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Communication in knowledge management practices: a survey from Turkey

Abstract

The diffusion and usage of ICT have caused new applications related to knowledge activities in organizations in last decades. Knowledge management (KM), one of them, has been developed based on both computer-based technologies and management level concerns such as management information systems, intellectual capital, etc. This study aims to define importance of communication and to reveal communication tools in KM processes. In data collection phase, the inquiry was sent to 9 companies and 103 managers/employees from different levels retrieved. Findings show that communication is important dimension of knowledge management as well as technology, leadership, culture and it is mostly used for explicit knowledge sharing.

Keywords: knowledge management, communication, Turkey.

JEL Classification: D83.

Introduction

Since ancient times “Knowledge” is considered around basic and universal phenomena such as philosophy and religion. Knowledge appeared because of the human beings’ needs; knowing, shaping, classifying and exposing in definite forms of their surroundings, nature and universe. Many philosophers emphasized the importance of knowledge since the time of Aristotle till today as well. Plato first defined knowledge as ‘justified true belief’, and this concept has been debated over the centuries by Aristotle, Descartes, Kant, Polanyi and others. So, knowledge is needed to be described again and its meaning is modified for the requirement of the present in different periods.

In today environment, knowledge is the most important concept that creates added values for organizations. People, organizations and nations who use the knowledge strategically get an advantage against their competitors. In recent years, related to knowledge, knowledge management approach was developed and widely used by organizations. This approach, like information philosophy, has been influenced by a variety of disciplines, including: philosophy, cognitive science, social science, management science, information science, knowledge engineering, artificial intelligence and economics. It simply means acquiring, creating, storing, and sharing of knowledge within an organization between individuals and groups. So, knowledge management, particularly knowledge creating and sharing activities, mostly depend on interaction and communication between individuals and groups. But, although many cases concerned with knowledge management are analyzed, not only in Turkish literature but also in international literature, communicative aspects of KM have not been discussed enough. So, this gap in existing literature forced us to do this study. The aim of the study is to emphasize communicative aspects of KM and to reveal communication and its tools in KM ap-

plications. The survey was conducted and based on data from survey, some statistical analyses were done by using SPSS 15.0.

1. Literature review

Knowledge management has been widely studied in management literature. Although many studies have focused on this emerging discipline and discussed many different dimensions of this concept, there is still no one universally accepted definition for ‘knowledge management’ (Tsui, 2000). Most definitions, however, share the perspective that knowledge management is concerned with the collection and dissemination of knowledge to the benefit of an organization and its individuals (Lueg, 2001). The American Productivity & Quality Center (APQC), a nonprofit education and research organization which fostered the creation of the Malcolm Baldrige National Quality Award, defines knowledge management as “the strategies and processes of identifying, capturing and leveraging knowledge” to enhance competitiveness (Manasco, 1996). Schultze and Leidner (2002) define KM as “the generation, representation, storage, transfer, transformation, application, embedding, and protection of organizational knowledge”. Also Alavi and Leidner (2001) propose a definition for knowledge management as “a dynamic and continuous set of processes and practices embedded in individuals, as well as in groups and physical structures where at any point in time in a given organization, individuals and groups may be involved in different aspects of knowledge management processes”. Chang and Lee (2007) emphasize the aim of the knowledge management and state that “KM is aimed to improve the share and exchange capabilities of organizational knowledge so as to compile and exert wisdoms with collective effort”. In another study, according to Wigg, the objectives of KM are: to make the enterprise act as intelligently as possible to secure its viability and overall success and to otherwise realize the best value of its knowledge assets (Wigg, 1997). The above studies all give implications which emphasize that KM, as a management practice, is very close

