Life Cycle Designing of Knowledge management of Payame Noor University central Organization and Tehran Province Payame Noor

Seyyed Ali Akbar Ahmadi*
Public management Department, Payame Noor University, Tehran, I.R. of IRAN

Freyedon Ahmadi
Public management Department, Payame Noor University, Tehran, I.R. of IRAN

Mehdi Haghtali
Public management Department, Payame Noor University, Tehran, I.R. of IRAN

Bahyeh Faraji
Public management Department, Payame Noor University, Tehran, I.R. of IRAN

Abstract

It is admitted that these knowledge-based organizations have to focus their main activities on acquiring, creating, disseminating and sharing knowledge. But every university, like any other educational organization, has its own functions. PAYAMENOOR University, as a state distance education university, given its special educational system and flexibilities, intends to extend its branches to all parts of Iran for further promotion of education in this country. This university, by choosing “education for all, education at all places, and education at all times” as its slogan, has already succeeded in the enrolment of around one million students in its branches in and out of the country. The present paper intended to design knowledge management life cycle conceptual model based on the Vizcaino 5 stage model. Knowledge has always been considered as a means of power. It may be used in favor of majority of people or for growth of wealth of certain individuals. It has always been searched and if not found, it has been created or converted and was called after title of faith. The present analysis has been carried out within two organizations of the PAYAMENOOR University (the central organization or headquarter and the Tehran branch) which is a state distance education university. The present research statistical community included all academic board members, managers and a number of students at PhD level of this university. It is worth mentioning that in order to identify the departments which should be responsible for creation, preservation, utilization, transfer, development and documentation of the knowledge, experts within the two said organizations were needed to be subject to a number of tests based on the questionnaires distributed among them as well as a number of interviews. The research method used in the present paper was a descriptive and applied one. “Descriptive” because the researchers were seeking to describe the variables used in the research and “Dappled” because the findings can be used in and extended to different departments of PAYAMENOOR University as well as other research and education centers. Also outcome of the research indicated that in the PAYAMENOOR central organization knowledge life cycle was revolving around the Vizcaino 5 stage model; different departments of this organization including the Education and Research department, Information technology department, International relations department, Financial and Administrative department, for their own part, have been involved in the process of the acquisition, preservation, utilization, transfer and development of knowledge. But in the Tehran branch, which is affiliated to the PAYAMENOOR University central organization, transfer and development stages have been taken place rapidly because in this university different classes have been organized for students and the instructors have been more involved in the transfer stage as compared with other stages accordingly.

Key words: Knowledge, knowledge management, knowledge management life cycle, Payamenoor University.
Introduction

In spite of growing significance of knowledge, researchers and scholars still have very little information on how to realize the desired knowledge management effect. (Khalife et al. 2009) Therefore the present research has developed the conceptual model in relation to the effective factors on the knowledge management cycle considered different infrastructural and processing efficiency roles of the knowledge management in favor of promoting the impact of the knowledge management cycle in the central organization of PAYAMENOOR University and its Tehran branch.

The analysis carried out in the present paper has been based upon the Vizcaino and his colleagues 5 stage knowledge life cycle model which includes creation, preservation, utilization, retrieval and transfer of the knowledge; this model intends to which knowledge management activities should be supported. It is noticeable that the first three stages have been presented and discussed in most of other knowledge management cycle models already suggested. But in the Vizcaino model two transfer and development stages have been included.

The “transfer” included because the knowledge should be distributed among those who need it and the “development” for the fact that knowledge should necessarily be updated in order for it to be used effectively (Vizcaino and his colleagues, 2009).

Acquisition Preservation, Institutionalization, Utilization, Transfer and Development of knowledge are among the main components of this model. The main reason behind the present research was to specify the stages that the two afore mentioned organizations of the PAYAMENOOR University are involved.

To this end the two conceptual models extracted from the two organizations were indicative of the relationship between the Vizcaino model and conceptual models used for the present research. As a matter of fact the present research meant to question the current status of the knowledge management life cycle within the central organization of the PAYAMENOOR University and its Tehran branch which itself affiliated to the former. In conclusion the conceptual model of the knowledge management life cycle in the two organizations was presented.

