The Influence of Processes of Knowledge Management on Efficiency Improvement of Faculty of Payam-E-Noor University

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Abstract

Today, one of the important factors success and competitive advantage in organizations is knowledge management. Efficacy of the knowledge management project mostly depends on successful coordination of subjects such as culture of organization, knowledge process, and human resources and IT management this research is practical from the point of view of goal and introductory from the point of view of method. Study of indices of structure, culture, technology, and human resources on creation of knowledge management in efficiency of members of faculty of payam-e-noor university with analysis obtained from questionnaire was tested. In this static society includes of managers and faculty of payam-e-noor university which consist of 226 persons, and 144 members were studied as sample. After study it was proved that indices of human resources, culture, and structure home positive effect on creation of knowledge management on efficacy of members of faculty.

Keywords: Knowledge management process, efficiency, members of faculty, Human resources, culture, structure.

Introduction

Today, old methods of management of organizations do not respond to rapid changes of environment. The field of study of management faced a dramatically change all over the world and reformed from traditional method, and participated all personal of the organization on everyday affairs (Dillman,2000). These changes caused to appear some new kinds of organizations such as virtual, personal, horizontal, organizations (Chen, Paulrajand Lado,2004).
Knowledge is an important tool for keeping the competitive advantage and performance improvement (Cook, and Campbell, 1977). Twentieth century is the era of knowledge economy in which most companies own knowledge, which enables them to improve their performance (Conn, 1984). This task how the company improves the abilities of the organization in order to reinforce domestic performance and foreign competition through creating efficient knowledge management is a very sensitive responsibility (Shahnawaz, 2006).

Recent research tendency toward literature of knowledge systems (IS) show that infrastructure facilities such as structure, culture, and etc. can upgrade knowledge management processes. For example companies insist on organizational culture for shaping the probability of division of knowledge support (Chau, 1997). Other companies improve knowledge accessibility so accumulation, storage, and exchange of the knowledge become easier and dispersed flows of knowledge become integrated. Infrastructure facilities play the role of a two blades sword (Cohen, 1998). Because the organizational culture with traditional thoughts values the existing relationship between companies or people in shape of product selection standard in contrast to focused knowledge-based culture, processes of knowledge management in knowledge-based culture can be efficient in improvement of performance of the company. Keeping in mind the probability of influence of more powerful processes of knowledge management on performance of the company in knowledge-based culture, it is expected that IS researches in knowledge-based culture, shows more exactly the process which infrastructure facilities result to out of the organization and generalize the processes of knowledge management (Davenport, 2002).

Research of domestic knowledge management of the company also focuses on relationship of knowledge management and organizational performance or introduction through organizational creativity performance of knowledge management. In past less attention was devoted to execution of strategy of knowledge management in the company and the relative effect of that (Davenport, 2001; Daft, 1984; Cusimano, 1995). On the other hand, now the importance and value of the business is mostly praised. In contrast less research is focused on the process of knowledge management (Davenport and Brooks, 2004). Therefore this research hopes understand explain these two roles on performance through exploration of infrastructure facilities and business strategy. Thus, the goals of the present research are; offering a coherent framework that shows how using the infrastructure facilities result to company performance and generalize the mechanism of processes of successful knowledge management. Especially we discuss some of the processes of knowledge management. In our proposed model we believe that business strategy works as an independent variable. In addition, this research summarizes a model of results of a deep research and tries to understand that next step is to integrate infrastructure and business strategy until another way is presented to other industries, then, they can self use from process of knowledge management (Davis, 2002).

Today, in this complicated world organizational knowledge is going to convert into a main competitive advantage of the organization. For pacing or surpassing its competitors,
organization should be unique from indices point of view. Because of development of technology and explosion of developed information system, this uniqueness is only possible with knowledge that according to Peter Dracker, "the secret of success of organizations in 21 century is knowledge management. Therefore higher education institutions are not exception, thus this research was done to study the factors which influence on knowledge management with which universities participate in this competition. Rapid development of the interconnected global economy shows the necessity of development of abilities and capabilities of business and knowledge resources.

"Existence of tendency toward knowledge and acquisition inside human being caused him to learn what was useful for him even in primitive centuries. But by passing time we saw every day increase of importance of knowledge and acquisition in social systems. Because of this importance, Tom Stewart in an article in 1994 on fortune magazine reminds the companies that pay more attention to what they know instead of what they have and Peter Dracker introduces knowledge as frameworks of competition in ultra investors believed communities" (Davenport and Glaser, 2002).

