Why Don't You Use It? Assessing the Determinants of Enterprise Social Software Usage: A Conceptual Model Integrating Innovation Diffusion and Social Capital Theories

Research-in-Progress

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Abstract

Social software has recently attracted the attention of organizations. Nowadays organizational social software applications are often bundled within enterprise social software platforms (ESSPs). Given the popularity of social software in the private realm (e.g., Facebook), organizations expect their employees to use the ESSPs in the same frequency right after rollout. However, employees do not always meet this expectation, leading to internal social software platforms that starve for attention. While there is some research investigating users' motives to adopt social software in the private realm, empirical research on social software adoption in an enterprise setting is still scarce. As a step towards closing this research gap, we collected a rich set of qualitative data aiming at investigating the determinants of employees' ESSP usage. Based on theory and the collected qualitative data, this paper proposes a conceptual ESSP adoption model combining the theoretical perspectives of innovation diffusion theory and social capital theory.

Keywords: Social software, Enterprise 2.0, Information systems adoption, IT adoption, Organizational culture, Innovation diffusion

Introduction

Social software applications – such as wikis, weblogs, and social networking sites – have recently attracted the attention of organizations as they promise to strengthen capabilities for knowledge sharing, collaboration, and innovation (e.g., Bughin and Chui 2010; Majchrzak et al. 2006; Wagner and Majchrzak 2006). Nowadays, organizational social software applications are bundled and integrated within enterprise social software platforms (ESSPs). Organizations are aware of the potential benefits accompanying ESSPs and, consequently, increasingly launch organization-wide ESSPs (Bughin et al. 2011; Kim et al. 2010; Majchrzak et al. 2009). Given the popularity of similar applications in the private realm (e.g., Facebook, Google+, and Twitter) (e.g., Koroleva et al. 2011), organizations expect their employees to adopt and use ESSPs in the same manner and frequency right after rollout (McAfee 2009b). However, the passive rollout strategies employed by organizations often prove unsuccessful, resulting in ESSPs with few contributors and, thus, a low participation appeal (Brzozowski 2009; Healey 2011). In support of this, Tim Young, former CEO of an ESSP provider, reports that about "20 to 25 percent of users are early adopters" and that there is a lack of usage among the remaining 75 percent of potential ESSP users (Ashton et al. 2011, p. 39). This issue – a lack of employee adoption and use – is frequently cited as one of the leading causes of innovative organizational information technologies' (IT) failure (e.g., Karahanna and Straub 1999).

Information systems (IS) researchers suggest that general IS adoption models such as the technology acceptance model (TAM) (Davis 1986; Davis et al. 1989) might be too parsimonious to explain the adoption of particular innovations (e.g., Venkatesh and Davis 2000). Therefore, they call for IS adoption research focusing on a specific class of technology in order to account for the technologies' characteristics and to increase the resulting models' explanatory power (e.g., Venkatesh and Bala 2008). In the context of social software adoption, technology specificities, such as the social interactions (e.g., critical mass of users, reputation, and community aspects) between users, play a vital role (e.g., Lai and Turban 2008), and should therefore be considered in a model explaining ESSP adoption (e.g., Soliman and Beaudry 2010). While some research has investigated users' motives to adopt social software tools in the private realm (e.g., Chai et al. 2012; Church and Salam 2010; Hsu and Lin 2008; Krasnova et al. 2010; Lin and Lu 2011; Theotokis and Doukidis 2009), empirical research on social software adoption in an enterprise setting is still scarce (with some exceptions, e.g., Wattal et al. (2010) as well as Brzozowski et al. (2009)). Because research suggests that "practices and benefits are likely to be very different in an enterprise context" (Richter et al. 2011, p. 96), researchers call for further investigations on what drives employees' ESSP usage (Richter et al. 2011; Turel and Zhang 2011): "Future research should employ cross-sectional surveys to develop comprehensive theoretical models that can guide the study of such technologies in organizational contexts" (Wattal et al. 2010, p. 168). Recent research in the field of organizational social software adoption suggests that the contextual factors of an organization, i.e. the organizational climate[1], have an important impact on individuals' adoption behavior (e.g., Brzozowski et al. 2009; Denyer et al. 2011; Hester 2011; Osimo et al. 2010; Paroutis and Al Saleh 2009). Although research in the realm of social software has widely acknowledged the importance of social capital theory for explaining their usage and its outcomes (e.g., Boyd and Ellison 2007; Chai et al. 2012; Ellison et al. 2007; Koroleva et al. 2011; Steinfield et al. 2008), surprisingly, there is, to the best of our knowledge, no study that integrates the perspective of social capital theory into a research model investigating the individual social software adoption behavior in an enterprise setting. We address this research gap by proposing an ESSP adoption model that combines the theoretical perspectives of innovation diffusion theory and social capital theory. Against this background, our research endeavor addresses the following research questions:

