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Studying the Relationship between Organizational Learning and Organizational Agility Capabilities in Public Universities of Isfahan

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ABSTRACT

The purpose of this research was to study the relationship between organizational learning and organizational agility capabilities. In this survey 312 faculty members in Public Universities of Isfahan in 2011-2012 academic year answered to two standard questionnaire of organizational learning that was compiled based on Gomez, Cespedes-Lorente., and Valle-Cabrer (2005) and self made researcher questionnaire of organizational Agility capabilities according to theory of Zhang and Sharifi (2000). Obtained results by Pearson's correlation coefficient showed the significant relationship between organizational learning and organizational agility capabilities and its dimensions. Obtained Results from multi-correlation coefficient and step by step regression showed that the best predictor of organizational agility capabilities is system thinking, transfer and integration of knowledge, openness and experimentation.

KEY WORDS: organizational learning, organizational Agility capabilities, University

INTRODUCTION

Extensive and ongoing changes in the environment, caused organizations to facing new challenges. These challenges are so vast that even organizations with technologies, products and services cannot success in a competitive global market (Azmi, 2005). And old approaches and solutions have lost their potential to deal with organizational challenges and current external environment, and Should be replaced with new approaches and perspectives (Jafarnejad and Shahay, 2010, p18). This has led many organizations to reconsider their strategic priorities and business should focus on adaptability to rapid response to changing market and customer needs through new methods of collaboration. One of the ways of responding to the organizational change factors and success in this environment is "agility". Organizations must try to have trained and motivated personnel with a set of skills, experience and knowledge. This is an essential and inseparable part of such a strategy that should be considered. Information and Knowledge in the organization rest with labor force and in such organizations knowledge is power (Jafarnejad and Shahay, 2010). In fact, one of the most important tools that organizations can use to crush resistance to change is hidden and Intellectual capitals that is known as organizational knowledge and are key to gain organizational learning (Sobhanynezhad and et al., 2006).

Organizational learning

It seems that organizational learning was used for the first time by Cyert and March in their initial study of behavioral aspects of enterprise decision making in 1963 (Dawes,2003). Bayraktaroglu and Kutanis (2003) argue that history of academic interest in the topic of learning organizations goes back to the late 1950s (Ghorbanyzadeh, 2008).Regardless of the exact date of issue of organizational learning, this subject has not attracted much attention until the late 1970s. It was at this time that a number of theorists (including Argyris 1977; Argyris and Schon 1978; Jelinek, 1979) have focused their activities on organizational learning. Although research activities in the 1980s, also on this subject continued, in the 1990s, the issue of organizational learning is only one of several issues in the field of management trends such as strategy and production management and since then overwhelmed organizational learning by management new discusions such as learning organizations (Ghorbanyzadeh, 2008).Argyris and Schon (1978) define organizational learning as the detection and correction of errors. Elsewhere, organizational learning depends on sharing knowledge, beliefs, and assumptions among individuals and teams (Graham, 2006).Gomez and his colleagues have looked at organizational learning from the perspective of the knowledge acquisition process. They define organizational learning as the ability to acquire, create, transfer and integration of knowledge (Gomez and et al, 2005).Also, scholars have developed a variety of factors to measure organizational learning. For example, Lahtinmaky and their colleagues argue that three factors create the ability to

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learn: adaptability the collective mission and strategy and create a collective future. Goh and Richards also showed five factors: the mission and purposes of transparency, commitment and leadership abilities, experience, knowledge and teamwork and group problem solving (Templeton and et al, 2002) and Gomez and colleagues (2005) argued four factors to measure organizational learning including: 1) Management commitment, 2) System perspective, 3) Openness and experimentation, and 4) knowledge integration and transfer . These components can enable staff to deal appropriately with environmental changes and respond quickly to changes and provide agility in organizations.

