THE EFFECTS OF ORGANIZATIONAL CULTURE ON UNIVERSITY’S ACADEMIC STAFF KNOWLEDGE MANAGEMENT
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ABSTRACT

The present research aimed at determining the effects of organizational culture on a university’s academic staff knowledge management. A total of 63 academic members from the Faculty of Physical Education at Islamic Azad University in East Azabaijan, West Azarbaijan, Zajan, and Ardabil Provinces, Iran, voluntarily filled out two questionnaires: the Denison Organizational Culture (DOC) and Lawson Knowledge Management Assessment (KMA). The collected data were analyzed using Pearson correlations, linear regression and multiple regressions. Pearson correlation analysis showed the existence of a positive and significant correlation between organizational culture and knowledge management (r = .611, p < .01). The result indicated that organizational culture has a significant positive influence on knowledge management. Only one component of mission (organizational culture indices) has a significant positive influence on knowledge management. The results also showed that knowledge management has been affected 37.4% by organizational culture.

Keywords: Organizational Culture, Knowledge Management, Academic Members of Physical Education, Iran
INTRODUCTION

Knowledge management is a tool that can assist organizations in meeting organizational goals (Sadeghi et al., 2011). Studies on the evolution of knowledge management have revealed alterations in the type and the quality of human thought over time. Money, wealth, and material possessions were once considered as power, but today, knowledge and new ideas are sources of power. Knowledge management is the systematic integrated process of organizational coordination to achieve goals (Rastogi, 2000). Moreover it is the process of creatively, effectively and efficiently using all available information and knowledge for the benefit of customers, and consequently, for the benefit of the organization. It is the process of converting tacit knowledge into practical knowledge (Movahedzadeh, 2008). It is also a systematic approach for creating, receiving, organizing, accessing, and using knowledge in organizations.

University as a higher education institution can help improve decision-making and flexibility, reduce workload, increase productivity, create new business opportunities, reduce costs, and improve the motivation of the staff and the professors. Knowledge management is an attempt to translate available knowledge (human capital) into a shared organizational capital (structural intellectual capital) (Ghadiri, 2006). For knowledge management to be usable, it requires coordination with existing organizational culture, because each organization has its unique culture that gives the members a way of understanding and interpreting events (Shafei & Laveh, 2012).

PROBLEM STATEMENT

Researchers believe that knowledge management needs to be consistent with the organization’s content in order to create a competitive situation (Davenport & Prusak, 1998). Organizational culture, as the characteristic and foundation of an organization, has an effective role in establishing knowledge management. Organizations need to consider the organizational culture to be able to effectively improve the knowledge system and promote it across the organization.

A stronger organizational culture paves the way for more successful management implementation (Sadeghi et al., 2011). By changing and creating a proper and flexible organizational culture, the interaction pattern among members in an organization can be gradually changed, and knowledge management as a competitive advantage can be utilized in focusing on students, staff development and innovation (Sadeghi et al., 2011; Seyed Naghavi, Narimani, & Hosseini, 2010). Hence, organizations need to create an environment to share and transfer knowledge among their members and train people to bring meaning to their interactions (Sadeghi et al., 2011). In this regard, the three main elements of an organization are: manpower, processes, and technologies. Therefore, knowledge management emphasizes manpower and organizational culture to create the spirit of sharing and utilizing knowledge. It also focuses on methods and processes to discover, develop, and share knowledge, and finally, focuses on technology to store knowledge and make it usable during group work (French & Bile, 2003). Review of the previously conducted research literature and the existing theoretical principles showed that organizational culture has a significant positive influence on knowledge management. Therefore, some questions raised in terms of this study are: Is there a relationship between organizational culture and its components with knowledge management? Does organizational culture affect knowledge management?
LITERATURE REVIEW

Organizational culture

Organizational culture has been defined as relatively stable beliefs, attitudes, and values held in common among organizational members (Williams, Dobson, & Walters, 1993), shared normative beliefs and shared behavioral expectations (Cooke & Szumal, 1993, 2000). This study relies on the organizational culture model developed by Denison as a general framework.

