Critically Evaluate the Motivating Factors for Knowledge Sharing in Virtual Communities

Siying Li [a], Bing Wang [b], and Yue Yin [c]

School of Management; University of Science and Technology Liaoning, Liaoning 114000, China

[a]cmcmcmcm@yeah.net, [b]286407792@qq.com, [c]lovec217@hotmail.com

Abstract

Knowledge sharing in virtual community has been widespread used in recent years. This article chiefly interprets different frameworks based on three findings of motivating factors for online knowledge sharing, which are contextual and personal aspects, integrated theory (social cognitive theory and social capital theory), three-factor motivation model and incentive mechanism. Initially, some explanations and analysis are interpreted for each theory. During, comparisons are clarified through three findings progressively followed by some critical thinking interpretations. Lastly, the future research directions and implications are put forward at the end.

Keywords

Knowledge sharing, Motivating factors, Virtual community.

1. Introduction

Knowledge sharing is defined as a process of communication between two or more participants involving the provision and acquisition of knowledge [1]. Respond to the information explosion situation, increasingly people get involve in virtual communities to secure knowledge and find solutions to improve individual capability when absorbing specialized knowledge. In the meantime, they can get some inspiration from others' opinions. Hence, many organizations have recognized the value of knowledge sharing in virtual communities [2].

It is acknowledged that virtual communities are significantly dissimilar from conventional organizations. Some of them are informal entities offering a cost-effective way of accessing a wider range of knowledge sources, without any formal contracts and existing only in the minds of the members [3,4]. Virtual communities are online social networks where people own a series of common interests in specialized fields, or shared passion to share information and knowledge, and engage in social interactions [3]. Common virtual platforms of knowledge sharing are Internet message boards, online chat room, social network services and so on [5]. For example, there are Facebook, the BlueShop community, Baidu Knows, and Douban BBS, etc.

Apparently, online knowledge sharing activities cannot live without the active participation. Thus, for the purpose of ensuring the continued development of knowledge sharing in a highly motivating virtual community, effective incentive mechanisms and motivating strategies are urgent in need to remain existing users to keep contributing and encourage new users to engage in, thereby forming a lifelong knowledge sharing cycle [6]. Therefore, what factors will act upon participants' motivation of the willingness to share knowledge with others is heatedly discussed by researchers.

2. Prior research on motivating factors:

2.1 Basic Finding 1: Contextual and personal aspects

Lin et al. [4] concluded that most previous studies were focused on both contextual factors and knowledge sharing or on personal factors and knowledge sharing. Briefly, contextual factors contains norm of reciprocity and trust; meanwhile, personal perceptions of knowledge sharing includes knowledge sharing self-efficacy, perceived relative advantage, and perceived compatibility. These

factors can influence on their loyalty to their communities and the willingness to share knowledge in virtual communities.

2.1.1. Contextual factors:

Norm of reciprocity:

To be more specific, Wasko and Faraj [7] indicated that online knowledge sharing is facilitated by a strong sense of reciprocity. Wu et al.,[8] defined the norm of reciprocity as 'a set of socially accepted rules regarding a transaction in which a party extending a resource to another party obligates the latter to return the favour.' Connolly and Thorn [9] contended that the norm of reciprocity was capable of serving as a motivational mechanism in knowledge sharing.

Actually, when people seeking or sharing knowledge in a virtual community, they hardly predict who would react to them or whether the knowledge offered fit in their expectation. Thence, the norm of reciprocity represents a pattern of behaviour where people respond to friendly or hostile actions with similar actions [2]. Consequently, Wasko and Faraj [10] suggested that people who shared knowledge in virtual communities believed in reciprocity and a positive norm of reciprocity would facilitate the knowledge sharing process.

Trust:

Trust plays an important role in the relationship between individual behaviors and technological communities. From the view of Dennett, D.C. [11], the intentional stance demonstrates that trust can be validly attributed to human relationships with complex technologies. Nahapiet and Ghoshal [12] suggested that when people have a solid trust foundation, they have a higher willingness to engage in cooperative interaction. Similarly, within information sharing group performance, it has been found that knowledge sharing is achieved through the mechanisms of mutual trust. Furthermore, Siau and Shen [13] proposed that cultivating trust in electronic commerce is a dynamic and time-consuming process. It is developed during a series of continuously trials from initial trust to firm loyalty trust.

2.1.2 Personal factors:

Self-efficacy:

In general, knowledge sharing self-efficacy is closely related to one's confidence and a sense of satisfaction from the ability to provide knowledge which is helpful to others. By helping others or sharing new knowledge, people would have a self-meritorious feeling during this knowledge output process. Hence, self-efficacy is a key motivation factor cannot be neglected in online knowledge sharing [2].

