

Research Report

Knowledge Transfer through Social Media Enabled Electronic Networks of Practice – The Case of a Financial Institution

IN DISTRIBUTED WORK ENVIRONMENTS, IT IS ESSENTIAL FOR ORGANIZATIONS TO IMPLEMENT KNOWLEDGE MANAGEMENT SYSTEMS FOR ENABLING EFFICIENT KNOWLEDGE TRANSFER BETWEEN THEIR EMPLOYEES. IN A STUDY, WE THEREFORE DEVELOP AND EMPIRICALLY TEST A CONCEPTUAL MODEL TO DEEPEN OUR UNDERSTANDING ABOUT THE FACTORS WHICH INFLUENCE KNOWLEDGE TRANSFER QUALITY IN SOCIAL MEDIA ENABLED ELECTRONIC NETWORKS OF PRACTICE. ACCORDINGLY, THE FINDINGS PROVIDE GUIDANCE FOR THE DESIGN AND EVALUATION OF INFORMATION SYSTEMS THAT SUPPORT THE TRANSFER OF KNOWLEDGE BETWEEN PHYSICALLY DISTRIBUTED CO-WORKERS.

Immanuel Pahlke
Christoph Seebach

Roman Beck

Introduction

Since knowledge is an organization's most valuable resource for differentiating from competitors and thus achieving competitive advantage, its integration and effective management is of central importance for firms. However, as work settings become more global and distributed, it has proven to be difficult to integrate and transfer the knowledge from workers that are physically dispersed across different locations and time zones (Tsai, 2001). With their information-driven business processes and globally-oriented business models, this challenge is certainly one of the central issues for

financial services institutions. Thus, knowledge management systems are needed to support an efficient exchange of knowledge between distributed workers and improve access to diverse experts of an organization (Alavi and Leidner, 2001).

One specific form of knowledge management systems is based on social networks, which enable electronic communication between individuals that share a common practice (Wasko and Faraj, 2005). As prior research has shown, these so-called electronic networks of practice (ENoP) foster social connections and

interactions even between strangers, thereby improving access to the dispersed knowledge of an organization (Alavi and Leidner, 2001).

In this regard, ENoP enabling social media technologies, such as social networking sites, content sharing communities, blogs, and microblogs seem to be promising. As it has been shown, such platforms improve communication transparency and foster rich interaction between individuals thereby bridging the gap between knowledge seekers and knowledge contributors through connecting otherwise disconnected people (Kang et al., 2010). Consequently, many firms have invested in innovative social media technologies

to establish ENoP behind an organization's firewall (Richter et al., 2011) for improving workers' access to internal information and knowledge (Stuart et al., 2012). Offering new and innovative functions – such as the follower feature, tagging mechanisms, and deep profiling – social media platforms improve interaction transparency and provide network members with a better sense of others' social identity. For example, since most user activities on social media platforms are visible to every user, individuals can sense rich information about their colleagues online. This may then result in higher awareness about the work environment, eventually leading to improved collaborative work and inter-

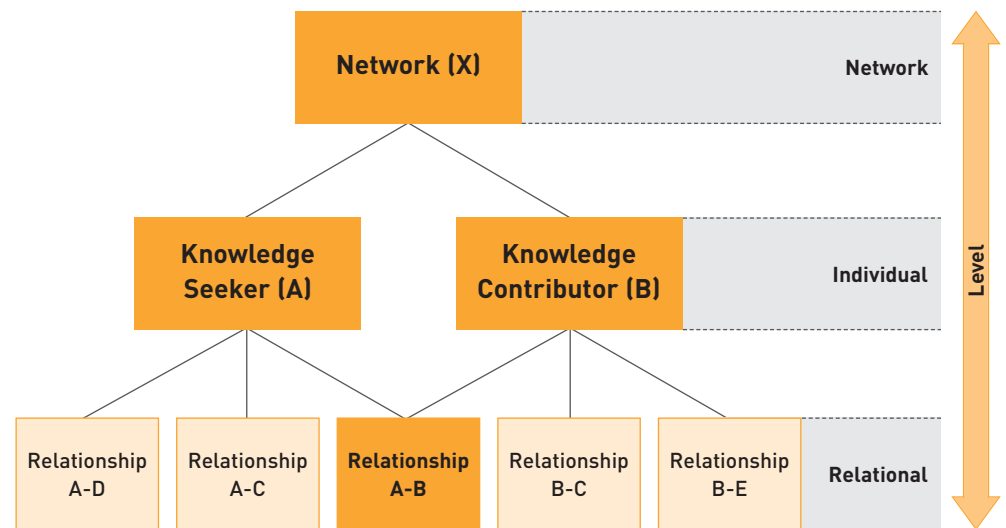


Figure 1: Knowledge Transfer from a Multi-Level Perspective

personal knowledge transfer specifically in distributed settings.

