

Social Transactions on Social Network Sites: *Can Transaction Cost Theory contribute to a better understanding of Internet Social Networking?*

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Abstract

Social Network Sites (SNSs) are a success story by example. User counts as well as page visits have rocketed in recent years. In this paper we propose to utilize Transaction Cost Theory (TCT) and Social Capital Theory (SCT) to make sense of what kind of social interaction is executed on SNSs and why. In doing so we will show how TCT can be applied to SNSs by proposing to include in the theory the construct of social transactions. We will describe the characteristics of social transactions on SNSs as being concerned with the management of Social Capital. We will then determine which social transactions are attracted by SNSs. Finally, we discuss how research in the field of Internet Social Networking can benefit from this conceptualisation of social transactions and spell out practical implications.

Keywords: Social Networking, Social Network Sites, Transaction Cost Economics, Social Capital.

1 Introduction

Since the emergence of the first web sites that supported the creating and inter-linking of user profiles in the late 1990s (Boyd & Ellison, 2007) social network sites have become a mass phenomenon, both in terms of size and number. Today, Social Network Sites (SNSs) are among the most frequently visited sites on the internet. In popular traffic statistics, SNSs consistently rank among the top sites just behind the ubiquitous search engines (Alexa.com, 2009). SNSs such as MySpace or Facebook account for hundred millions of users. Moreover, various new, smaller and more specialised SNSs have emerged over the past few years, further signifying the success of this new business model (Costa, 2008). Still it is not foreseeable how SNSs will develop (Wigand et al., 2008). Early examples like Friendster did prove that the popularity of an internet service can come to a sudden end despite the success of the early days (Boyd & Ellison, 2007). Moreover the question is to be raised, whether SNSs are a temporally limited phenomenon rooted in the Web 2.0 hype or whether they will become a tool for the maintenance of social relations in the long term. But while tools like weblogs are

creating less attention lately (Lenhart et al., 2010), SNSs are still growing. Moreover, utility-based usage patterns, as observed on business-related SNSs, signify the usefulness of SNSs apart from belonging to a cultural trend. All this indicates that SNSs are indeed a uniquely efficient tool for specific interactions concerning one's social network (Steinfeld et al., 2008; Thew, 2008) and that they will most likely prevail.

Most papers on SNSs that take a theoretical position utilise Social Capital Theory (SCT) to explain the beneficial properties of SNSs (e.g. Ellison et al., 2007; Hu & Kettinger, 2008; Steinfeld et al., 2008). Indeed, SCT can be used to make sense of observed usage patterns on SNSs. However, SCT cannot explain why SNSs are used for a specific purpose instead of other channels of interaction. In this paper we want to draw on Transaction Cost Theory (TCT) to explain the success of SNSs and conceptualise what kind of social interactions are executed on SNSs. Other papers have utilized TCT to explain some single phenomena on SNSs (Ellison et al., 2009; Lampe et al., 2007). We seek to show in our paper, that the success of SNSs in general can be explained by applying TCT. We will do so by showing that the general idea of TCT can be used to describe the efficient execution of what we call social transactions on SNSs. Social transactions are transactions that affect the emergence or maintenance of social capital. We will characterise these social transactions on SNSs concerning their effect on Social Capital and show which specific social transactions are attracted to SNSs as the more efficient governance structure.

Our paper proceeds as follows. In section two, we begin by providing a brief discussion of existing definitions of SNSs. Moreover, we give a short overview of Transaction Cost Theory and Social Capital Theory. In section three we will apply TCT to SNSs and identify seven social transactions that have been observed in studies on SNSs. We will characterise these social transactions in order to gain insight into what kind of social transactions are attracted by SNSs. Further, we will discuss how the application of TCT can improve our understanding of the phenomenon of Internet Social Networking (ISN) and the potential of SNSs as a tool. We conclude our paper with a short summary.

2 Social Network Sites, Transactions Costs and Social Capital

2.1 Social Networking on the Internet

In line with prior studies, we distinguish between the phenomenon of Internet Social Networking (ISN) and its concrete manifestations in existing Social Network Sites (SNSs) (Richter et al., 2009). In the following we will define ISN and SNS.