Perceived relative advantage and perceived compatibility

A further point is that reason why some people choose share knowledge on line is because they have foreseen the access of getting some tangible and intangible benefits from the virtual communities. For instance, they may predict that they can achieve the rewards of enriching knowledge or seeking support and making friends and so on. Otherwise, prior research suggested that people who tended to regularly assist other members in a virtual community had a higher probability of receiving help quickly when they asked for [2].

When it comes to perceived compatibility, based on the summary of Lin et al.[4], Gerrard and Cunningham [14] and Rogers [15] described perceived compatibility as the degree to which an innovation is perceived as being consistent with existing values, previous experiences (such as use a computer, the Internet, new technology etc.), and potential needs (such as improved job performance, problem-solving capability, innovation, and competitive advantage), where existing values involve lives style or habit, work attitude or relevance, and concepts in knowledge sharing. On account of that, online entities would feel freer in greater fit virtual communities. Therefore, perceived relative advantage and compatibility are essential factors which have a positive relationship with knowledge sharing in virtual communities.

Undeniable, finding1 has made a contribution in analyzing motivating factors of knowledge sharing in virtual communities, but it is not totally comprehensive.

2.2 Further Finding2: Integration of social cognitive theory and social capital theory

Chiu and Hsu et al. [3] integrated social cognitive theory and social capital theory to a further thinking and then put forward a more comprehensive framework which is shown as below (figure 1).
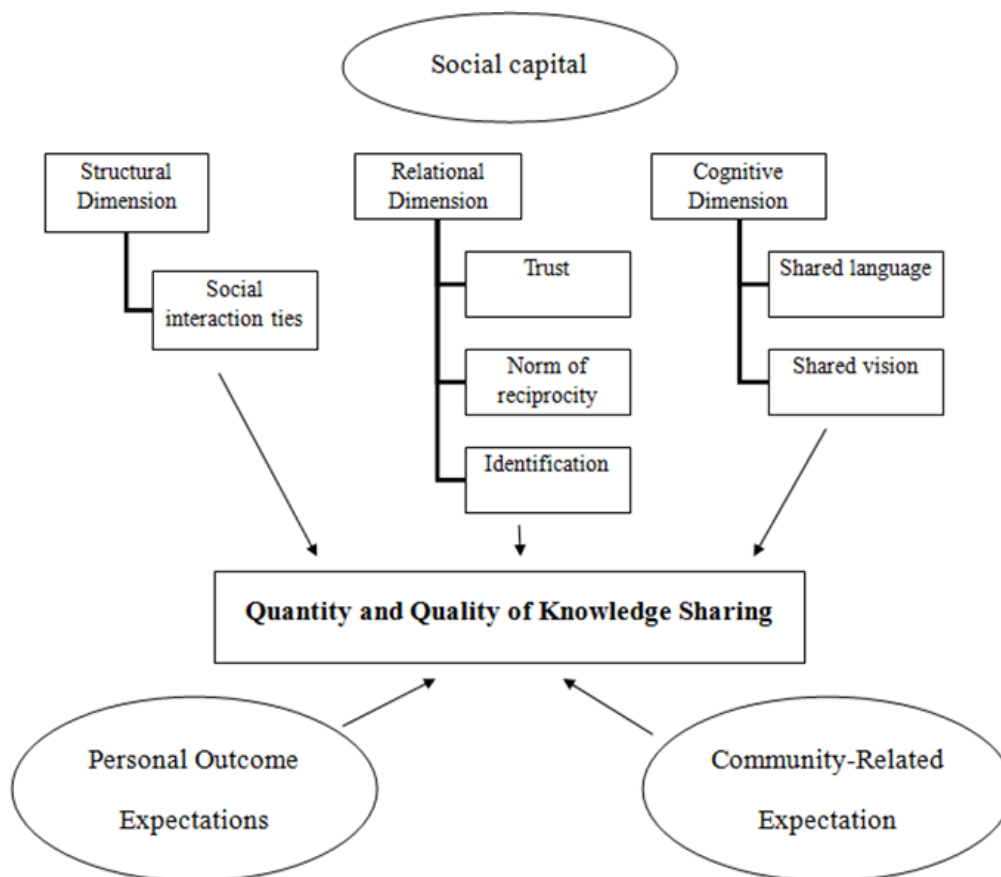

Figure. 1

Firstly, as a supplementary point, Chiu and Hsu et al. [3] presented the importance of social interaction ties factor from a macroscopic view, some new measuring scales were added than Lin et al.[4]. They mentioned the intensity, frequency and breadth of knowledge sharing were closely related to how much more the social interactions being undertaken [16, 17].

Secondly, finding 1 did not consider the factor of an individual's sense of belonging and positive feeling toward virtual community--- identification. According to Boston [18] and Blau [19], emotional identification fostered loyalty and citizenship behaviors in the group setting.

Thirdly, Chiu and Hsu et al. [3] proposed a view of the shared codes and languages could facilitate a resonant understanding of collective aims and knowledge sharing implement process. Simultaneously, for the reason that virtual communities are formed by a group of members who have the same interests and demands, Tsai and Ghoshal [20] regarded "a shared vision" as "a bonding mechanism that helps different parts of an organization to integrate or to combine resources. Therefore, Cohen and Prusak [21] argued that shared language and vision could make online cooperative action possible and strengthen the joyful feeling which facilitated members to get the meaning of knowledge sharing in virtual communities thereby ensuring satisfied quantity and quality of shared knowledge. What is worth rising, Chiu and Hsu et al [3] built a connection with motivating factors and the quality and quantity of the sharing outcome, which helps website managers, conduct an effective analysis of knowledge sharing motivation.

Lastly, Finding1 mainly focused on the one-sided intrinsic motivations, in other words, it solely stressed on participants' motivation but ignore the mutual effect between the website itself and participants. The website or other IT platforms are the carriers of knowledge sharing in virtual community; they will have a significant impact on the motivation of knowledge sharing. Unfortunately, finding 2 just simply mentioned the community-related outcome expectation without any deeper analysis.

2.3 Further Finding3: Three-factor motivation and incentive mechanism

Chen and Chang et al. [6] brought forward a new dimension framework with detailed content which is summarized as a table (table1) below:

Table 1. Knowledge sharing motivation in virtual communities

Knowledge sharing motivation in virtual communities			
Dimension	Content		
Traction motivation	Material/Monetary rewards	Social/Activity rewards	Expect others' contribution when I'm in need
Relation motivation	Get me well acquainted with new members	Strengthen the ties between existing members	Expand the scope of my association with others
Interest motivation	Increase productivity in this virtual community	Draw willing cooperation from existing members in the future	Help the virtual community get its performance objectives

Though the "relation motivation" and "interest motivation" are quite fit with social capital theory and social cognitive theory, what is new compared with finding 1 and 2, is that they raised a " Traction motivation" from website designing standpoint to analyze the traction power in motivating people on knowledge sharing. Additionally, Chen and Chang et al. [6] conducted a quantitative survey about which motivation among these three is the most effective one for online members participating in knowledge sharing. The statistical result showed that "Traction motivation" is the most effective one. Consequently, it is proved that a well-developed incentive mechanism will dramatically influence the motivating factors of knowledge sharing.

What's more, Chen and Chang et al. [6] give a further comparison within the incentive mechanism, they categorized it into three dimensions (table2) and used the same method to get the result, which drew a conclusion of social reward was a key motivation for online users.

Table 2. Incentive mechanism

Incentive mechanism			
Dimension	Content		
Material reward	Provide virtual tokens which can be converted into real gifts	Eg. If a member vote for the best answer	Eg. If a new member sign in
Social reward	Announce a list of masters on front page	Recommend good content from good users	Show the honor in recognition of diverse image in personalized webpage
Activity reward	Promotion of virtual status	Different account permissions	Prominent users can take charge the virtual community

3. Critical supplement：

After statement above, there are still some points needed further discussion. Firstly, whether the factor of "trust" plays a significant role in online knowledge sharing? In Chen's and Hung's [2] opinion, they thought building and performing of interpersonal trust in virtual community is slower and more fragile because of lack of face-to-face settings or close and frequent interactions. Yet another point is that the trust factor may lead negative effect in online knowledge sharing motivation. For instance, if a website requested its members sign in with their real information in order to build a trustful atmosphere virtual community, it may lead to an opposite result, which is some people, may avoid this community because they do not want to expose their real personal files. In some degrees, people do not necessarily need a high trust foundation in online knowledge sharing and perhaps that is the reason why they prefer choosing virtual platform rather than realistic world.

Secondly, different knowledge sharing or receiving entities need to be clarified separately. For example, unlike common profitable virtual communities, some companies or educational organizations tend to have internal online learning or virtual dynamics communication. Admittedly, they may have different levels of motivating factors than those profitable virtual platforms. In addition, those three findings above are all analysed based on the hypothesis of the objectives are participants, they ignore the discussion about the motivation of how to change none-participants to participants.

4. Discussion

Liu and Fang [22] contended that 'researchers should determine, from a knowledge provider's perspective, whether or not different motivational factors create different levels of knowledge-sharing willingness and behaviour.' Therefore, a future research is expected to investigate on what factors would stimulate superior contributors to share knowledge. What's more, some virtual sharing activities would convert into realistic activities. To illustrate, an art webpage on Facebook provides an opportunity for its members participating a gallery exhibition. Therefore, whether there is an association of motivations between virtual world and real world is still waiting to be further detected.

