

Research Report

Building Social Capital via Microblogging in the Financial Services Industry

THE WAY IN WHICH PEOPLE COMMUNICATE AFFECTS THEIR RELATIONSHIPS, SOCIAL NETWORK STRUCTURES AND ULTIMATELY THE SOCIAL CAPITAL ACQUIRED THROUGH THEIR CONNECTIONS. SOCIAL CAPITAL IS A KEY FACTOR FOR THE PERFORMANCE OF INDIVIDUALS AND ORGANIZATIONS. THEREFORE, COMPANIES IN THE FINANCIAL SERVICES INDUSTRY INCREASINGLY IMPLEMENT SOCIAL MEDIA PLATFORMS TO FACILITATE COMMUNICATION AMONG EMPLOYEES AND TO LEVERAGE THE SOCIAL CAPITAL BENEFITS. ANALYZING THE INDIVIDUAL NETWORK STRUCTURES OF DIFFERENT COMMUNICATION TYPES, WE FIND THAT A MORE SELF-DISCLOSING COMMUNICATION TYPE ("MEFORMER") BENEFITS FROM A HIGHER EFFICACY IN BUILDING SOCIAL CAPITAL COMPARED TO A PRIMARILY FACTUAL-ORIENTED COMMUNICATION TYPE ("INFORMER").

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Introduction

Social capital is considered a key factor for the performance of individuals as well as companies by enabling the creation and sharing of organizational knowledge (Nahapiet and Ghoshal, 1998). A growing body of literature has demonstrated that Enterprise Social Media (ESM) is a promising solution to support collaboration and relationship building among employees, which ultimately results in an increase in social capital (SC) (Ellison et al., 2011). Social capital is understood as the resource obtained through the relationships among people within social networks (Nahapiet and Ghoshal, 1998).

This study examines the building of SC via ESM

from a communication perspective. Specifically, we assume that the way in which users typically communicate within an enterprise microblogging platform (EMB) influences their network structure, which ultimately affects their SC. Therefore, we differentiate 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 (CT), as an aggregation of the individual CSs expressed in the messages. Thus, we analyze a large data set of EMB messages and empirically abstract the two CTs of Informers and Meformers in accordance with existing IS literature about public Social Media (Naaman et al., 2010). Moreover, we assess the SC of

each user to examine how communication types differ concerning their efficacy in building social capital.

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. Furthermore, we analyze how the different use of ESM in terms of CTs might foster building of SC in organizations and compare these results to findings from public Social Media.

From communication styles to communication types

Based on the work on human communication, Schulz von Thun (2008) distinguishes four different CSs within any message in his seminal model of a "communication square". He proposes that, in general, any message contains information on four "sides" (in metaphorical terms of the communication "square"): the matter as such (factual information), the sender (self-statement), the receiver (relationship-indicator) and the intended impact (appeal). Although each message principally contains all four layers, it is acknowledged that people have different CTs based on which (combination of) CSs they address more explicitly (Schulz von Thun, 2008). In public Social Media, Naaman et al. (2010) identified the two different CTs of Informers and Meformers. In sum, Informers focus on distributing factual information in

their Twitter messages while Meformers are preoccupied with sending "me now" messages about their mood or current activities. Accordingly, in public Social Media Informers are mentioned more often in other users' tweets, have more followers and more friends as compared to Meformers who, however, represent the majority of Twitter users. In terms of the "communication square" model, it seems reasonable to assume that Informers adopt more often the more objective CSs factual information and appeal, while Meformers would rely more on the rather subjective self-statement and relationship indicator CSs.

Social capital in organizations

The concept of SC and its added value for organizations has attracted extensive attention in various social science disciplines over the past decades (Adler and Kwon, 2002). In this study, by analyzing the individual network structures derived from the relationships among the EMB users, we focus on the mechanisms that generate SC rather than its outcomes. Hereby, we adopt an egocentric approach focusing on the building of SC for the individual actor in a network (Putnam, 1995).

Following Nahapiet and Ghoshal (1998), we understand SC in terms of the three clusters: structural capital, relationship capital, and cognitive capital. Structural capital (StC) describes the overall patterns of whether and how people are connected within the network structure. Relationship capital (RelC), however, emphasizes

the quality of the personal relationships, which people have developed through interactions. Cognitive capital (CogC) comprises the common understanding and concepts shared by the different actors within a network (Nahapiet and Ghoshal, 1998).

Empirical Study – Enterprise Microblogging

The main goal of our analysis is to identify different communication types and compare them in regard to their SC within a financial institution’s microblogging platform (see figure 1).

EMB is considered one of the most pervasive forms of electronic communication and is as such a promising technology for building social capital in organizations (Ellison et al., 2011). Our EMB data set was obtained from a leading international financial institution with globally over one hundred thousand employees. Ultimately, the data sample comprised 6,306 messages from 136 users.

First, we conducted a manual directed content analysis to discover which CSs users adopt on

an EMB platform. Based on the concept of four different CSs in the communication square model (Schulz von Thun, 2008), we considered the CS of the messages as key concept for the coding categories. The operationalization of these CS categories was derived from the detailed descriptions of the specific CSs in the model (Schulz von Thun, 2008). Following the model’s assumption that each message can principally contain all four CSs, we coded all styles apparent within each message.

Second, we performed a confirmatory cluster analysis depending on the CS of the messages a user posted. Cluster analysis allowed us to identify groups of communication types with minimal communication style variance within the groups but maximal across groups in order to derive distinct and meaningful clusters from the assimilation of the four CSs. The results proposed that a two-cluster solution best captured the CTs which is in accordance with findings from public microblogging (Naaman et al., 2010). Informers’ messages contain significantly more factual information and appeals than those of Meformers. Meformers, on the contrary, communicate more self-statements compared to Informers. Relationship indicators did not differ between groups.

The individual StC was assessed through the focus on the network structure of the users. Several measures were applied which were generally based on the dyadic interactions in the EMB. To measure RelC, it is important to con-

sider the quality of mutual relationships. A major form of RelC for individuals engaged in ESM is their reputation built through trustworthiness, the mutual norm of reciprocity, and the number of followers. We considered the CogC in terms of shared concepts and attributes between users. Thus, the CogC estimates applied in this work were generally dependent on the individual’s group membership. Each group captures some personal information such as occupations (e.g., “interns”, “business analysts”, “IT architects”), hobbies (e.g., “private pilots”, “golf”), or interests (e.g., “apple products”, “Japanese literature”), that can also be treated as social attributes. For each group, we computed the density of the emerging network as the number of interactions among unique group members relative to the number of all possible connections.

Empirical Analysis and Results

We compared the previously established Me- and Informing groups concerning the various dimensions of SC. Furthermore, we included the nationality and EMB language code to control for cultural influences on SC building (Adler and Kwon, 2002).

To compare the two CTs we conducted a descriptive linear discriminant analysis (LDA), which allowed us to estimate the specific impact of each SC dimension and control variable simultaneously and thereby eliminating the risk of redundancy between variables. Thus, we used two separate LDAs with group