The Denison model is based on over two decades of research linking culture to bottom-line performance measures. The Denison model is based on four cultural traits of effective organizations. These four traits will now be described briefly with reference to their place in the organizational studies literature. A more complete review linking these traits to the literature has been provided by Denison and Mishra (1995) (Denison, Haaland, & Goelzer, 2003).

I. Involvement: There is the degree to which people at all levels of the organization are engaged in pursuit of the mission and cooperate to achieve organizational goals (Zakari, Poku, & Owusu-Ansah, 2013). This trait consists of developing human capability (Lawler, 1996) and creating a sense of ownership and responsibility (Denison, 2000; Zakari et al., 2013). Managers and employees are committed to their work and feel that they own a part of the organization. People at all levels feel that they have at least some input into decisions that will affect their work and that their work is directly connected to the organizational objectives (Katzenberg, 1993; Spreitzer, 1995).

II. Consistency: The consistency trait defines the organization’s core values and systems that are the basis of a strong culture. It provides a powerful source of stability, internal integration, efficiency, effectiveness and coordination (Denison, 2000; Senge, 1990; Zakari et al., 2013).

III. Adaptability: The adaptability trait defines the organization’s ability to scan the external environment and respond to ever-changing customer needs. Organizations hold a system of values, norms and beliefs that support their ability to receive, interpret and translate signals from the environment into internal behavior changes that increase their chances of survival and growth (Denison, 1990, 2000).

IV. Mission: The mission trait defines the organization’s ability to set an important long term direction that provides the staff with a sense of focus and common vision of the future (Denison, 2000). Successful organizations have a clear sense of direction that defines organizational goals and strategic objectives and express the vision of how the organization will look in the future (Mintzberg, 1987, 1994; Hamel & Prahalad, 1994; Ohmae, 1982).
Knowledge Management

Knowledge management is a complex and dynamic subject which applies the systematic vision that considers all details and processes of managing knowledge (Ebrahimi, Mehrabani, & Shajari, 2012). Using the knowledge management process organizations are able to detect, select, organize, distribute and transmit essential information and experiences for use in activities such as problem resolution, dynamic learning, strategic programming and decision making (Gupta, Lyer, & Aronson, 2000).

Today knowledge management is considered as the main source of competitiveness. In the present competitive world, not only can knowledge management be used for gaining competitive advantage, accomplishing goals and fostering creativity, it can be claimed that knowledge management skills could be used for enhancing inventiveness in organizations (Allameh, Zamani, & Davoodi, 2011).

Knowledge Management Cycle

Many frameworks for knowledge management processes have been identified. This study is based on the Lawson model (Lawson, 2003). In this model the knowledge management cycle is divided into six different processes by combining and adapting the phases of Wiing (1993), Horwitch and Armacost (2002), and Parikh (2001). These processes are:

I. **Knowledge Creation**: Organizations make conscious effort to research and define relevant knowledge and its sources from both within and outside. Knowledge is created through discovery, that is, staff develop new ways of doing things or it is brought in through external environment.

II. **Knowledge Capture**: New knowledge is identified as relevant and valuable to current and future needs. It is represented in a reasonable way where it is easily accessed, extracted and shared.

III. **Knowledge Organization**: New knowledge is refined and organized. This is done through filtering to identify and cross-list the useful dimensions of the knowledge for different products and services. The knowledge is placed in context so that it is actionable and it can be reviewed and kept current and relevant.

IV. **Knowledge Storage**: Codified knowledge is stored in a reasonable format for easy access by others in the organization. Database management and data warehousing technologies can facilitate this process.

V. **Knowledge Dissemination**: Knowledge is personalized and distributed in a useful format to meet specific user needs. The knowledge is articulated in a common language and using tools understood by all users.