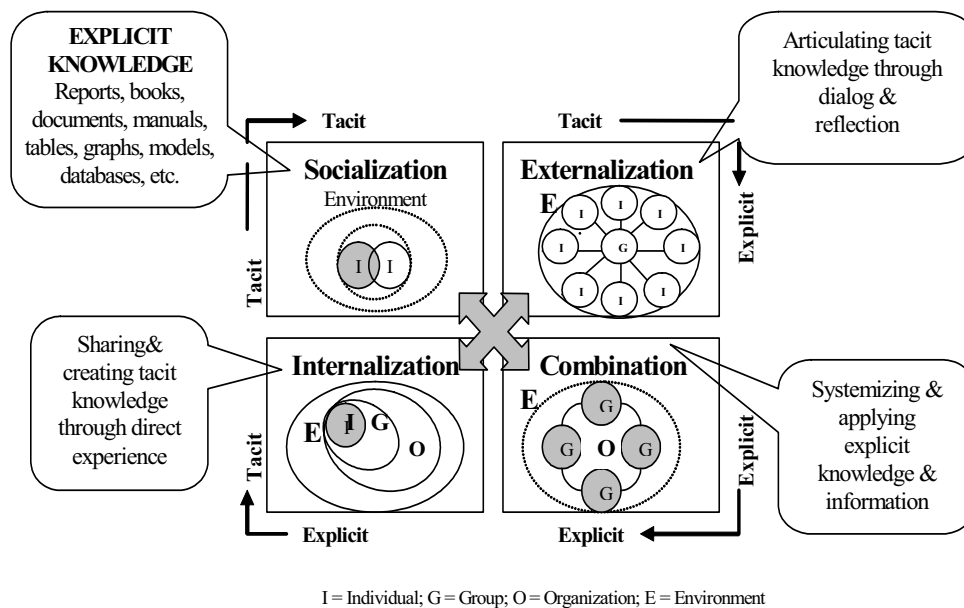
to communication between individuals and groups. Besides, related to knowledge management, the popular categorization of knowledge can be found in literature: tacit and explicit knowledge. The main difference between tacit and explicit knowledge is that it is more difficult and costly to access and transfer tacit knowledge than explicit one (Jasimuddin et al., 2005), and that tacit knowledge has some difficulty for imitating and diffusion of individual skills (Kogut and Zander, 1992). In contrast, explicit knowledge can be codified, documented and transmitted, making it easily and cheaply available to large numbers of people at little or no marginal cost (Jasimuddin et al., 2005). These two types of knowledge are very important when focusing on communication.

Furthermore, in literature of knowledge management, some studies dominantly mention communication technologies while others pay less attention to communication as a specific dimension of KM activities in terms of knowledge management and communication relationship. Mohr (2007) held a study about relationship between communication and KM, and according to results of this study, a wide variety of communication practices were used by the teams to share and create knowledge, with person-to-person discourse playing an important role at the initial stages of outsourcing engagements supporting the development of shared vocabularies by the participants. Besides, communication technologies played important enabling roles for these activities.

2. Communication and communication tools in knowledge creation and sharing process

Communication can be defined as the exchange of information, thoughts and emotions between individuals of groups (Boyacı, 1996). Organizations use communication process intensively in creating and transferring policies and strategies to the workers. Also, the process is used for transferring the orders or tasks to the employees. Communication is essential for all the groups, communities or organizations which come together for performing a main purpose. In all communities, facilities and in the establishment and implementations of corps an efficient and adequate communication is vital and urgent. The organizational communication provides this interaction between the workers (Vural, 1998). Consequently, if communication process is designed very well within an organization, then people can put forward ideas and encourage response in a way that all team members are included in the communication (Mohamed et al., 2006).

Related to knowledge creation and sharing, Nonaka and Takeuchi's (1995) model, the SECI process (socialization-externalization-combination-internalization), emphasizes that knowledge conversion is a 'social process between individuals and not confined within an individual'. Figure 1 provides details of the four modes of knowledge conversion commencing with socialization where individuals share experiences and mental models to refine knowledge. Tacit knowledge is converted into explicit knowledge through a process referred to as externalization by using some communication tools.



Source: Nonaka and Takeuchi (1995).

Fig. 1. Four modes of knowledge creation

As seen in Figure 1, at each stage of knowledge creation, communication tools and forms are com-

monly used between individuals and groups. From one mode to another mode in knowledge conversion,

some communication tools should be used by individuals and groups. Like knowledge creation, knowledge sharing also occupies a central position in the field of knowledge management (Klein, 2008). It has a very close link to communication in data, information and knowledge exchange process.

In this study, these communication tools are examined in three groups as verbal, written and electronic communication tools. Verbal communication is the mostly used tool in the organizational communication (Vural, 1998). The recipient can not only hear the message but also observe the aims, emotions and ideas of the sender from the motions of his face and body (Kutanis, 2003). A language is required for direct or indirect verbal communication (Eroğlu, 2004). Verbal communication tools provide the flowing of the verbal information so as to inform the workers about any subject. The most common samples for verbal communication are: conferences, seminars, face-to-face/telephone contacts and meetings.

