World Academy of Science, Engineering and Technology
International Journal of Economics and Management Engineering
Vol:6, No:8, 2012

Knowledge Sharing: A Survey, Assessment and Directions for Future Research: Individual Behavior Perspective

Feryal Aslani, Mohammad Mousakhani, Alireza Aslani

Abstract**—**One of the most important areas of knowledge management studies is knowledge sharing. Measured in terms of number of scientific articles and organization's applications, knowledge sharing stands as an example of success in the field. This paper reviews the related papers in the context of the underlying individual behavioral variables to providea direction framework for future research and writing.

Keywords**—**future research, individual variables, knowledge sharing, organizational behavior

Open Science Index, Economics and Management Engineering Vol:6, No:8, 2012 publications.waset.org/11730/pdf

I. Introduction

TODAY knowledge is defined as a set of experiences, values and information related to expert's viewpoints that provides a frame for combination and evaluation of information and new experiences [1]. Knowledge management (KM)also is defined a systematic process comprises a range of strategies and practices used in an organization to identify, create, organize, storage, represent, distribute, and enable adoption of tacit knowledge and explicit knowledge[2].Indeed, Argote (1999) defines KM as a process which organizations create, retain, and share their knowledge [3].

KM has different processes defined by researchers: creation, transfer, and application [4]; or, capture, transfer and application[5]; or, identification, capture, storage, development, share, distribution, and application [6]. In a research done by Alavi and Leidner (2001) the specific feature of each definition reviewed and four main stages are defined for KM process namely; creation, storage, retrieve, transfer, and application [2].

As noted above, KM efforts help organizations to get insight and vision from their experiences. Soit can be used in different organizational process such as problem solving, strategic planning, decision making in different level of organizational hierarchy and etc.[7].

Beside, while organizations know knowledge as a valuable intangible asset for creating and sustaining competitive advantages, knowledge sharing (KS) activities forms an important part of KM studies. KS is theactivities thatknowledge is exchanged among the organization's employees to convert it to organization's asset and resource [8]. In fact, KS is the communication process in which one or two parts of organization participate in knowledge transfer to develop new technologies, new products, and etc. [9] [10].

Feryal Aslani is with Information Technology Management Department as a MSc student in the faculty of Management and Business Studies at the University of Tehran, Iran (feryal.aslani@gmail.com)

Mohammad Mousakhani is with Information Technology Management Department as an assistant professor in the faculty of Management and Business Studies at the University of Tehran, Iran (mosakhani@ut.ac.ir

Alireza Aslani is with Industrial Management department as a project researcher and lecturer in the faculty of technology at the university of Vaasa, Finland (alireza.aslani@uwasa.fi)

Researches show that KS is positively related to reduction of production costs, faster completion of product development, team performance, innovation capabilities and etc. [11] [12] [13]. It also explains the behavior and acquisition information of a person with other colleagues in the organization. Since the successful implementation of KM depends on KS, there are numerous challenges that managers face to diffusion of KS among their employees such as: the ways that they should encourage their staff for KS consistently, identification of key staff for KS, organizing current knowledge and providing easy access to knowledge and etc.[14][15].

Given the importance of KS, development of related researches to implement its advantage in organizations is the main driver of diffusion and extension of KM. The purpose of this article is to review the important investigations published in the high level scientific databases from 2009 until April 2012. Then the future work and potentials of KS are suggested from the behavioral aspect of individual variables. Thus, the structure of this paper would help researchers to get the right direction for their KS investigations.

II. Literature Review

KS occurs when a person tends to help people or learn from them to develop new abilities [13]. Two main approachesare mentioned for KS in organizations: objective approach and practice approach[14]. According to objective approach, KS follows the channel model. The channel model codes knowledge from sender to receiver in a frame of text, diagram or documents(electronic). While the sender can transfer the explicit knowledge from receiver separately,the receiver also would understand this knowledge without transactions with sender.

On the other hand based on the practice approach, the experience is a set of aimed actions including two inseparable elements of cognitive, and physicals (Ibid). The practitioners believe that it is impossible to collect the organizational knowledge in a place and because KS includes how to work together and creating same concepts, KS is not possible via sender-receiver model(channel model). Therefore, the main function of KM is to encourage and facilitate the situation of communication creation among the staff.

A. The influential factors of knowledge sharing

There are factors effecton KS in organizations such as: lack of time to share knowledge; concern about hazard job security; little awareness; dominance of explicit knowledge over tacit knowledge in sharing; inadequate capture, evaluation, and communication of previous mistakes that may improve individual and organizational learning influences; differences in experience levels; lack of interaction, social network; poor communications and interpersonal skills; age, gender, cultural, and educational differences; little trust to the accuracy and credibility of knowledge due to the sources[16][17].

