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The effects of human resource flexibility on human resources development

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BSTRACT

Article history: Received January 28, 2014 Received in revised format 5 May 2014 Accepted 4 July 2014 Available online July 6 2014 Keywords: Flexibility Human Resource Development Identity Formation Success	Human resources are the primary factor for development of competitiveness and innovation and reaching competitive advantage and they try to improve corporate capabilities through various characteristics such as value creation, scarcity and difficulty of imitation. This paper investigates the effect of human resource flexibility and its dimensions on human resource development and its dimensions. The survey was conducted using descriptive-correlation method that intended to describe how human resource flexibility was effective on human resource development. Questionnaire was tool of data collection. The statistical population included one hundred employees of the Electric Company in Ilam province, thus census method was used. Reliability of the questionnaire was measured via Cronbach's alpha equal to 0.96. The findings revealed that flexibility and its dimensions were effective on human resource development and dimensions of it. As a result, human resource flexibility should be considered for development of human resources and employees with the highest flexibility should be selected.
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1. Introduction

During the past few years, intensive competition among corporations and ever-increasing changes in the environment compel the corporations to innovate continuously in order to reach their objectives. Human resources are the primary factor for development of competitiveness and innovation and reaching competitive advantage and they try to improve corporate capabilities through various characteristics such as value creation, scarcity and difficulty of imitation. Therefore, human resource management is the primary key to reach competitive advantage and can be considered as a source of competitive advantage in most developing corporations (Hashemifar, 1999; Kavousi & Ahmadi, 2011; Kavousi & Ahmadi, 2011). Many firms need advance skills and behaviors of human resources and appropriate functions of human resource management. Fulfillment of such conditions needs human resource flexibility. In fact, flexibility, is one of the challenges associated with human

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resource management in recent years (Arabi et al., 2008; Sajadinasab, 2012). Many firms have encountered with numerous fluctuations regarding demand for productions and such environmental procedures will be increased with more probability in the future. Firms require flexibility and the capability for compatibility with environmental uncertainty associated with human resource characteristics. This capability is reached through different types defined as human resource flexibility. In an uncertain environment, it builds value for the corporation through generating stable competitive advantage in long-term.

2. Statement of problem

Human resource flexibility is the best and the most essential method to respond to changes of external environment of the corporation. This flexibility is not available off hand and a special attitude in management of organizations is required to form it. Today, most employees and employers are interested in utilizing flexibility patterns for various reasons. Employees wish to establish coordination between their work and life to help reaching flexibility patterns while employers wish to utilize flexibility patterns for financial and business reasons. These patterns have been considered in previous decades and they were very attractive most of which was due to environmental pressures and incentives. Flexibility is a positive and applied quality, which represents the ability to change and to adapt with incomprehensible and unpredictable conditions and is used against qualities such as strict, petrified and obstinate. Flexibility has become important in management theories and politics. Given to above-mentioned issues and the conducted studies, it is necessary to study the relationship between human resource development and flexibility and see whether or not flexibility may influence and develop human resources and enhance efficiency and competitive advantage. Therefore, the current study investigates whether or not there is a significant relationship between flexibility and human resource development of competitive advantage.

3. Definitions of some terms

3.1 Human resource development

The term "human resources management" was believed to be proposed in the middle 1980's and its purpose was to offer some methods to manage employees and to help improve performance of the corporation. Human capital and entrepreneurship competency can be improved and developed through education and training. Human resources and marketing researchers in recent years have paid much attention to competency. In 1995 in a specialized scope of the global economy, some people suggested that investment in human and professional education could improve human resources. Of course, people do not obtain new skills and competencies only through formal education and in the classroom; rather they may learn more in external space. Human resources are not observed as a source of costs and they look like valuable assets in gaining competitive advantage (Sameei, 2009). Traditional resources of competitive advantage such as technology, patents, etc. in highly competitive environment are no longer efficient because of globalization and other environmental changes. Therefore, having susceptible, skilled and flexible employees as an alternative to substitute these traditional resources helps development of core competency in the corporation (Fatahi et al., 2012). Today, many corporations are active in dynamic environments and deal with unpredictable events. Many factors create such position among which technological advances and globalization of markets can be considered. In such position, corporations need employees who can perform multiple tasks and thus they can react desirably to ever-changing necessity of the market (Fatahi et al., 2012).