- What are the determinants of an individual's decision to use an ESSP? (RQ1)

- How does organizational climate affect an individual's decision to use an ESSP? (RQ2)

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[1] Following Bock et al. (2005) as well as Denison (1996), we define organizational climate as a contextual situation at a certain point in time regarding the thoughts, feelings, and behaviors of an organization's members. For a discussion of organizational climate and how it differs from organizational culture, see Bock et al. (2005).

The remainder of this paper is organized as follows: In the next section, we introduce the basic theoretical concepts that form the foundation of our conceptual model. Thereafter, we define the research scope and the methodology of our research endeavor. Subsequently, we present our conceptual model as well as the research hypotheses. In the final section, we outline the next steps of our study and discuss this paper's contribution.

Theoretical Background

We base our definition of enterprise social software platforms (ESSPs) on Kim et al.'s (2010, p. 216) definition of social web sites, which the authors define as "Web sites that make it possible for people to form online communities, and share user-created contents (UCCs)." In the enterprise context, people are represented by an organization's employees, a network of co-workers represents the community, and UCCs are represented by any kind of content (e.g., blogs, wikis, text messages, photos, videos, bookmarks, user profiles, and activity streams). In short, ESSPs are a mix of social networking sites (Boyd and Ellison 2007; Richter et al. 2011) and social media sites with which to share various media types (Kim et al. 2010). Typical products in this segment are IBM's social software platform *IBM Connections*, the *Jive* platform, and Microsoft's *SharePoint 2010 Communities* (please refer to Drakos et al. (2011) or Koplowitz (2011) for recent market overviews on ESSPs). While companies increasingly deploy ESSPs to leverage potential organizational benefits (e.g., Bughin et al. 2011; Denyer et al. 2011; Wagner 2006), employees do not necessarily use the provided technology as expected, leading to platforms that "starve for attention" (Healey 2011, p. 1). This exemplifies a common IS adoption paradox: organizational IS adoption does not always result in adoption of that IS by the organization's employees, i.e. the individual users (Agarwal and Prasad 1997).

Since the acceptance of IS by individuals is known to be one of the major causes of innovative IT's failure, IS adoption has been a subject of great interest to both researchers and practitioners over the last decades (e.g., Al-Natour et al. 2011; Compeau and Higgins 1995; Davis 1989). This major IS research stream studies how and why individuals adopt new IT (Venkatesh et al. 2003). As observed by Warner (1974), adoption is a complex social phenomenon that always involves both technical and nontechnical factors. This is especially true for ESSPs, which encompass higher levels of social interaction and collaboration than traditional organizational IT, such as personal computers and productivity tools (Kane and Fichman 2009; Wagner and Majchrzak 2006). Assessing the acceptance behavior surrounding such emerging collaborative technologies therefore requires a theoretical foundation that combines both technological and social factors (Brown et al. 2010). As recent research results indicate (e.g., Wattal et al. 2010), a third set of factors – namely the organizational context – might be crucial in terms of IS adoption by employees (Lin et al. 2009). While some studies do examine the adoption of public social software (e.g., Chai et al. 2012; Church and Salam 2010; Hsu and Lin 2008; Krasnova et al. 2010; Theotokis and Doukidis 2009), research exploring employees' enterprise social software adoption is still scarce. Wattal et al. (2010) investigate individuals' blog usage within an organization. Hester (2011) develops and empirically tests a model of wiki acceptance by individuals in the workplace. Paroutis and Al Saleh (2009) conduct a qualitative exploration of determinants of organizational social software usage. Brzozowski et al. (2009) empirically investigate the effect of feedback from and visible activities of managers and coworkers on employees' organizational social software usage. Günther et al. (2009), by means of qualitative data, develop an adoption model for microblogging in the enterprise based on Venkatesh et al.'s (2003) unified theory of acceptance and use of technology (UTAUT) and subsequently test it by launching a quantitative study (Schöndienst et al. 2011).