5. Conclusion

To sum up, there are mainly two theories research on exploring the motivating factors for knowledge sharing in virtual communities, which are social cognitive theory and social capital theory. Social cognitive theory argues that online members' behavior will be affected by social network and individual's cognition. Finding 1 explains motivating factors into two main aspects, contextual factors and personal factors. However, it neglected the importance of social network influence and not that enough comprehensive. Simultaneously, Finding 2 integrates the social cognitive theory with the social capital theory, which pays much attention to the social interaction ties aspect, and then it offers some complementary points to enhance the analyzing framework. However, they tend to reflect partially on the internal motivating factor from participants but neglect the external factor of the traction power. As a result, finding 3 provides a better understanding on external traction dimension and incentive mechanism. Lastly, some factors such as trust, non-profitable organizational knowledge sharing is expected to be confirmed in further.

The implications of realizing those diverse motivating factors of knowledge sharing in virtual communities, for the academic researchers, is that they can get an expanding view scope and integrated viewpoint on this area. Secondly, for the webpage designers or knowledge training managers, they could obtain a better idea of how to motivate their target objectives in online knowledge sharing.

References

[1] Usoro, A., & Sharratt, M. W., & Tsui, E., & Shekhar, S. (2007). Trust as an antecedent to knowledge sharing in virtual communities of practice. Knowledge Management Research & Practice, 5(3), p199–212.

[2] Chen C.J., & Hung S.W. (2010). To give or to receive? Factors influencing members' knowledge sharing and community promotion in professional virtual communities. Information & Management, 47, p226–236.

[3] Chiu C.M.,& Hsu M.H., &, Wang T.G.(2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. ScienceDirect , 42, p1872–1888.

[4] Lin J., & Hung S., & Chen C.(2009). Fostering the determinants of knowledge sharing in professional virtual communities. Computers in Human Behavior, 25, p929–939.

[5] Hof, R. D., & Browder, S., & Elstrom, P. (1997). *Internet Communities*. Business Week

[6] Chen C.H., & CHANG S.F., & LIU C.H. (2012). Understanding knowledge-sharing motivation incentive mechanisms, and satisfaction in virtual communities. Social behaviour and personality, 40(4), p639-648.

[7] Wasko, M. and Faraj, M.S. (2000) It is what one does: Why people participate and help others in electronic communities of practice. The Journal of Strategic Information System, 9, p155- 173.

[8] Wu, J.B., & Hom, P.W., & Tetrick, L.E., & Shore, L.M., & Jia, L., & Li, C., & Song, L.J. (2006) The norm of reciprocity: scale development and validation in the Chinese context, Management and Organization Review, 2 (3), p377–402.

[9] Connolly,T. &B.K.Thorn (1990). Discretionary Database:Theory, Data, and Implications. Organizations and Communication Technology.in J. Fulk and C.W.Steinfield. Newbury Park, Sage Publications, Inc.:p219-233.

[10] Wasko, M., & Faraj, S. (2005). Why should I share? Examining social capital and knowledge contribution in electronic networks of practice. MIS Quarterly, 29, p35-57.

[11] Dennett, D.C. (1989). *The Intentional Stance*. Bradford Books.

[12] Nahapiet, J., & Ghoshal, S.(1998). Social capital, intellectual capital, and the organizational advantage. The Academy of Management Review, 23 (2), p242–266.

[13] Siau, K., & Shen, Z., (2003). Building consumer trust in mobile commerce. Communications of the ACM, 46 (4), p91–93.

[14] Gerrard, P., & Cunningham, J. B. (2003). The diffusion of internet banking among Singapore consumers. International Journal of Bank Marketing, 21(1), p16–28.

[15] Rogers, E. M. (2003). *Diffusion of innovations (5th ed.).* New York: Free Press.

[16] Larson A. (1992). Network dyads in entrepreneurial settings: a study of governance of exchange relationships. Administrative Science Quarterly, 37 (1), p76–104.

[17] Ring, P.S., & Van de Ven, A.H. (1994)Developmentn processes of cooperative inter-organizational relationships, Academy of Management Review, 19 (1), p90–118.

[18] Boston, M. et al., (2001). Self-categorization, affective commitment and group self-esteem as distinct aspects of social identity in the organization. British Journal of Social Psychology, 39 (4) , 555–577.

[19] Blau, P.M. (1964) *Exchange and Power in Social life*. New York : John Wiley and Sons.

[20] Tsai, W., & Ghoshal, S. (1998). Social capital and value creation: an empirical study of intra-firm networks, Academy of Management Journa,l 41 (4), 464–476.

[21] Cohen, D., & Prusak L. (2001) *In Good Company: How Social Capital Makes Organizations Work*. Harvard Business School Press.

[22] Liu W.C., & Fang C.L.(2010). The effect of different motivation factors on knowledge-sharing willingness and behaviour. Social behaviour and personality, 38(6), 753-758.