A Study on the Feasibility of Knowledge Management System Implementation in Finance and Credit Institutions (Case Study: Kosar Finance and Credit Institute)

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Abstract

Nowadays, the largest companies of the world have achieved their superiority mainly due to "their own knowledge" rather than due to the assets accumulated by factories and even great market. The present research with the title of "An Assessment of the Feasibility of Implementing Knowledge Management System in Financial and Credit Organizations (case study: Kosar Finance and Credit Institute)" investigated the status of seven infrastructural components effective in implementing knowledge management in Kosar Finance and Credit Institute in the form of seven hypotheses. The research population includes all the employees of Region 2 of Kosar Finance and Credit Institute. As the number of the population was limited, the enumeration method was used in distributing the questionnaires among them.

In order to test the hypotheses of the research, a questionnaire including 44 questions was used and the validity and reliability of the questionnaires were confirmed by content validity and Chronbach’s Alpha value of 81 % respectively. The results of the hypotheses testing showed that there is no feasibility of implementing knowledge management in the organization due to the status of the information and communication technology system infrastructures, organizational culture, human resources, organizational learning, and the unit of research and development and strategic thinking; and the organization had a good status for knowledge management implementation only from the perspective of organizational structure. Therefore, suggestions were made for improvement of the infrastructures, and because the components mentioned are interdependent, improving one component can have a positive effect on other components and as a result, the way is paved for implementation of knowledge management in the organization.

Keywords: Feasibility Assessment, Knowledge Management, Information and Communication Technology System, Human Resources, Organizational Learning, Research and Development Unit, Strategic Thinking, Organizational Structure
Introduction

In the new foundation of world business, only the learning organizations will survive. The most important prerequisite for movement from a traditional and incoherent organization into a dynamic and coherent one is "organizational knowledge management". Knowledge management can be simply defined as "motivating individuals to share their knowledge with others (Farnialo, 89).

The base of wealth creation in today's world is knowledge and expertise, so that entrepreneurs create wealth using their knowledge and information. In The Wealth Creators, Lister Taro predicts a revolution which has taken its movement force from thoughts and introduces the contemporary era as the age of new knowledge and expertise ascendancy, emphasizing that the winners in the industrial revolution will be those who understand the nature of the wealth pyramid in a knowledge-based economy earlier than others.

In today's world two main features of which are increasing complexity and abundant and rapid change, inflexibility and agility of organizations is supplied via knowledge achievement as the key factor of success. Knowledge is known as the alchemy of organizations and a means of creating competitive advantage (Greiner, 2007). Today, all organizations and companies of the world have realized the benefits of knowledge use. Unlike material capital whose value is reduced if it is used, the value of knowledge capital increases when it is used (Davenport & Prusak, 2000). The importance of knowledge and its use has been emphasized in different areas including: social sciences for the purpose of realization of class-free societies and egalitarian distribution of income, organization and management as the key to survival and success and sustainable competitive advantage achievement, and economy as the strategic asset (Azari & Amoyi, 2007), so that today economy has turned into a knowledge-based economy. In this economy, 1) the main resource is knowledge, as the main resources in industrial economy are natural resources and capital, 2) the intangible assets, services and brands are more important than tangible assets for success of today's companies, and 3) the world is in the form of a network supported by advanced communicative technologies, causing knowledge to pass through the borders and distances without any limitation (Cantner, 2009).

Today, the economy of countries has turned into knowledge and knowledge creation, because knowledge is the origin and base of competitive advantage achievement. It is through correct production, distribution and consumption of knowledge that an organization's profitability can be ensured. For this important purpose, the staff should become learners and constantly update their knowledge. In individual learning, the ability, capacity and capabilities of individuals increase, eventually leading to a learning organization. A learning organization involves providing cultural, human and technological infrastructures and should be strengthened by designing a knowledge management system (Soltani, 2010).

In the two recent years, knowledge management as a strategic subject has attracted the attention of top managers. This is why measures have been taken including holding special meetings and training courses for documentation of the experiences of branches' managers,
employees and governors. Therefore, the necessity of dealing with knowledge management in Kosar Finance and Credit Institute and consequently management of Region 2 has been well understood. However, due to the fact that this organization is at the beginning of knowledge management establishment, the main issue is considering the preconditions and infrastructures required for successful establishment of knowledge management, because ignoring each one of these infrastructures will definitely challenge administration of knowledge and lead to failure in establishing knowledge management.

Obviously, one cannot expect efficiency and effectiveness from knowledge and make use of its numerous benefits until the way is paved for its use. Accordingly, before taking any measure for implementation of knowledge management system, this question springs up in the mind of researchers: is the status of knowledge management infrastructures in the organization under research adequate for establishment of knowledge management system?

We seek in this research to assess the status quo of the factors of "information and communication technology, organizational culture, human resources, organizational learning, research and development unit, organizational structure and strategic thinking", which are regarded in most knowledge management implementation models as the key factors to the success of the project, and thus learn about the status of each factor for implementation of knowledge management. The results of this research present the top managers of the institution with an opportunity to prevent possible damages resulting from the plan's failure because of deficiencies in each of the mentioned factors by planning and following strategies to reform these infrastructures, and thus provide growth and development for the institution.