2.1.1 Internet Social Networking

ISN can be understood as the phenomenon of Social Networking on the Internet. Hence, the concept subsumes all activities by Internet users with regard to extending or maintaining their social network. We draw on social network analysis/theory for further characterizing the concept (Carton & Wellman, 1999). A social network thus is defined as a set of individuals who establish with each other links of some kind, such as acquaintanceship or friendship (Newman, 2003). As such, the individuals and their activities in the social network are interdependent and the linkages are channels for

transfer of immaterial resources (Wasserman & Faust, 1994). Hence, our unit of analysis is not the individual, but the collection of individuals, represented in the social network as well as the linkages among them.

2.1.2 Social Network Sites as manifestations of ISN

Boyd and Ellison define Social Network Sites as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site” (Boyd & Ellison, 2007, p. 211). While others have criticised this definition on the grounds that it is too wide and includes all sites that feature Social Networking (Beer, 2008), we agree with the wider interpretation by Boyd and Ellison. Otherwise, research into many sites offering Social Network Features (SNFs) as non-core features would be left out (Richter et al., 2009). Henceforth, we follow the above definition and regard all websites that implement any features for enabling Social Networking as SNSs. In this definition all sites are included that support/enable Social Networking regardless of whether it is the core/defining or a none-core feature of the site.

2.2 Transaction Cost Theory

Transaction Cost Theory (TCT) has its origins in the modern Theory of the Firm (Schmidt, 2000). Coase raised the question of why enterprises exist that are more complex than the “firm” as conceived of in conventional pricing theory (Coase, 1937). The basic assumption is that every production unit (e.g. a single worker) can offer its working power on the market. However, using the market is not without cost. Consequently, production units form organisations that have governance structures, which are more efficient and hence less costly than the market. Williamson developed TCT based on the findings of Coase (Williamson, 1973; Williamson, 1981). TCT is concerned with the allocation of economic activity (transactions) across alternative modes of organisation (markets, firms, bureaus, etc.) with the firm at the one extreme of the spectrum and the market at the other.

TCT claims that governance structures that have better transaction cost economising properties will eventually replace less efficient structures (Williamson, 2005). These transaction costs are not to be mistaken for costs of the production function. As Arrow points out transaction costs are the “costs of running the economic system” (Arrow, 1969). These costs can be illustrated by comparing a firm with a machine. The machine is composed of multiple parts that all need to play together for the machine to work. When different parts work together eventually a physical friction exists, for example from single parts rubbing at each other. Transaction costs can be described as the “friction” that exists in multiple production units cooperating in a firm (Williamson, 2005). Hence, in essence Transaction Cost Theory denotes that whenever transactions occur between somehow specified actors there is a friction that raises some sorts of costs. For most transactions, different contextual factors can influence this friction. In the case of business markets these are subsumed in the organisational settings of the market or the hierarchy for example.

Transactions are characterised by three critical dimensions (Williamson, 1973) that can give insight in the extent to which a transaction is affected by human factors. Therefore, based on these critical dimensions, one can estimate whether the transaction can be better executed in a firm or on the market. The dimensions are (1) uncertainty, (2) the frequency with which transactions recur, and (3) the degree to which durable, transaction-specific investments are required to realise least cost supply (asset specificity). Uncertainty (1) mainly resides in the missing of adequate information about a subject. For example, uncertainty can emerge in case the future behaviour of a cooperating actor is not predictable. Hence, uncertainty generally drives the formation of hierarchies, where actors are bound to certain behaviour by contract (Williamson, 1973). Similarly, high levels of transaction frequency (2) foster the emergence of hierarchies (Rindfleisch & Heide, 1997), as forming identical cooperations again and again is not efficient. As a high level of asset specificity (3) raises the danger of opportunistic behaviour it too fosters the emergence of hierarchies.

2.3 Social Capital Theory

The term Social Capital is defined differently in its various fields of application. The mutual basis in all definitions is that Social Capital describes the value of social relationships for actors in reaching certain goals (Coleman, 1988; Lin, 2001; Riemer, 2005). Individuals depend on Social Capital embodied in the relations and social networks they are involved in, as the basis of social interactions with other individuals as well as for accessing resources not otherwise accessible without cooperation. Social Capital therefore complements the Human Capital embodied in a social network (Riemer, 2005). This social network is the result of individual as well as collective investments in the social relations (Bourdieu, 1983). These can be conscious, dedicated investments but especially for creating close bonding with other individuals (rich-type Social Capital) unconscious investments, in terms of genuine interest and multiple social encounters, are necessary (Riemer, 2005).

