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An Examination and Assessment of Knowledge Management Maturity in Karaj Municipality

Farzane Kiani Dehkord[1], Mahdi Samimi[2], Ramin Alivand[3] and Ehsan Afarideh Sani[4]*

[1]Science and Research Branch, Islamic Azad University, Tehran, Iran
[2]Department of Industrial Engineering, Iran University of Science and Technology, Tehran, Iran
[3]Department of Environmental, Shahid Beheshti University, Tehran, Iran
[4]Department of Industrial Engineering, Amirkabir University,Tehran, Iran; ehsan.afarideh@gmail.com

Abstract

As organizations gain more knowledge-based processes, they need more realistic and practical programs to manage the organizational knowledge as a strategic resource for future continuous improvements. The main aim of the present study was to assess the status and maturity of knowledge management in Karaj Municipality based on a codified and applied model in order to clarify the role of assessing knowledge management maturity and explain an approach through which knowledge management can be evaluated and improved in a strategic way, and constant improvements can be made in the municipality. With regard to its methodology, the present study was an applied descriptive survey. In so doing, the employees of Karaj Municipality were considered as the statistical population. To determine the sample size, Krejcie and Morgan decision making model was used, and the sample size was determined to be 154 individuals. However, since there was the possibility of incomplete questionnaires, 160 questionnaires were distributed among 160 randomly selected employees. Content validity was used to determine the validity of the questionnaire. In so doing, the questionnaires were reviewed by professors and experts in the field of knowledge management, and the final questionnaire was compiled after necessary modifications were made. In order to examine and assess the variables available in the model, SPSS and Excel were utilized. After the data collected using the questionnaires, interviews, and related documents and checklists were analyzed, the maturity assessment combined model for Karaj Municipality was presented in 8 fields in order to come up with a better view on strengths and weaknesses of Karaj Municipality. At last, strategies to improve knowledge management in Karaj Municipality were presented.

Keywords: Environmental Permits, Impacts, Industry, Pulp and Paper Industry, Tamilnadu

1. Introduction

Today's world is about to experience knowledge-based economy. In this kind of economy, knowledge management and intellectual capitals are considered as the most important organizational assets, and success of organizations is mostly dependent on their intellectual capacities (Finn and Torgeir, 2008). Knowledge management refers to a lever to place the knowledge in a strategic way to achieve the organization's goals. Nowadays, implementing an efficient strategy of knowledge management and converting the organization into a knowledge-based organization are considered as essential conditions for success in entering knowledge-based economy (Bose, 2004; Levett and Guenor, 2000). Knowledge managers aim to maximize the rate of return on investment to the organization. In the field of knowledge management, it is necessary to use assessment criteria to convince managers and stakeholders about the advantages and value of organizational knowledge management innovations (Liebowitz and Suen, 2000; Kruger and Johnson, 2010).

Buckminster Fuller proposed Knowledge Doubling Curve and noticed that human knowledge had almost doubled every century by 1900. After World War II, human

*Author for correspondence

knowledge doubled every 25 years. Nowadays; however, it is not as simple as before, and different types of knowledge have different growth rates. For example, nanotechnology knowledge doubles every two years, and clinical knowledge every 18 months. On average; however, human knowledge doubles every 13 months. According to IBM, widespread use of the Internet has caused knowledge to double every 12 hours (Schilling et al., 2013). The art and science of knowledge management aim to design a framework for continuous purposeful activities in order to make effective organizational decisions. In this regard, knowledge management is a strategic process aimed at differentiating the organization from its rivals and overcoming their competitive advantage (Sabaghchi et al, 2011).

Nowadays, traditional factors of production like land, labor, and capital are placed in the second rank compared to knowledge. In modern economy, knowledge is regarded as the most important factor in production (Sohrabi and Darami, 2010). By examining and analyzing knowledge and the importance of its characteristics in the realm of the organization's performance, it can be figured out that having up-to-date information and knowledge in undeniable for organizations to continue functioning. Particularly, by studying and evaluating the trend of change in knowledge in the contemporary global community, it can be understood that today's industrial community is a place in which work-based technologies have been replaced with knowledge-based ones (Ahmadpour Daryani, 2002). One of the most important priorities mentioned by knowledge management researchers is to create motivation in individuals to share their knowledge (King et al., 2006). Although some believe that knowledge is power, it seems that knowledge has no power per se, but what gives the individuals power is a part of knowledge that they share with others (Dermott and Dell, 2001). If the knowledge exists on the individuals' mind is likened to the gold in a box, the value of the gold will become known when it is shared (Keshavarzi, 2007).