The Research Objective
The purpose of this research is to investigate the feasibility of implementing knowledge management in Kosar Finance and Credit Institute with regard to the status of the required infrastructures.

The Research Hypotheses
Considering the conceptual model presented in figure 1, the following hypotheses are made:

- There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of information and communication technology system.
- There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of organizational culture.
- There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of human resources.
- There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of organizational learning.
- There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of research and development unit.
- There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of organizational structure.
- There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of strategic thinking.

**Research Methodology**

In terms of purpose, this is an "applied" research. Due to the nature of the research, the data-collection method and the goals of the research, the method used in this research is "descriptive survey", and as the data have been collected from a particular population in a certain time period, the research is of cross-sectional type. The instrument used for data collection is a researcher-made questionnaire with high validity and a reliability of 81%. Friedman Test, one-sample T-test and Kolmogorov-Smirnov Test have been used for data analysis. The research population includes all the employees of Region 2 of Kosar Finance and Credit Institute. As the number of the population was limited (120 people), the enumeration method was used in distributing the questionnaires among them.

**Testing The Research Hypotheses**

To test the research hypotheses, a null hypothesis and hypothesis one are written as the following:

H0: The status of the variable is about the average.
H1: The status of the variable is not about the average.

The significance value less than 0.05 indicates that H0 is rejected and H1 is confirmed. After H1 is confirmed, there remain two cases for the variable. The status of the variable in the organization is either higher or lower than the average, represented in the table as upper and lower. If both values are positive, this means that the status of the variable is higher than the average. In contrast, if the two are negative, it shows that the status of the variable is lower than the average.

The results of all the sub-hypotheses will be shown in the following.
TABLE 1: TESTING THE RESEARCH HYPOTHESES

There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of information and communication technology system.

<table>
<thead>
<tr>
<th></th>
<th>Test Value = 3</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>t</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>-6.72</td>
</tr>
</tbody>
</table>

There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of organizational culture.

<table>
<thead>
<tr>
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<th>Test Value = 3</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational culture</td>
<td>-8.85</td>
</tr>
</tbody>
</table>

There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of human resources.

<table>
<thead>
<tr>
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<th>Test Value = 3</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Human resources</td>
<td>-7.14</td>
</tr>
</tbody>
</table>

There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of organizational learning.
There is the possibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of research and development unit.

<table>
<thead>
<tr>
<th>Organizational learning</th>
<th>-9.695</th>
<th>119</th>
<th>0.000</th>
<th>-0.6894</th>
<th>-0.8302</th>
<th>-0.5486</th>
</tr>
</thead>
</table>

Based on table 1 and the significance number which is lower than 0.05, it can be concluded that H0 is rejected and H1 is confirmed, meaning that the status of the variables mentioned is not
about the average. The negative marks show that the status of each one of the variables is lower than the average.

**TABLE 2: TESTING THE RESEARCH HYPOTHESES**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Test Value</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational structure</td>
<td>1.008</td>
<td>119</td>
<td>0.316</td>
<td>-0.0798</td>
<td>-0.0770 to -0.2368</td>
</tr>
</tbody>
</table>

Based on table 2 and the significance number which is lower than 0.05, it can be concluded that H0 is confirmed, meaning that the status of organizational structure is about the average in the organization.

In order to rank the variables, Friedman Test has been used with the following results.

**TABLE 3: RANKING OF VARIABLES**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Rank Average</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and Communication Technology</td>
<td>4.66</td>
<td>4</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>3.47</td>
<td>7</td>
</tr>
<tr>
<td>Human Resources</td>
<td>3.93</td>
<td>6</td>
</tr>
<tr>
<td>Organizational Learning</td>
<td>3.23</td>
<td>8</td>
</tr>
<tr>
<td>Research and Development</td>
<td>4.84</td>
<td>3</td>
</tr>
<tr>
<td>Organizational Structure</td>
<td>6.33</td>
<td>1</td>
</tr>
<tr>
<td>Strategic Thinking</td>
<td>5.06</td>
<td>2</td>
</tr>
<tr>
<td>Knowledge Management</td>
<td>4.48</td>
<td>5</td>
</tr>
</tbody>
</table>

**Discussion and Conclusion**

Testing the first sub-hypothesis of the research (the feasibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of ICT system revealed
that the status of ICT is lower than the average in the organization. Therefore, implementing knowledge management in the organization involves improving this area. Creating a strong IT system facilitate intra-organizational communication and collection and re-use of the knowledge in the organization. In addition, this dimension can be improved by facilitating the organization members' cooperation with people in and out of the organization using modern technologies, the organization's use of technology for recovery and use of the knowledge related to the market and competitors, creating an organizational structure that encourages collaborative behavior, and encouraging interaction and cooperation among different branches of the institution. By creating an effective communicative structure, different sectors and offices will be more capable of searching for, collecting and distributing information. This also increases the chance of identifying innovation opportunities through organizational interaction. Consequently, existence of a developed communicative infrastructure leads to increased presentation of new ideas and better acceptance of these ideas. Testing the second hypothesis showed that the status of organizational culture in the organization is below the average. Therefore, this area should be improved so that it becomes possible to implement knowledge management in the organization. The rate of commitment, transparency of the ideas and common goals are basic prerequisites to successful implementation of knowledge management. Different management methods may create or limit feasibility of participation, support the employees mentally and provide training opportunities for employees who are final users. Therefore, cultural context is very essential for implementation of knowledge management system in the organization. Employees' rate of commitment is another important factor in implementation of knowledge management system. This factor, in relation to other factors such as mental readiness, is of particular importance for knowledge management system implementation.