VI. **Knowledge Application**: Knowledge is applied to new situations where users can learn and generate new knowledge. In the learning process there should be analysis and critical evaluation to generate new patterns and knowledge for future use (Lawson, 2003).
The Relationship between Organizational Culture and Knowledge Management

Since an educational organization is in charge of training the next generation and knowledge plays a fundamental role in organizational success, it should try to use existing knowledge in the organization in order to maintain knowledge in the competitive world nowadays. Knowledge is the most important asset of organization owners. The cultural environment has the deepest, the most widespread and long-term impact on social behavior of the majority of organization members. On the other hand, knowledge is a social phenomenon. Hence, knowledge is not developed spontaneously; it requires an appropriate context (Esmaeilnia & Bahramzade, 2014).

Organizational culture can affect knowledge management. Esmaeilnia and Bahramzade (2014) demonstrated existence of a significant relationship between organizational culture and knowledge management among education department employees in 2012-2013. The study by Allameh et al. (2011) on 109 staff in Isfahan University and Gholami, Soleimani, Ghanavati, and Mehrjoo (2015) on 120 employees in the General Administration of youth and sports of Khuzestan province showed existence of a significant relationship between organizational culture and knowledge management. Organizational culture (organizational subcultures) could affect knowledge management in four different ways (De Long & Fahey, 2000).

a- Supposed culture which indicate the most important kind of knowledge.
b- Culture in interpersonal and organizational relations act as a mediator variable.
c- Culture set the scene, for social interaction (reciprocal relationship between members of an organization).
d- Culture formulates needed processes for modern knowledge production and selection.


METHODOLOGY

Research Design

Considering the collection of data this research is present-oriented; but in terms of regression analysis, it is future-oriented; considering the data collection method it is descriptive and considering correlation it is regression analysis (Tojari, Sheikhalizadeh, & Zarei, 2011).
Population and Sampling

The population of the study consisted of academic members of physical education Faculties of Islamic Azad Universities in Regions 2 and 13 (N = 88). The sample of the study was 88 academic members of physical education Faculties of Islamic Azad Universities in Regions 2 & 13 (East Azabaijan, West Azarbaijan, Zajan, and Aradabil Provinces). Statistical sample is equal to the statistical population (N = n = 88).

Instrument

i. Organizational Culture

The Denison Organization Culture Survey (DOCS) was used to measure respondents’ perceptions of organizational culture. The Organization Culture questionnaire included 60 items and four subscales: involvement (15 items), consistency (15 items), adaptability (15 items) and mission (15 items). Participants responded to a five-point Likert scale (strongly disagree = 1, disagree = 2, neutral = 3, agree = 4, strongly agree = 5) (Fey & Denison, 2000). In research on 35474 people, Cronbach’s alpha for the involvement trait (.89), consistency (.88), adaptability (.87) and mission (.92) and a CFI of 0.99 suggested robust construct validity (Denison, Janovics, Young, & Cho, 2006). The reliability of the questionnaire in this study using Cronbach's alpha was calculated at .926.

ii. Knowledge Management

Lawson’s Knowledge Management Assessment Instrument (KMAI) was used to measure overall effectiveness and their indices. The knowledge management questionnaire included 24 items and six components; knowledge creation, knowledge capture, knowledge organization, knowledge storage, knowledge dissemination, and knowledge application in a five-point Likert scale. Reliability coefficient of this questionnaire was calculated respectively for knowledge Creation (.84), knowledge Capture (.88), knowledge Organization (.86), knowledge Storage (.87), knowledge Dissemination (.89) and knowledge Application (.80) (Lawson, 2003). The reliability of the questionnaire in this study using Cronbach’s alpha was calculated at .844.

Data Collection Process

The questionnaires were distributed to the participants for collection after one month. In total, out of 88 distributed questionnaires, 63 were completely filled out and returned. In this study, descriptive statistics were used in order to summarize and classify the data and to calculate the mean, frequency, standard deviation and to draw diagrams and tables; Kolmogorov-Smirnov test, Pearson test, linear and multiple regression were used for testing the hypotheses. To analyze data SPSS (version 16) with 95 percent confidence level was used.
RESULTS

Descriptive Results

The descriptive results of the demographic data demonstrate that the male participants with 76.2 percent formed the highest percentage. The highest age range of the participants was between 30-40 years (76.2 percent) and the lowest age range was in > 30 years (3.2 percent). Some 65.1 percent of the participants held M.A degree. The highest work experiences range of the participants was between 5-10 years equal to 68.3 percent and the lowest work experiences range of the participants was in ≥ 15 years equal to 7.9 percent (Table 1).

