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A note on organizational learning and knowledge sharing in the context of communities of practice*

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Abstract: The knowledge management (KM) literature emphasizes the impact of human factors for successful implementation of KM within the organization. Isolated initiatives for promoting learning organization and team collaboration, without taking consideration of the knowledge sharing limitations and constraints can defeat further development of KM culture. As an effective instrument for knowledge sharing, communities of practice (CoP) are appearing to overcome these constraints and to foster human collaboration.

Keywords: knowledge sharing, learning organization, communities of practice, knowledge management

1. Introduction

During the emergence of the Knowledge management (KM) theory, the initial focus was mainly on technologies, information tools, KM methodologies and roadmaps. The main emphasis has now shifted to human factors, or human-centered KM, as it was realized that human beings are the primary source of tacit knowledge in organizations. Presently, the third generation of KM is in place according to the classification cited in [5], and the focus is put on people as unique holders of knowledge, and the exchanges between people. The knowledge networks and working groups are considered as support for collaboration, and ideas, people and projects are primary generators of new knowledge and innovations.

The main goal of this article is to summarize some of the recent views about knowledge management as an enabler of learning organization, prioritizing the human aspects, and putting the focus on knowledge sharing and

knowledge dissemination practices. In order to provide a deep understanding of the emergent practices, the characteristics of communities of practice (CoP) will be discussed in more details.

2. Organizational learning and knowledge sharing

The growing intensity and dynamism of competition has forced firms to focus their long-term strategies on resources and capabilities. Intellectual capital has emerged as one of the firm critical resources, and the ability to build and exploit intellectual capital has become their most strategically significant capability. Many theorists consider it as a combination of customer capital, organizational capital and human capital. Here, human capital serves as a collective term for an organization's core competences, the skills and knowledge that the enterprise draws on to create and innovate in order to remain competitive. Therefore, any attempt to exploit intellectual capital for competitive advantage must be based

on a sound understanding of an organization's current approach to acquiring, sharing and utilizing knowledge. As suggested in [11], knowledge management should begin with a focus on organizational learning, and by building and facilitating communities of practice.

2.1 Organizational learning

Organizational learning is a key dimension to KM, which involves a continuous assessment of organizational experience, including that of CoP, and converting that experience into knowledge and making it accessible to the organization as a whole. Two different kinds of organizational learning processes are identified: *learning how* (organizational members engaging in processes to transfer and improve existing skills or routines and learning) and *learning why* (organizational members diagnosing causality).

Organizational learning requires organizations to have "a shared memory" where individual employees' discoveries, inventions, and evaluations are embedded. Subsequently, under organizational or collective knowledge is understood knowledge in rules, procedures, strategies, activities, technologies, conditions, paradigms, or frames of references around which organizations are constructed and through which they operate [1].

Collective (team and organizational) learning requires skills for sharing information and knowledge, particularly implicit knowledge, assumptions and beliefs that are traditionally "beneath the surface". The main skills are: *communication* (especially across organizational boundaries), *listening and observing*, *mentoring and supporting colleagues*, *holistic perspective* (seeing the organization as a whole), *coping with challenge and uncertainty* [3]. Learning provides the opportunity to create and recreate, change one's external perception of the world and relationship with it, and extends individual ability to be creative. Further, there are two aspects to this: "adaptive learning," which is about survival; and "generative learning," which enhances one's ability to create [8].

Organizations, by their very nature as social systems, are the environments in which learning takes place. As such, the organization design

plays a critical role in creating an environment that fosters knowledge creation and the development of human capital.

2.2 Knowledge Sharing

Knowledge management is not about managing technology alone, but is about managing how human beings can *share their knowledge* effectively [6]. The 'real' information system is built upon organizational culture and interpersonal communication and contains rich and dynamic tacit knowledge, which, if it is harnessed and managed effectively, can give organizations competitive advantage. Sharing expertise requires building a culture of trust, and any organizational practice or action that destroys trust adversely affects the motivation to share information with others [1].

At the heart of knowledge sharing lie two types of individuals: *knowledge seekers*—those who are looking for knowledge, and *knowledge sources*—those who either have the knowledge the seeker needs or who can point the seeker to another knowledge source. Effective knowledge sharing occurs when appropriate connections are built between these parties. However, there are four important barriers to knowledge sharing that CoP help to overcome [4]:

- *Awareness*: Making seekers and sources aware of their respective knowledge
- *Access*: Providing the time and space for seekers and sources to connect with one another
- *Application*: Ensuring that the knowledge seeker and source have a common content and understanding necessary to share their insights
- *Perception*: Creating an atmosphere where knowledge sharing behaviors between seekers and sources are respected and valued

Expertise sharing focuses on the human components – cognitive, social, cultural, and organizational aspects of knowledge work – in addition to information storage and retrieval. Compared to traditional approaches, which emphasize the role of management in organizing knowledge exchange, this perspective focuses on self-organized activities of the organizations' members. In enabling sharing, organizations try to connect people to one another so as to bolster communication, learning, and organizational

knowledge. Expertise management includes communities of practice and knowledge communities, which attempt to increase communities', professions', and groups' overall expertise.

In [1] are considered the following three types of knowledge sharing within organizations:

- *Knowledge retrieval:* Knowledge sharing from the organization to the individual has the purpose of retrieving existing organizational knowledge.
- *Knowledge exchange:* Knowledge sharing from an individual to other individuals has the purpose of exchanging existing individual knowledge.
- *Knowledge creation:* Knowledge sharing among individuals has the purpose of generating new knowledge, resulting from new combinations of existing individual, shared, or organizational knowledge.

