The Relationship between Components of Organizational Culture and Agility of Zabol University of Medical Sciences Based on the Denison Organizational Culture Model

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Abstract

Universities as the most original and most key human training centers, like other organizations, have a unique culture that can have a significant impact on training capable individuals, professionals and entrepreneurs, which depends on the availability of appropriate organizational culture in the universities of the country. The aim of this study is to investigate the relationship between the components of the Denison organizational culture and organizational agility in Zabol University of Medical Sciences. The design of the study is descriptive correlational. Two questionnaires are used as the instruments of the study to collect data. Both descriptive data (frequency distribution tables, frequency percentage and drawing diagrams) and inferential data (Pearson correlation coefficient) have been analyzed using Eviews 7 and SPSS 21 software packages. The findings of the study indicate that there exist correlations between engaging in work and the organizational agility, between the consistency variable and (stability and integrity) and the organizational agility, between the adaptability variable and the organizational agility and between the mission variable and the organizational agility in staff of Zabol University of Medical Sciences.
Key words: organizational culture, organizational agility, University of Medical Sciences, Zabol

Introduction

The organizational culture acts as a data collection tool enabling managers, firstly, to compare sections or working groups with each other, secondly, to prioritize issues, and thirdly, to identify perceptions and expectations of the staff so that they can bridge the gap between the existing condition and the desired condition. In this study, in order to examine the organizational culture, the Denison model, which is rather a newer and more complete model, has been used. The model, which has been designed by Daniel Denison following his numerous studies, evaluates the organizational culture based on four dimensions of work engagement, compatibility, adaptability and mission (Denison, 2000).The organizational agility is known as one of the most powerful competitive tools, which is capable of responding in uncertain and highly variable environments. Since in each organization, its staff and their knowledge and skills are considered as the main assets, it can be expected that knowledge workers play the most important role in creation of an agile organization. In addition, providing an appropriate framework in which the knowledge workers can work has a significant role in success or failure of an agile organization. The dual nature of organizational culture in the implementation of agility in an organization has attracted researchers' attention towards identifying cultural factors affecting the agility.

The present study aims to answer the following questions:

The main question

- Is there any relationship between organizational culture and organizational agility in the staff of Zabol University of Medical Sciences?

Sub questions

- Is there any relationship between engagement and organizational agility in the staff of Zabol University of Medical Sciences?
- Is there any relationship between compatibility and organizational agility in the staff of Zabol University of Medical Sciences?
- Is there any relationship between adaptability and organizational agility in the staff of Zabol University of Medical Sciences?
- Is there any relationship between mission and organizational agility in the staff of Zabol University of Medical Sciences?

Organizational Culture

Like people, each organization also has a personality, which is referred to as culture of that organization (Ghadami and Azeri, 1389). The existence of cultural identity, beliefs, values and common norms of behavior among organizational members, results in the integration of efforts, internal commitment to an organization and clear understanding of the existential philosophy and orientation of measurements, and therefore, success of organizations. In other words, the enormous success of organizations lies in the powerful non-tangible factors of organizational culture and employees' values and beliefs (Zahedi, 1381).Denison (2000) considers the organizational culture as a powerful force that determines how to act and how to operate. He believes that the organizational culture refers to fundamental values, beliefs and principles that serve as a solid foundation to the management system.

The characteristics of the organizational culture from the perspective of James Percy include:

1. Individuals' identity or personality
2. The importance of teamwork
3. Employees' attitude
4. Integration

5. Control and Supervision
6. Risk taking
7. The amount of reward
8. The conflict rate
9. The degree of support and management guidance
10. Organization's attitude (regarding goals)

Factors influencing organizational culture

Given the breadth of issues related to the culture, numerous factors can be introduced, each of which affects the culture of a society and thus, an organization in some way. These major factors include climatic conditions, geographical location, religion and the system governing society (in micro and macro levels). Each of these factors is effective in establishing and strengthening or developing culture and historical factors also flow in each of these factors. However, the thing that distinguishes public organizations from other organizations is that leaders of these organizations deal with pressures such as complex administrative rules, political interferences, changes that arise as a result of periodic elections in offices, relatively short tenure in occupational positions and inconsistent objectives. In such cases, leaders of organizations have little competence to influence the organizational culture since the above mentioned factors affect an organization's culture on their own (Kia, 1379; 76).