Table 1

Descriptive Statistics for the Demographic Characteristics of Participants

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age (Year)</th>
<th>Educational Level</th>
<th>Work Experiences (Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15 ≤ 5</td>
<td>5 ≤ 10</td>
<td>10 ≤ 15</td>
</tr>
<tr>
<td>Male</td>
<td>48</td>
<td>41</td>
<td>6</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>22</td>
<td>9</td>
</tr>
</tbody>
</table>

Frequency

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age (Year)</th>
<th>Educational Level</th>
<th>Work Experiences (Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>48</td>
<td>76.2</td>
<td>23.8</td>
</tr>
<tr>
<td>Female</td>
<td>15</td>
<td>3.2</td>
<td>97.8</td>
</tr>
</tbody>
</table>

H1: There is a relationship between organizational culture and knowledge management.

Considering Table 2, there is a significant positive relationship between organizational culture and knowledge management.

H2: There is a relationship between organizational culture indices (Involvement, Consistency, Adaptability and Mission) and knowledge management.

Considering Table 2, there is a significant positive relationship between organizational culture indices (Involvement, Consistency, Adaptability and Mission) and knowledge management.
Table 2

Descriptive Statistics for Variables in the Study (N= 63)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Organizational Culture</td>
<td>2.96</td>
<td>0.320</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Involvement</td>
<td>2.87</td>
<td>0.386</td>
<td>0.846**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Consistency</td>
<td>2.91</td>
<td>0.337</td>
<td>0.779**</td>
<td>0.525**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Adaptability</td>
<td>3.08</td>
<td>0.394</td>
<td>0.862**</td>
<td>0.608**</td>
<td>0.623**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Mission</td>
<td>2.99</td>
<td>0.410</td>
<td>0.862**</td>
<td>0.687**</td>
<td>0.518**</td>
<td>0.648**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Knowledge Management</td>
<td>3.04</td>
<td>0.285</td>
<td>0.611**</td>
<td>0.489**</td>
<td>0.449**</td>
<td>0.529**</td>
<td>0.574**</td>
<td></td>
</tr>
</tbody>
</table>

** p < 0.01

H3: There is effect between organizational culture and knowledge management.

In order to analyze the effect of organizational culture on knowledge management, Linear Regression was used. In this regression the value of knowledge management considering organizational culture was determined based on a linear equation. Considering Table 4, the regression model is: knowledge management = 0.544 (organizational culture) – 0.423. Considering Table 3, knowledge management has been affected 37.4% by organizational culture.

Table 3

Linear Regression Estimates for Organizational Culture and Knowledge Management

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.611</td>
<td>0.374</td>
<td>0.364</td>
<td>0.227</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Organizational Culture
Table 4

Linear Regression Coefficients for Organizational Culture and Knowledge Management

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.423</td>
<td>0.269</td>
<td>5.291</td>
<td>0.000</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>0.544</td>
<td>0.090</td>
<td>0.611</td>
<td>6.035</td>
</tr>
</tbody>
</table>

H4: There is effect between organizational culture indices (Involvement, Consistency, Adaptability and Mission) and knowledge management.

In order to analyze the effect of organizational culture indices on knowledge management, Multiple Regression was used. In this regression value of knowledge management considering organizational culture indices was determined based on a linear equation. Considering Table 5, knowledge management has been affected 38.4% by organizational culture indices. In analyzing the level of significance of effect of organizational culture indices on knowledge management it can be concluded that only mission was significant and positive (t = 2.148, Sig = 0.036) (Table 6).