Dimension	Structural	Relational	Cognitive
Comprise:	Social relationship, Network density (group closure)	Trust, Norms, Obligations (reciprocity)	Social shared cognition, Collective goal orientation
Provide:	Opportunity	Motivation, Willingness	Ability

Figure 1: Dimensions of Social Capital (cf. Nahapiet & Ghoshal, 1998; Riemer, 2005)

Nahapiet and Goshal (1998) differentiate between three dimensions concerning different elements of Social Capital, a structural, a relational and a cognitive dimension (cf. Figure 1). Further we define Social Capital on the level of relationships or networks. In terms of relationships we can differentiate strong and weak ties (Granovetter, 1983) which inhabit rich-type or likewise weak-tie Social Capital. Rich Social Capital exists between close friends whereas weak-tie Social Capital exists between distant acquaintances and extends the reach of an individual in a network. When being interpreted on the network level, Social Capital can firstly be seen as bridging social capital, where individuals inhabit a prominent position in a network (Burt, 1992), which allows them to bridge between parts of the network and thus draw social capital from

this broker position or secondly as bonding Social Capital, which ties together a group of individuals on the basis of trust or social norms (Coleman, 1990).

3 Social Transactions on Social Network Sites

In the following section we will first introduce social transactions as transactions affecting Social Capital. Next we will provide evidence for the efficiency of SNSs for the management of one's social network. Further we will identify and characterize social transactions that have been observed on SNSs.

3.1 Transactions affecting Social Capital

TCT explains in essence, that transactions – like water – tend to choose the easiest path. This path can refer to the governance structure that causes the least friction. In the following we will interpret an SNS as a form of governance structure, which poses an alternative to existing ways of governing specific (social) transactions.

It has been argued that the usage of major SNSs is mainly motivated by the intent to form or maintain Social Capital (vom Brocke et al., 2009). This Social Capital can be utilized by the SNS users. For example, individuals can draw on their – online – social networks to find partners for a fishing trip, new employments or a date. We will call any transactions aiming at the formation or maintenance of social capital: *social transactions*. Hence in the following we will refer to transactions of interacting with other individuals as social transaction. This includes transactions aiming at gathering information on the surrounding social network or about other individuals, as all those have an effect on the Social Capital of the actor. Social transactions can be executed on one or several SNSs as well as in other (competing) governance structures (e.g. face to face interaction, society work, ...). We will therefore assume that individuals (consciously or subconsciously) decide on the governance structure they execute these social transactions in, based on the associated costs. Consequently, in light of TCT we hypothesise that SNSs only exist because they reduce the friction of specific social transactions. Further, we hypothesise that the shift of certain social transactions concerning one's social network onto SNSs can be explained by the reduced friction as described by TCT.

3.2 Social Network Sites as an efficient tool for social network management

Existing studies highlight that users of SNSs use the same strategies for impression management on SNSs as in real world contexts (Buffardi & Campbell, 2008; Evans et al., 2008; Gosling et al., 2007). Moreover, they interact with the same people (Chun et al., 2008; Lampe et al., 2006; vom Brocke et al., 2009) and show the same different identities to the same social groups as offline (DiMicco & Millen, 2007). Social interaction on SNSs and in other social contexts hence seems highly comparable.

Despite the similarities to offline interaction however, from a functional perspective, exploring one's social network was never possible the way it is in SNSs. Through the culture of participation more information is present today about social networks and their individuals than ever before. SNSs hence seem to act as a market for information on individuals and relationships among them. As a governance structure SNSs increase

the quality and quantity of data about social actors and the social structure connecting them. The ability to reach many friends, acquaintances and other contacts using SNSs makes these attractive for the user (Kollmann & Stöckmann, 2007).

In the following, we will illustrate the efficiency of SNSs with three examples taken from the literature, one dealing with a business-related SNS (LinkedIn) and two with Facebook. Evidence regarding properties of SNSs beneficial from a TCT perspective is subsumed in Figure 2.

(1) In this case a Director of an R&D consultancy shares insight into how they utilise LinkedIn and what benefits they can generate from doing so (Thew, 2008). The author highlights the ease with which an extraordinary large social network is managed, in that he can draw on it at any time, as well as that the platform provides an easy-to-use and comprehensive search functionality. Especially these two properties lead the author to the conclusion that LinkedIn is invaluable as a business networking tool. Further the author states that LinkedIn is more efficient than any other service he has used for the management of a professional network as well as for the search of potential business partners.