Theories of Organizational Culture

Schein's theory of organizational culture

In the early 1980s, the social psychologist, Edgar Schein, proposed what today has turned into an influential theory of organizational culture. In Schein's theory, there are three levels of culture:

1. Man-made artifacts (in the superficial level), 2. Behavioral values and norms (in the intermediate level), 3. Beliefs and assumptions (in the model's core)

Symbolic-interpretive theory of organizational culture

Symbolic-interpretive approach in studies of culture-making focuses on describing the way organization realities are socially formed.

Denison's organizational culture model

Denison has used a model to portray an organization's culture. The model contains four main characteristics of the organizational culture, meaning, engaging in the work, adaptability, stability (integrity) and mission. These four characteristics are expressed in terms of some statements from the collection of management activities. Management activities include clear functions that are linked to the four characteristics of the organizational culture and are originating from beliefs, values and assumptions dominating the organization and thereby, are strengthened by them. The management activities are measured using twelve indicators that make up the model (Denison, 2000, 2005).The work engagement feature: the organizational culture characterized by "high work engagement of employees", the sense of ownership leads to more commitment to an organization and increases independence capabilities in employees. In such a culture, employees emphasize voluntary and implicit control systems.Indices of the work engagement feature include:

A: Empowerment
B: Team orientation
C: Expansion of capabilities

The compatibility feature (stability and integrity): compatibility refers to values and systems that form the basis of a strong culture. In such organizations, behavior of members is rooted in a set of core values and their followers have great skills to reach an agreement even on complex issues.

Indices of the compatibility feature (stability and integrity) include:

A: Coordination and coherence
B: Agreement
A: Fundamental values

The adaptability feature: adaptability refers to paying attention to the requirements of a working environment and working in adaptive organizations increases chances of survival, growth and development of the organization. Indices of the adaptability feature include:

A. Creation of change
B. Customer orientation
C. Organizational learning

The mission feature: mission includes long-term defining and determining directions for the organization. The feature presents goals, meanings and concepts of an organization, which have been achieved by defining social roles and defining external objectives. In an organization where individuals and the organization are in the target path and are goal-oriented, achieving success seems easier (Xie and Huang, 2010).

Indices of the adaptability feature include:

A. Intention and strategic direction
B. Goals and objectives
A: Outlook

Organization's agility

Regarding the fact that the paradigm of organizational agility has newly emerged, there are different definitions from the view point of scholars some of them are mentioned in the followings.Ability to act in the competitive environment resulting from continuous changes, to respond quickly to market changes and to create value for goods and services based on customer satisfaction (Kim and Nymbhard, 2010).Agility refers to an operation

composed of several companies, each of which has its own special skills and competencies, and operationally cooperate together. It enables partner institutions (having a common practice) to adapt and respond to changes according to the customer needs (McKinsey & Aitken, 2012).A system that changes rapidly and this is done through models of product or changing product lines (flexibility), and in an ideal condition, immediate response to customer demand (Jiang, 2012).

Key themes in the concept of agility

For agility in an organization, four general concepts are defined as follows:

- Management of key competencies: the first concept behind the agility paradigm is the concept of key competencies. For example, key competencies of manpower include skills, knowledge, behaviors and experiences.
- Virtual organization: a typical example of an agile organization is the use of a virtual structure. Making use of information technologies, such as internet, e-mail and the widespread use of computers have led to new organizational forms to come into existence that have a completely different nature from traditional, big and bureaucratic organizations.
- Ability to restructuring: agile organizations can easily make significant changes in focus, diversification and modernization of their business in order to accelerate the process of achieving a particular goal; this type of organizations has a good situation and benefits from a number of advantages such as speed, dominating the market ahead of rivals through new products, and agility through supplying products required by customers before they express that they need them.
- Knowledge-based organization: there are numerous definitions provided by experts regarding knowledge at the organizational level, including experiences of members of an organization, reports, databases and records. Organizations that want to become agile should upgrade well motivated and trained forces with a right set of skills, experience and knowledge.