Organizational agility

History of agility goes back to the United States during the industry downturn. The industrial downturn in United States during the 1980s and the loss of competitiveness, caused Congress decide to necessary acts. So, a group of scientists at Lee University in Pennsylvania, with the aim of defense of America, with systems and strategies came together to investigate the United States Manufacturing. Result of these efforts was the two-volume report titled "21st Century Manufacturing Enterprise Strategy" that issued by the Institute of Yakvka at Lee University and was introduced to everyone In 1991 (Nage and Dove,1991). The results of this research was published in the book by Steven Goldman, Nigel and Prys titled "Agile competitors and virtual organizations" in 1995. The results of these studies showed that Organizations with a competitive advantage in the new environment and responding quickly according to customers' needs are agile and progressive. Agility requires the existence of flexible manufacturing systems, having knowledge of the workforce and management structure that encourages team innovations (Shahaei, 2007). According to the new definition of agility there are characteristics such as the ability for quick reaction to sudden and unpredictable changes (Goldman and et al, 1995; Van Assen and et al, 2001), ability to survive and thrive in an environment of continuous and unpredictable changes (Maskell, 2001; Rigby and et al, 2001; Richards, 1995 and Dove, 2001). Therefore, agility means the ability to respond and quickly and successfully to environmental changes. Sharifi and Zhang (1999) argue that agility is capability for survival in a dynamic and changing competitive world and ability to perceive and predict changes in the work environment. Organizations must be able to detect environmental changes and view them as factors of prosperity. Also, agility is the ability to overcome unexpected challenges, to deal with unprecedented threats at workplace and business advantages, and benefits from the changes as opportunities to grow and develop (Sharifi and Zhang, 1999). Four factors to gain agility:

Responsiveness: This is the ability to identify changes, respond rapidly to changes either reactively or proactively, and recover from changes. This is itemized as sensing, perceiving and anticipating changes, Immediate reaction to changes and recovering from changes. **Competency:** This is an extensive list of abilities that provide a company with productivity, efficiency, and effectiveness in achieving its aims and goals. The following items form the major part of the list:Strategic vision., appropriate technology, or sufficient technological capability, Products/service quality, cost- effectiveness, change management, knowledgeable, competent, and empowered people, co-operation (internal and external), Integration. **Flexibility**: This is the ability to carry out different work and achieve different objectives with the same facilities. It consists of items such as: Product volume flexibility, Product model/configuration flexibility, Organization and Organizational issues flexibility and People flexibility. **Speed:** This is the ability to carry out tasks and operations in the shortest possible time. Items include: Quickness in new products time-to-market, Quickness and timeliness in products and services delivery, Quickness in operations(Zhang and Sharifi, 2000).

Research Background

Studies on the relationship between organizational learning and organizational agility capabilities, showed no studying with research. But, some related studies are as follows:

A study entitled "Creating an environment for Learning and Organizational Agility" by ALgama (2011) was performed. Results indicated senior leaders create an environment for organizational and workforce learning. Characteristics of an Agile Organization included: Leadership, knowledge and awareness of the environment, strategic planning process, and work processes and systems. Raintry (2008) in his doctoral dissertation entitled "organizational learning in public administration", suggests that organizational learning can increase the effectiveness of managers. Because public sector managers are faced with an uncertain environment, organizational learning mechanisms that can be effective in preventing unsafe environment can leads to increased management capabilities and better respond to their environment (Najafbeigi and Dorudi, 2009). Lahhafi (2011) in a research entitled "relationship between teamwork and organizational agility in government and private banks" showed that there is significant relationship between teamwork and organizational agility. Team work is effective on the components of the organizational agility (answering customer, prepared to deal with change, human skills, and

knowledge to create value for virtual participation). Brown and Bessant (2003) in study entitled "Manufacturing strategy, mass customization and agile manufacturing capabilities in the development of small and medium enterprises" commitment of senior management to mobilize all personnel, working closely with customers and suppliers and partners, learning from the outside, development of a flexible workforce and culture for innovation, creativity and support efforts across organizational capabilities were identified (Shojaei, 2011).
Therefore, the present study examined the relationship between these two variables and the prediction capabilities of enterprise agility on the dimensions of the organizational learning intends to examine the following hypotheses:
1.There is a relationship between organizational learning and organizational agility capabilities.
2.There is a relationship between dimensions of organizational learning (management commitment, systems thinking, openness and experimentation, transfer and integration of knowledge) and organizational agility capabilities.