2.3 Barriers and limitations of knowledge sharing

Cultural factors are considered in [11] to essentially inhibit knowledge transfers. They include lack of trust, different cultures and vocabularies, lack of time and meeting places, lack of absorptive capacities in recipients, belief that knowledge is prerogative of particular groups, etc.

In [1] are considered deep-rooted cognitive and motivational limitations that interfere with people's ability to share and transfer their expertise:

- *Cognitive limitations* are related to the way experts store and process information, impeding them to share that expertise with others regardless of whether or not they are motivated to do so. The cognitive limitations faced by experts come partly from the way that they mentally represent the task, as expertise increases, mental representations become more abstract and simplified.
- *Motivational limitations* are related to the appraisal and reward systems of most companies, as well the internal competition between individuals, teams and units. Knowledge transfer requires resources of time and energy and the lack

of company understanding and policy disturb the process as personnel need to be compensated for the invested time in knowledge sharing and conversations.

Motivational barriers to sharing expertise are more easily addressed through changes in organizational practices. The motivational issues can be addressed by reducing competition between groups, allowing communities of practice to evolve, deemphasizing status hierarchies, and increasing incentives to share expertise with others.

3. Communities of Practice

As successful example of sharing and transferring knowledge practice will be presented the Communities of Practice. The definition of a community of practice is "a group of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in an area by interacting on an ongoing basis" [10]. These groups tend to interact regularly by meeting face-to-face or relying on technology to facilitate discussion and due to their members' desire to exchange knowledge.

3.1. The CoP concept and attributes

Although the term "Community of Practice" is new, the CoPs are not. The concept of a community of practice is an extension or a variation of the concept of special interest groups, clubs, medieval guilds, and even regions for certain industries [3]. In [11], for example, is considered a 'community of knowers' brought together by a common interests, including people who exchange knowledge and expertise by face-to-face communications, on the telephone, via e-mail or groupware, in 'talk rooms', etc.

CoPs are described as differing from traditional team-working approaches in that they are most likely to be cross-functional and multi-skilled, where functional position is irrelevant and the topic knowledge or interest is all that is necessary to join a CoP [7]. The diversity of a CoP's population may encourage creativity and problem solving, and linkages to external communities will also enhance their activities, as CoPs are the legitimate place for learning through

participation. They additionally provide an identity for the participator in terms of social position, knowledge attributes, and ownership.

Important for CoP attributes are [7]:

- *variety*—multi-skilling prevents boredom and monotony, and builds flexibility;
- *identity*—building an identity encourages a sense of collective responsibility and self-regulation of variances;
- *significance*—motivation to care about the outcome of the work process increases cooperation when the outcome is imbued with a sense of significance;
- *autonomy*—increases the ownership and responsibility of members to the process and also enables the group to make decisions under changing environmental conditions; the multi-skill also enables them to flex attributes and change working practices to fit with the environmental changes;
- *feedback*—understanding and knowing the results of work processes enables groups to monitor their progress against targets and improve their performance.

Finally, four main *types of communities* could be considered [9]:

- innovation communities
- helping communities
- best-practice communities - attaining, validating and disseminating knowledge;
- knowledge-stewarding - connecting people and collecting information and knowledge across the organisation.

All CoPs contain people undertaking *different roles* within them: community sponsor, leader, and members [2]. The sponsor is a person with vision, assisting in the set-up and maintenance of the community and providing not just moral support but also financial and public relations, while the leader is the person with the passion and expertise in the area, possessing a number of leadership and communication skills.

3.2. CoP characteristics derived from practice

Several different cases related to CoP building and managing are presented in [4]. The issue of viable CoP is discussed on bases of case

study on experience with successful CoPs at Siemens AG. Trying to find out what creates and sustains viability in CoP, the authors introduce five factors for the viability of a CoP:

- *Organizing and Facilitating Community Activities*

The CoP provide knowledge to their members. The “management activities” needed for this to take place are to organize and facilitate CoP activities, both using face-to-face meetings, and a common IT-platform.

- *Connecting People and their Knowledge*

The coordination of the knowledge needs and haves of individuals and groups in the CoP takes place as people and their knowledge are connected. Even though all of the CoP members contribute to this task, the moderator plays a special role in facilitating this process.

- *Finding a Common Focus*

The third factor for a viable system is the overall optimization of activities. The content and extent of current activities are directed by the common focus of the CoP. Finding a common focus gives overall direction for the community - it is when the community decides on what they actually want to do and it determines meeting agendas or frequency of activity.

- *Interacting with the Community Environment*

CoPs that are embedded in an organizational context have an internal and an external organizational environment to monitor and interact with. They should consider also the corresponding future changes of this environment.

- *Living the Community Values*

Values and rules set the normative framework for a viable CoP. To them belong trust and openness, a balance between giving contributions and taking solutions from others. Some viable CoPs set explicit rules which can refer to the communication within the community or can affect the behavior of its members.

Finally, successful CoP should exhibit the following 10 characteristics [9]:

- a compelling, clear business value proposition;
- a dedicated skilled leader;

- a coherent, comprehensive knowledge map for the CoP's core content;
- an outlined, easy-to-follow knowledge sharing process;
- an appropriate technology medium that facilitates knowledge exchange, retrieval and collaboration;
- communication and training plans for those outside of the CoP;
- an updated, dynamic roster of CoP members;
- several key metrics of success to show business results;
- a recognition plan for participants;
- an agenda of topics to cover for the first months of existence.

4. Conclusions

The knowledge management theoretical and practical literature review emphasize on organizational learning and knowledge sharing as major factors for success of the KM initiatives within the organization. As the focus is put on human factors, the main limitations for effective collaboration are related to the human nature and lack of adequate motivation policy. In this context Communities of practice are appearing as an instrument, overcoming the behavior constraints and manifesting the emergence of new organizational culture.

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