Research Background

Rahimnia and Alizadeh Baghal (1390) examined the dimensions of organizational culture based on the Denison's model from the perspective of faculty members of Ferdowsi University of Mashhad and concluded that from the standpoint of respondents, the outlook has the greatest impact on the organizational culture.Iranzadeh and Mahmoudi (1390) investigated the organizational culture based on the Denison's model (case study: Poly Nar Co.) and concluded that some indices including coordination and integration, goals and objectives, customer-orientation and development of capabilities need to be improved.Maleki and Bazyar (1392) studied the relationship between organizational culture and organizational agility in Khuzestan Province Agricultural Bank and concluded that an increase in each of the indices of organizational culture led to an increase in agility in Khuzestan Province Agricultural Bank.Kahn Gus (2006) in a study evaluated the relationship between organizational culture and knowledge management initiatives. The results showed that in the organizational culture, knowledge management could be an effective strategic innovation and lead to a long-term success, the development of values and help to increase the competitive advantage.Abdolhagh and Anwar (2012) investigated the role of sharing and creating knowledge and organizational culture in an empirical study of banking sector in Pakistan. The findings revealed that both dimensions of sharing and creation of knowledge are positively correlated with the organizational culture.Pastor (2012) tries to express the existing connection between various types of organizational culture and factors influencing knowledge sharing. Cultural factors of openness to change and innovation as well as developing task-oriented organizations will have a favorable tendency to knowledge sharing. In addition, we started from the assumption that organizations with high scores in the bureaucracy and competitive factors have no desire to share their knowledge. This study concluded that a connection seems to exist between organizational culture and factors affecting knowledge transfer.

Research Methodology

In this research, a descriptive correlational design has been used. In this type of study, the aim is to investigate the distribution of characteristics of a community. The population of the study consists of all employees at University of Medical Sciences who are 160 in number in 1393. The size of the sample has been estimated to be a number of 110 using the Cochran's formula, from which 70 participants are female and 40 participants are male. After determining the sample size, sampling was carried out using simple random sampling and the employees were randomly selected and the questionnaires were delivered to them.In this study, the Denison's organizational culture five-point likert scale questionnaire and the organizational agility five-point likert scale questionnaire are used which have been collected after being distributed among the employees and being filled out by them.

The organizational culture questionnaire: it contains 60 five-option questions and is designed on the likert scale including strongly agree, agree, neutral, disagree and strongly disagree.

Table 1. Methods of scoring and interpretation

Option	strongly disagree	disagree	neutral	agree	strongly agree
Score	1	2	3	4	5

The organizational agility questionnaire: it contains 16 questions and each question has a 5-point scale that includes strongly agree, agree, neutral, disagree and strongly disagree. The questions are assigned a score of 1, 2, 3, 4 and 5, respectively.The validity of the targeted questionnaire was assessed by the study of related literature in the field of organizational culture and interviews and consultation with experts in the field of management. Moreover, the reliability of the questionnaires was calculated using Cronbach's alpha through the statistical analysis software for 30 randomly-selected samples which was 88% for the organizational culture questionnaire and 82% for the organizational agility questionnaire, indicating high reliability of the questionnaires.

Data analysis
In this research, descriptive and inferential statistics are used to analyze the data, so that at the descriptive level, mean, standard deviation, frequency and percentage will be used, and at the level of inferential statistics, Pearson correlation coefficient methods will be used. In this study, the reason for using the descriptive and inferential statistics is that existing methods in descriptive statistics are used to assess and describe the general characteristics of the respondents. In this study, through using inferential statistics as well as values, we calculate the sample statistics, and then with the help of statistical estimation or statistical assumption test, we generalize statistics to the parameters of community. Inferential statistics methods are also used to analyze the data and to test the study's hypotheses.

Results
Table 2 shows the results of correlation between two general variables of organizational culture and organizational agility in staff of Zabol medical science university. As can be seen, it is significant at a confidence level of 99% which means that the main research hypothesis is confirmed and the components of organizational culture are correlated with the organizational agility in staff of Zabol medical science university. Moreover, the sub-hypotheses of the research are confirmed, therefore, it can be stated that there are correlations between engagement and the organizational agility, between compatibility and the organizational agility, between adaptability and the organizational agility and between mission and the organizational agility in staff of Zabol University of Medical Sciences.

Table 2. Results of the Pearson correlation coefficient of organizational culture and organizational agility

Predictor variable	Statistical Index Criterion variable	Correlation coefficient (r)	Significance level (p)	Number of samples (n)
Work engagement	organizational agility	0.81	0.01	110
Compatibility feature (stability and integrity)		0.79	0,024	
Adaptability feature		0.77	0,03	
mission feature		0.69	0,19	

organizational agility	Correlation coefficient	Significance level	Number
	0/8	0/001p – Value <	110

Recommendations
A recommendation to Zabol University of Medical Sciences
A broader and more comprehensive study needs to be conducted on employees using more reliable and valid criteria that better represent the components of the culture
Retraining courses should be offered to increase the abilities of the staff.
Workshops should be held to get acquainted with the scopes and standards of organizational culture.
Recommendations to next researchers
Conducting a qualitative study to accurately review all aspects of organizational culture
Investigating the relationship between organizational culture and other variables
Investigating the role and relationship of other variables affecting organizational culture

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