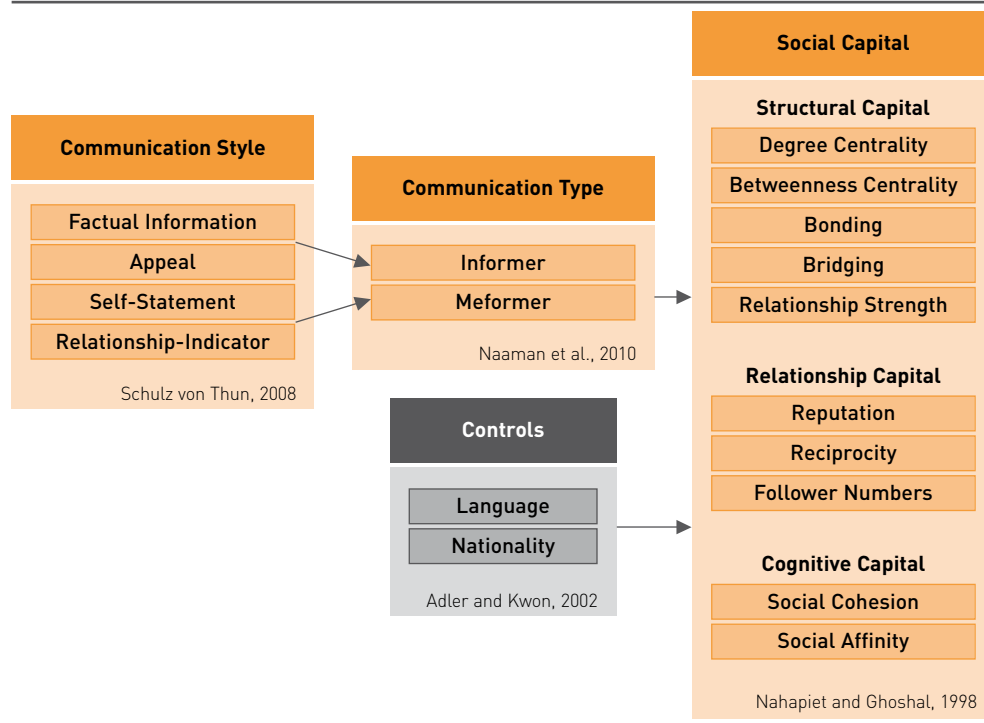


Figure 1: Underlying research model for analyzing the efficacy of different CTs to build SC

(Me- and Informers) as the two-class categorical dependent variable and (1) the different SC dimensions and (2) the overall SC clusters as the explanatory predictors. To also consider a higher level of analysis, we aggregated the single SC dimensions into the three SC clusters by conducting separate principal components analyses with Varimax rotation (see table 1). Furthermore, for each SC dimension and cluster, we conducted an a-priori ANOVA (analysis of variance) to test whether group differences exist between In- and Meformers at all.

CogC show that these aspects cannot be influenced through the CTs. It seems reasonable to assume that such shared concepts and attributes (like common hobbies or interests) are more strongly dependent on state-like attributes than on the communicative behavior. In sum, in our analysis we found substantial evidence for the SC building potential of Meforming in terms of StC and RelC as compared with Informers on the single dimensional as well as on the cluster level in ESM. However, concerning CogC we did not find an impact of CT.

Social Capital Aspects and Control Variables	Informer		Meformer		Groupwise comparison				
	\bar{x}_1	(SD)	\bar{x}_2	(SD)	λ	F	df1	df2	Sig.
Language	---	---	---	---	.982	2.33	1	128	> .05 _{n.s.}
Nationality	---	---	---	---	.999	0.071	1	128	> .05 _{n.s.}
Structural Capital (StC)	-0.262	(0.486)	0.46	(1.37)	.876	18.179	1	128	< .001***
Relationship Capital (RelC)	-0.217	(0.638)	0.4	(1.29)	.908	12.96	1	128	< .001***
Cognitive Capital (CogC)	-0.075	(0.896)	0.11	(1.135)	.992	1.062	1	128	> .05 _{n.s.}

p-values: p < .001 *** very highly significant, p < .01 ** highly significant, p < .05 * significant, p > .05_{n.s.} non-significant (two-tailed significance)
 Statistics: \bar{x} = group mean, SD = standard deviation, λ = eigenvalue, F = F-value, df = degrees of freedom, Sig. = significance

Table 1: Results of the group comparison between communication types

The analysis reveals significant higher scores of Meformers compared with Informers for the StC and RelC. The differences between CTs were not significant in CogC and in the controls. The result pattern was similar on the single dimensional level except for reputation which does not differ between groups as a RelC dimension. This means that Informer and Meformer do not differ in the quality of knowledge they share with others but that the significantly higher quality of relationships (RelC) of Meformers can be related to shared norms of reciprocity and higher popularity. The non-significant differences in

Discussion and Conclusion

The goal of this study was to analyze different communication types regarding their efficacy to build social capital via ESM platforms. Specifically, we focused on the individual CT and how social capital building differentiates between CTs. Therefore, we analyzed the communicative behavior of users and the social capital obtained within their social network structure.

Based on the established communication square model (Schulz von Thun, 2008) and in accordance with prior findings from Twitter

(Naaman et al., 2010), we distinguish between Informers and Meformers.

Contrary to the preliminary findings from public microblogging (Naaman et al., 2010), Meformers exceed Informers in building SC within EMB. The potential of different CTs to build SC, however, is limited to the structural (size of and position within the network) and relationship capital (quality of connections), while reputation and the cognitive capital (shared concepts and common experiences) are not affected by the communicative behavior at all.

Due to the major relevance of SC for organizations (Adler and Kwon, 2002) and the potential of ESM to build SC (Steinfeld et al., 2009) our findings are of significant relevance for practice. By showing the importance of self-disclosure and the associated Meforming in ESM, we respond to common practitioners' concerns regarding the waste of resources through microblogging. Our results regarding the building of SC show that it is generally helpful for individuals to adopt a more self-disclosing communicative behavior.

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