Many scholars hold that due to participation of many fields in knowledge management such as management of technology, innovation, organizational processes and structure, human capitals, and organizational culture, it is necessary to carry out comprehensive and profound studies in order to obtain knowledge management maturity and growth (Finn and Torgeir, 2008; Kruger and Johnson, 2009; Kruger and Snyman, 2007).

Nowadays, managers in different countries including Iran are willing to create knowledge management system in organizations in order to take advantage of its useful outcomes. Knowledge sharing is one of the most important and shared processes in different structures proposed for knowledge management, and the individuals' willing to share their knowledge in organizations is one of the most significant priorities for knowledge management practitioners in the world (Danaeeifar et al., 2011).

In the economy of the leading countries, the balance between knowledge and other resources has changed in favor of knowledge, such that knowledge has become a determining factor in life, even more than land, labor, and capital. Although knowledge is necessary as a factor for survival of organizations, many organizations have not yet paid serious attention to knowledge management. Accordingly, it is highly important to pay attention the employees' knowledge in the organization. Participating in the knowledge of individuals working in organizations is an important and effective strategy in increasing organizational productivity. According to Article 16 of the administrative system policies, it is necessary to "Make the administrative system knowledge-based by utilizing knowledge management principles and integrating information by relying on Islamic values".

In our country, the Fourth Development Plan, titled The Growth of National Knowledge-Based Economy, was developed with an emphasis on knowledge-based development. At the same time, many different organizations and companies are seeking to implement knowledge management systems and take advantage of its outcomes. In order to develop knowledge management in an organization, changes that lead to interaction, interaction, or recreation of knowledge should systematically be supported and encouraged. Over the next few years, a large number of employees working in governmental organizations will retire, and it is clear that a large number of them are managers and experts in different fields; therefore, one of the problems and challenges that these organizations are faced with is to utilize and share these individuals' knowledge before their retirement. In this regard, human capital management is known as one of the most important organizational strategies, and knowledge management as the final management tool and technique plays a significant role as a part of human capital management strategies. Knowledge management states that nowadays all affairs require knowledge-based work; therefore, all employees need to be turned into knowledge-based employees to some extent (their works should be reliant on their knowledge instead of their physical power). This means that the most important activity of

an employee in an organization is to create, share, and use knowledge. According to what was said above, it is necessary to implement knowledge management in Karaj Municipality. Therefore, the present study was carried out in order to assess knowledge management maturity and determine the organizational level of knowledge management in Karaj Municipality.

2. Methods

Since the results of the present study can be used in the statistical population under investigation, it was an applied study with regard to its aim, and descriptive regarding the method of data collection. Based on studies of library resources and documents, the conceptual framework was obtained, and field method was used to collect the required data using a questionnaire designed based on a 5-point Likert scale and interview with managers of different municipality units including Department of Planning and Human Capital Development, Office of Administrative Modernization and Transformation, Staff Welfare Office and Entertainment Venues, Bureau of Statistics and Information Technology, Department of Labor Affairs, Department of Education Affairs, Organizational Excellence and Process Improvement, Planning Office, and Office of Performance Evaluation. To determine the sample size, Krejcie and Morgan decision making model was used, and the sample size was determined to be 154 individuals. However, since there was the possibility of incomplete questionnaires, 160 questionnaires were distributed among 160 randomly selected employees. Content validity was used to determine the validity of the questionnaire. In so doing, the questionnaires were reviewed by professors and experts in the field of knowledge management, and the final questionnaire was compiled after necessary modifications were made. To check its reliability, Cronbach's Alpha was used, and a value of 0.950 was obtained which shows the acceptable reliability of the questionnaire.

3. Data Analysis

Statistical analyses and findings direct researchers toward better understanding and create grounds for further studies. To analyze the collected data in the present study, descriptive and statistical methods were employed.

4. Descriptive Results

According to the results of the descriptive tests related to the demographic variables (i.e. age, work experience, education level, and job position) as shown in Table 1, with regard to age, the highest frequency of the employees was related to the age range of 25-35 years (n=73), regarding work experience, the highest frequency of the employees belonged to the range of 11-15 years (n=50), in terms of education level the highest frequency of the employees was related to bachelor's degree (n=70), and regarding job position the highest frequency of the employees belonged to experts (n=118).