Research Literature

Complexity of the concept of knowledge is quite visible in views of different scholars. Concepts of knowledge in philosophy, sociology, economy and recently in the information sciences are quite different from each other. Each of the above mentioned scientific fields possesses its own theories on the concept of knowledge. Knowledge is in fact considered as multifaceted concept with a multilayer meaning. The history of philosophy from the ancient Greece can be considered as an endless research on the concept and meaning of knowledge.

The ancient scholars considered the knowledge within an absolute, static and inhuman essence. This occurs while, later on, the scholars described knowledge as a dynamic human-based process and as the proof of their claim they referred to the individual beliefs as the human being keenness to access reality (Gandhi, 2004).

Given the fact that terms of data, information and knowledge in the matter of concept are quite similar to each other and it is very difficult to differentiate between them, for the
sake of the present analysis first a set of definitions for each term were presented and then after their differences were identified the concept of knowledge was discussed in detail.

According to Peter Darker, data is known as set of objective and abstract realities on the events. But from the organizational viewpoint data is suggesting a set of regulated registered transactions (Davenport and Prussic, 2000). In short it can be asserted that data is considered as a collection of raw realities.

As an example: we may refer to: number 101.9, quality of warmth (Boisot, 2002), or when a customer enters a gas-station in order to fill up his/her car that is implying a kind of transaction; the transaction which can be considered as data. In the last case we have the time, when the transaction takes place and we have exchange of money for the purchased commodity.

All the said date is available but we cannot draw any conclusion or make any Judgment on the concept for example whether the gas station is managed well or not or it is busy or not and etc. (Davenport and Prusak, 2000)

The terms of data, information and knowledge can be seen in the following Continuum (Probst et al 2000, Tsoukas and Vladimirou 2007). It is worth mentioning that huge efforts have already been made for defining the term of “knowledge” by making distinction between terms of “data”, “information” and “knowledge” (Wiig. 1993, Choo 1998, Boisot 2002).

Figure 1: Continuum on data, information and knowledge (Probst et al) and (Probst, 2006)

<table>
<thead>
<tr>
<th>data</th>
<th>information</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge</td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>Context</td>
</tr>
<tr>
<td>Unstructured</td>
<td></td>
</tr>
<tr>
<td>Rooted</td>
<td></td>
</tr>
<tr>
<td>dependant</td>
<td></td>
</tr>
<tr>
<td>Context independant</td>
<td></td>
</tr>
<tr>
<td>Sever bahvioral control</td>
<td></td>
</tr>
<tr>
<td>Weak behavioral control</td>
<td></td>
</tr>
<tr>
<td>Cognitive patterns for acts signs , symbols</td>
<td></td>
</tr>
<tr>
<td>Efficiency/skill</td>
<td></td>
</tr>
<tr>
<td>Distinction</td>
<td></td>
</tr>
</tbody>
</table>

Information

Information can be considered as a kind of message which is sent by a sender and received by a receiver. When the receiver receives information a change in understanding, judgment and behavior of him/her takes place. Term of “inform” in English means “to form”; and term of “information” means “to form insight and view of the receiver on the information”. Unlike the term of “data”, the “information” is meaningful. Peter Draker
reminds that “information contains in fact a set targeted and related data. In other words the data by itself is not related, meaningful and targeted and all these are considered as attributes of “information” (Davenport and Prusak, 1998).

Drake defines information as an “organized collection of data” or “processed data” (Batt, 2001). Now we reconsider the previous example on data: Number 101.9 can be considered as a FM radio frequency wave or price of a liter of gas. Also quality of “warmth” can be used for describing weather temperature, temperature of food or else (Boisot, 2002). Data is converted into information when it is followed by certain concept or meaning. In short, data is converted into information when values are added to its content.

