Research Report

You Reap What You Sow! Differences in Knowledge Exchange Effectiveness Between Communication Types

FOR KNOWLEDGE-INTENSIVE ORGANIZATIONS IN THE FINANCE INDUSTRY, AN EFFECTIVE KNOWLEDGE EXCHANGE AMONG EMPLOYEES IS CRUCIAL FOR THE COMPETITIVE PERFORM-ANCE. THEREFORE, COMPANIES INCREASINGLY RELY ON SOCIAL MEDIA PLATFORMS TO FACILITATE COMMUNICATION AND COLLABORATION. TO ENHANCE OUR UNDERSTANDING OF SUCCESSFUL COMMUNICATION IN ENTERPRISE SOCIAL MEDIA, WE APPLY HUMAN CODING AND QUANTITATIVE ANALYSIS TO THE CONTENT AND TONE OF 15,505 ENTERPRISE MICROBLOGGING MESSAGES CREATED BY 1,166 EMPLOYEES OF AN INTERNATIONAL FINAN-CIAL SERVICE PROVIDER. OUR RESULTS SUGGEST THAT A MORE FACTUAL-ORIENTED COM-MUNICATION TYPE BENEFITS FROM A HIGHER KNOWLEDGE EXCHANGE EFFECTIVENESS COMPARED TO A PRIMARILY SELF-DISCLOSING COMMUNICATION TYPE.

Marten Risius

Roman Beck

Introduction

Organizational knowledge is considered being the most important asset to differentiate a company from its contenders and achieve competitive advantages. Consequently, its utilization and effective management is pivotal for enterprises. A growing body of literature has demonstrated that Enterprise Social Media (ESM) is a promising solution to support collaboration and knowledge exchange among employees. Knowledge in this sense is not an immobile object acquired by an individual, but is actively co-constructed through social exchanges and collaborations in networks. Hence, the way individuals are connected in social net-

works influences the acquisition, construction, and exchange of knowledge.

The necessary prerequisite of knowledge exchange is communication. For networked learning environments, literature suggests that different communication types (CT) can influence the structure of social networks, the diversity of relational linkages as well as business outcomes. However, no research has explored the different CTs in ESM and their role in knowledge exchange especially from a knowledge seeker perspective.

This study will examine the knowledge exchange

interaction via ESM from a communication perspective. Specifically, we assume that the way in which users typically communicate within an enterprise microblogging (EMB) platform influences their network structure – comparable to social networks – which ultimately affects the quality of knowledge they receive upon request. Therefore, we differentiate between four different communication styles (CS) on the single message level, based on the content and tone of the message, and a user's overall communication type, as an aggregation of the individual CSs expressed in the messages. To do so, we analyzed a large dataset of EMB messages to explore *what kind of communication type users adopt* on the EMB platform. Moreover, we assess the quality of each answer to these users' questions to examine *how communication types differ concerning effective knowledge exchange* from a knowledge seeker perspective.

Regarding the CS, we analyze each message through the lens of the distinguished "communication square" model of Schulz von Thun (2008), which differentiates four styles of a message: factual information, self-statement, relationship indicator, and appeal. This approach allows us to analyze the style of single messages without having to rely on self-report measures.

Theoretical Background

Knowledge and its exchange among employees is an organization's key resource for maintaining a competitive advantage in the market. In this regard, ESM technologies have shown to be a promising solution to support collaborative know edge exchange between an organization's (distributed) employees. We consider knowledge exchange as a

dyadic communication process between two individuals, the knowledge seeker (recipient) and the knowledge contributor (source).

The quality of answers on Social Media platforms has largely been evaluated in the comparable terms of relevance, corpora, and recency. Due to given difficulties of applying these categories to the field of ESM in general and EMB in particular, ESM research has assessed the quality of answers by means of their helpfulness (Wasko and Faraj, 2005). We follow this approach to determine the quality of answers, since helpfulness is similar to the relation or relevance criterion.

By influencing the structure of a person's social network, CTs substantially influence the process of knowledge creation and exchange. The commonly established idea that individuals exhibit personality-like differences in their general CTs resulted in numerous self-report CT indices. In this work, however, we will examine communication on a single message basis. By considering the tone and content of communication, we will first identify four potential communication styles within each message, and then derive overall CTs statistically. Given its potential to analyze single messages while respecting the complexity of communication, we build our analysis of CSs upon the "communication square" model (Schulz von Thun, 2008).

Based on the work on human communication, Schulz von Thun (2008) distinguishes in his seminal model of a communication square four different CSs within one message. He proposes that any message principally contains information on four "sides" (in metaphorical terms of the communica-

tion "square"): the matter as such (factual information), the sender (self-statement), the receiver (relationship-indicator) and the intended impact (appeal).

Empirical Study – Communication Types in Enterprise Microblogging

Out of the different Social Media technologies worth analyzing with respect to our research questions, EMB is considered one of the most pervasive forms of electronic communication, and as such, is a promising technology for improving knowledge exchange and collaboration in organizations. Despite practitioners' concerns of productivity losses and information overload issues, scientific studies have already demonstrated the potential benefits of EMB in supporting collaboration and creating productive work environments. Accordingly, we suggest that especially EMB is a promising Social Media technology for fostering organizational collaboration and communication.

Analysis and Results

The main goal of our analysis is to identify different communication types and compare them with regard to the quality of knowledge they receive upon their questions. Therefore, we first categorized users into different CTs by conducting a cluster analysis based on the CS of the messages

Factual Information	Relation-ship Indicator	Self-Statement	Appeal
4,110	845	3,064	439
(86.4%)	(17.1%)	(59.5%)	(9.9%)

Table 1: Total and relative number of communication styles in EMB messages (sample size N = 6,306)

that they posted. The descriptive results (see Table 1) revealed that the most frequent CSs were factual information (86.4%) and self-statements (59.5%), while relationship indicators (17.1%) and appeals (9.9%) are rather uncommon.

Cluster analysis allowed us to identify groupings of CTs where variations in the CS are minimal within the group but maximal across groups. In reference to previous work by Naaman et al. (2010) in public MB, we labeled the first cluster "Informers" (N = 79) and the second cluster "Meformers" (N = 57). Figure 1 depicts the relative frequency of the CT within the sample and the mean average proportion of CS in the messages for each user as well as their inferential statistics comparison.

We addressed our second research question by comparing the two CT clusters concerning the average quality of answers they received upon their questions and the number of questions left unanswered. We assumed that a higher number of non-responded questions indicate a lower quality of knowledge exchange. Therefore, we conducted a MANOVA that revealed significant differences between CTs concerning both dependent variables. Based on these results, we thus conclude that users who send more factual information and appeal messages ("Informers") receive significantly higher quality and more frequently answers than those who make more self-statements ("Meformers").

Conclusion

The primary theoretical contribution of this work is our analysis of CT on Social Media platforms based on the established communication square
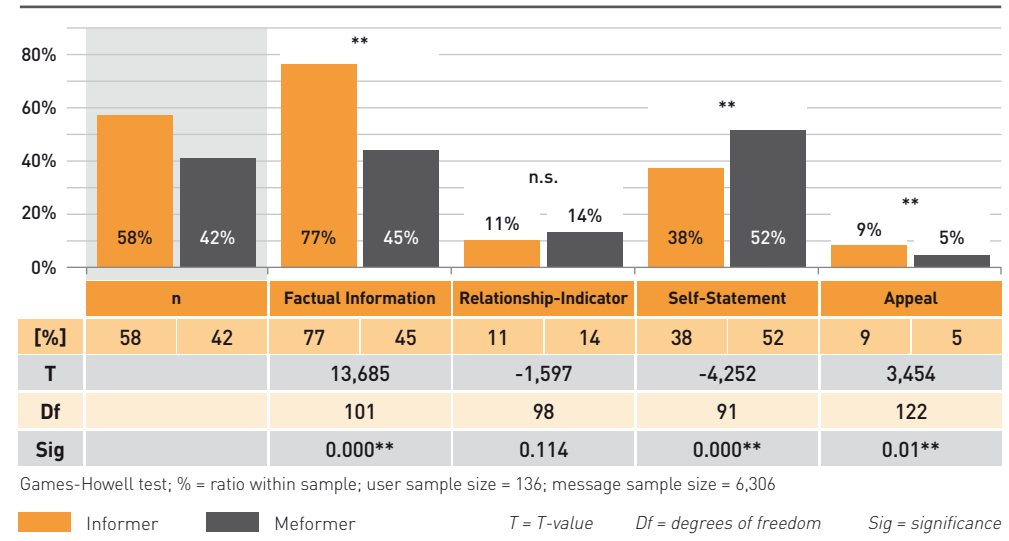

	n		Factual Information		Relationship-Indicator		Self-Statement		Appeal	
[%]	58	42	77	45	11	14	38	52	9	5
T			13,685		-1,597		-4,252		3,454	
Df			101		98		91		122	
Sig			0.000**		0.114		0.000**		0.01**	

Games-Howell test; % = ratio within sample; user sample size = 136; message sample size = 6,306

Informer   Meformer   T = T-value   Df = degrees of freedom   Sig = significance

Figure 1: Post-hoc results on CS between CTs

model. Thereby, we consider and extend previously identified CTs. As a consequence, we found evidence for the existence of two different CTs. "Informers" primarily communicate factual information and appeals while "Meformers" focus on self-statements and less on factual information. The results of our analysis provide implications for practice in so far that it points out the importance of managing the CS on EMB platforms to support effective knowledge exchange. Informers' questions are responded more probably and with higher quality than questions of Meformers. Therefore, it can be assumed that generally adopting a factual oriented CS is more rewarding when searching for answers than self-disclosing. As users seem to adapt their communicative behavior to the context, a strategic CS management should focus on the promotion of Informer-like behavior to leverage effective knowledge exchange.

References

Naaman, M.; Boase, J.; Lai, C.-H.:
Is it Really About Me? Message Content in Social Awareness Streams.
In: Proceedings of the 13th ACM Conference on Computer Supported Cooperative Work, Savannah, GA, United States, 2010.

Schulz von Thun, F.:
Six Tools for Clear Communication: The Hamburg Approach in English Language. Rowohlt, Hamburg, 2008.

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.