On the other hand, written communication is also frequently used in the organizations. Especially in the growth process, organizations apply written communication for widening policies and standards. Also, in bureaucratic organizations orders and announcements are written usually. Top management orders, directions, policies and strategies are forwarded to the lower levels with up to down communication by internal correspondences. Similarly, the lower levels forward the facility reports and documents to top management by down to up communication.

The final group, electronic communication tools, is mostly related to computer and IT-based communication. Technology is mostly the obvious solution to assist communication (Mohamed et al., 2006). These

tools have common characteristics and their development process is based on developments of computer technologies. The most common and oldest one of these tools is electronic mail, e-mail. E-mail and some other electronic message tools are widely used between employees in the organizations (Smith & Rupp, 2002). They are used not only for sharing the knowledge between departments by employees but also used for sharing the company policies, instructions and directions by the management. Groupware software is also one of the electronic communication tools which can be used in knowledge management processes. These are computer based applications which let people work synchronously (chat, video conference, messaging, etc.) or nonsynchronously (e-mail, forums, discuss groups, etc.) (Bellaver & Lusa, 2002).

Based on the arguments about importance of communication in KM practices above, the model about the role of communication for KM practices is proposed in Figure 2. In every specific mode of knowledge creation model of Nonaka and Takeuchi (1995), verbal, written and electronic communication tools are used in common way. While individuals and groups perform knowledge flow within organization, all types of communication are very crucial. For example, in externalization mode, from tacit to explicit knowledge, essentially verbal communication should be used. Similarly, in socialization mode, from tacit to tacit knowledge, generally face-to-face verbal communication is preferred. Consequently, communication is vital in KM process, different types of communication could be used both for knowledge creation and knowledge sharing.

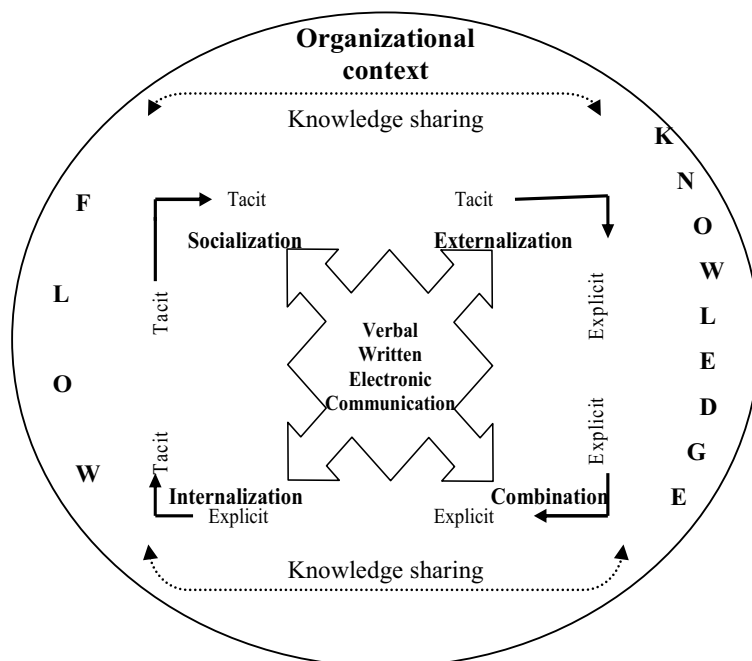


Fig. 2. The model for importance of communication in knowledge creation and sharing

Based on the literature and arguments above, three basic hypotheses of the study are listed below:

H1: Communication has serious importance for KM as well as technology, culture and leadership.

H2: Communication is too important particularly to reveal tacit knowledge.

H3: Managers accept the importance of communication for KM activities.

3. Research methodology

The firms which employed knowledge management practices and existed in Istanbul, Turkey, were the subject of the survey. Then, 13 firms were determined as a population which has KM practices based on the investigation of covers newspapers, magazines and academic articles; also the telephone interview was done with the managers of these firms to confirm that all they have KM practices. They all had confirmation and electronic questionnaire was sent to all firms. Finally, 103 employees from different levels of 9 firms (3 production and 6 service companies) participated in the survey.