**Relationship between data, information and knowledge**

In the information systems two important views are visible on the relationship between data, information and knowledge. The first view implies that data is a set of simple realities which can be converted into information; in other words information contains a data collection within meaningful structures. And then whenever these meaningful structures are viewed within a certain context they will convert into knowledge. According to this view data produce information within a linear order and the information produce knowledge accordingly. (Alavi, M. & Leidner, D. 2001) (Okunoye 2003).

Based upon the same approach Davenport and Prussic believe that for explaining how the information are converted into knowledge use of the following set of words which start with letter of “C” in English language can be helpful:

- **Comparison:** what is the difference between the information available under certain condition with the information available under another situation? Consequences: What can we infer from the available information in favor of our future decisions and measures? Connections: What is the relationship between a certain parts of available information with other parts?

- **Conversation:** It is clear that this knowledge creating operation is usually taking place among people. We usually get the data from files on statistics and exchanges and get the information from messages. This occurs while the knowledge is obtained from learned people or through organizational processes. Knowledge is developed through the media (books and documents) and passed on from someone to another one (whether through conversation or exchange of views between teachers and students) (Davenport and Prusak, 2000).

The second view which is quite different from the first one implies that data is established only after knowledge and information are produced. For instance if someone is told that the weather temperature is 75 degree Fahrenheit but he/she is not provided with the previous knowledge on the Fahrenheit measurement what will be his/her impression? Undoubtedly the “75 degree Fahrenheit” is considered as data which without the required knowledge on it may not be understood by any one. On the basis of the same approach no one can find separate simple realities unless he himself creates them.

Therefore data can be formed only if a structure with its related concept is created and used (Toumi, 1999), (Okunoye, 2003). Godbout (2001) stipulates that the relationship between data, information and knowledge is recurring and revocable and their conversion into each other depends on the their organization and interpretation.
As it has been indicated in the figure (1-2) "data" and "information" have been distinguished from each other based on the organization and "information" and "knowledge" have been distinguished based on interpretation (Batt, 2001). Knowledge (experienced-based findings) is considered as a key source within every organization. The more human being knows, better he/she can act. We have finished with the era when money, land and labor force were considered as sole available assets. Today knowledge is considered as not only an asset but as the most important wealth for all organizations. Therefore the main question for us to answer is whether knowledge is manageable or not?

Certain scholars believe that due to the fact that it would be too hard to monitor human beings personal characteristics therefore knowledge is by no means manageable. At the same time, they admit that while knowledge in not manageable, it can be absorbed and developed and its environment can be managed accordingly (Walters, 2000).

In order to manage the knowledge we require providing the following:

- Conducive conditions; culture of trust, freedom, information sharing and learning shall be promoted.
- Required tools; regulated approaches as well as required tools and processes for exchange of knowledge shall be established and provided.
- Proper activities; all individuals shall seek new findings and ideas as well as the best experiences on the relevant activities on natural basis, sharing and using them accordingly.

As Amin and his colleagues (2001) specify, knowledge management shall focus on promotion of organizational capacities and success in the field of management requires establishment of a new work environment wherein knowledge and experience can be shared by all. For this purpose we need to further attend to technological and processing capabilities. Generally speaking, knowledge management can be considered as identification, adjustment and establishment of the policy related to the available information (Srinivasan, 2004, 65).

But different definitions have been produced for the knowledge management all of which may not be referred to in the present paper. Given all knowledge management dimensions Jashapara views the knowledge management within a four ring cycle: "Effective learning processes which are mixed with factors of organization, creation, exchange (whether implicit or explicit which can be realized by proper use of technologies and the cultural environment) and utilization of knowledge

Organizational performance Leading to promotion of organizational intellectual asset and improvement of the (Jashapara, 2004, 2).

Figure 2 is providing the relevant pattern as follows: (next page)
The knowledge life cycle contains a conceptual framework which has already promoted awareness and accuracy of the knowledge managers within the knowledge life cycle in order for them to understand the and experience the organizational learning cycle as well as the concept and role of the knowledge processing and knowledge management. The knowledge life cycle is arising from the knowledge learning cycle and it is giving feed...