Open Science Index, Economics and Management Engineering Vol:6, No:8, 2012 publications.waset.org/11730/pdf

Some of these factors have the individual reasons and some have other reasons related to environment of organizations, cultures and etc. The research done by Wang and Noe (2009) investigated on KM researches published during 1959 to 2009 and presented a KS framework for future researches (fig.1) [13]. This framework considers to KS researches based on different behavioral and organizational features inclusive: individual, motivational, teams, interpersonal, cultural and organizational context. Although this research provides worth contributions for KM researchers, we believe their frameworkcan be improved from different aspects such as supportive theories and expansion of subjects. For example, while the "team level trust and cohesiveness"is mentioned under "motivational" factor(fig.1), according to organizational behavior theories,it is better to be considered under "interpersonal and team characteristics"[18]. In our opinion these points are important because the situation of each factor in each category shows the research logic of each subject and the scope which directly effects on the practical viewpoints of each research, future works, and etc. After publishing this paper and during 2009 to 04.2012, our researches lead to identify about 35 related papers published in journals and conferences indexed by valid and high level scientific database. Some of these researches have answered some research gaps that have been suggested by Wangand Noe(2009). In the next section the important and related papers that are more close to our research scope are reviewed. This review shows the importance of individual variables on KS especially in the level of development barriers in organizations. Then, a new and widespread framework will be introduced for future research from this point of view.

B. Applications and future researches insights

A study done by Hung et al. (2009) investigated and explained the relationships among contextual factors(reciprocity norm and trust), personal perceptions of KSand KS self (efficacy, perceived relative advantage, and perceivedcompatibility),KS behavior, and community loyalty.

The results showed that the trust significantly influences KS self-efficacy, perceived relative advantage, and perceived compatibility. Also the norm of reciprocity does not significantly affect KS behavior[19]. Jiacheng et al. (2010) explored individual cognitive mechanisms of KS motivation and intend to provide more effective measures to judge and influence individual inclinations toward KS in a cross-cultural context.

They investigated on four cognitive processes based on an individual's commitment toward KS. The results indicated that intrinsic motivation operates through affective commitment: internalization, identification and conformity; rewards have little direct effects on final intentions but they will influence attitude indirectly via identification; punishment for not sharing splits on cultural lines[20].

Chen and Cheng(2011) studied to understand the organizational and personal factors motivating employees to share knowledge. This study shows that internal marketing - Internal Communication, Leadership ،Management Support ،Inter-depart mental Interaction ،Trainingand Openness-, and organizational culture- Trial and Innovation ،Cooperation n and Trust ، Fairness ، Social Network ، Open-mindand Participation-،influence KS attitudes- Self-worth ، Symbol of Power ، Expected Return - and perceived behavioral control-Facilitating Environment ، Self-efficacy [21].

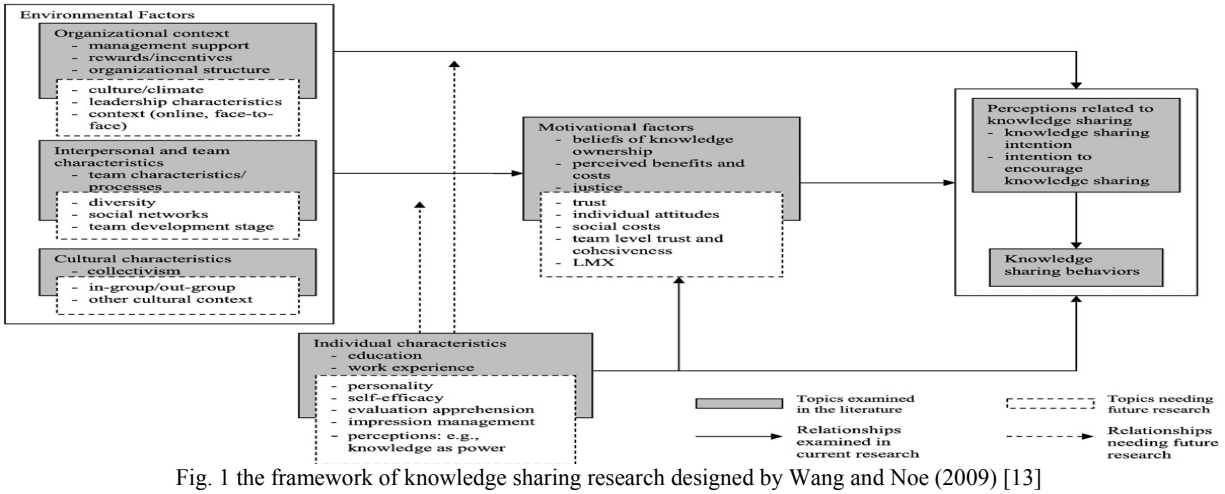


Fig. 1 the framework of knowledge sharing research designed by Wang and Noe (2009) [13]

