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SOCIAL KNOWLEDGE NETWORK AS AN ENABLING FACTOR FOR ORGANIZATIONAL LEARNING

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ABSTRACT

Organizational learning is a set of processes by which organizations improve their performance. Learning processes furthermore require that the organization anticipates and attends to feedback, creates knowledge from that feedback, and takes action based on that knowledge. The relationships among people can be modeled as social knowledge networks in which network nodes represent people and network graph represent relationships for sharing opinions, experiences, insights, perceptions, and various media, including photos, videos, and music, with each other. Social knowledge networks play supportive role for collaborative knowledge management phases -creation, capture, codify, communicate, and capitalize knowledge.

Keywords: *Social Knowledge Network, Organizational Learning, Collaborative Knowledge Network.*

1. INTRODUCTION

Organizational learning is one of the most promising concepts of research in modern managerial literature. So far, it was proved that higher-level organizational learning contributes to organizational performance. Understanding the role of social network and organizational learning in fostering or inhibiting innovation becomes crucially important [21]. It is impossible to understand organization learning without going deeper into the understanding of learning and knowledge and it is blind to explain economic performance without bringing into the analysis of social relationships and organizational structures [25]. Knowledge creation, knowledge sharing and knowledge application which are crucial to technological innovation highly depend on social interaction in the circumstance of technological uncertainty and complexity. For organizations wishing to remain relevant and thrive, learning better and faster is critically important. However, organizational learning is neither possible nor sustainable without understanding what drives it. Now the time has come to open up the black box of social interaction through focus on how learning takes place in the real world. Social context and economic environment should be highly recognized when studying innovation and organizational learning. The objectives of this study are provided theoretical background, focusing on organizational learning and social network to clarify the relationship between social knowledge networking and organizational learning, and understanding the potential benefits of social network tools for encouraging collaboration among participants and supporting communities of practice finally affected on the organization learning. Also, organizations wishing to remain relevant and thrive, learning better and faster is critically important. However, organizational learning is neither possible nor sustainable without understanding what drives it, knowledge is a critical asset in every learning organization because learning is a product of knowledge and its source, a learning organization recognizes that the two are inextricably linked and manages them accordingly. The units of knowledge production are both the individual and the collective. Learning organizations understand that while knowledge is created in the minds of individuals, knowledge development thrives in a rich web of social contact among individuals, groups, and organizations. A learning organization provides creative opportunities for this knowledge to be developed and shared with others through interpersonal contact and access to documentation.

Another way to think about the role of information technology in organizational learning is as a way to connect people together to leverage their individual intellectual capital. A social network is a well-defined research area in organizational behavior,

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psychology, and communication. Social network research focuses on mathematical models of dynamic networks in which the nodes of the networks represent people and the links between them represent some kind of relationship i.e. friendship, advice, and supervisor/subordinate [43]. Each individual participates in a number of social networks simultaneously, and social networks are a critical resource in building teams and in transmitting and maintaining knowledge in an organization. Indeed, "knowledge networks" can be defined as a special case of social networks in which the links of the network represent shared or related knowledge. If social networks represent "who knows who", then knowledge networks represent "who knows what" [10].

2. SOCIAL KNOWLEDGE NETWORK

A network is generally defined as a specific type of relation linking a defined set of persons, objects, or events [19]. The definition does not include only persons but also objects and events, or anything that can be included in a relationship. Social networks on the other hand are represented by a set of persons and relationships between them. The social knowledge network approach views organizations in society as a system of objects -i.e. people, groups, and organizations- joined by variety of relationships. Not all pairs of objects are directly joined, and some are joined by multiple relationships. Network knowledge analysis is concerned with the structure and patterning of these relationships and seeks to identify both their causes and consequence social networks, whether supported by relationships established through computer environments or not, serve as a base for communities of practice [5];[22]. Communities of practice in turn, serve as a base for knowledge management [5]. [41] Stated that there is also a concept called computer supported social networks, which only includes relationships supported through computer environments, e.g., chat, news, and e-mail [44]. Knowledge network structure is important in determining the outcome of many important social and economic relationships. For example, networks play a fundamental role in determining how information is exchanged. Such information may be as simple as an invitation to a party, or as consequential as information about job opportunities [26]. The social knowledge networks serve as a base or ground for communities of practice. Poor social networks will most likely produce poor communities of practice. People need the infrastructure of social networks to establish communities of practice, which, in turn, will increase exchange of knowledge within the organization. Social knowledge networks are also important for the purpose of knowing who to ask in different situations. In many ways the ideas behind social networking sites are not new. It has been possible since the early days of the internet to do many of the things which social networking site users do now, such as creating personal web pages and communicating with others through interfaces such as chat rooms, internet forums, message boards, web communities and blogs.