The organizational learning cycle distinguishes three stages including action, discovery and selection, from each other, producing the concepts on the interpretation, supervision and assessment by the managers. As it has already been mentioned the present analysis is based upon the five stage knowledge life cycle management model which has been discussed in detail as follows:

This model was introduced by Vizcaíno and his colleagues in 2008. The said model is indicating which management activities shall be supported. The first three stages have already been referred to in many previous knowledge management cycles and the new pattern is introducing two more stages including “transfer” and “development”.

Back to the latter. Both knowledge life cycle and knowledge learning cycle are considered as the basis of the knowledge processing and the related contexts in the human psychology, whether individually or collectively, have already been provided. This alternative of the knowledge management basis is known as a special process and field accordingly.
This field study is performed on Payame Nur central organization and Tehran branch.
Samples (450 ones) in Payame Nur central organization (300 ones) and Tehran branch (150 ones) were both males and females. 
Data analysis was performed by the researcher made questionnaire which included 36 questions with Likert spectrum in pentamerous questions (1=very low, 5=high). Knowledge acquisition was performed by 5, knowledge supply by 5, knowledge transfer by 4, knowledge implementation by 4 and its application by 4 as well. Infrastructure of knowledge technology was performed by 4, knowledge management by 5 and etc. The questionnaire used contained high justifiability and its stability was 0/92.

Structural equations modeling under the Leazerel program was used to data analysis. Findings showed that all significant questions and modules were standard and the results were depicted on figures 2 and 3.
In the Table 1 - Full name is mentioned model components.

<table>
<thead>
<tr>
<th>components of as complete as the full component</th>
<th>Abbreviated name of the abbreviated name of the model</th>
<th>components of as complete as the full component</th>
<th>Abbreviated name of the abbreviated name of the model</th>
</tr>
</thead>
<tbody>
<tr>
<td>the evolution of knowledge</td>
<td>Evolution</td>
<td>knowledge acquisition</td>
<td>acquisition</td>
</tr>
<tr>
<td>knowledge acquisition</td>
<td>acquisition</td>
<td>Knowledge store</td>
<td>store</td>
</tr>
<tr>
<td>Knowledge Management</td>
<td>Knowledge</td>
<td>Knowledge Transfer</td>
<td>Transfer</td>
</tr>
</tbody>
</table>
Table 2 - Indices fitness model, the final estimate

<table>
<thead>
<tr>
<th>Indicators</th>
<th>measure</th>
<th>the current state</th>
</tr>
</thead>
<tbody>
<tr>
<td>2χ (chi square)</td>
<td>411.01</td>
<td></td>
</tr>
<tr>
<td>df (degrees of freedom)</td>
<td>greater than zero</td>
<td>398</td>
</tr>
<tr>
<td>2 / df χ</td>
<td>smaller than 3</td>
<td>1.032</td>
</tr>
<tr>
<td>Value - p (significance level)</td>
<td></td>
<td>0.001</td>
</tr>
<tr>
<td>RMSEA (squared error)</td>
<td>smaller than 0.080</td>
<td>0.032</td>
</tr>
<tr>
<td>GFI (suitability index)</td>
<td>greater than 0.9</td>
<td>0.95</td>
</tr>
<tr>
<td>AGFI</td>
<td>greater than 0.9</td>
<td>0.96</td>
</tr>
</tbody>
</table>

We used the cycle analysis method to evaluate the relation between knowledge management approaches and their management regarded among the staffs of central organization of Payame Nur university and Tehran branch by Leazeral software which is stated as the following:

a- knowledge acquisition process (P<0.01, t=7.70, β=0.75)
b- Knowledge supply process (P<0.01, t=8.09, β=0.87)
c- Knowledge transfer process (P<0.01, t=6.20, β=0.63)
d- Knowledge implementation process (P<0.01, t=7.01, β=0.71)
e- Knowledge utilization process (P<0.01, t=9.40, β=0.97)

There is a direct and positive relation between management cycles.
Table 3 – Examine the relationship between Knowledge Management process