Open Science Index, Economics and Management Engineering Vol:6, No:8, 2012 publications.waset.org/11730/pdf

In a study done by Lin et al. (2012), they proposed the relations model theory to explore how different relation models, cultivated and shaped by different corporate cultures, give their influences on the willingness of knowledge sharing from staffs[22]. In other research done by Tagliaventi et al.(2010), the social processes that underlie interunit knowledge flows as spontaneous practice sharing among peers belonging to different subunits was investigated. They explored how practice basedflows develop between individuals who are affiliated with different subunits of agiven organization, and how such flows coexist with vertical structures, such as the headquarters.[23].

Saleem and et al. (2011) analyze the relationship among some new concepts such asperson organization fit (POF), organizational commitment (OC) and KS Attitude. They showed that POF has a positive relationship with OC and KS Attitude. A positive relationship also exists between OC and KS Attitude [24].

Furthervaluable researches done by other researchers such as; Tohidinia and Mosakhan (2010), Rehman et al. (2010), Yang (2009), Zawiyah Mohammad and Mohd Bakhari (2010), Matzler and Mueller (2011) , Zhang et al. (2010), Sebaet al. (2012), and etc. analyze, evaluate, and investigate on other behavioral dimensions of KS. Therefore, during 2009 to 04.2012theworked subjects change the framework of KS researches presented by Wang and Noe (2009)(fig.2) [10] [25] [26] [27] [28] [29] [30] [31].

Thereby it seems this framework needs to be improved and extend to show further research gaps and topics especially in each specialized area (behavior, organization, innovation and etc.).On the other hand, although all of these researches consider to different dimensions of KS but a model which implement the behavioraltheories of organizations in KS and KM is needed to clarify the right future of this major scope. In the next section the proposedframework of KS based on individual behavioral models is suggested by the authors of this research.

III. Development of A Framework for Future Researches of Knowledge Sharing

Due to the importance of behavioral variables in KS, also the role of KS in organizational KM, the development of a new and innovative framework based on theories of organizational behavior is needed to expand the scopes of researches and applications. Behavior of individuals, groups, and structure within organizations are considered to improve the organization's effectiveness in the organizational behavior science [18].Also in individual level, this science considers to the behavior of the personnel and staff in organizations.

The proposed framework of KS researches based on the individual level is introduced in the fig.3.

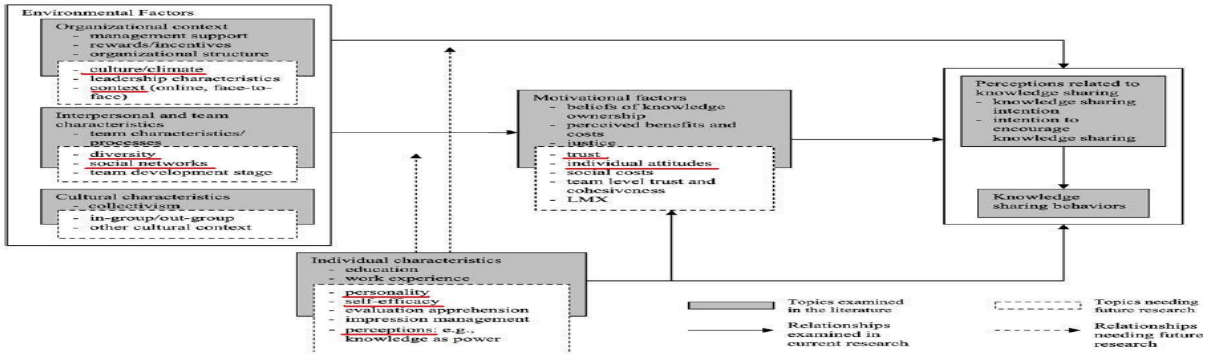


Fig. 2 The worked subjects (underline) during 2009 till 04.2012 based on the framework of Wang and Noe (2009)