3.2 Identity formation

Identity formation refers to acts helping systems maintain shared sense of uniqueness or shared culture. Such actions highlight subcultures of the firm like collective history, shared memory or

common sense of people. In this dimension, attitude of the individual and corporation towards improvement and change becomes flexible. This means to learn new knowledge and convert into corporate behavior.

3.3 Coordination

Coordination is mainly associated with mechanisms led to cohesion among elements of the system. This dimension includes actions by which members feel they belong to a system or it tries so that employees maintain the processes and procedures as elements of a system beside each other. Through this, people use advanced technology and equipment with more interest and accuracy.

3.4 Success

Success refers to actions to consider movement of resources to achieve purposes of the system. In other words, these acts help create a map to achieve purposes via human resource development. It can be stated that the goal setting and assessment process directs the workers to obtain purposes.

3.5 Adaptability

Adaptive acts help the system adapt itself with the changeable environment in order to obtain information and resources from external environment (Tonkenejad & Davari, 2010; Shirvani, 2013).

3.6 Flexibility

Flexibility has been defined as the ability of corporations for compatibility with useable and environmental changes. It needs the essential capability and capacity to react quickly towards the environment and has a high impact on corporate performance (Arabi & Daneshparvar, 2008). The term "human resource flexibility" adopted from human resource management literature is associated with capacities of human resource management, enhancement of corporate capability for efficient and timely adaptation with changeable and variable necessities imposed by the environment or inside of the corporation. In addition, Wright and Snell defined human resource flexibility as the degree that organizational resources enjoy behavioral skills and patterns required to adopt the best decisions in competitive environments as well as enjoyment of corporations from the most appropriate human resource functions for optimal management of such resources. Human resource flexibility as a feature or quality inside the corporations has three components explained as follows,

3.6.1 Functional flexibility

Functional flexibility means employees' ability to do multiple duties and responsibilities. To put it differently, this pattern means adaptability of employees and their ability for job displacement and performing various tasks that such changes can be market-oriented. Functional flexibility is the ability of the corporation in adjusting and developing employees' skills in a wide range of tasks in order to be compatible with changeable tasks due to change in demand nature, production method or technology (Seyyed Naghavi et al., 2013).

3.6.2. Flexibility skill

Flexibility skill indicates the speed and easiness in gaining new skills and abilities of employees. In this term when employees receive education and the necessary re-training, they forecast essential skill requirements or they are enthusiastic for learning new approaches to do their task (Beltrán-Martín et al., 2008). If employees have a wide range of skills and can perform various job duties, it can be stated that the corporation has a high degree of flexibility skill. This type of flexibility can be a source

of competitive advantage for the corporation, because such various skills are valuable and competitors cannot imitate them easily (Bhattacharya et al., 2005).

3.6.3. Behavioral flexibility

Behavioral flexibility is the ability to demonstrate a variety of behavioral roles under various conditions. Behaviors of employees are acts or arrangements adopted by employees in their job. If the employee who has used special acts in repetitive working situations chooses the same act in a new situation, his/her behavior will be inflexible. On the contrary, if employees look for new arrangements to do daily activities or new conditions, their behavior is flexible. Therefore, the term "behavioral flexibility" is more tolerance for non-repetitive behavior and employees respond to new conditions with creativity and it is not based on fixed, predicted and pre-determined patterns (Wright & Snell, 1998; Beltrán-Martín et al., 2008). Thus, human resource flexibility has internal orientation, because it refers to skills and behaviors of employees led to options to pursue strategic alternatives.

4. Research background

Flexibility is stated as one of the important subjects in organizational thought. Definition of this term roots in postmodern and resource-based theories and it contains abilities of the corporation for adaptation with unpredictable and important changes of the environment. Therefore, employment policies in advanced countries are proposed in a way to respond to this need (Arabi et al., 2008). Dynamic and changeable environments and incompatible organizational purposes require human resource flexibility. In this regard, Sanchez suggests whatever range of selective applications of a resource is more and the time and cost of replacing one resource with another one is less, flexibility of resources will be high (Abasi et al., 2014, p. 91).

Arabi and Daneshparvar (2008) performed a study regarding flexibility patterns in human resource management and tried to investigate the relationship among these patterns and employees of corporations. They concluded that flexibility could have an effective role in human resource management. Abasi et al. (2014) to investigate how human resource flexibility affects entrepreneurship in Iran's Research Institute of Petroleum Industry conducted another study. They concluded that adaptation increases entrepreneurship and human resource development. Another research has been conducted by Fatahi et al (2012) to study the effect of high performance work systems on its performance as well as studying the mediating role of human resource flexibility. The results revealed that there is a positive and significant relationship between high performance work systems and high performance human resource flexibility.

