The competency levels of school principals in implementing knowledge management strategies
The views of principals and teachers according to gender variable

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Received November 11, 2009; revised December 1, 2009; accepted January 22, 2010

Abstract

The technological developments and changes which have been experienced in the last decades, have affected significantly the management of organizations. Especially the issue of knowledge management has begun to play a crucial role in ensuring the competitive advantages of the organizations. Therefore, schools, which are already knowledge based organizations, have to develop their knowledge management strategies in order to achieve effective education that meet the requirements of the age. In that context school principalship has received the utmost importance since it is seen as leading authority for accomplishing the educational aims. The main goal of this research is, based on the views of teachers and principals, to determine the competency level of the school principals in implementing some predetermined knowledge management strategies at schools with regard to gender variable. In this study, the views of the subjects have been gathered by a Likert type questionnaire developed by the researchers themselves. The questionnaire consisted of eight dimensions such as Active Knowledge Management, Formation of a Knowledge Team, Formation of a Knowledge Database, Knowledge Mapping, Benchmarking, Formation of a Knowledge Network, Formation of a Knowledge Centre, and Designation of an Executive Responsible for Implementations. The obtained results have revealed that schools generally have some insufficiencies in implementing knowledge management strategies.

The views of principals and teachers according to gender variable

Keywords: Knowledge management; principals; strategies; schools.

1. Introduction

Organizations feel the need for renewal and development in order to catch and keep competitive advantage in the environment of global rivalry. In doing this, organizations have to decide accurately and rapidly to react to the changes and to benefit from opportunities by means of effective knowledge management strategies.

Educational institutions are responsible for performing effective education which will meet the requirements of the new century. This fact creates an intensive pressure on educational organizations and forces them take actions for changing and development. To realize effective education at schools, the specialists have agreed upon the critical roles of school principals with the leadership qualities.
1.1. Problems related to knowledge management at schools in Turkey

21st century is characterized with change and development that based mostly on the effective knowledge management strategies. In such an era, the schools, as knowledge based organizations, should accomplish to develop and implement effective knowledge management strategies in order to meet the educational requirements of the century. The school managers with leadership skills have been seen the key persons who can foster innovation and improvement and transform schools into learning organizations (Woods, 2000, s.1; Leithwood and Jantzi, 1999, pp.696-697). For the realization of effective education, principals can foster efficient knowledge management strategies by creating effective communication and cooperation not only with the teachers, students and employees at schools, but also with the people and organizations outside of the schools as well. However, it is pointed out that one of the important drawbacks in knowledge management process is the fact that knowledge is kept in the upper level managers’ hands and generally is not released for the use of other people. Fullan (March 18-19, 2002) states that despite the business organizations, schools are poor knowledge sharers, and the structural and normative reasons of schools have promoted this. On the other hand, linking schools with the business organizations, Friehs (2009) has drawn attention to the recent developments stating that the quality management, marketing, evaluation, organization development, etc. have become important features within the education system, and schools are no longer only regarded as “organizations for learning” but “learning organizations” as well (p. 4). And to make schools as learning organizations, principals are seen as prominent instructional leaders of change and continuous learning at schools (Fullan, March 18-19, 2002, p.17).

The results of a study aimed to find out the learning organization capacities of the elementary schools in Turkey, revealed unsatisfactory results especially for the dimension of maintaining continuous learning (Celep, 2004, pp. 557-575). In Çetin’s (2004) study related to the perceptions of the teachers about the attitudes of the primary and secondary school principals towards knowledge management, it was found that there were no knowledge resource centres, no well-catalogued libraries, no groups responsible for the knowledge management, and no knowledge maps at the schools.

However, there are some practices which can be seen influential in promoting the development of the usage of new technological hardware and software at schools with the support of Ministry of National Education (MNE). A project entitled “Support for Computerized Education” has been launched in the cooperation with MNE and TUKSA (Turkish Knowledge Services Association) for improving the capacity of the schools in IT technology (memurlar.net, 2004). In addition, in scope of the MNE projects, “Intel Education for Future Teacher Program”, aimed to increase the quality in education, to provide the students with IT facilities, to help the teachers integrate this technology into classroom environments and to make it possible for students to use IT. In relation of this project, thousands teachers have been trained. The aim of MNE is to provide all school with the internet technology. It is stated that at the end of 2008, approximately 38.000 schools will have had broadband internet access (MNE, 2008).