<table>
<thead>
<tr>
<th>Hypothesis test</th>
<th>Relationship between variables in the model</th>
<th>Standard error</th>
<th>Standard value</th>
<th>T amount</th>
<th>Significant level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge acquisition</td>
<td>0.75</td>
<td>0.1</td>
<td>7.70</td>
<td>0.01 &gt; P</td>
<td></td>
</tr>
<tr>
<td>Knowledge store</td>
<td>0.87</td>
<td>0.1</td>
<td>8.09</td>
<td>0.01 &gt; P</td>
<td></td>
</tr>
<tr>
<td>Knowledge Management Transfer Knowledge</td>
<td>0.63</td>
<td>0.1</td>
<td>6.20</td>
<td>0.01 &gt; P</td>
<td></td>
</tr>
<tr>
<td>Knowledge Evolution</td>
<td>0.71</td>
<td>0.1</td>
<td>7.01</td>
<td>0.01 &gt; P</td>
<td></td>
</tr>
<tr>
<td>Deployment Knowledge</td>
<td>0.97</td>
<td>0.1</td>
<td>9.40</td>
<td>0.01 &gt; P</td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis test
There is a direct and positive relation between knowledge management cycles and its cycle inside the organization. All 5 suppositions are confirmed.
Hypothesis 1: The acquisition of knowledge and knowledge management in central Tehran Payam Noor and there is a significant relationship

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Direct relationship</th>
<th>Standard amount</th>
<th>significance level</th>
<th>T amount</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1:</td>
<td>X</td>
<td>0.75</td>
<td>0.01 &gt; P</td>
<td>7.70</td>
<td>Approve</td>
</tr>
</tbody>
</table>

Hypothesis 2: The store of knowledge and knowledge management in central Tehran Payam Noor and there is a significant relationship

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Direct relationship</th>
<th>Standard amount</th>
<th>significance level</th>
<th>T amount</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 2:</td>
<td>X</td>
<td>0.87</td>
<td>0.01 &gt; P</td>
<td>8.09</td>
<td>Approve</td>
</tr>
</tbody>
</table>

Hypothesis 3: The evolution of knowledge and knowledge management in central Tehran Payam Noor and there is a significant relationship

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Direct relationship</th>
<th>Standard amount</th>
<th>significance level</th>
<th>T amount</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 3:</td>
<td>X</td>
<td>0.63</td>
<td>0.01 &gt; P</td>
<td>6.20</td>
<td>Approve</td>
</tr>
</tbody>
</table>

Hypothesis 4: The application of knowledge and knowledge management in central Tehran Payam Noor and there is a significant relationship

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Direct relationship</th>
<th>Standard amount</th>
<th>significance level</th>
<th>T amount</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 4:</td>
<td>X</td>
<td>0.71</td>
<td>0.01 &gt; P</td>
<td>7.01</td>
<td>Approve</td>
</tr>
</tbody>
</table>

Hypothesis 5: The application of knowledge and knowledge management in central Tehran Payam Noor and there is a significant relationship

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Direct relationship</th>
<th>Standard amount</th>
<th>significance level</th>
<th>T amount</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 5:</td>
<td>X</td>
<td>0.97</td>
<td>0.01 &gt; P</td>
<td>9.40</td>
<td>Approve</td>
</tr>
</tbody>
</table>

All 5 suppositions are confirmed.

We used nonparametric Kruksal-Walis Test to evaluate the existence or nonexistence of knowledge management infrastructures regarded on Payame Nur central organization and Tehran branch in which its results are:
2-4- Kruksal-Walis test results:
To evaluate the differences between the mean of several independent data, the above-mentioned test was used.
The differences are confirmed if the significance differences will be less than 5 percent. Results are depicted on figures 5 and 6.