Table 5

Multiple Regressions Estimates for Organizational Culture Indices and Knowledge Management

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.620</td>
<td>0.384</td>
<td>0.342</td>
<td>0.231</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Involvement, Consistency, Adaptability, Mission
Table 6

Coefficients for Organizational Culture Indices and Knowledge Management

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.459</td>
<td>0.282</td>
<td>5.291</td>
<td>0.000</td>
</tr>
<tr>
<td>Involvement</td>
<td>0.063</td>
<td>0.111</td>
<td>0.085</td>
<td>0.566</td>
</tr>
<tr>
<td>Consistency</td>
<td>0.094</td>
<td>0.115</td>
<td>0.112</td>
<td>0.820</td>
</tr>
<tr>
<td>Adaptability</td>
<td>0.139</td>
<td>0.112</td>
<td>0.191</td>
<td>1.244</td>
</tr>
<tr>
<td>Mission</td>
<td>0.232</td>
<td>0.108</td>
<td>0.334</td>
<td>2.148</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Knowledge Management

In summary, analyzing correlation between variables using Pearson test showed that there was a positive and significant correlation between organizational culture and knowledge management ($r = 0.611$, $p < 0.01$). Also, the result indicated that only one component of mission (organizational culture indices) has a significant positive influence on knowledge management. Linear regression results showed that knowledge management has been affected 37.4% by organizational culture.

DISCUSSION AND CONCLUSION

The observed correlation between two main variables of the research indicated that there is a significant positive relationship between organizational culture and knowledge management. Also, the results indicated that organizational culture has a significant and positive effect on knowledge management. The results of this study are consistent with previous research conducted by Chang and Lin (2015), Gholami et al. (2015), Esmaeilnia and Bahramzade (2014), Aminbidakhti et al. (2011), Seyed Naghavi et al. (2010), Godarzi et al. (2009), Rouniasi and Movahedi (2013), Jafari et al. (2013), Enayati and Sayyadi Ghasabeh (2012), Rahgozar et al. (2012), Qaiser Danish et al. (2012), Goudarzvand Chegini (2011) and Zheng et al. (2010). Organizational culture, as the personality and foundation of an organization, has an effective role in establishing knowledge management. Organizations need to consider organizational culture to be able to effectively improve the knowledge system and promote it across the organization. A stronger organizational culture paves the way for more successful management implementation (Sadeghi et al., 2011). The pattern of interaction between the people in an organization can be gradually altered, and knowledge management can be enjoyed as a competitive advantage only by reviewing, modifying, and creating a flexible and proper organizational culture.
In organizations with inflexible culture the employees have little desire to innovate, change, and create new ideas; they become afraid of exchanging and sharing their knowledge. In contrast, a dynamic, collaborative, and flexible organizational culture that the members believe in reacts well to changes and promotes organizational progress and excellence (Sadeghi et al., 2011). Rastogi (2000) studied the basic processes required for effective management in 15 organizations worldwide and stated that since knowledge is created in a collaborative way, knowledge-creation depends on cultural factors as well as human interactions (Rastogi, 2000). Holowetzki (2002) stated that organizational culture is important in defining and determining the organization’s strategies as knowledge management is important in acquiring competitive advantage.

To establish a knowledge management system, it is necessary to plan it based on the principles and assumptions of organizational culture. Gupta, Lyer & Aronson (2000) noted that knowledge management is not so much about technology and technical issues but about a cultural issue, and people’s trust is an important element in KM. If organizational culture does not support trust and connection, no technology can yield desirable results (Keshavarzi & Ramazani, 2010). Pérez López et al. (2004) and Davenport and Prusak (1998) suggested that successful knowledge management depends on creating a strong supportive organizational culture. The results of De Long and Fahey (2000) showed that a strong organizational culture requires rapid interaction and connection of involved individuals in an organization, supporting people’s innovations and ideas, and authority and power to make decisions when necessary to successfully implement KM. Moreover, these features are found only in a strong organizational culture (De Long & Fahey, 2000).

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