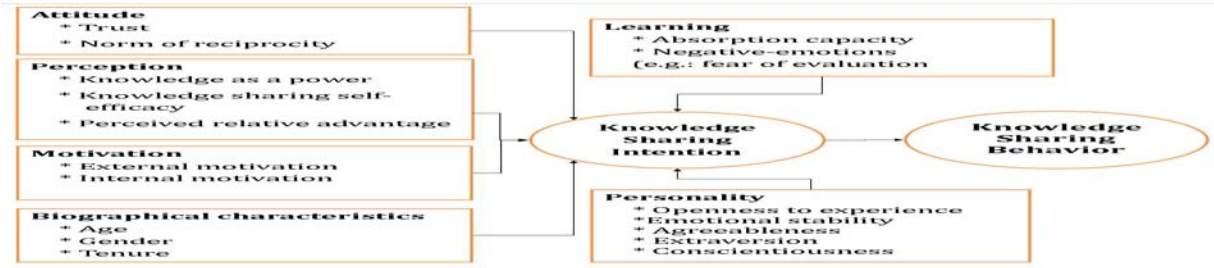


Fig. 3 New framework of KS researches in the level of individual for future researches

Open Science Index, Economics and Management Engineering Vol:6, No:8, 2012 publications.waset.org/11730/pdf

According to fig.3, the diffusion and adaption behavior of individuals for KS in organizations can be studied from six different scopes. These factors are important because several questions are defined to find the reasons of individual's behave in today organizations, and why employees have different reactions for a same subject. On the other hand, the behavioral differences are accelerating with increasing in job complexity which is important in KS too[32]. Therefore, identification of behavior variables in the level of individual has an important role in the development of KS behavior in organizations.

The main advantage of this framework is to open a new window for KS investigations. In bellow some general research questions which need to be considered by researchers are suggested:

- What is the relationship between KS and motivation, or attitude, or perception, or learning? In which levels these relationships are defined?
- What is the role of each sub-character to achieve the proposed role of each variable in KS?
- How is the relationship of personality and its sub-factors with KS? Which factors are in priority for consideration? How is the role of organizational training to develop or improve this ability?
- How is the priority of individual variables in KS (ranking and selection of the most appropriate of them)?

IV. Conclusion

Measured both in terms of academic research and real-world applications, the use of knowledge sharing (KS) to understand and improve organizational knowledge management (KM) has been an important part of KM studies. We summarize what has been accomplished and what remains to be done from behavioral perspective in two categories: (1) theory development and guidance in KS improving in levels of individual, group, and organization; and (2) applications.

From the first view point, we showed that the behavioral variables of individual level play an important role in the KS in organizations. While the behavior does not happen accidently, it depend on different variables in the levels of individual, group (team, communication, power, leadership, and etc.), and organization (structure, culture, technology, and etc.). Therefore, consideration of relationships among these variables with KS and the prioritization of them would help to KS diffusion in organizations.

Finally, based on our survey for KS applications, publication of more success stories especially in the KS literature might improve diffusion of this field of KM too.