Table -5 - significance level test Kruksal - Wallis

<table>
<thead>
<tr>
<th>Organization</th>
<th>Number</th>
<th>Average Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>The cultural infrastructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central organization</td>
<td>300</td>
<td>235.79</td>
</tr>
<tr>
<td>Tehran Center</td>
<td>150</td>
<td>204.92</td>
</tr>
<tr>
<td>Total</td>
<td>450</td>
<td></td>
</tr>
<tr>
<td>Head of the IT infrastructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central organization</td>
<td>300</td>
<td>240.73</td>
</tr>
<tr>
<td>Tehran Center</td>
<td>150</td>
<td>195.04</td>
</tr>
<tr>
<td>Total</td>
<td>450</td>
<td></td>
</tr>
<tr>
<td>Infrastructure of the organization process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central organization</td>
<td>300</td>
<td>242.57</td>
</tr>
<tr>
<td>Tehran Center</td>
<td>150</td>
<td>191.37</td>
</tr>
<tr>
<td>Total</td>
<td>450</td>
<td></td>
</tr>
</tbody>
</table>
Table -5 - significance level test Krvksal - Wallis

<table>
<thead>
<tr>
<th>Krvksal – Wallis test</th>
<th>The cultural infrastructure</th>
<th>Head of the IT infrastructure</th>
<th>Infrastructure of the organization process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test statistic</td>
<td>6.517</td>
<td>14.515</td>
<td>18.003</td>
</tr>
<tr>
<td>number</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Significance level</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Regarding the results gained by Kruksal Walis Test we concluded that there is a significant relation between Payame Nur central organization and Tehran branch on infrastructures of knowledge management as the following:

1-Cultural infrastructure:
Non equality between Payame Nur central organization and Tehran branch is not confirmed regarding the low significance from 5 percent error.
The steps related to both organizations are as following:
1-Payame Nur central organization
2-Payame Nur, Tehran branch

2-Infrastructure of technology
Non equality between Payame Nur central organization and Tehran branch is not confirmed regarding the low significance from 5 percent error.
The steps related to both organizations are as following:
1-Payame Nur central organization
2-Payame Nur, Tehran branch

3-Infrastructure of approaches
Non equality between Payame Nur central organization and Tehran branch is not confirmed regarding the low significance from 5 percent error.
The steps related to both organizations are as following:
1-Payame Nur central organization
2-Payame Nur, Tehran branch
5-Discussion and conclusion

The aim of the study is to scrutinize the cycle of knowledge management regarded on Payame Nur central organization and Tehran branch respectively.

Conclusion

In general, after collecting views and ideas of the members of academic boards and professors of the university it was concluded that the existing Knowledge management cycle is facing notable weak points. At the same time given the visible existing potentials and remarkable desire of the members of academic boards and professors of the university for learning the new concepts we can dare to say that through a good and proper planning, we can lead these positive forces to the desired targets of the knowledge management that is production, dissemination and development of knowledge within the organization.

Out of the important strategies for promotion of knowledge management in the PAYAMENOOR University we shall refer to the further attention to the views and observations of academic boards and professors of the university and allocation of further facilities and possibilities for implementation of the relevant research projects and persuading the elites and scholars towards further knowledge acquisition and production.

In the present chapter firstly the general pattern of the knowledge cycle in the organizations namely PAYAMENOOR central organization and its Tehran branch will be discussed and then the desired strategies along with two models for the improvement of the existing situation of the university knowledge management will be proposed.
The first stage: Identification of the University Headquarter
1- University Council
2- Research and Education Department
3- Faculties and Education Groups
4- Department for International Affairs
5- PhD Specialized Department
6- Open and Distance Education Faculty
7- Organization of Research and Scientific Conferences
8- Professors and Instructors of the University central organization quarter
9- Other universities and Education Centers

The second stage: Knowledge documentation (places where knowledge is kept and preserved)
1- Research department (libraries, books, periodicals, and magazines)
2- “Payamavaran Noor” journal
3- Information Technology Department (internal internet, public and specialized web logs, information and database)
4- Knowledge documentation by observance of the management principles, and comprehensive quality in the work environment