To achieve efficiency in the educational institutions, it is stated that a system-wide change is needed. The most important problem of Turkish educational system is the renewal problem and it is emphasized that to meet the current needs and expectations new managerial strategies ought to be specified (Erdoğan, 2003, s. 261; Çetin, 2004, s. 16; Özdemir, 2000, s. 1).

1.2. The goal of the research

The main goal of this research is, based on the views of teachers and principals, to find out how competent the principals are in implementing knowledge management strategies at their schools with regard to gender variable; and in the light of the obtained results, to make recommendations for implementing knowledge management strategies more efficiently. In the frame of this main goal, the responses to the questions below have been sought.

Do the school principals create a school environment in which

- an active knowledge management is applied?
- a knowledge team is formed?
- a knowledge base is established?
- a knowledge mapping is provided?
- benchmarking is done?
- a knowledge network is existed?
2. Knowledge management and organizational reform

According to some researchers, information technology (IT) is a key for knowledge management and plays an important role in creating and supporting the required knowledge capacity in the managements (Keat Goh & Yahya 2000, s.340).

Knowledge management has been defined in variously in the literature. While it has sometimes been defined as “a systematic process to obtain and transfer knowledge for usage of people”, at other times it has been defined as “seeking ways to understand what knowledge treasures are and how they are benefited from”. The point highlighted in these definitions is making use of the tacit knowledge obtained by individual expertise for the benefit of organization by sharing it (OSD, 2002).

Today’s organizations and especially business sector demonstrate themselves with continuous and radical changes. In such a dynamic environment educational organizations have to equip all their members as well as their students with up-to-date knowledge and skills for enhancing their learning capacity. Individual knowledge is transformed into organizational knowledge by sharing and developing it. The effective application of this knowledge paves the way for generating organizational intelligent. The non-profit educational organizations do not seem to be interested in the issue of knowledge management. Whereas, these organizations can enhance their performance by putting the effective knowledge management strategies into practice. However, for achieving this, new approaches and attitudes are required (Friesh, 2004, p.2).

Pioneering the renewal of the society, educational organizations have to keep the balance between the application and the generation of knowledge by taking into account the needs of both the organizations and the individuals (Valdez, 2004, p. 6). The pace of developments urge organizations to generate knowledge within the organization instead of transferring it from somewhere else. With the acknowledgement of the knowledge as a strategic power after 1980s, the administration of the organizations grew much more concerned with the systems and the tools proved to be effectual on management of the knowledge.

Drucker (1993, s. 50) states that knowledge is the primary source for both individuals and society and lists the basic reasons that make it so crucial:

- Increasing competition in markets and more revolutionary approaches
- The current industries which provide welfare, are mostly knowledge intensive organizations
- Loss of knowledge due to job leaving and mobility increase of manpower
- The felt need for the management of the increasing complexity since the small and medium scale business enterprises have opportunities to reach the international resources
- The evidence of knowledge loss as a result of some changes in the strategic areas
- New developments in the markets where knowledge assets are traded
- Competition of the organizations in a knowledge-based axis and large scale business dependence on knowledge
- Inevitable demands for lifelong learning.

In our age, the top priority is given to generating knowledge, not the material production. It is inevitable for educational organizations to experience change and new conceptions about the effective use of knowledge. Educational organizations where the knowledge is produced, taught and implemented, have to be the indispensable institutions of the knowledge era (Can, 2002, p.2). Sharing of the knowledge is seen crucial in knowledge management process. A knowledge community comprises the society of organizations and its fundamental goal is sharing knowledge by integrating it with a task (Ogut, 2001, p. 20).

2.1. Knowledge management strategies in educational organizations

Knowledge management, as White (2002, p.1) quotes from Liebowitz and Meckman, is interested in obtaining the knowledge assets in the best way; establishing the security; and distribution, coordination, storing and sharing the knowledge in order to achieve sustainable competition, and especially to achieve an intensive joint effort with the intellectual capital assets. And the strategy can be defined as a master plan to spread the inherent competences and resources in order to achieve all the goals of the organization. From the knowledge management point of view,
strategy is the determination of the knowledge policy in the short and long term (Celep and Cetin, 2003, p.47). According to Barutcugil (2002, p.101), strategy means the main paths leading to the accomplishment of a goal.