Functional evidence	Anecdotal evidence
<ul style="list-style-type: none"> - High quantity and quality of data on individuals - Information on the links within social networks gains a new quality 	<ul style="list-style-type: none"> - Management of a extraordinary large social network (Case 1) - Reduction of uncertainty in establishing new contacts on a targeted basis (Case 1 and 2) - Support for forming structural social capital and integrating into a new social environment (Case 3)

Figure 2: Evidence on beneficial properties of Social Network Sites for the execution of specific social transactions

(2) A study by Lampe et. al. examines the relation between profile elements and friend-count and deduces findings on what profile elements make different search processes on SNSs more efficient (Lampe et al., 2007). The authors state that SNSs have the potential to reduce uncertainty about newly met individuals. Detailed profiles even allow for finding and connecting with individuals that may share only limited specific interests (Ellison et al., 2009).

(3) Steinfield et. al. investigate in a longitudinal analysis with students the relation between intensive use of Facebook and the emergence of structural social capital as well as psychological measures of well being (Steinfield et al., 2008). They report, that an intensive usage of Facebook in year one of their studies predicted a higher structural Social Capital outcome for the individual in year two. This indicates a potential of SNSs to foster the emergence of structural social capital.

3.3 Social Transactions on SNSs and their characteristics

We conducted a literature review including 252 publications in the field of ISN, in which we identified seven social transactions that have been observed in multiple studies. The complete literature review including detailed information on the review

process will be published elsewhere. In the review we differentiate between direct and indirect social transactions, Figure 3 displays the first, Figure 4 the latter.

3.3.1 Indirect social transactions

With indirect social transactions an individual executes strategies of impression management. These activities can lead to the emergence of social capital in the form of reputation or reach within the social network (cf. Boyd & Heer, 2006; Donath & Boyd, 2004). But they do not have a direct influence on existing social relations. Dishonest behaviour in impression management (e.g. friends collecting or overemphasizing on an ideal self) can however have a negative effect on social capital (cf. Tong et al., 2008). Direct social transactions aim at the formation and maintenance of relationship links with individuals or gathering knowledge about one's – offline – social network. Examples can be both the maintenance or intensification of relationships with old friends and with new contacts. However, the initiation of new relationships by searching for individuals specifically tends to only take place in utility-oriented contexts like recruiting, but almost never in private life contexts.

Name	Description
Profile design	<p>The profile on a SNS is the digital image of an individual on the SNS. It can best describe how a individual wants to be perceived. Designing this profile individuals alter different strategies. Whereas youth often create sophisticated and exhausting profiles older users often create profiles, which are plain and reduced in style as well as content. Often users present something like an "ideal self" overemphasising on qualities the person does not or not yet possess.</p> <p>(Evans et al., 2008; Gosling et al., 2007; Kreps, 2008; Lampe et al., 2007; Zhao et al., 2008)</p>
Public displays of connections	<p>Often friendship links seem to be used as a means to generate attention as well as prestige, but as well for connecting compatible but disconnected social networks. By using blackboards and testimonials other users even actively participate in the development of a profile and co-form the presented identity. The relationship to and the comments of friends are often perceived as the most trust worthy information on SNS profiles.</p> <p>(Boyd & Heer, 2006; Donath & Boyd, 2004; Elm, 2007; Lee & Bruckman, 2007; Walther et al., 2008)</p>
Friends collecting	<p>Many SNS users know their online friends form an offline context, but some users rather show a "friends collecting" behaviour. On certain SNSs like MySpace it is a common culture to collect as many friends as possible – even up to 500 and more. The number of friends indicates how socially active an individual is and is hence used as a measure for popularity in certain communities but can also raise doubt on the trustworthiness of an individual.</p> <p>(British Office of Communication, 2008; Rosen, 2007; Tong et al., 2008)</p>

Figure 3: Indirect social transactions on Social Network Sites

3.3.2 Direct social transactions

Social transactions identified on SNSs are seldom rich interactions. Rather, they aim at the formation of weak ties or the maintenance of social relations (Lampe et al., 2006; vom Brocke et al., 2009). Obviously, SNSs are not only used for interacting with acquaintances but also with close friends. But drawing on the behaviour observed on SNSs even with close friends rich-type interactions are likely to be an exception. Such interactions are however necessary to establish and maintain rich-type Social Capital (Riemer, 2005), but these transactions are typically executed in other settings, for example in face-to-face interactions. In general, communication on SNSs seems to be largely limited to facilitating gossip and disseminating information such as on events

(Bumgarner, 2007; Enochsson, 2007). In summary, the direct social transactions observed on SNSs are those that mainly affect the structural dimension of social capital. That is by creating, intensifying and maintaining social relations (social searching, social browsing and staying in contact) as well as by gathering knowledge about the social network an individual is involved in (social searching and social grooming).

Name	Description
Social Searching	Social Searchers utilise SNSs to find out more about their offline network in browsing the profiles and friends lists of new offline contacts. In doing so context information is gathered and awareness is created that improves the ability of an individual to act in this social network.
	(Lampe et al., 2006; Steinfield et al., 2008; vom Brocke et al., 2009)
Social Browsing	Social Browsing describes the search for individuals on a targeted basis with the intention to initiate contact. Such behaviour can rarely be observed in context of private life, examples are the search for a romantic partner or new friends. On business related SNSs like LinkedIn such behaviour is more apparent. Especially in the context of recruiting, SNSs have been identified as a uniquely efficient tool for identifying candidates for employment.
	(Lampe et al., 2006; Schaefer, 2008; Thew, 2008)
Staying in Contact	Besides social searching the dominant usage patterns of SNSs users aim at the maintenance of social relationships. Users seek to recreate their offline social network and stay up to date on changes in their friends' lives. Such behaviour is even more dominant on business related SNSs where individuals manage their professional social network in order to maintain weak ties.
	(Raacke & Bonds-Raacke, 2008; Schaefer, 2008; Steinfield et al., 2008; vom Brocke et al., 2009)
Social Grooming	With respect to communication the most prominent usage pattern found is the facilitation of gossip and events. Bumgardner subsumes such behaviour under the term of Social Grooming.
	(Bumgarner, 2007; Tufekci, 2008)

Figure 4: Direct social transactions on Social Network Sites

3.3.3 Interaction between indirect and direct social transactions

Moreover, evidence exists, that peoples' profiles on SNSs and information they post on their current activities in the social network can create awareness and valuable context that can further contribute to the emergence of social capital. For example, such information can help identify common interests and therefore topics for communication or opportunities for connecting over shared hobbies (Lampe et al., 2007; Steinfield et al., 2009). Such knowledge thus further contributes to creating a basis for better understanding between individuals. Therefore, indirect social transactions executed on SNSs mostly lay ground for the participation in direct social interaction on SNSs. They create an impression of one's self through self description as well as comments by others, and friendship links that form a basis for successful transactions.

We will in the following use the characteristics of social transactions on SNSs concerning their effect and nature towards Social Capital to conceptualise the types of social transactions that are attracted by SNSs. We will draw on the dimensions laid out by TCT for characterising transactions, namely (1) asset specificity, (2) frequency and (3) uncertainty, as our starting point.

3.3.4 Asset specificity of social transactions on SNSs

In general, social transactions that lead to the emergence of rich social capital require a high investment into one specific social relationship, which is not transferable. Therefore those social transactions are characterised by high (1) asset specificity. Rich Social Capital is typically characterised by a close relationship between two individuals that is characterised by properties such as trust and a common understanding. In case one individual ends this relationship the investments carried out in order to create the rich Social Capital are lost.

Direct social transactions on SNSs aiming to *create* Social Capital are those mainly affecting the structural level of social capital, mostly in the form of weak ties. Hence, in contrast to the above-described, social transactions with a rather low degree of asset specificity seem to be attracted by SNSs. On the other hand, SNSs can act as a governance structure to follow up on social transactions with high asset specificity in order to *maintain* rich Social Capital as well.

Moreover, the *indirect* social transactions we identified are characterised by high asset specificity, as these require a certain amount of time for constructing a profile and searching for already-known individuals on the SNSs. Also, by deciding to adopt a particular SNS an individual selects a certain social network, including the individuals already registered on this SNS, which means one can only interact with those people. This decision locks the user in; it is thus a transaction with high specificity. In the long term these efforts can later be utilized to socialize with several individuals, so that the high asset specificity thereby is rather describing the relationship of a user with the SNS than relationships between individuals on the SNS. Moreover, these indirect social transactions are additional social transactions, specifically carried out on the platform as part of typical SNS usage, and not substituting other interactions.

In summary, we hypothesise that social transactions attracted by SNSs from other contexts are mainly those with a low degree of asset specificity. Furthermore, we hypothesise that the relationship of the user with the SNS itself is one characterised by high asset specificity, as the number of SNSs an individual can actively use is limited.

3.3.5 Frequency and uncertainty of social transactions on SNSs

(2) We can only reason on transaction frequency to a certain degree as data on the frequency in which social transaction are executed on SNSs is hard to come by. This is partly due to a lack of longitudinal studies in the field. Nevertheless, we can assume that the frequency of different types of social transactions differs. Studies indicate that some users change their profile nearly daily, especially youth (Livingstone, 2008). On the other hand new friendship links will only be created from time to time, except for when an individual first joins a SNS or follows a ‘friends collecting’ strategy.

Users describe the communication on SNSs as less committing in comparison to other communication channels (vom Brocke et al., 2009). In addition, individuals are less reserved about asking someone to be their friend on SNSs than in an offline context (Ellison et al., 2009). Due to this lack of commitment towards friendship links and communication it is rather unlikely that social transaction that are characterised by a high level of (3) uncertainty will be drawn onto SNSs. This corresponds with the finding that most social transactions on SNSs affect social capital on a structural level.

Obligations or trust (elements of rich social capital) are not created as individuals seem to be less committed on SNSs compared with other settings of social interaction.

We can thus summarise that social transactions attracted by SNSs seem to be characterised by low uncertainty and low asset specificity.

4 DISCUSSION

We propose to use Transaction Cost Theory (TCT) and Social Capital Theory (SCT) in order to identify and characterise social transactions executed on SNSs. In the following section we will discuss implications for further research as well as for the usage of Social Network Sites (SNSs), especially in specific contexts (e.g. enterprise context).

4.1 Implications for research on Internet Social Networking

Our paper is only a first step in utilising TCT in order to make sense of the usage patterns observed on SNSs. Further research will have to use this construct to characterise social transactions on SNSs in more detail. For this reason we will highlight three areas of research that we think especially warrant attention. We expect that such research can contribute to a better understanding of social transactions on SNSs and with that of the phenomenon of Internet Social Networking (ISN) in general.

4.1.1 Identification of further social transactions on SNSs

As our work builds on the current body of research it has certain underlying similar limitations. To date most studies on ISN use empirical data mainly from Facebook or MySpace; other SNSs are rarely taken into account. Moreover, research is focused on SNSs usage of youth and students. Hence many usage patterns and with that the associated social transactions on SNSs might yet be unobserved. Research on ISN should therefore have a wider scope in including multiple SNSs and user groups. In this paper we have further identified social transactions drawing on several empirical studies that were not focused on social transactions. Hence, empirical studies need to be conducted specifically aiming at the identification of social transactions in order to verify and extend our findings.

4.1.2 Gaining insight into how SNSs reduce the friction of social transactions

We presented first evidence that certain social transactions are attracted by SNSs as the governance structure with better transaction cost economising properties. However, until now we have little knowledge about why these social transactions seem to be executed efficiently on SNSs. Besides the functional properties of SNSs (cf. Figure 2) their development history might provide some insight. The large SNSs existing today have not been developed with a particular goal in mind (Richter & Koch, 2007). Rather, the development of SNSs followed a self organised, bottom up approach, in which the users generate content and define the rules and reasons of usage (Boyd, 2006; Rosen, 2007). In the case of MySpace the users have even been involved in the development process (see case description in Boyd, 2006). Due to this massive bottom up development approach SNSs and Social Software are not only easy to use, but seem to fit the users' needs particularly well (Avram, 2006). Hence, the development process might have a major influence on the success of SNSs. This is signified by a study on

enterprise SNSs: Richter and Riemer (2009) highlight in their study, that the usage of SNSs in enterprise contexts can notably benefit from an adoption of such development strategies. They compared the introduction and success of three internal SNSs and found that an incremental introduction of SNFs combined with user participation in the development process highly benefited the success of the internal SNS.

The different usage patterns observed on public, leisure-related SNSs and business-related SNSs indicate that different social transactions are executed on different SNSs. Research should therefore compare the execution of social transactions on different SNSs. By comparing the functional settings as well as the contextual factors of usage properties might be identified influencing the effectiveness of SNSs as a market for specific social transactions.

Furthermore, in this paper we concentrated on SCT for characterising transactions on SNSs as this is, to our knowledge, the theory applied most often in the context of SNS phenomena. Further research should elaborate whether other theories that have been applied in the SNS context, such as Social Gratification Theory, could also be used to improve the theoretical framework we have started to develop in this paper and help to better understand the benefits of SNSs in executing specific social transactions.

4.1.3 Comparison between different governance structures for social transactions

Research needs to be widened in the sense of analysing the usage of SNSs in the context of other governance structures for social transactions. As such, research needs to identify those governance structures from which social transactions are attracted by SNSs in order to fully understand the impact of SNSs as a market for social interactions. Further, we need to consider the possibility, that social transactions on SNSs are additional in the sense that they increase an individual's overall social activity, rather than substituting for existing ones. For example, it should be explored whether individuals that are actively involved on SNSs are less active in other contexts like social work, team sports or similar activities. We think that it is important to create an understanding about which kinds of social transactions are attracted by SNSs in order to utilize the beneficial properties of SNSs in specific contexts.

4.2 Implications for usage of Social Network Sites

The application of TCT and SCT indicates that SNSs are an efficient tool for the management of weak ties and the execution of social transactions of low uncertainty and low asset specificity. Hence, SNSs are most likely not to be mistaken for a cultural episode, but are here to stay and will probably be used even more intensively in the future, as social groups currently underrepresented might become more active. However, we were not able to identify social transactions affecting the creation of rich Social Capital on SNSs. Hence, drawing on our early results, we are cautious as to the extent to which SNSs will be able to support the creation of rich Social Capital. The social transactions we identified mostly affect social capital on a structural level. This has implications for the usage of SNSs in other contexts as can be illustrated with the enterprise usage of SNSs.

Social Software tools like SNSs are increasingly adapted for usage in enterprise contexts. SNSs are especially used to improve the social capital residing in the social networks of employees. Especially virtual collaborative settings suffer from

organisational problems on the group level (Breu & Hemingway, 2004). Hence a need exists for the creation of social structures (Riemer & Klein, 2008). But these problems often reside in the absence of relational and cognitive Social Capital (cf. Figure 1) necessary for the group members to collaborate (Riemer & Klein, 2008). Our results indicate that SNSs will mostly likely not benefit the creation of Social Capital on a relational or cognitive level. SNSs attract mainly social transactions that affect social capital on a structural level, as they are the more efficient governance structure. The same is true for those transaction that aim at the maintenance of social capital.

Therefore, similarly to public SNSs, we expect that in an enterprise context SNSs will mostly be beneficial for creating structural social capital in the form of a denser network of weak ties, i.e. a general degree of connectedness, which might facilitate expert search and information exchanges. But we doubt that SNSs are suitable to facilitate solving the more profound problems of virtual organisation.

However, the above is not an argument against using SNSs in an enterprise context. Rather, it serves to illustrate how the strategic usage of SNSs can benefit from a conceptualisation of social transactions on SNSs. In fact, we think that SNSs have a high potential for enterprise usage. SNSs can support the maintenance of (even rich) Social Capital that has been created in rich-type collaborations. Moreover, the usage of SNSs can assist new employees in integrating into the firm's social network (comparable to Social Browsing behaviour). These are only two examples of how SNSs can help the formation and management of inter- and intra-firm Social Capital.

5 CONCLUSION

In this paper we have proposed to use Transaction Cost Theory (TCT) in combination with Social Capital Theory (SCT) to create a better understanding of the phenomenon of Internet Social Networking (ISN). We have shown how TCT and SCT can be applied to Social Network Sites (SNSs). In doing so, we identified from the literature seven social transactions that are executed on SNSs and characterised these social transactions by applying TCT. We found that social transactions on SNSs mostly affect Social Capital on a structural level. The efficiency of such social transactions does not only explain the success of SNSs so far but lets us expect that this success is likely to prevail. Moreover, the conceptualisation of social transactions allows us to create a better understanding of what SNSs can be used for and what not. Also, the possibility of comparing SNSs with other governance structures for social interaction can help to better understand the phenomenon of ISN. Our usage of TCT is a first step to conceptualising the usage of SNSs in comparison to other settings for social interaction. We hope that our work can contribute to a better conceptualisation of the phenomenon of ISN and that future studies might take the perspective developed in our paper to conduct more empirical research.

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