The third stage: Knowledge utilization in all departments of the organization
1- PAYAMENOOR University branches in other provinces
2- Organization of scientific-research conferences as well as workshops in and out of the country
3- Access of all members of the academic board to the information and databases

The fourth stage: Transfer of knowledge
1- Department for Information Technologies, internet, intranet, web log
2- Library
3- Organization of workshops and on the job training
4- Transfer of knowledge by issuance of circulars and directives
5- Through official and non-official groups in the organization

The fifth stage: Making knowledge up to date
1- Reconsideration and revision of the textbooks
2- Revision of rules and regulations on education, research, technologies, administration, and planning
3- Establishment of databases (EBSCO, Emerald)
4- Organization of scientific seminars and conferences
5- Using experiences of other universities and education centers

Figure 4: the existing knowledge management cycle pattern in the PAYAMENOOR University Central Organization (by the authors)
On the said knowledge cycle model which is currently implemented in the PAYAMENOOR University central organization we need to explain that in some departments of this university knowledge is produced and extracted out of which the above-mentioned departments are playing more colorful roles. Therefore the relevant strategies in this respect can be introduced as follows:

1. To define main education responsibilities of the organization and to identify its knowledge requirements
2. To define the knowledge domain
3. To Reconsider knowledge capabilities and capacities

The second stage that is knowledge documentation requires us to build places for keeping knowledge (repository). Library, laboratory, periodicals and web site of the university are playing paramount roles in keeping and maintaining the knowledge and if the knowledge is not documented and kept then it will lose its efficiency. The process on the easy access to knowledge and its transfer to others takes place by sharing the knowledge with others. This process is now taking place in the PAYAMENOOR University (central organization) by facilitating access of the members of the academic board as well as directors and the staff to the internet website of the university and other books, periodicals and organization of research and education workshops (sabbaticals) and ……

In conclusion it is specified that in order to keep the knowledge updated in the PAYAMENOOR University we can also take the following important measures:

Exchange of managers and directors, revision of the education and research rules and regulations, reconsideration of the textbooks, establishment of specialized web logs and scientific databases.

Table 1 provides information on the role of different departments within the PAYAMENOOR University central organization. Each of these departments is playing its role in the knowledge management cycle. As indicated in the Table 1 the first stage of the knowledge management process is producing and acquiring knowledge which is carried out by the education and research department. The research and education department is also responsible to define the desired targets in this respect. It is worth mentioning that in this process the university council, the department for international relations and the PhD specialized department are playing significant roles as well.

In the second stage, that is knowledge documentation stage, the information technologies department, the research department, laboratory, library, periodicals, website of the university,… are playing major roles.

In the third stage that is knowledge utilization the information technology department, thorough the internal network, the university website as well as the internet network, is playing key role in knowledge sharing. To the same end different academic groups and faculties are playing more limited roles by organization of scientific conferences and seminars as well.

In the stage related to transfer and dissemination of knowledge role of the information technology department (by use of the required tools and means) is clearly visible. Also for the same purpose academic groups and Faculties are trying their best in favor of knowledge dissemination as well. The university council is playing a mediating role in transferring knowledge by issuance of circulars and directives for its sub departments and the university website as well.

The last stage is about development of knowledge which, to some extent, involves all departments within the organization; although many university elites and officials are of this opinion that no valuable knowledge has already been produced in the university in order for it to be developed and updated. At the same time presently the education and research department is in charge of promoting the related activities by revising the textbooks, selecting
professors and instructors and introducing vertical and horizontal research titles. It is noticeable that the department for international relations also is playing its role in this respect by making contacts and establishing relations with other universities especially cyber on

The first stage: Resources for knowledge production
1-Resources from outside the university like Ministry of Higher Education and other universities (sabbaticals)
2-Professors and instructors
3- Guest professors of university
4- Students at higher levels including PhD level
5- Libraries and laboratories
6-Organization of scientific seminars and conferences with participation of Iranian universities

The second stage: Knowledge repository
1- Libraries, textbooks, periodicals and publications
2- Information Technology (internal network, specialized and public web logs, information and databases
3- Documentation and preservation of administrative knowledge through observance of the comprehensive quality management principles in the work environment by professors, managers and the staff