Table 1. The Study Sample According to Demographic Variables

		Frequency	Percentage
Age	Under 25 years	15	9.37
	25 – 35 years	73	45.63
	36 – 45 years	51	31.88
	46 – 55 years	16	10.00
	Unspecified	5	3.12
Work Experience	Under 5 years	43	26.87
	5 – 10 years	33	20.63
	11 – 15 years	50	31.25
	16 – 20 years	12	7.5
	Over 20 years	17	10.63
	Unspecified	5	3.12
Education Level	Diploma or less	8	5.00
	Associate's degree	19	11.87
	Bachelor's degree	70	43.76
	Master's degree or more	58	36.25
	Unspecified	5	3.12
Job Position	Expert	118	7.75
	Office manager	16	10.00
	General manager	4	2.50
	Unspecified	22	13.75

5. Inferential Results

In this section, the results obtained from evaluation based on the combined model of maturity evaluation in Karaj

Municipality, which was the result of combining the questionnaire and the checklist of determining knowledge management maturity, are presented. The results of evaluating maturity in 8 fields are presented as a spider diagram in order to come up with a better understanding of the weaknesses and strengths of Karaj Municipality in these fields.

Fig. 1. Total Evaluation of Knowledge Management Maturity in Karaj Municipality

6. Conclusions

By summarizing all results and analyzing the sub-variables of the combined model of knowledge management maturity, it was concluded that Karaj Municipality is placed at level 2 of knowledge management maturity at the present. In order to achieve an appropriate place of knowledge management maturity, Karaj Municipality should create effective and systematic plans to develop some fields of assessing maturity including "strategy, knowledge goals", "technology, infrastructures", "processes, roles, organization", "knowledge structures, knowledge forms", "leadership, support", "participation, culture", and "individuals, qualifications". The status of the field of "environment, partnerships" is close to an acceptable status, and it can become acceptable by planning and improving weak indices in this field. Based on the examination, it should be noted that Karaj Municipality needs comprehensive planning in order to coherently implement the knowledge management system in a fundamental way in all layers of the municipality.

Results that can be improved in evaluating maturity assessment in the eight fields are presented below in order to come up with a better understanding of each field in Karaj Municipality. Strategies to improve the status of knowledge management in Karaj Municipality in each field are as follows.

Strategies to improve the status of knowledge management in Karaj Municipality in the field of "strategy, knowledge goals" are:

- Attracting and increasing senior municipality managers for knowledge management
- Using knowledge management in major municipality strategies
- Allocating budget and resources needed to develop knowledge management

Strategies to improve the status of knowledge management in Karaj Municipality in the field of "environment, partnerships" are:

- Developing the knowledge map of consultants and contractors in Karaj Municipality
- Creating a knowledge network among organizations and subsidiary municipal areas
- Creating a comprehensive knowledge network with the participation of universities and scientific centers
- Optimizing and modeling successful organizations

Strategies to improve the status of knowledge management in Karaj Municipality in the field of "individuals, qualification" are:

- Developing the map of Karaj Municipality experts in a dynamic way
- Establishing a system and procedure for exchanging knowledge between employees of the same level in the organizations and subsidiary municipalities
- Setting up expert communities in Karaj Municipality
- Establishing thought rooms
- Holding training courses by the institutional experts

Strategies to improve the status of knowledge management in Karaj Municipality in the field of "participation, culture" are:

- Building knowledge cafés

- Holding conference and competitions in order to encourage the employees to take part in group activities and share knowledge
- Creating newsletters, journals, posters, and stands to make knowledge management culture
- Making grounds for informal communications and developing expertise communities
- Setting up internal and external network of knowledge management

Strategies to improve the status of knowledge management in Karaj Municipality in the field of "leadership, support" are:

- Attracting the support of Karaj Municipality senior managers
- Presenting reports on the status of knowledge management at the macro level of Karaj Municipality
- Allocating financial resources to supporting knowledge management
- Creating a newsletter for managers

Strategies to improve the status of knowledge management in Karaj Municipality in the field of "knowledge structures, knowledge forms" are:

- Identifying and updating knowledge fields in Karaj Municipality
- Identifying knowledge resources in Karaj Municipality
- Conducting specialized knowledge documentation projects in Karaj Municipality
- Developing knowledge management regulations

Strategies to improve the status of knowledge management in Karaj Municipality in the field of "technology, infrastructures" are:

- Operationalizing knowledge management software in Karaj Municipality
- Utilizing modern equipment in order to provide services and acquire and share knowledge
- Using social networks in Karaj Municipality
- Creating and integrating management information systems (MIS) in Karaj Municipality
- Implementing data mining to properly use existing data

Strategies to improve the status of knowledge management in Karaj Municipality in the field of "processes, roles, organizations" are:

- Developing knowledge management processes
- Documenting the implementation process and implementation process lessons
- Designing and implementing knowledge management incentive system
- Creating knowledge management structure, providing appropriate manpower, and practically using the individuals' knowledge in evaluating job performance and promotion
- Including knowledge management in job description of employees
- Creating documentation system for lessons of projects
- Establishing a system to elicit knowledge from employees who are about to retire
- Developing meritocracy and succession systems

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