5. Methodology

Considering the research plan and its purposes, this survey was conducted using descriptivecorrelation method that intended to explain how human resource flexibility is effective on human resource development. The statistical population included one hundred employees of the Electric Company in Ilam province. Census method was used. Beltrán-Martín et al. (2008) standard questionnaire was applied to measure human resource flexibility and researcher self-made questionnaire was used to measure human resource development. Reliability of the questionnaire was determined via Cronbach's alpha coefficient that was obtained equal to 0.96. This questionnaire has the required reliability, since Cronbach's alpha more than 0.70, it shows the questionnaire has reliability. Fig. 1 shows details of the proposed study.

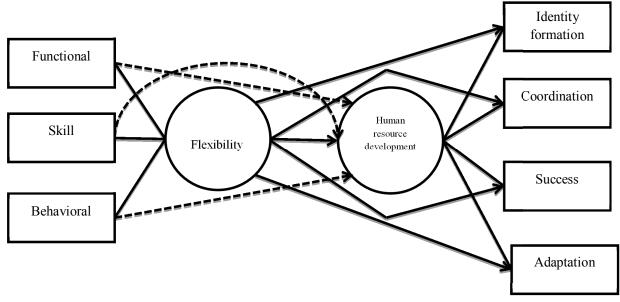


Fig. 1. The proposed study

According to research model, the hypotheses are proposed as follows:

- 1- Flexibility is effective on human resource development.
- 2- Flexibility is effective on identity formation of human resource development.
- 3- Flexibility is effective on coordination of human resource development.
- 4- Flexibility is effective on success of human resource development.
- 5- Flexibility is effective on adaptation of human resource development.
- 6- Functional dimension is effective on human resource development.
- 7- Skill dimension is effective on human resource development.
- 8- Behavioral dimension is effective on human resource development.

5.1. Testing of hypotheses

According to Pierson correlation obtained from regression test (Table 1), it was determined that there was a significant relationship among flexibility and three dimensions of it with career development at error level 5%, p-value= 0.000 and positive coefficients.

Table 1

The results of correlation between flexibility and its dimensions with human resource development

	Pierson correlation coefficient	P-value
Functional flexibility	0.863	0.000
Flexibility skill	0.767	0.000
Behavioral flexibility	0.814	0.000
Total flexibility	0.888	0.000

Value of Durbin-Watson statistics (d) obtained from regression test for flexibility model, which is within desirable limit of 1.5-2.5 and it indicates lack of autocorrelation of variables. Therefore, errors are independent of each other and regression can be used.

Table 2

Summary of flexibility model and its dimensions with human resource development

	\mathbf{R}^2	Coefficient of	Adjusted coefficient of	SD
		determination	determination	
Flexibility dimensions model	0.891	0.793	0.786	2.121
Total flexibility model	0.888	0.789	0.785	2.084

Linearity of relations among the variables was studied using variance analysis test. According to the results of Table 3, analysis of variance indicates that total flexibility and all flexibility dimensions interfere in determining human resource development. In addition, values of F-statistics are significant and there is co-linearity.

Table 3

Variance analysis to study flexibility and its dimensions with human resource development

Model	F	P-value
Flexibility dimensions	99.887	0.000
Total flexibility	297.372	0.000

Table 4 shows the regression coefficients and standardized regression coefficient (β) are used to test the hypotheses. Results of multiple linear regression to investigate flexibility dimensions and results of simple linear regression to examine total flexibility with human resource development show pvalue<0.05; thus H₀ regarding that regression coefficients are equal to zero is rejected and H₁ is confirmed. As a result, flexibility and all its dimensions as predictable factors have a significant effect on human resource development.

Table 4

Regression coefficients of flexibility and its dimensions with human resource development

	В	Standard error	Beta	t	p-value
Intercept					0.000
Flexibility dimensions	0.777	0.106		7.343	0.000
Functional flexibility	0.315	0.075	0.452	4.188	0.016
Flexibility skill	0.146	0.059	0.206	2.470	0.001
Behavioral flexibility	0.201	0.061	0.301	3.292	0.000
Intercept	0.773	0.106		7.304	0.000
Total flexibility	0.667	0.039	0.888	17.244	0.000

Table 5 shows the results of the effect of flexibility and human resource development dimensions.