The questionnaire includes three parts. The first part of the survey contain the demographic questions, namely age, gender, educational status, name of the company, the department, tasks and work period. In the second part, it is aimed to measure the variables such as technology, organizational structure, leadership, culture and communication in organizational knowledge sharing. Also, it is aimed to determine the role of communication in creating/sharing the tacit knowledge; sharing the explicit knowledge; and organizational learning success. Besides, communication tools usage (internet, intranet, database management, groupware, collaboration platforms, datamining, knowledge maps, video conferences,

electronic forums, electronic file sharing, e-mail, face to face meetings) is revealed. In the third part, it is aimed to determine the knowledge management and knowledge management process. Additionally, it is aimed to define participants' perceptions about knowledge management and communication relationship as well.

4. Demographic characteristics

In Table 2, demographic characteristics are shown.

Table 2. Demographic characteristics

Parameter	Frequency	Percentage	Cumulative percentage
Age groups			
<30	34	33,0	33,0
30-40	43	41,7	74,8
>40	26	25,2	100,0
Gender			
Female	38	36,9	36,9
Male	65	63,1	100,0
Work period			
1-2 years	24	23,3	23,3
3-4 years	23	22,3	45,6
5-10 years	33	32,0	77,7
More than 10 years	23	22,3	100,0
Educational status			
High school	1	1,0	1,0
Vocational school	2	1,9	2,9
Bachelor degree	59	57,3	60,2
M.A.	39	37,9	98,1
Ph.D.	2	1,9	100,0
Faculty			
Education	2	1,9	1,9
Science	8	7,8	9,7
Economics and management	29	28,2	37,9
Engineering	51	49,5	88,4
Other	13	12,6	100,0

5. Descriptive findings

Table 3. Descriptive findings

Important dimensions of KM in knowledge sharing	N	Min.	Max.	Mean average	Standard deviation
Technology	103	3	5	4,61	,614
Communication	103	1	5	4,49	,752
Organizational structure	103	2	5	4,13	,836
Leadership	103	1	5	4,08	,936
Culture	103	1	5	4,07	,963
The aim of usage of communication in KM					
Explicit knowledge sharing	103	0	5	4,33	,890
Tacit knowledge sharing	103	0	5	3,88	1,069
Organizational learning success	103	1	5	3,77	1,077
Revealing the tacit knowledge	103	0	5	3,65	1,169
Communication tools					
E-mail	103	1	5	4,83	,544
Internet applications	103	1	5	4,55	,849
Face-to-face meetings	103	0	5	4,43	,870

Table 3 (cont.). Descriptive findings

Electronic file sharing	103	0	5	4,38	,981
Intranet	103	0	5	4,25	1,289
Database management	103	1	5	3,99	1,052
Collaboration platforms	103	0	5	3,29	1,466
Electronic forums	103	0	5	2,97	1,530
Datamining	103	0	5	2,71	1,532
Knowledge maps	103	0	5	2,67	1,549
Groupware (Lotus Notus vb.)	103	0	5	2,54	2,033
Video conferencing	103	0	5	2,50	1,632

The results about important dimensions of knowledge management section of Table 3 show that these dimensions are prioritized as follows: technology, communication, organizational structure, leadership and culture. Although the importance of communication is always mentioned in knowledge management literature, it is not placed as a basic component in many studies. However, when we place communication as one of basic components in knowledge management process, it is accepted as the secondary most important component by the participants. This is one of the important findings of this study.

Additionally, it is generally seen that, communication has a priority use in explicit knowledge sharing and has a secondary use in tacit knowledge sharing. Also, the role of communication in revealing the tacit knowledge is accepted. The conspicuous point in this table is the result which shows that communication is much more important in sharing explicit knowledge than others.

Participants clarified that e-mail, internet applications, intranet, electronic document sharing and

face-to-face meetings are mostly used communication tools in knowledge management process. Also, it can be seen that some of the communication tools which had been produced by knowledge management process itself (knowledge maps, datamining, groupware, electronic forums, etc.) are not still used widely. So, it can be determined that, firms do not improve or use a knowledge background, parallel to their knowledge management strategies.

Table 3 shows findings about knowledge management applications and includes the expressions about how the participants are susceptible to and ready for the knowledge management process, banded to their firms. In measuring the tendency of the participants, many participants emphasize that firms have both knowledge management practice and knowledge management strategy. Also, it can be seen that, although the firms are inadequate in tool using in knowledge management process, they are intellectually susceptible to the knowledge management process and the employees accept the process as a value.