Several sites combining functions of today's social networking sites appeared in the late 1990s. In worldwide terms many people see Friendster as the first to make a serious impact. It launched in 2002 before falling back relative to other sites in 2004 [4]. [6] Concluded that the results of a social knowledge network analysis might be used to:

- Identify the individuals, teams, and units who play central roles.
- Discern information breakdowns, bottlenecks, structural holes, as well as isolated individuals, teams, and units.
- Make out opportunities to accelerate knowledge flows across functional and organizational boundaries.
- Strengthen the efficiency and effectiveness of existing, formal communication channels.
- Raise awareness of and reflection on the importance of informal networks and ways to enhance their organizational performance.
- Leverage peer support.
- Improve innovation and learning.
- Refine strategies.

The defining feature of social knowledge network analysis is its focus on the structure of relationships, ranging from casual acquaintance to close bonds. Social knowledge network analysis assumes that relationships are important. It maps and measures formal and informal relationships to understand what facilitates or impedes the knowledge flows that bind interacting units, who knows whom, and who shares what information and knowledge with whom by what communication media -i.e. data and information, voice, or video communications-. Because these relationships are not usually readily discernible, social knowledge network analysis is somewhat akin to an organizational x-ray. Social knowledge network analysis is a method with increasing

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application in the social sciences and has been applied in areas as diverse as psychology, health, business organization, and electronic communications. More recently, interest has grown in analysis of leadership networks to sustain and strengthen their relationships within and across groups, organizations, and related systems [26].

3. ORGANIZATIONAL LEARNING

[12] Defined organizational learning is knowledge about the interrelationships between the organization's action and the environment. [15] Defined organizational learning as the process of improving actions through better knowledge and understanding. [23] explained out the organizational learning process is viewed as a cyclical one in which individual's actions lead to organizational interactions with the environment. Environmental responses are interpreted by individuals who learn by updating their beliefs about cause effect relationships. [14] Mentioned the organizational learning is a process of information acquisition, information interpretation and resulting behavioral and cognitive changes, which should in turn have impact on organizational performance. [39] Defined organizational learning as the development of new knowledge or insights that have the potential to influence behavior. [37] Extended organizational learning aims to generate, disseminate, and apply knowledge in an organization. It is crucial to manage organizational learning processes within these organizations in order to successfully compete. For this reason management need to understand how organizational learning processes take place. Sustained learning is an essential process of an organization's ability to be adaptive and flexible to survive and effectively compete. This is especially in turbulent and volatile business environments [42]. Due to these reasons organizational learning is important source of a company's sustainable competitive advantage [13].

[24] mentioned to the existence of four constructs which are integrally linked to the learning process acquisition of knowledge through external sources or internal development: distribution, through which knowledge is spread among all the members of the organization: interpretation, which allows individuals to share and incorporate of their knowledge, which are not common to all of them, gaining in such away shared understanding and coordinating decision taking, and finally organizational memory, which tries to stock knowledge four future use, either in organizational systems designed for this purpose or by means of rules, procedures and systems. [16] Stated that organizational learning demands a high degree of commitment at al levels of the organization, which entails a culture that bases its potential on the desire to improve, learn, and shared by all the members of the organization.

[38] Pointed out the manager must be willing to lose some of their power and, on the other hand, the individual must be able to take the risks and responsibilities that they are asked to and to share the failure or success of the project and of the enterprise. [29] Presented five factors for organizational learning: The factors are acquisition of knowledge, sharing of knowledge, constructing meaning, organizational memory, and retrieval of information. Also the learning process in firm will be very wide ranging one involving the obtaining of knowledge from existing organization, the combining of knowledge and generation of new uses for the resources. The successful organization is one that can assimilate new ideas and transfer these ideas into action faster than competitors. [27]; [45] Mentioned the management information system research has noted that organizational learning processes are increasingly important in identifying successful IT-based investments and creating IT enabled change. [40] Pointed out Total management involvement empowers employees in regard to IT related decisions. This sharing of knowledge may be the key to sustainable competitive advantage because it leads to more focused IT strategies. [17] Noted organizational competitiveness is dependent upon the use of organizational learning processes that can uncover dispersed knowledge capable of rendering superior organizational performance. [34] Considered strategic IT alignment is an organizational learning process that combines business and IT knowledge in order to support business objectives; it can positively affect organizational profitability by creating superior strategies that achieve a competitive advantage. Alignment also includes the set of explicit outcomes contained in the business plan and IT plan. Organizations cannot learn without continuous learning by its employees. Individual learning is not organizational learning until it is converted into organizational learning.