However, even with capable platforms in place social and psychological issues might hinder individuals from interacting and transferring knowledge through social media enabled ENoP (Kankanhalli et al., 2005). Since members of an ENoP often do not know each other personally or never meet face-to-face, receiving help from others somewhat depends on the kindness of strangers. It is therefore important to develop a deeper understanding of the social relationships and psychological factors that influence interpersonal knowledge transfer processes in social media enabled ENoP. Hence, in this study we develop and empirically test a conceptual model to provide guidance for the design and evaluation of information systems that support an efficient knowledge transfer between co-workers in dispersed settings.

Research Approach

Following Szulanski (1996), we investigate knowledge transfer as a dyadic interaction process in which knowledge is transferred between a source and a recipient. Since we focus on interactions between workers who participate in social media enabled ENoP, our definition thus views knowledge transfer as a communication process between a knowledge seeker and a knowledge contributor. In this regard, we categorize the influencing factors of knowledge transfer in social media-enabled

ENoP into characteristics of the knowledge seeker (e.g., social status, network centrality), characteristics of the knowledge contributor (e.g., habit of cooperation, identification), and characteristics of the relationship between the two (e.g., norm of reciprocity, strength of relationship). As Figure 1 depicts, these influencing factors are embedded in a hierarchical structure, which illustrates that knowledge transfer depends on factors on the dyadic interaction, the individual, as well as the network level. For instance: knowledge transfer in an ENoP occurs between a knowledge seeker A and a knowledge contributor B. Based on prior interactions, A has built relationships with B, C, and D. In the same way, B has developed relationships with A, C, and E. With respect to this hierarchical structure, knowledge transfer between A and B thus depends on their individual characteristics, characteristics of the relationship between the two, as well as on factors on the network level.

In this regard, it is interesting to note that existing studies have mostly focused on knowledge contributors' characteristics only, e.g. (Wasko and Faraj, 2005). Thus, a deep and comprehensive understanding of the phenomenon of interest – the knowledge transfer process in social media-enabled ENoP – is still missing in existing research. This hinders the targeted and outcome-oriented design and implementation of purposeful social media platforms for establishing ENoP within organizations. In our study we therefore address this gap by con-

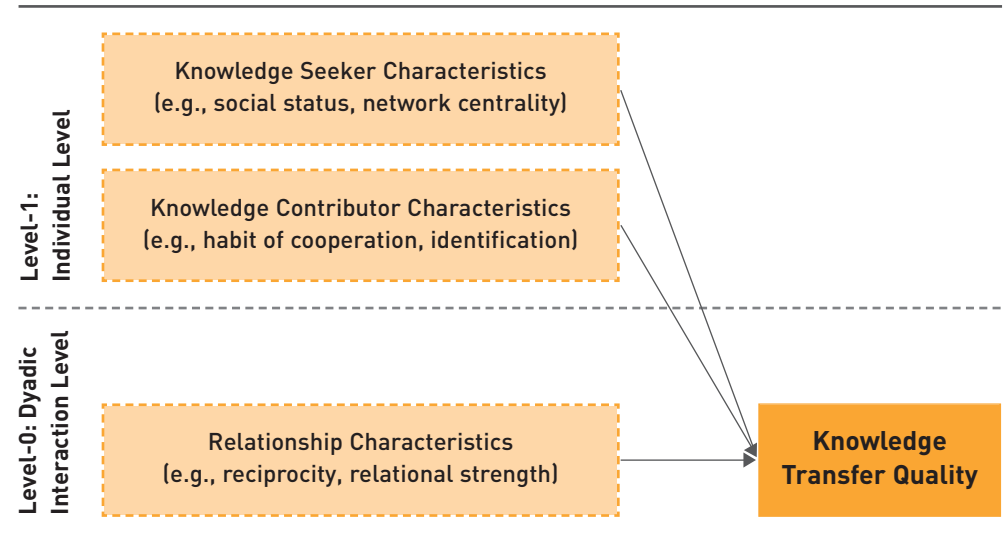


Figure 2: Knowledge Transfer in Social Media Enabled ENoP

ceptualizing and empirically testing a multi-level model of knowledge transfer in ENoP (see Figure 2) focusing on characteristics of knowledge seekers, knowledge contributors, and the dyadic relationship between the two. For empirically testing the research model, depicted in Figure 2, data was collected from a large international financial institution, which had established an enterprise micro-blogging platform for improving global collaboration and knowledge integration. The data set contains more than 15,000 messages sent by almost 1,200 workers during the second half of 2010.

Discussion of the Results

A hierarchical model was conceptualized for simultaneously examining the influencing

factors of knowledge transfer on multiple levels. For this purpose, a Hierarchical Linear Modelling (HLM) approach was applied making it possible to separately analyze variations on individual and dyadic levels within a single research model. Analyzing a large dataset of more than 15,000 Enterprise Microblogging messages, the analysis suggests that characteristics of the knowledge seeker as well as relational factors between the seeker and potential knowledge contributors are the primary driving antecedents of knowledge transfer in social media enabled ENoPs.