In recent years most knowledge-centered companies reached a considerable success, a success which illuminated in their stock exchange performance. Now (SAP), software producer in investment of stock market overpassed volkswagen. Netskipcompany surpassed Apple. Microsoft woged the mast knowledgeable factories of huge industrial companies like Boeing and Kodak. As a result today the size of an administrative organization is not a value of its importance, but correct usage of knowledge and processes of knowledge management can upgrade the organizations (Childerhouse and Towill, 2003).

Knowledge management brings alot of advantages for organizations from which we can mention business quality improvement, owning updated information, efficiency increase, effectiveness improvement decision making improvement, increase of ability of answering to customers need, increase in responding to the other organizations need, and capability of rapid change and adaptation. Because knowledge management is one of the competitive advantages and the factor of development of existing organizations in developing and changing environments, therefore the importance of this issue and effort toward making it more influential for gaining the goal of organizations are significant (Claro, Claro and Hagelaar, 2006).

Purpose Of Research

1. Study the influence of processes of knowledge management (socialization, externalization, combination, and internalization) on efficiency improvement of faculty of payam-e-noor university, Tehran branch.

2. Study of the influence of organizational culture influenced by processes of knowledge management (socialization, externalization, combination, and internalization). On efficiency improvement of the faculty members of payam-e-noor university, Tehran branch.
Research Hypothesis

1. There is a meaningful relationship between efficiency increase of faculty members of Payam-e-Noor University, Tehran branch and creation of process of knowledge management (socialization, externalization, combination, and internalization).

2. There is a meaningful relationship between organizational culture and knowledge management (socialization, externalization, and internalization) in faculty members of Payam-e-Noor University, Tehran branch.

Method

The present research is a descriptive research from correlation kind and the Researcher, for gathering data used research questionnaire by using the expert point of view. Also for analysis of data, descriptive and inferential statistics methods were used and for data analysis SPSS 16 and (LISREL 8.7) have been used. In this research also path analysis, correlation coefficient, and \( \chi^2 \) statistics have been used.

Result

Study Of First Hypotheses

1. There is a meaningful relationship between efficiency increase of faculty members of Payam-e-Noor University, Tehran branch and creation of processes of knowledge management.

For answering to this hypotheses and in order to study the relationship between the research variables by SPSS software we used correlation coefficient to find weather there is any relationship between these variables or not. Results are reported in the following table.

Table 1: the result of correlation coefficient test between efficiency and creation of process of knowledge management (socialization, externalization, combination, and internalization) of faculty members of Payam-e-Noor University, Tehran branch n=144.

<table>
<thead>
<tr>
<th>variable</th>
<th>statistics</th>
<th>efficiency</th>
<th>socialization</th>
<th>externalization</th>
<th>combination</th>
<th>internalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>efficiency</td>
<td>correlation coefficient</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p )</td>
<td>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>socialization</td>
<td>correlation coefficient</td>
<td>996(**)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p )</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>externalization</td>
<td>correlation coefficient</td>
<td>.697(**)</td>
<td>.928(**)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>( p )</td>
<td>.000</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1: result shows that there is a positive and meaningful relationship between efficiency of faculty members and creation of process of knowledge management including socialization, externalization, combination, and internalization, and \((p<0.05)\) and according to correlation coefficient value between these variables, the results declare that efficiency of faculty members becoming socialized reached highest correlation value \((r=0.699)\).

Also the consequences result from correlation coefficient between efficiency of faculty members with creation of processes of knowledge management factors including externalization equal to \((r=0.697)\), internalization \((r=0.641)\), and combination \((r=0.538)\) that indicates that there is a positive and meaningful relationship between efficiency of faculty members and creation of process of knowledge management including socialization, externalization, combination, and internalization. Therefore we can deduct that there exist a meaningful and positive relationship between increase in efficiency of faculty members of payam-e-noor university, Tehran branch and creation of process of knowledge management (socialization, externalization, combination, and internalization).

Then for assurance of the obtained results and assessment of accuracy of the results, LIZREL software was used and result obtained from data analysis with the software was extracted and shown in the following figure.
Figure 1: The relationship between faculty members and creation of process of knowledge management (Socialization, internalization, combination, and externalization)

\[ Y_4 = \text{Internalization} \]
\[ Y_3 = \text{Combination} \]
\[ Y_2 = \text{Externalization} \]
\[ Y_1 = \text{Socialization} \]
\[ X_1 = \text{Efficiency} \]

The result of above diagram shows that there is a meaningful relationship between increase efficiency of faculty members of payam-e-noor university, Tehran branch and creation of process of knowledge management (socialization, externalization, combination, and internalization) and therefore the first hypothesis of this research is confirmed.

Study of second hypothesis:

2. There is a meaningful (statistical relationship between organizational culture) and knowledge management (socialization, externalization, combination, and internalization in faculty members of payam-e-noor university, Tehran branch.