Statistical population and sampling method: Statistical population of the survey included all faculty members in public universities of Isfahan (1745 persons) in the academic year 2011-2012 that 312 persons were selected as sample through cluster random sampling method proportional to volume of the statistical population.
Measurement tools: 1) organizational learning: Standard questionnaire based on theory of Gomez, Cespedes-Lorente., and Valle-Cabrer (2005) were used to measure organizational learning. This questionnaire included sixeen questions with five-point Likert scale (1= totally disagree, 5= totally agree) that tested four components of Management commitment (5items), Systems perspective (3items), Openness and experimentation(4items), and Knowledge integration and transfer(4items). content and construct validity of the questionnaire was confirmed by experts, and reliability coefficients of questionnaire were obtained in terms of cronbach alpha (0.89).
2)Organizational agility: Self-made questionnaire based on theory of Zhang and Sharifi (2000)was used in this research to measure organizational agility capabilities that included twenty/five items and tested four dimensions of responsiveness(6 items), competency (7 items) , flexibility(8 items),and speed(4 item). Responding scale of this questionnaire was five-point Likert scale (1- totally disagree, 5= totally agree). Content and construct validity of the questionnaire was confirmed by experts, and reliability coefficients of the questionnaire were obtained in terms of cronbach alpha (0.92).

Method of data analysis: Correlation analysis was used in this survey to analyze data and study the relationship among research variables (organizational learning and organizational agility capabilities) and step by step regression was applied to predict dimensions of organizational agility capabilities as dependent variables through dimensions of organizational learning as predicting variables. Statistical analysis was performed using spss software.

Research findings
Hypothesis 1: there is relationship between organizational learning and organizational agility capabilities.

Table 1. correlation coefficient between organizational learning and organizational agility capabilities

correlation coefficient	organizational Agility capabilities		
	r	p	N
organizational learning	0.71	0.01	312

According to results of table 1, correlation coefficient between organizational learning and organizational agility capabilities is significant at level $p \leq 0.05$, which reveals a significant relationship between these two variables.
Hypotheses 2: there is relationship between dimensions of organizational learning with organizational agility capabilities.

Table 2. correlation coefficient between dimensions of organizational learning with organizational agility capabilities

Dimensions of organizational learning	Management commitment		system perspective		Openness and experimentation		knowledge integration and Transfer	
	r	p	r	p	r	p	R	p
Organizational agility capabilities	0.619	0. 01	0.696	0. 01	0.598	0. 01	0.566	0.01

Results of table 2 show that correlation coefficient between dimensions of organizational learning (management commitment, system perspective, openness and experimentation, knowledge integration and transfer) and organizational agility capabilities has been significant at level $p \leq 0.05$.

Which dimension of organizational learning predicts organizational Agility capabilities?

Table 3.Multi-regression (stepwise) to predict organizational agility capabilities terms of dimensions of organizational learning

Model	organizational learning dimensions	Non-standard Coefficients		Standard Coefficient	t	sig	vif
		B	Standard error	Beta			
1	Constant	32.909	2.730		12.054	0/000	
	system perspective	4.993	0.299	0.693	16.695	0/000	1.000
2	Constant	27.129	2.803		9.678	0/000	
	system perspective	3.901	0.346	0.541	11.271	0/000	1.472
	knowledge integration & transfer	1.375	0.247	0.267	5.570	0/000	1.472
3	Constant	25.530	2.871		8.894	0/000	
	system perspective	3.591	0.369	0.498	9.720	0/000	1.702
	knowledge integration & transfer	0.916	0.317	0.178	2.890	0/004	2.462
	openness & experimentation	0.820	0.359	0.149	2.282	0/023	2.758

Dependents variable: agility

According to results of table 3, the best predictor of organizational agility capabilities is system perspective , knowledge integration and transfer, openness and experimentation. Based on beta coefficient, degree of organizational agility capabilities is increased equal to 0.498 per one unit in system perspective, in knowledge integration and transfer dimension equal to 0.178 per one unit and in openness and experimentation dimension equal to 0.149.

DISCUSSION AND CONCLUSION

Results revealed that there is a significant relationship between organizational learning and organizational agility capabilities. Therefore, hypothesis (1) is confirmed. Results of this hypothesis are consistent with research results of Raintry (2008), and Lahhafi (2011). Similarly results demonstrate that there is a relationship among dimensions of organizational learning and organizational agility capabilities. Therefore, hypothesis (2) is confirmed. So, organizational learning can enhance the effectiveness of organization, and encounter to change effectively and use opportunities. University as well as a major producer of knowledge and information on community development and from the changes of the new era are not exempt, must be prepared to change to meet people through continuous learning and promote organizational learning and most faculty skills and satisfaction, renewal and development of knowledge provide coordination between individuals and necessary background to provide for agility in universities. Also obtained results from stepwise regression illustrate that the best predictor of the organizational Agility capabilities is system perspective(Beta=0.498), in knowledge integration and transfer(Beta= 0.178), openness and experimentation(Beta=0.149).

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