The Knowledge Management Strategy, a term which was first used by Dr. Karl Wiig in the management literature in 1986, is a conscious practice aimed at transforming the knowledge into action to enhance the organizational performance (Ozgener, 2004, p.3). The knowledge management approach as a developing initiative system, helps the management to be influential emphasizing strategic planning, decision making, recycling, utilizing, and problem solving (Kuswara, 2001, p.1). It is pointed out that it is compulsory to take into account the extent of the covert and overt knowledge of the organization while determining the strategies to be followed. Overt knowledge consists of the things that can be mentioned and be encoded and put into words as language (Barker, 2001, p. 201). Covert or tacit knowledge is personal knowledge that a person acquire it during the organizational experiences under certain circumstances (Kuhlen, 2003, p. 9). Nonaka and Takeuchi consider organizational knowledge production as a mutual interaction between the covert and overt knowledge (Allee, 1997, p. 46).

Ozgener (2004, p. 4) who assembled some practices related to knowledge management in organizations mentions the following knowledge management strategies:

Active Knowledge Management: Knowledge must be accessible; new knowledge must be generated; and a learning culture must be established.

Formation of a Knowledge Team: A well-formed knowledge team contributes considerably to the organization's culture of production. Communication experts, human resources experts and network experts along with knowledge managers should take place in this team (Barutçugil, 2004; Capar, 2003; Celep, 2004; Ozgener, 2004; et al.).

Formation of a Knowledge Database: Globalized organizations have aimed to increase their efficiency in management and production by benefiting from knowledge technologies most effectively. (Ozgener, 2004, p. 4).

Knowledge Mapping: A knowledge map is needed for getting the useful knowledge and describing where to find it. Knowledge maps are the first step of the activities to be achieved periodically as a part of the implementation of the knowledge management strategies (Wiig, 2000, p. 24).

Benchmarking: It refers to the modelling of the best practices. By means of benchmarking, the best practices can be monitored both inside and the outside of the organization. It should aim at learning lessons from the works of others, not simply imitating them (Nickols, 2000, p. 5).

Formation of a Knowledge Network: The organizations of today are required to be network designers and implementers to some extent to be able to survive in the global competitive environment. A knowledge network which transcends the boundaries of the organization is needed to make progress in order to cooperate and adapt themselves to the changes of technology and environment (Ogut, 2001, p. 98).

Formation of a Knowledge Centre: The establishment of knowledge centres is one of the most important features of the managements. Beside the libraries, internet technology play an important role for accessing to required knowledge and for interacting of the individuals both inside and outside of the school (MNE 2005; Ozgener 2004; et al.).

Designation of an Executive Responsible for Knowledge Implementation: Large scale organizations usually have a full-time knowledge executive for the units and companies performing critical tasks (OSD, 2002).

2. Methodology

This research is a descriptive study in order to obtain the views of the educators and managers at schools related to the competency of the school principals in implementing knowledge management strategies. The space of the study consists of the teachers and the principals working at the primary schools and high schools located in the city of Tunceli, a city in the eastern part of Turkey, and its provinces. The sample consists of the teachers and principals working at high schools and in five randomly chosen primary schools in the city centre.

The theoretical frame of the study was formed by reviewing the literature. The questionnaire was developed by the researchers themselves including eight dimensions such as active knowledge management, knowledge team, knowledge base, knowledge mapping, benchmarking, knowledge network, knowledge centre, assigning a responsible manager. The factor analysis of the instrument was done beforehand, and the Cronbah Alpha value of the instrument was found as .94; and KMO was found as .86. The questionnaire includes totally 38 items each of which indicates five scales sequencing such as always, generally, occasionally, rarely, and never. These scales were given points from 5 to 1 for the items which have affirmative connotations, and from 1 to 5 for those which have negative connotations. According to the independent variable of gender, the gathered data were analyzed statistically. T test was computed to find out whether there were significant differences between the views of the
subjects. Considering the mean values and the item scales, the responses of the subjects were interpreted forming five levels such as $\bar{X} \geq 4.20$ always”, “$4.19 \geq \bar{X} \geq 3.40$ generally” “$3.39 \geq \bar{X} \geq 2.60$ occasionally”, “$2.59 \geq \bar{X} \geq 1.80$ rarely”, and “$1.79 \geq \bar{X}$ never”.

3. Findings

The data with respect to gender variable indicate that there is no significant difference between the views of male and female subjects in all dimensions related to knowledge management strategies (Table 1). In the “Active Knowledge Management” dimension, both male and female subjects have indicated their opinions at “generally” level. The dimensions of “Formation of a Knowledge Team”, “Formation of a Knowledge Database”, “Knowledge Mapping”, “Benchmarking”, “Formation of a Knowledge Network”, and “Designation of a Senior Executive Responsible for Knowledge Implementation” were indicated at “occasionally” level. And the dimension of “Formation of a Knowledge Centre” was replied at “rarely” level by both of the subjects. It can be said that, except the dimension of active knowledge management, all the other dimensions are not realized efficiently since they have realized at “occasionally” and “rarely” levels.