The third stage: Knowledge utilization
1- Computer department by sharing of knowledge and information with other departments
2- Organization of classes in order for students and professors to get face to face with each other
3- Library and laboratory
4- Organization of scientific seminars
5- Textbooks, scientific journals
6- Publication of scientific and education journals

The fourth stage: Transfer and dissemination of knowledge
1-By organizing classes; based on the university professor-student based method; and knowledge sharing
2- Computer department and other information systems in the university (E-mail, internal network,)
3- Library
4- Organization of workshops and on the job training courses
5- Sending students and administrative staff from Tehran province to other branches

The fifth stage: Developing and making knowledge up to date
1- Reconsideration of the textbooks
2- Organization of scientific seminars and conferences
3- Utilization of experiences of other universities and education centers in and out of the country
4- Organization of workshops for managers and members of academic boards of the Tehran branch departments

Figure 5: Chart on the knowledge management life cycle in the PAYAMENOOR University, Tehran Branch (by Authors)
Recommendations and proposed strategies in order to reach the desired knowledge management status:

1- Given the results of the interviews and the questionnaires distributed among the academic elites and scholars of the PAYAMENOOR University (the central organization and the Tehran branch) it was concluded that the management status in these two organizations was not acceptable. The proof of this claim was visible in the results of the interviews and the questionnaires.

2- Some scholars believed that members of the academic boards should get further involved in the relevant process for producing and extracting knowledge which should be followed by giving further priority to different colleges in the basic sciences, social, economic, technical, engineering, artistic, theology and Quranic sciences fields.

The processes for selecting, documenting and regular updating knowledge which is of paramount value for the future activities should be precisely organized. In view of the results of the research interviews and questionnaires most scholars were of this opinion that Institutionalization process in the university was not commensurate with the international standard level or even with the level of other universities in and out of the country due to shortage of knowledge and lack of awareness of the University authorities. Therefore the following was recommended:

1- Establishment of knowledge repository by equipping libraries, laboratories with required facilities and promotion of scientific and specialized journals as well as codification of information thorough the information technology department.

Recommendations for facilitating access of the members of the academic board to knowledge:

Since the main responsibility of the PAYAMENOOR University is rendering academic services at all times and at all places therefore it is needed that suitable relevant grounds to be provided for shouldering this responsibility. To this end management body is playing a significant role. Introduction of new education technologies, publication of textbooks with applied and operational orientations conducive for every field and benchmarking (with other universities specially cyber ones) are of utmost importance to this end.

Knowledge is valuable when it is shared with others and interaction of every one with others depends on the organizational culture. The more open the organizational culture is, closer the relations among the individuals would be and contrary to the organizational horizontal structure free flow of knowledge among different departments and individuals would accordingly be promoted and expedited.

This means that the old and elevated organizational structures prevent exchange of knowledge between departments and people within an organization. The most valuable type of knowledge transfer or exchange is the two-track based type which usually occurs during our talks and meetings with a colleague or a group of the staff of the department. Knowledge is of greater value when it is shared. Therefore in the PAYAMENOOR University some methods for dissemination of knowledge can be introduced. According to scholars the most important way to disseminate knowledge is holding face to face classes and meetings with participation of students and instructors. To this end organization of scientific and specialized conferences and seminars, publishing scientific articles and papers in journals should not be ignored as well. Therefore organization of more scientific and specialized gatherings and conferences is recommended in order for their participants to analyze new scientific subjects and issues. One of the most important measures to facilitate knowledge sharing is to establish an atmosphere of trust and respect within any service-based organization like a university. It is noticeable that sharing the knowledge with others should necessarily be rewarded in due process.
References

Okunoye, A. (2003), where the global needs the local: Variation in enablers in the knowledge management process, university of Turku. Finland. pp.16-17.
Walters, Jamie. 2004. “Dismantling a Culture of Knowledge Hoarding”, *Blackwell*. (Online) Available: