was confirmed through the face and content validity, and its reliability was estimated using Cronbach's alpha of 87/87, which indicates its good validity.

2- Sharifi and Zhang organizational agility standard questionnaire. This questionnaire was prepared and compiled by Tonkenejad and Davari in 1999, which includes 15 questions and 4 answers, measuring competence, flexibility, and speed. According to the designers of this questionnaire, four basic capabilities can be considered for organizational agility: Responsiveness means the ability to identify changes, react quickly, and take advantage of them. This competence is a wide set of abilities that provides the efficiency of activities in the direction of the goals and objectives of the organization. Flexibility is the ability to produce and provide diverse products and achieve different goals with the same resources and equipment. It includes types of flexibility in the product's volume and variety in the product's form and model in the organization and organizational issues as well as in human resources and the market. Being quick is the ability to perform operations in the shortest time, and the speed in providing services and products is not the only criterion but the speed in the organization's adaptability in the face of changes caused by perception. This questionnaire uses a five-point Likert scale for each subject, which is assigned points from 1 to 5, respectively. The validity of this questionnaire was confirmed through the face, and content validity and its reliability were estimated using Cronbach's alpha of 0.81, which indicates its good validity.

Results

The information collected from the subjects was analyzed by human resources development and organizational agility questionnaires using appropriate statistical tests, and the research hypotheses were tested. For this purpose, descriptive statistics indices were used to describe and classify the data collected from the sample. Pearson's correlation coefficient and multivariate regression were used to test and analyze the hypotheses. Among all the respondents, 123 people (61.2%) are men, and 78 people (38.8%) are women. All respondents are from the age of 20 years to over 50 years. Among all the respondents, 24 people (11.9%) are in the age group of 20-30 years, 101 people (50.2%) are

in the age group of 30-40 years. Among all the respondents, 32 people (15.9%) were 40-50 years old, and 44 (equivalent to 21.9) were over 50 years old. Also, the findings indicate that 21.9% of the respondents reported their education as a diploma, 33.8% as an associate degree, 27.9% as a bachelor's degree and 12.4% as a master's degree. Therefore, most of the respondents have a graduate education.

Table 1: Pearson correlation coefficient between human resource development and organizational agility

Organizational Agility		
Human resource development	Coefficient	0/694
	Significance level	0/001
	N	201

The obtained data indicate a significant relationship between the development of human resources and the organizational agility of the urban water and sewage company of Ilam province (significance level = 0.001). Therefore, the research hypothesis of a significant relationship between the above variables is confirmed. This means that overall, the improvement of human resources development indicators will increase the agility in the urban water and sewage company of Ilam province. As a result, from the employees' point of view, the organizational development indicators are known for the organization's agility.

Table 2: Pearson correlation coefficient between success dimension and organizational agility

Organizational Agility		
Success	Coefficient	0/550
	Significance level	0/001
	N	201

The results obtained from the above table after data analysis show a positive and significant relationship between the dimension of success and organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is less than the specified significance level (.05), it can be concluded that the relationship is significant and not due to chance, chance, and coincidence. In the above table, the Pearson correlation coefficient between the dimension of success and organizational agility of the urban water and sewage company of Ilam province is given in terms of intensity, significance level, and the number of respondents, which confirms the above conclusion. As a result, the improvement of educational, value, and management conditions in the urban water and sewage company of Ilam province will increase organizational agility.

Table 3: Pearson correlation coefficient between coordination dimension and organizational agility

Organizational Agility		
Coordination	Coefficient	0/296

Significance level	0/001
N	201

The data from the above table show a positive and meaningful relationship between the dimension of coordination and organizational agility of the urban water and sewage company of Ilam province (significance level = .001). The intensity of this relationship is evaluated at a strong level. Therefore, it can be concluded that the research hypothesis of a significant relationship between the above variables is confirmed. As a result, according to the results of this hypothesis, the increase of internal and external communication in the direction of creating unity of action and finally harmonizing the organization will make the urban water and sewage company of Ilam province more agile.

Table 4: Pearson correlation coefficient between adaptation dimension and organizational agility

Organizational Agility		
conformity	Coefficient	0/793
	Significance level	.001
	N	201

The results obtained from the above table after analyzing the data show that there is a positive and significant relationship between the adaptation dimension and the organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is less than the specified significance level (.05), it can be concluded that the relationship is significant and not due to chance, chance and coincidence. However, the hypothesis is accepted and rejected. In the above table, the Pearson correlation coefficient between the compliance dimension and the organizational agility of the urban water and sewerage company of Ilam province is given in terms of intensity, significance level and the number of respondents, which confirms the above conclusion. As a result, it can be effective in making the company agile by strengthening the aspects of the organization's compliance, such as more communication with other organizations and using their experiences, sending employees to courses outside the organization and creating effective communication networks in the urban water and sewage company of Ilam province.

Table 5: Pearson correlation coefficient between identity dimension and organizational agility

Organizational Agility		
identification	Coefficient	0/568
	Significance level	.001
	N	201

The results obtained from the findings of the above table after data analysis show a positive and significant relationship between the intellectual dimension and organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is less than the specified significance level (.05), it can be concluded that the relationship is significant and not due to chance, chance, and coincidence. With this result, the hypothesis that there is no relationship between the mentioned variables is rejected. In the above table, the Pearson correlation coefficient of the intellectual dimension and organizational agility of the urban water and sewage company of Ilam province is given in terms of intensity, significance level, and the number of respondents. According to the results of the hypothesis, it is possible to move in the direction of making the water and sewage company of Ilam province more agile by promoting logical and innovative thinking among the employees, as well as providing training on practical solutions to organizational problems.

Table 6: Pearson correlation coefficient between intellectual dimension and organizational agility

	Organizational Agility	
intellectual	Coefficient	0/472
	Significance level	.001
	N	201

The results obtained after analyzing the data show a positive and significant relationship between the intellectual dimension and organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is less than the specified significance level (.05), it can be concluded that the relationship is significant and not due to chance, chance, and coincidence. According to the results of the hypothesis, it is possible to move in the direction of making the water and sewage company of Ilam province more agile by promoting logical and innovative thinking among the employees, as well as training the employees in the field of practical solutions to organizational problems.

Table 7: Pearson correlation coefficient between attitudinal dimension and organizational agility

	Organizational Agility	
attitudinal	Coefficient	0/667
	Significance level	.001
	N	201

In the above table, the Pearson correlation coefficient between the attitudinal dimension and the organizational agility of the urban water and sewage company of Ilam province is given in terms of intensity, significance level, and the number of respondents. As a result

of accepting the opposite hypothesis in this hypothesis test, it can be concluded that with the prevalence of rational behaviors, training employees to familiarize themselves with organizational changes in order to create positive attitudes can be one of the ways to strengthen organizational agility in the urban water and sewage company of Ilam province.

Table 8: Pearson correlation coefficient between job dimension and organizational agility

Organizational Agility		
occupational	Coefficient	0/784
	Significance level	.001
	N	201

The results obtained after analyzing the data show a positive and significant relationship between the occupational dimension and the organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is less than the specified significance level (.05), it can be concluded that the relationship is significant and not due to chance, chance, and coincidence. With this, the hypothesis is accepted, and the lack of relationship between the mentioned variables is rejected. In the table below, the Pearson correlation coefficient between the job dimension and organizational agility of the urban water and sewerage company of Ilam province is given in terms of intensity, significance level, and the number of respondents. As a result and according to the results of the research, specialized training of employees and familiarizing them with new technologies in the field of their expertise can increase agility in the urban water and sewage company of Ilam province.

Table 9: Results of multivariate regression coefficients

Variables	Regressions coefficient	Standard error	T test	Significance level
Constant	-9/047	2/487	-3/773	0/001
Identity	0/098	.087	1/133	0/259
Coordination	-0/112	.032	-3/526	0/001
Success	0/708	.160	4/419	0/000
Conformity	1/118	0/156	7/190	0/000
Intellectual	-0/320	0/089	-3/605	0/000
Attitudinal	0/790	0/186	4/242	0/000
occupational	1/953	0/181	10/772	0/000

One should study the beta value or standardized coefficients to check the relative importance of independent variables in predicting the dependent variable. According to the data in the above table, it can be said that the role of the flame dimension of human resources development on organizational agility (Beta = 1.953) is more than other

variables. The higher the obtained beta, the more it can play a role in explaining the dependent variable.

Discussion and Conclusion

This research aims to investigate the impact of human resources development in achieving organizational agility in the urban water and sewage company of Ilam province. The main hypothesis of the research has been proposed under the title "Human resource development has a positive and meaningful relationship with the organizational agility of the urban water and sewage company of Ilam province". The obtained data indicate that there is a significant relationship between the development of human resources and the organizational agility of the urban water and sewage company of Ilam province (significance level = 0.001). Therefore, it can be concluded that the research hypothesis of a significant relationship between the above variables is confirmed and the null hypothesis, which denies the existence of a relationship, is rejected. Salimi (2010) showed that it is very important for managers and officials to become more familiar with organizational agility factors and proper planning to create agility in the organization and to familiarize managers and officials with appropriate methods and procedures for organizational agility (Salimi, 2010). In 2000, Kraken examines the relationship between organizational agility and organizational influencing factors, stating that an agile organization is a business with speed, adaptability, and awareness. In addition, it can quickly adapt to unforeseen developments and unexpected events, market opportunities and customer requirements. In such a business, processes and structures are found that facilitate speed, compliance and robustness and have a coordinated and regular organization that has the ability to achieve competitive performance in a completely dynamic and unpredictable business environment. This environment is not incompatible with the current functions of the organization.

The first sub-hypothesis of the research, "the success dimension has a positive and significant relationship with the organizational agility of the urban water and sewerage company of Ilam province," has been proposed. The results obtained after data analysis show a positive and significant relationship between the dimension of success and organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is lower than the specified significance level (.05), it can be concluded that the significant relationship is not due to chance, chance and coincidence; thus, the above hypothesis is accepted. Rivoni et al. (2012) in a study titled using the Plea method for the development of human resources through specialized training in Romania, which was conducted with a statistical population of 860 female managers working in 200 companies. The results of the research showed that professional training played a role in

eliminating stereotyped training and in increasing the abilities of women working in the public sector; they should rely on the computer skills training they need (Rioni et al., 2012). The second sub-hypothesis of the research has been proposed under the title "Coordination dimension has a positive and meaningful relationship with the organizational agility of the urban water and sewage company of Ilam province". The obtained data indicate that there is a positive and meaningful relationship between the coordination dimension and organizational agility of the urban water and sewage company of Ilam province. (significance level = 0.001). Khameda (2009) conducted research titled investigating the relationship between education management and human resource development with knowledge management in the treatment management of Qazvin Social Security Organization. The research results showed that in the studied organization, management of training and development of human resources and knowledge management is at an unfavorable level. There is a direct and meaningful relationship between the management of training and development of human resources and all its components, including the analysis of training needs and justification training, the development of the career path of employees and communication, allocation of resources, monitoring, evaluation and improvement with knowledge management, and finally, it shows that the management Training and development of human resources on knowledge management has a positive, direct and significant effect of 85%. Also, the effects of education management and human resources development on knowledge management have been applied only through the component of educational needs analysis and justification training. However, the impact of other components on knowledge management has not been confirmed (Khameda, 2009). The third sub-hypothesis under "Compliance dimension has a positive and meaningful relationship with the organizational agility of the urban water and sewage company of Ilam province" has been proposed. The results obtained after analyzing the data show a positive and significant relationship between the adaptation dimension and the organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is less than the specified significance level (.05), it can be concluded that the relationship is significant and not due to chance, chance, and coincidence. Ghanbari and Qolizadeh (2013) studied the effect of human resources practices on organizational performance and the mediation of organizational learning and individual behavior with a statistically sample of 115 people. Finally, the results of data analysis showed that: 1- Human resource methods have an effect on organizational performance. 2- Human resource methods have an indirect effect on organizational performance through individual behavior. 3- Human resource practices have an indirect effect on organizational learning through individual behavior. 4- Human resource practices have an indirect effect on individual behavior through organizational learning (Ghanbari and Qolizadeh, 2013).

The fourth sub-hypothesis under the title "Identity dimension has a positive and significant relationship with the organizational agility of the urban water and sewage company of Ilam province" has been proposed. The results obtained after analyzing the data show a positive and significant relationship between the identity dimension and the organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is less than the specified significance level (.05), it can be concluded that the relationship is significant and not due to chance, chance and coincidence. In his study in 2004, Vadi'at concludes that the development of human resources refers to future-oriented investment in human resources. Development expresses the fact that an employee will need to use a series of information, skills and abilities to succeed in his career (Vadiyat, 2013).

The fifth sub-hypothesis under the title "Intellectual dimension has a positive and significant relationship with the organizational agility of the urban water and sewage company of Ilam province" has been proposed. The results obtained after analyzing the data show a positive and significant relationship between the intellectual dimension and organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is lower than the specified significance level (.05), it can be concluded that the relationship is meaningful and not due to chance, chance, and coincidence. In a study in 2008, Tseng stated that the development of human resources means the production of thoughts and ideas by the organization's employees. In addition, its new concept requires employees to be equipped with the qualities and skills to put their abilities, energy, expertise and thought in line with the organization's missions with compassion and total commitment and to create new intellectual and qualitative values for the organization permanently. In the concept of human resource development, the goal is to create skills that a person can prepare for higher jobs or heavier responsibilities.

The sixth sub-hypothesis under the title "Attitudinal dimension has a positive and meaningful relationship with the organizational agility of the urban water and sewage company of Ilam province" has been proposed. The results obtained after analyzing the data show a positive and significant relationship between the intellectual dimension and organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is less than the specified significance level (.05), it can be concluded that the relationship is significant and not due to chance, chance and coincidence. In his study, Tseng emphasizes on improving the knowledge and attitude of employees in order to increase the agility of the organization. He says that now more than ever the world is constantly changing. In other words, the characteristic of today's world is continuous changes. In order to face such a challenge, organizations must be aware of the vital role of learning and development in their survival and growth. In fact, organizations should pay more attention to the development of their employees' knowledge, skills and abilities. The seventh sub-hypothesis under the title "occupational dimension has a positive

and significant relationship with the organizational agility of the urban water and sewage company of Ilam province". In order to test this hypothesis, questions have been raised, which after analyzing the data, show a positive and significant relationship between the job dimension and the organizational agility of the urban water and sewage company of Ilam province. Since the obtained significance level (.001) is lower than the specified significance level (.05), it can be concluded that the relationship is meaningful and not due to chance, chance and coincidence. Swansen (2001) refers to agility as the ability to successfully produce and sell a wide range of products with low cost, high quality, short lead time, and a variety of batch sizes. It creates value for multiple and specific customers through production based on mass customer demands.

Ethics

This research observed ethical standards, including obtaining informed consent and ensuring privacy and confidentiality. Also, while completing the questionnaires while emphasizing completing all the questions, the participants were free to withdraw from the research at any time and provide individual information. They were assured that the information would remain confidential, which was strictly adhered to.

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Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

References

- Azar, A. (2017). Applied decision making (MADM approach). Tehran: Negahe Danesh.
- Becker, G. (1964). Human Capital. University of Chicago Press, First Edition, Chicago.
- Fathian, M., Golchin Poor, M., & Shahrokhi, S. (2006). Agile solutions in manufacturing organizations. *Tadbir*, (175).
- Garavan, Thomas N. (2004). Exploring HRD: A Levels of Analysis Approach, *HumanResource Development Review*. Vol. 3, No. 4, pp. 417-441.
- Goodman, D., Holton, E., & Bates, R. (2014). Validation of the learning transfer system inventory: A study of supervisors in the public sector in
- Jafarnejad, A., & Shahae, B. (2006). An introduction to organizational agility. Tehran: Mehraban.
- Katz, D. & R. Kahn (1978). *The Social Psychology of Organization*. John Willy, 2ndEdition, New York.
- Khosh Sima, Gh. (2003). An introduction to agility in organizations. *Tadbir*, (134).
- Korte, R. (2012). Exploring the social foundations of human resource development: A theoretical framework for research and practice. *Human Resource Development Review*, 11(1), 6-30.
- McLean, G. N. (2006). National Human Resource Development: A Focused Study in Transitioning Societies in the Developing World. *Advances in Developing Human Resources*, 8(1), 3-11.

- Nadler, L. & Nadler, Z. (1989). *Developing Human Resource*. Jossey-Bass Press, First Edition, San Francisco, p. 4.
- Ngai, E. W., Chau, D. C., & Chan, T. L. A. (2011). Information technology, operational, and management competencies for supply chain agility: Findings from case studies. *The Journal of Strategic Information Systems*, 20(3), 232-249.
- Nissley, N. (1999). *Viewing Corporate Art Through the Paradigmatic Lens of Organizational Symbolism: An Exploratory Study*. Unpublished Doctoral Dissertation, The George Washington University, Washington, DC.
- Sharifi, H., & Zhang, Z. (1999). A methodology for achieving agility in manufacturing organisations: An introduction. *International journal of production economics*, 62(1-2), 7-22.
- Sloman, M. (1994). "A Handbook for Training Strategy", Gower, Aldershot
- Spiegler, I. (2004). "Knowledge Management A New Idea or A Recycled Concept?". *Communication of the Association for Information System*, 3 Article14. June
- Tseng, C., & McLean, G. N. (2008). "Strategic HRD practices as Key Factors in Organizational learning". *Journal of European Industrial Training*, 6, 418-432
- Wang, X., & McLean, G. N. (2007). The Dilemma of Defining International Human Resource Development. *Human Resource Development Review*, 6(1), 96-108.
- Wright, P. M., & Kehoe, R. R. (2013). Human resource practices and organizational commitment: A deeper understanding. *Asia Pacific Journal of Human Resources*, 46, 6–20.