The conversion process can take place through individual and organizational memory [28]. The results of individual learning are captured in individuals' memory. And,

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individual learning becomes organizational learning only when individual memory becomes part of organizational memory [7]. In the last few years several theoretical models of organizational learning have been developed from the perspective of diverse disciplines. In the current organizational learning thinking, two contrasting perspectives for organizational learning collide. In the acquisition perspective, the mind is viewed as being a container, knowledge as a substance and learning as the transfer and addition of substance to mind, while the participation perspective derives from studies of learning in which no teaching was observed and understand learning as participation in communities of practice [22].

4. SOCIAL KNOWLEDGE NETWORKS AS A TOOL FOR ORGANIZATIONAL LEARNING

Organizational learning is a social event in which a group of people along with their shared resources and dynamic relationships assemble to make use of shared knowledge in order to enhance learning and create new knowledge. Organizational learning has been viewed as a process by which organizations as collectives learn through interaction with their environments [11]. Organizational learning addresses how organizations adapt to their environments, create new knowledge, build core competences, and then achieve competitive advantage. Social networks of organizational learning contribute significantly to the innovative capabilities of firms by exposing them to novel sources of ideas, enabling fast access to resources, and enhancing the transfer of knowledge [32]. The outcome of learning processes will depend on social relationships such as trust, authority and recognition.

Therefore, the broader societal and socio-economic context needs to be taken into account when analyzing the formation of network relationships [25]. Social network can provide diversified knowledge resources for organizational learning. Either intraorganizatonal or interorganizational relationships lead to various benefits relating to knowledge diffusion, knowledge sharing, access to specialized knowledge, and intra- and inter-organizational learning. Organizations with border networks make organization expose to more experiences, various competencies and added opportunities [2]. [44] Concluded that Computer Supported Social Networks (CSSN's) support a focus on information exchanges. People can easily post a question or comment and receive information in return. Broadcasting queries through CSSN's increases the chances of finding information quickly and alters the distribution patterns of information. It gives those working in small or distant sites better access to experienced, skilled people. Additionally, online information flows spill over unexpectedly through message forwarding, providing access to more people and new social circles, thus increasing the probability of finding those who can solve problems [20]. The social relationships supported by CSSN technology in conjunction with the affordances of that technology for continuing those relationships in certain ways collective constitute socio-technical capital: a resource that can be accumulated and whose availability allows people to create value for themselves or others [35].

Information technologies can facilitate organizational learning by making processes, artifacts, and knowledge more explicit and sharable. Information technologies can also facilitate the creation and maintenance of social networks. Computer networks are inherently social networks, linking people, organizations, and knowledge. They are social institutions that should not be studied in isolation but as integrated into everyday lives. The proliferation of computer networks has facilitated a de-emphasis on group solidarities at work and in the community and afforded a turn to networked societies that are loosely bounded and sparsely knit. The Internet increases people social capital, increasing contact with friends and relatives who live nearby and far away. New tools must be developed to help people navigate and knowledge in complex, fragmented, networked societies. Another way to think about the role of information technology in organizational learning is as a way to connect people together to leverage their individual social capital [1]. Interest in social networks has grown exponentially with the development and spread of online social network sites. Social network sites (SNSs) are web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system [4]. Social network sites are commonly viewed as part of the overall Web 2.0 revolution that aimed to enhance creativity, communications, secure information sharing, collaboration and functionality of the crowdsourcing. There are

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many ways to add social media tools to support a learning strategy. Organizations can add groups on public-facing sites such as Facebook, Twitter, and LinkedIn, and many are seeing tremendous participation here, much to the chagrin of management. Because these sites are one size- fits-all and not specifically designed for the organization, they provide an avenue for employees to meet and communicate with one another outside the workplace but don't necessarily support the overarching goal of involving them in the learning process. A social knowledge network is a well-defined research area in organizational behavior, psychology, and communication. Social network research focuses on mathematical models of dynamic networks in which the nodes of the networks represent people and the links between them represent some kind of relationship -i.e. friendship, advice, and supervisor/subordinate- [43]. Each individual participates in a number of social networks simultaneously, and social networks are a critical resource in building teams and in transmitting and maintaining knowledge in an organization. Knowledge networks can be defined as a special case of social networks in which the links of the network represent shared or related knowledge. If social networks represent "who knows who", then knowledge networks represent "who knows what" [10]. According to [31] especially communication and personal relations are crucial aspects in sustainability of cooperative networks. [36] Discussed the evolvement of inter-organizational partnerships as interplay between personal interaction and trust, and more formalized organizational arrangements. They have proposed that congruent cognitive and psychological sense-making and negotiation, as well as continuous interaction increase trust first between individual partners who act as representatives of their organizations and later contribute towards institutionalizing those relationships into more durable structures. Formal structures on the other hand may become less important for cooperation as the trust between partners increases. This indicates that social capital is essential for formation and sustainability of cooperation [9]. Social capital can be defined as networks of relations, through which trust, reciprocity and exchange of information become possible and thus facilitate collaboration by reducing the need for formal agreements and control. Obligations and expectations, information and social norms are all forms of social capital. [9]; [33] Considered social capital can institutionalize as societal status, and can in some cases be changeable to money, e.g. the position of organizations in ranking lists [3]. Inter-organizational collaboration enables the organizations to develop their absorptive capacity increase their skills to manage cooperation; it increases their awareness of new developments and possible further collaboration possibilities, as well as helps them to develop a reputation as a valuable partner [7].