<table>
<thead>
<tr>
<th>Dimensions</th>
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<th>$\bar{X}$</th>
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4. Discussion

The fact that all the answers of the subjects indicate “rarely” for the dimension of “formation of a knowledge centre”; and the level of “occasionally” for all the other dimensions except “active knowledge management”, indicate some problematic situations. These results point out some deficiencies in almost all the dimensions related to knowledge management strategies. In another research done by Celep (2004) unsatisfactory results were obtained related to continuous learning. And the results of another research carried out in this field produced similar results. The teachers in that research stated that they had no knowledge resource centres enabling them to access the knowledge when they needed (Cetin, 2004).
5. Conclusions and Recommendations

According to the gender independent variable, related to the realizations of the determined dimensions in regard with knowledge management strategies, “never” and “always” levels haven’t been pointed out. This situation can be considered as an indicator of the absence of effectiveness and ineffectiveness at highest levels.

It can be seen that the male and female subjects have expressed their opinions at the same levels for all dimensions without any significant difference. In other words, both subject groups have expressed their views at the level of “generally” for “active knowledge management” dimension; at the level of “rarely” in the dimension of “formation of a knowledge centre”; and at the level of “occasionally” for all the other dimensions. This situation implies that there is no gender discrimination in the educational organizations related to knowledge management strategies. On the other hand, the realization of most of the dimensions at the level of “occasionally”, proves that knowledge management strategies have not been practiced effectively. Especially, the realization of “formation of a knowledge centre” dimension at “rarely” level, indicates that there is ineffectiveness in capturing, sharing and utilizing the knowledge in schools.

For effective knowledge management realization, educational organizations, at the first hand, should enhance an organizational culture of learning. The school principal plays a critical role in maintaining such a culture. Responsible, accountable, caring, and collaborative attitudes and behaviours should me dominant in all organizational processes. Good practices in knowledge management strategies should be monitored, and changes and new developments should be adjusted.

In the light of the obtained results in this research, the following recommendations can also be made:

- School principals should be more knowledgeable about knowledge management strategies and be enthusiastic about making use of them by constituting a school community, together with inside and outside clients.
- In order to improve the knowledge management strategies and to make use of them effectively at schools, the managers of the schools have to be trained so as to be equipped with the effective leadership and knowledge management skills.
- A step by step process such as formation of an knowledge team, a database, knowledge network etc. should be adopted to progress efficiently in each strategic dimension. This situation may require having adequate and constant financial resources and continuation of high quality training activities. Since the governmental supports are limited, school principals should seek the way of providing supports together with other social units such as municipalities, non-profit institutions, volunteer groups, etc. through school wide projects.
- A well-formed knowledge team may contribute to the productiveness and success of the school. A knowledge manager at school should constitute a team composed of enthusiastic teachers who have adequate amount of knowledge and skills on the knowledge technologies. Such a team can offer guidance to the management, other teachers, students and the parents related to information technologies and knowledge issues.
- Knowledge technologies to be installed at schools during the “establishment of knowledge database” must be selected carefully and be used effectively so as to contribute to the effectiveness of the school. Because this type of technology renews itself very rapidly, all school members must be provided with the opportunity of maximum utilization of this type of technology and be encouraged accordingly.
- The tacit knowledge which is described as the decoded individual knowledge is of utmost importance with respect to the development of the knowledge since it is acquired as a result of application and experience in the long run. For this reason, a school climate in which inter-personnel relationships should be appreciated and sharing of the experiences must be encouraged. School management can keep the relationships alive by organizing some special occasions inside and outside the school. This type of activities will create a more intimate atmosphere and promote reassuring attitudes and behaviours. Beside that, a school weekly newspaper or newsletter may be issued and a website may be developed to give the opportunity to the school members to share their experiences and insights easily in an environment that enhance mutual interaction.
- For a close pursuit of the scientific and technological developments, quality in-service training courses should be arranged and plans has to be made for the effective utilization of the innovations by the principals and the teachers. Teachers should take the utmost advantage of the knowledge technologies in their in-class activities. This promotes a more student-cantered classes; monitoring of the student development; and student awareness of the latest results about the lesson and therefore new and innovative knowledge is shared in an interactive environment.
21st century entails that educational organizations are not only the end-users of the knowledge, but also, the producers and the developers of it. It is an inevitable obligation for educational organizations to accomplish their objectives by merging with the surroundings of the school with the philosophy of learning to learn and constant interest in research and development.

References