The results showed that it is not possible to implement knowledge management in Kosar Finance and Credit Institute due to the poor status of human resources. Therefore, this area should be improved so that knowledge management can be implemented in the organization. Knowledge management is management of individuals and management of individuals is also management of knowledge (Davenport and Pol, 2001). Different researchers have studied and emphasized the importance and role of human resources and human resource management in knowledge management. Some important issues that should be taken into consideration in human resource management are deployment of manpower, retention of the staff, skill learning and job satisfaction in organizations. The biggest challenge in knowledge management is the members' trust in the organization and themselves for sharing and re-use of knowledge to achieve results. The feasibility of implementing knowledge management is also about the average considering the status of organizational learning, and the organization needs to improve itself in this regard in order to implement knowledge management. A basic way of turning into a learning organization is using "knowledge management" in the organization. Therefore, respondents to the systemic thinking system questionnaire regarded teamwork and common prospect among the staff as prerequisites for knowledge-based organizations. Testing the fifth
hypothesis revealed that the status of research and development unit in the organization is below the average. Therefore, this area should be improved so that it becomes possible to implement knowledge management in the organization. If the way is paved for growth of research and development units, one can help a lot in creating a knowledge-based organization. The results showed that there exists the feasibility of implementing knowledge management in Kosar Finance and Credit Institute considering the status of structural system. Moreover, the feasibility of implementing knowledge management in Kosar Finance and Credit Institute is below the average considering the status of strategic thinking. Therefore, this area should be improved so that it becomes possible to implement knowledge management in the organization. Strategies constitute the base and foundation of organizations and the means of access to resources needed to achieve the goals of knowledge management. Having a clear and well-designed strategy is the driving force of success in knowledge management.

Suggestions
- Making use of appropriate technology can considerably improve efficiency and effectiveness of knowledge management process. Thus, technologies which are consistently usable in the form of a network are more capable of strengthening the knowledge management domain. For this purpose, the organization needs to make use of IT tools such as Internet, Intranet, Extranet, Portal and management information systems which are infrastructures needed to implement knowledge management.
- Due to the importance of IT in establishing knowledge management, it is recommended that the rate of investment on developing the IT infrastructures be increased.
- It is recommended that the organization improve its information system software applications by adding the capabilities of knowledge management so that it can have access to databases and other sources of knowledge outside the organization. It is also recommended that the organization prepare the knowledge management area for use of IT by training the employees and developing the programs, reports and organizational policies.
- Making attempts to implement the knowledge absorption culture and present training programs intermittently and regularly.
- In knowledge transfer and creation, the organization is required to pay more attention to designing the cooperation mechanisms by encouraging teamwork culture, extending participatory thought and creating and strengthening friendship among the employees.
- In order to implement knowledge management in the organization, the managers are required to reduce centralization and pave the way for production of ideas, and transfer and use of experiences in the organization by designing suggestion system, allowing for the employees participation and establishing a comprehensive feedback system in the organization.
- Holding introductory courses in knowledge management and familiarizing the managers and employees with the benefits of implementing knowledge management is effective in increasing
the individuals' willingness to participate in knowledge-sharing activities and leads to a decrease in their resistance against change.

- Teamwork in the organization and employees' participation in decision-making should be prioritized.
- Those that have key knowledge in the organization should be recognized.
- Through frequent trainings and authority delegation to employees, they should be encouraged to create various teams and do group discussions in order to improve their knowledge and competence so that a clear and agreeable outlook regarding the future horizons of growth and change of the organization and employees can be created.
- There should be conditions in the organization under which the researchers should be able to update their information in relation to the advanced researches and correctly identify and understand any subject of the researches.
- Decentralization and delegation of authority to the lower levels also facilitates the flow of ideas and increased participation among the employees will make them subject to many more ideas, experiences and opinions, which can lead to creative and innovative ideas and use and transfer of knowledge. Participation in decision-making process will facilitate understanding of the decisions made and the knowledge created in the organization via this procedure will be used better and more efficiently.
- It is recommended that the managers of the organization should seek learning from the business environment and try to identify the opportunities and threats of this complicated and changing environment and adapt the capabilities of their organization with this environment so that they can provide the staff with knowledge and information on how to stand against possible events in future.
- There should be some strategies and regulations for identification and retention of knowledgeable employees.
- The management should be committed to constantly support the knowledge management plan.

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