References

[1] Davenport TH, G. Eccles, R., & Prusak, L. The Strategic Management of Intellectual Capital. Elsevier Inc., 1998.
[2] Alavi, M., & E.Leidner, D. Review: Knowledge Management and Knowledge Management Systems. MIS QUARTERLY, 25, PP107-136, 2001.
[3] Argote, L, 1999. Organizational learning: Creating, retaining and transferring knowledge. Norwell, MA: Kluwer, 1999.
[4] Spender, J. C. Making knowledge the basis of a dynamic theory of the firm. Strategic Management Journal, 17, PP45-62, 1996.
[5] Delong, D. Building the knowledge-based organization: How culture drives knowledge behaviors. Center for business innovation, 1997.
[6] Probst, G., Raub, S., & Romhardt.K. Managing Knowledge: Building Blocks for Success. New York: John Wiley & Sons, 2000.
[7] Rutherford, A., & J A Tait. Knowledge Management implementation trends. Kbos, 2004.
[8] Kuo YF & Young LM. Predicting knowledge sharing practices through intention: A test of competing models. Computers in Human Behavior, 24 (, PP.2697–2722, 2008.
[9] Matzler, K., & Mueller, J. Antecedents of knowledge sharing – Examining the influence of learning and performance orientation. Journal of Economic Psychology, 32, PP.317–329, 2011.
[10] Yang Chen, S., & Kiang Farnb, C. Social capital, behavioral control, and tacit knowledge sharing—A multi-informant design. International Journal of Information Management, 29, PP.210–218, 2009.
[11] Chen Yang, S., & Kiang Farn, C. Social capital, behavioral control, and tacit knowledge sharing—A multi-informant design. International Journal of Information Management, 29, PP.210–218, 2009.
[12] Cheng Huang, C. Knowledge sharing and group cohesiveness on performance: An empirical study oftechnologyR&DteamsinTaiwan. Technovation, 29, 786–797, 2009.
[13] Wang, S., & A. Noe, R. Knowledge sharing: A review and directions for future research. Human Resource Management Review, 20, PP.115–131, 2010.
[14] Hislop, D. Knowledge Management in Organizations: A Critical Introduction. New York: Oxford University Press Inc, 2005.
[15] Hong, D., Suh, E., & Koo, C. Developing strategies for overcoming barriers to knowledge sharing based on conversational knowledge management: A case study of a financial company. Expert Systems with Applications, 38, PP.14417–14427, 2011.
[16] Awad, E., & Ghaziri, H. Knowledge management. New Jersey: Pearson Education Inc.
[17] Riege, A. (2005). Three-dozen knowledge-sharing. Journal of Knowledge Management, 9, PP.18-35, 2004.
[18] Robbins, S. P., & T. A. Judge. Organizational Behavior. New Jersey: Pearson Education, Inc, 2009.
[19] Hung W, S., James Lin, M.-J., & Jou Che, C. Fostering the determinants of knowledge sharing in professional virtual communities. Computers in Human Behavior, 25, 929–939, 2009.
[20] Jiacheng, W., Lu, L., & Francesco, C. A cognitive model of intra-organizational knowledge-sharing motivations in the view of cross-culture. International Journal of Information Management, 30, PP.220–230, 2010.
[21] Chen J W. & Cheng YH. Factors affecting the knowledge sharing attitude of hotel service personnel. International Journal of Hospitality Management, 2011.
[22] Lin, T., Wu, S., & Tai Lu, C. Exploring the affect factors of knowledge sharing behavior: The relations model theory perspective. Expert Systems with Applications, 39, PP751–764, 2012.
[23] Tagliaventi, M. R., Bertolotti, F., & Macrı, D. A perspective on practice in interunit knowledge sharing. European Management Journal, 28, PP.331– 345, 2010.
[24] Saleem, W. A., Adnan, G., & Ambreen, M. Person Organization Fit, Organizational Commitment and Knowledge Sharing Attitude–anAnalytical Study. Information Management and Business Review, 3, PP. 110-116, 2011.
[25] Tohidinia, Z., & Mosakhani, M.Knowledge sharing behavior and its predictors. Industrial Management + Data Systems, 110, PP.-611-631, 2011.
[26] Rehman, Z.-u., Muhammad Khyzer Bin, D., Zulfiqar, A., & Asim, K. Causative factors and predispositions sway learning process through knowledge sharing behavior among students: Apragmatic study of Punjab University. Interdisciplinary Journal of Contemporary Research In Business, PP.143-154, 2010.
[27] Zawiyah Mohammad, Y., & Mohd Bakhari, I. The Impact of Awareness, Trust and Personality on Knowledge Sharing Practice. IEEE, Information Retrieval & Knowledge Management, 2010.
[28] Matzler, K., Renzl, B., Mu¨ ller, J., Herting, S., & Mooradian, T. Personality traits and knowledge sharing. Journal of Economic Psychology, PP.301–313, 2008.
[29] Yang, J.-t. Individual attitudes and organizational knowledge sharing. Tourism Management, 29, 345–353, 2008.
[30] Zhang, Y., Fang, Y., Kee Wei, K., & Chen, H. Exploring the role of psychological safety in promoting the intention to continue sharing

knowledge in virtual communities. International Journal of Information Management, 30, 425–436, 2010.
[31] Seba, I., Rowley, J., & Lambert, S. Factors affecting attitudes and intentions towards knowledge sharing in the Dubai Police Force. International Journal of Information Management, 2010.
[32] Seliman.D. The Trouble with Burnouts. Fortune, 1992.
[33] Aslani A, Aslani F, Application of Fuzzy AHP Approach to Selection of Organizational Structure with Consideration to Contextual Dimensions, Organizacija - Journal of Management, Informatics and Human Resources, in press, 2012.
[34] Aslani A, Helo P, Naaranoja M, Development of creativity in concurrent engineering teams, American Journal of Industrial and Business Management, Vol. 2(3): 77-84, 2012. DOI: 10.4236/ajibm.2012.23010

Open Science Index, Economics and Management Engineering Vol:6, No:8, 2012 publications.waset.org/11730/pdf