Transferring knowledge to others in an ENoP requires the knowledge contributor's willing-

ness to dedicate personal resources, such as time and codification efforts (Wasko et al., 2009). However, contrary to what prior research has found, this study's results indicate that the knowledge contributor's characteristics seem to play only a subordinate role with respect to knowledge transfer in ENoPs. Instead, individual factors of the knowledge seeker, such as social presence and social status, are important for understanding the antecedents of successful knowledge transfer in ENoPs. This may be explained by the increasing adoption of innovative features, such as follower lists, tagging, rating, or profile functionalities, which provide members of an ENoP with valuable information about whom they are interacting with (Stuart et al., 2012). However, the empirical results also go beyond the individual level due to the analysis on how the specific characteristics of the relationship between a knowledge seeker and a knowledge contributor influence knowledge transfer processes in ENoPs. In detail, the results demonstrate that norm of reciprocity – as an instance of a relational factor – seems to be a central concept for sustaining and regulating cooperative behavior in ENoPs as well. Thus, knowledge contributors seem to be more motivated to engage in knowledge transfer if they perceive that their efforts will be reciprocated in the future.

Conclusion

The findings of our study indicate that social media technologies are a promising solution for improving knowledge transfer in organiza-

tions. The results demonstrate that the most valuable sources of knowledge are often people that knowledge seekers are not aware of. This shows that technologies such as Enterprise Microblogging platforms are able to bridge gaps between knowledge demand and knowledge supply through connecting otherwise disconnected people. In particular, this may be relevant for large and globally operating organizations, where it becomes impossible for workers to stay aware of all their colleagues' skills and knowledge. Moreover, such technologies might help to improve knowledge integration capabilities since new joiners as well as their knowledge can be quickly integrated in the organization's interpersonal communication network. In this regard, the findings provide important implications for organizations that aim at developing and sustaining collaboration systems to foster interpersonal knowledge exchange and improve their employees' access to distributed know-how.

First of all, the findings highlight that social distance and infrequent relationships are important for obtaining valuable knowledge since these are more likely to provide access to novel, non-redundant information. Responsible managers should focus on encouraging their employees to create relationships across different professions, hierarchies, and locations to ensure access to heterogeneous knowledge. However, the findings clearly indicate that there is also a need for creating 'strong' relationships within sub-networks (of groups or teams) for creating cohe-

sive social units in which accumulation of knowledge is possible. In particular, the study empirically demonstrates how interpersonal similarities based on interests, activities, beliefs, and opinions improve knowledge transfer processes.

In addition, our findings demonstrate that the more a knowledge seeker engages in activities for establishing social presence in the network, the more trust and uncertainty reduction seems to occur on the knowledge contributor side, improving the quality of the knowledge received. In this regard, this study suggests that ENoP enabling systems should offer effective features for self-presentation and reputation management. Typical social media functions for identity management, social network building, and rating mechanisms therefore might be promising starting points for further improvement of such systems (Stuart et al., 2012).

References

Alavi, M.; Leidner, D. E.:

Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. In: *MIS Quarterly*, 25 (2001) 1, pp. 107-136.

Kankanhalli, A.; Tan, B. C.; Wei, K.:

Contributing Knowledge to Electronic Knowledge Repositories: An Empirical Investigation. In: *MIS Quarterly*, 29 (2005) 1, pp. 113-143.

Kang, M.; Kim, Y.-G.; Bock, G.-W.:

Identifying Different Antecedents for Closed vs.

Open Knowledge Transfer.

In: *Journal of Information Science*, 36 (2010) 5, pp. 585-602.

Richter, D.; Riemer, K.; Brocke, J.:

Internet Social Networking.

In: *Business & Information Systems Engineering*, 3 (2011) 2, pp. 89-101.

Stuart, H. C.; Dabbish, L.; Kiesler, S.; Kinnaird, P.; Kang, R.:

Social Transparency in Networked Information Exchange: A Framework and Research Question.

In: *Proceedings of the ACM Conference on Computer-Supported Cooperative Work*, Seattle, Washington, United States, 2012.

Szulanski, G.:

Exploring Internal Stickiness: Impediments to the Transfer of Best Practice within the Firm. In: *Strategic Management Journal*, 17 (1996) 1, pp. 27-43.

Tsai, W.:

Knowledge Transfer in Intraorganizational Networks: Effects of Network Position and Absorptive Capacity on Business Unit Innovation and Performance.

In: *The Academy of Management Journal*, 44 (2001) 5, pp. 996-1004.

Wasko, M. M.; Faraj, S.:

Why Should I Share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice.

In: *MIS Quarterly*, 29 (2005) 1, pp. 35-57.