Answering this hypothesis first SPSS software should be used and for studying the relationship between the research variables, correlation coefficient test was used to find out whether there is any relationship between these variables or not. The result is shown in Table 2.

Table 2: The result of correlation coefficient test between organizational culture and creation of process of knowledge management (socialization, externalization, combination, and internalization) of faculty members of payam-e-noor university, Tehran branch n=144.

<table>
<thead>
<tr>
<th>variable</th>
<th>statistics</th>
<th>organizationalculture</th>
<th>socialization</th>
<th>externalization</th>
<th>combination</th>
<th>internalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>organizationalculture</td>
<td>correlation coefficient</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>socialization</td>
<td>correlation coefficient</td>
<td>.849(**)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>.000</td>
<td>.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>externalization</td>
<td>correlation coefficient</td>
<td>.865(**)</td>
<td>.928(**)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>.000</td>
<td>.000</td>
<td>.</td>
<td></td>
<td></td>
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</tbody>
</table>
Result from table 2 shows that there is a meaningful and positive correlation relationship between organizational culture of faculty members and knowledge management including. Socialization, externalization, combination, and internalization (p<0.05) and considering the correlation coefficient value between these variables, results show that organizational culture of faculty members has the highest correlation value of (r=0.865) with externalization.

Also the result show that the correlation coefficient between organizational culture of faculty members and process of knowledge management factors including socialization (r=0.849), internalization (r=0.828), and combination (r=0.828) is obtained and also shows that there is a positive and meaningful relationship between organizational culture of faculty members and creation of process of knowledge management including socialization, externalization, combination, and internalization. Thus it can be concluded that there exists a statistical positive meaningful relationship between organizational culture of faculty members of payam-e-noor university, Tehran branch and organizational culture. (socialization, externalization, combination, and internalization).

Then for assurance of the obtained result and assessment of accuracy of the results, IZREL software was used and results obtained from data analysis with the software was extracted and shown in the following figure.

Chi-Square=492.49, df=6, P-value=0.00000, RMSEA=0.756
Figure 2: The relationship between organizational culture of faculty members and creation of process of knowledge management (socialization, externalization, combination, internalization)

\[ X_1 = \text{organizational culture} \quad Y_1 = \text{socialization} \quad Y_2 = \text{externalization} \]
\[ Y_3 = \text{combination} \quad Y_4 = \text{internalization} \]

The result of above diagram shows that there is a meaningful relationship between organizational culture of faculty members of Payam-e-Noor University, Tehran branch and knowledge management, so the second hypothesis of this research is confirmed.

Discussion And Result

Based on the obtained information from the first hypothesis and table of analysis, it was cleared that there is a positive meaningful correlation relationship between efficiency of faculty members and creation of process of knowledge management including socialization, externalization, combination, and internalization. (p<0.05) and according to correlation coefficient value, the result shows that efficiency of faculty members has the highest correlation value (r=0.699) with socialization. Thus we can conclude that efficiency has a meaningful positive relationship with creation of process of knowledge management and thus the first hypothesis of the research is accepted.

To form a culture in an organization that supports and reinforces needed bases for knowledge management, the supportive and participatory dimensions and organizational pledge in values and normalities within the organization should be emphasized. Therefore, the managers, with their symbolic roles in institutionalization of values and normalities in the organization, should try to institutionalize the creative thoughts in the organization so faculty members become promoted to consider the creative thought as an important way of creating knowledge in the organization but one of the dangers threatening the organization within the way of this goal is knowledge hoarding by its owners. Consequently, managers, as leaders, should support holding meetings with participation of members of organization and efforts for upgrading the cooperation and empathy in all levels of organization and sharing of knowledge in the organization relating to transmission of stored knowledge and encouragement of faculty members.

A cording to the obtained information from second hypothesis and tables of analysis it was cleared that there is a meaningful positive correlation relationship between organizational culture of faculty members and knowledge management including socialization, externalization combination, and internalization (p<0.05) and based on the correlation coefficient value it can be concluded that organizational culture of faculty members has highest correlation value with externalization (r=0.865). Then we conclude that second hypothesis is accepted.

Therefore, management, as leaders, should support holding meetings with participation of members of organization and efforts for upgrading the cooperation and empathy in all levels of organization and sharing of knowledge in the organization relating to transmission of stored knowledge and encouragement of faculty members. Mostly in the culture change procedure
there are some resistances. These resistances rooted from disgust resulted from changes in fixed procedures. For this reason, top managers of the organization should manage the process of existing culture values change toward culture of sharing simplification and knowledge transmission. Increase in organizational pledge level between members of organization can have a significant role in decreasing resistance against sharing and transmission of knowledge.

References


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