5. COLLABORATIVE KNOWLEDGE NETWORK THE NEXT STAGE

[30] Suggested that since the term was coined, knowledge management has provided a common language set for multidisciplinary projects that support how people work access, create, communicate, and collaborative knowledge with systems and how organizations can leverage the knowledge for competitive advantage. The next stage of knowledge management is emergent from the properties and activities that are already in place: networked architectures, models for community development and collaboration from the application of complexity adaptive systems theory to knowledge and learning. [30] proposed three types of communities work together to form an ecosystem of interconnected communities, which called collaborative knowledge network or CKN: COIN (COllaborative innovation networks), CLN (collaborative learning networks), and CIN (collaborative interest networks).

Collaborative innovation networks (COINs) allow for building organizations that are more creative, productive, and efficient by applying principles of creative collaboration, knowledge sharing, and social networking. Sponsors and members of collaborative innovation networks often change their work and leadership styles to become more creative innovators, more efficient communicators and more dynamic. COINs can be leveraged to develop successful products in R&D, grow better customer relationships, establish better project management processes, and build high performing teams. COIN-enabled organizations demonstrate more efficient leadership, culture, structure and business processes. [30] Observed three steps processes of progress: (1) innovate, (2) collaborate, (3) and communicate.

Innovate

In this first phase, the truly creative action of coming up with a fundamentally new solution to a problem happens, people active in the innovate step are the deep thinkers which are ahead of their

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time, taking the creation of the web as an example, leaders in innovate phase were visionaries.

Collaborate

The second phase is crucial for the success of the innovation, in this phase the visionary idea is taken up by another group of visionaries, who excel not only in vision but also in collaborative skills. Those people form the nucleus of the COIN, joined by visionaries of the previous phase as experts, gurus or wizards, as far as they are still alive the members of the core group are masters of sharing, sharing not only the work but also the reward. Together they succeed in getting the innovation really to work, again taking the creation of the web as the example, this was the phase where developed the first web servers and browsers.

Communicate

When the innovation has achieved external recognition, driven by the tireless work of the COIN, the third phase begins; now the merits of the innovation are made obvious to the external world. This attracts new COIN members who besides the needed adventurous streak also possess a strong business gene; they act as communicators selling to the outside world on the advantages of the innovation. This is the cash-in phase where the innovations of the COIN can be converted into real coin, in the example of the web; this is the phase when the e-business boom took off. Collaborative innovation networks (COIN) forms the interaction of like-minded, self-motivated individuals who share the same vision. An innovative idea is pushed forward by charismatic leaders, who assemble a group of highly motivated collaborators. These people join not for immediate monetary reward, but because they share a common vision and want to be part of the innovation that "will change the world". These individuals typically bring a broad range of skills and expertise to the COIN and are not necessarily related in terms of the corporate hierarchy, as they work outside of the formal organization. [18] Summarized functional matrix between COIN, CLN, and CIN according to people, process, technology, and leadership. Imagined that COIN are the nucleus of a set of concentric communities, where each community type is included into the subsequent, larger community, the dissemination of new ideas is very similar to the ripple when a pebble drops into water. Innovations ripple from the innermost COIN circle to the next larger CLN circle, then to the CIN circle, until they reach the rest of the world. This whole ecosystem including COIN, CLN, and CIN is called a collaborative knowledge network (CKN).

6. CONCLUSION

In this paper, a collaborative environment is presented, aiming at providing social knowledge networks with interaction, knowledge sharing and interplay with organization learning process. One of the main success factors of organizational learning depends strongly on the degree of social knowledge network contribution reached in the accomplishment of their actions. On the other hand social knowledge network organizations depend heavily on voluntary work and using web 2.0 tools to improve the social collaboration such as blogs and wikis inside the enterprise, questions and answers in social networks.

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