Table 4. Knowledge management processes in the organizations

Knowledge management process perceptions in the organization	N	Mean average	Standard deviation
The knowledge assets of the organization are the most important source for a long-term success.	103	4,53	,669
Existing technological background is adequate for knowledge management process in our organization.	103	4,48	,726
Without ICT, knowledge management process can not be performed.	103	4,33	,879
It is important to see tangible results of knowledge management process.	103	4,32	,807
Knowledge workers (employees, managers, etc.) contribute the most adding to organizational success.	103	4,24	,868
The vocational training and investment facilities are continuous in our organization.	103	4,15	,964
All the concerned employees can reach the existing explicit knowledge in the organization.	103	4,09	1,104
Our organization has a peculiar knowledge management process.	103	4,08	1,100
Our organization culture supports our knowledge management process.	103	4,00	1,066
There is an effort for sharing the knowledge in the organization.	103	4,02	1,129
Our organization has a knowledge management strategy.	103	3,90	1,241
I observe a management support for debouching knowledge management process.	103	3,83	1,283
The literature of knowledge management is shared and can be used by all concerned employees.	103	3,79	1,072
There are formal tasks for knowledge management in our organization.	103	3,65	1,073
The measurements of knowledge management process is being done in our organization.	103	3,45	1,258
Perception of the role of communication in the knowledge management process in the organization			
Communication has a big importance in knowledge management concept.	103	4,62	,731
Electronic communication assumes an important role in sharing the recorded explicit knowledge.	103	4,47	,683
The existing knowledge sources in our organization become more efficient when used interactively in the combination of written/verbal/electronic communication.	103	4,40	,809

Table 4 (cont.). Knowledge management processes in the organizations

Communication plays an important role in acquiring the tacit knowledge, existing in the apprehensions of the employees.	103	4,39	,731
Creating a verbal communication between professional employees is important for knowledge creation.	103	4,36	,873
All sorts of communication between the professional employees are supported and encouraged in our organization.	103	3,86	1,029
Verbal communication spaces are being designed/used for employees in our organization.	103	3,74	1,102
Electronic communication is more important than verbal communication in sharing the knowledge assets.	103	3,32	1,443
The routine written communication is essential for knowledge management.	103	3,30	1,514
It is also possible to have success without communication technologies in knowledge management.	103	1,96	1,686

Findings also indicate that participants accept that there is technological background for knowledge management process in their firms. Although the participants show high tendency for the importance of evaluating the results, they do not display clear tendency for the evaluating the implementations in their company. This result lays out that, the firms under study are not measuring the results of knowledge management processes as it is required yet.

Besides, according to the results, most of employees agree that communication plays an important role in particularly acquiring the tacit knowledge. This finding supports the main hypothesis of this study: "communication has serious importance for KM". Employees also clarify that knowledge can be used more effectively with the support of communication. They also state that, knowledge management process can not be realized without communication technology. These results confirm the importance of communication for knowledge management.

Conclusion

Knowledge management has got importance and widened through the organizations in recent years. This study focuses on the importance of the communication in knowledge management. Main stress on knowledge management and communication relation exists in definition of process. This process includes a transformation of the data, information and knowledge that exist in people's mind and organizational processes. Data, information and knowledge, objects

for the transformation, maintain this structure with communication processes in a dynamic system.

According to findings, it can be stated that Turkish firms are aware of the importance of knowledge management process and trying to form a knowledge management strategy, although the concept is quite new for developing economies. Also, participants specified that knowledge creates added value and they accept knowledge as an important source for the organizations. Another result is that employees' agreement on the importance of communication in knowledge management. They also state "communication plays an important role in revealing and diffusing internally the knowledge". Another important result of the survey is about the importance of the communication in revealing and sharing both the explicit and tacit knowledge. The tacit knowledge, existing in people's mind and processes, can be transformed into concepts by using communication. Besides, it is revealed that participants accept technology as most important dimension of KM and they also emphasize that organizational success can not be gained in knowledge management process without technology. This finding verifies that knowledge management stands on mostly technology.

Although the employees clarified that they have knowledge management practices, it is found that, the employees do not use electronic communication tools widely which are developed based on knowledge management. This finding shows that, knowledge management has not been broadened adequate yet with its specific applications in Turkey.

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