Table 5

The results of correlation between flexibility and human resource development

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		Identity formation	Coordination	Success	Adaptation
	R	0.695	0.818	0.768	0.659
Flexibility	p-value	0.000	0.000	0.000	0.000

Similarly, simple linear regression was used to study the effect of flexibility on human resource development. Pierson correlation coefficient is similar to multiple correlation coefficient due to simple linear relationship. Value of Durbin-Watson statistics (d) obtained from regression test for flexibility model and model of flexibility dimensions is in the range between 1.5 and 2.5; which means residuals are independent of each other. According to results of the Table 6 of the model's summary, flexibility predicts changeability of identity formation, coordination, success and adaptation dimensions through adjusted coefficient of determinations are equal to 0.477, 0.666, 0.584 and 0.427, respectively.

Table 6

Studying flexibility and dimensions of human resource development

Model		\mathbb{R}^2	Coefficient of	Adjusted coefficient of	SD
			determination	determination	
	Identity formation	0.695	0.483	0.477	1.506
Flexibility	Coordination	0.818	0.670	0.666	1.9530
-	Success	0.768	0.590	0.584	1.688
	Adaptation	0.659	0.434	0.427	1.988

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According to results, analysis of variance interferes in determining human resource development dimensions with p-value< 0.05. Values of F-statistic are significant and there is co-linearity.

Table 7

The results of analysis of variance between flexibility and dimensions of human resource development

		Identity formation	Coordination	Success	Adaptation
Total flexibility	F	74.857	162.230	114.907	61.434
	p-value	0.000	0.000	0.000	0.000

Results of simple linear regression in Table 8 show that flexibility was effective on identity formation, coordination, success and adaptation with positive coefficients are equal to 0.695, 0.818, 0.768 and 0.659, respectively.

Table 8

Studying flexibility and dimensions of human resource development

Independent	Dependent	В	Standard error	Beta	t	p-value
	Intercept	0.679	0.203		3.343	0.001
	Identity formation	0.642	0.074	0.695	8.652	0.000
	Intercept	0.347	0.174		1.995	0.049
	Coordination	0.810	0.064	0.818	12.737	0.000
Flexibility	Intercept	0.762	0.176		4.331	0.000
2	Success	0.689	0.064	0.768	10.719	0.000
	Intercept	1.304	0.184		7.094	0.000
	Adaptation	0.526	0.064	0.659	7.838	0.000

6. Discussion and conclusion

Given to rapid changes occurred in the world and across the firms, corporations have to try to do human resources development. Data analysis reveals that all hypotheses proposed in this survey were acceptable and flexibility along with its dimensions was effective on human resource development and its dimensions. The first hypothesis showed that total flexibility was effective on total human resource development. Therefore, the effect of flexibility accelerates human resource development. Human resource flexibility should be considered in utilization of manpower. If labor does not have the required flexibility, it will resist against the corporation in case of need to develop the corporation and human resources. The second hypothesis studied whether flexibility was effective on identity formation of human resource development. In the event that human resources were flexible, it influenced employees' attitude and behavioral patterns. When the individual is flexible, he/she will change his/her culture, attitudes and behaviors towards development. This is consistent with Hajipour and Moradi's research results (2013). The third hypothesis studied whether flexibility was effective on coordination of human resource development. If labor has flexibility, this will be led to coordination and continuity among the labor force in human resource development. Creating coordination among human resources is a factor that develops the corporation as well as human resources. Adaptation of human resources is one of the important dimensions of human resource development in which human resource flexibility is effective. This causes labor to be compatible with external environment and does not resist if any change is occurred inside the corporation. Adaptation is increased when human resource is more flexible. Result of this hypothesis is consistent with the research presented by Abasi et al. (2014). Flexibility has three dimensions, which are effective on human resource development. Functional flexibility indicates that labor force is multipurpose. When human resources are strong in terms of functional flexibility, they are developed in a better and faster manner. Therefore, managers should try to reinforce functional dimension in their manpower in order to achieve development. Another dimension of flexibility is flexibility skill, which emphasizes the speed and easiness of acquiring new skills and capabilities by employees. This dimension suggests that individuals who acquire the required skills and capabilities with more speed and easiness will have more flexibility, which is effective on human resource development. Those who have flexibility skill dimension do not resists against development and changes and this is led to human resource development, because they can acquire the required skills and capabilities rapidly. The last dimension of flexibility is behavioral flexibility. It refers to a variation of behavioral roles under different conditions. When people can behave in proportion with the intended environment, no resistance is occurred if environment of the corporation is changed to fulfill its purposes or develop human resources.

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