Innovation diffusion theory (IDT) seeks to explain which factors will influence the adoption of an innovation. According to Rogers (1962; 2003), what is most important in determining an organizational innovation's adoption rate is the innovation itself, i.e. its characteristics. Moore and Benbasat (1991) drew on Rogers' work in developing IDT, which models eight constructs that capture user perceptions regarding an IT innovation. Thus, Moore and Benbasat (1991) established a set of technology characteristics that can be considered antecedents of IS adoption by individuals. Studies of organizational technology adoption based on IDT have shown that the perceived characteristics of technological innovations, as proposed by IDT, have a significant impact on employees' intentions to adapt the respective innovations (e.g., Moore and Benbasat 1996; Plouffe et al. 2001). These perceived characteristics of technological innovations represent a rich set of adoption influencing factors that have

been shown to affect adoption in numerous settings (e.g., Agarwal and Prasad 1997; Hsu et al. 2007). Consequently, we base our proposed ESSP adoption model on IDT for the technological and social factors affecting individuals' ESSP adoption.

Previous research in the field of organizational social software adoption has suggested that employees' ESSP usage is likely to be contingent upon contextual factors (e.g., Brzozowski et al. 2009; Denyer et al. 2011). In our study, we follow Kankanhalli et al.'s (2005) approach and draw these contextual factors – namely organizational climate – from social capital theory (SCT). Social capital is defined as "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nahapiet and Ghoshal 1998, p.243). It represents the values embedded in a network of people, such as trust, norms, and further values that facilitate individuals' actions (Tsai and Ghoshal 1998). Social capital plays a crucial role in establishing behavioral norms among the members of a social unit (Walker et al. 1997) as well as in promoting information diffusion (Coleman 1988). Consequently, given an environment that is high in social capital – as is the case with the existence of shared values, trust, shared behavioral norms, and group identification – the environment significantly contributes to the creation and sharing of knowledge and to cooperative interaction (Nahapiet and Ghoshal 1998). Social capital has been shown to be positively associated with knowledge sharing (Yli-Renko et al. 2001) and usage intentions (Sykes et al. 2009). SCT is particularly relevant for studying organizational IS because "organizations as institutional settings, are conducive to the development of high levels of social capital" (Nahapiet and Ghoshal 1998, p. 242). Because SCT is able to cover key aspects of organizational climate, which we deem relevant to ESSP usage (such as trust, norms, and identification) (Nahapiet and Ghoshal 1998) and SCT since "has a direct relationship to the community aspects of and motivation for participation in social computing" (Parameswaran and Whinston 2007, p.342), this study employs SCT to account for the organizational climate factors.

Research Scope and Methodology

We focus on investigating the behavior of individual users rather than an organization as a whole: although an organization implements a particular ESSP, the actual users usually decide the extent of its use. Thus, we suggest that it is vital to examine the behavior of individuals in terms of IS adoption. Data collection for this study comprises two phases. The first phase, which informed the researchers during the conceptual model formation, entailed an exploratory investigation to look into practitioners' perceptions of social software usage. Within this investigation, we a) undertook two case studies and b) conducted several workshops, each with participants from multiple professional services firms. The case material was collected from two companies that have deployed and are now using social software applications. For company details, please refer to Table 1.

Table 1. Firm Characteristics		
	Alpha	Gamma
Industry	International provider of power and automation technologies	Airport company
Turnover [€]	24,328 m	2,106 m
Employees [FTEs]	120,000	23,078

We focused our exploration on applications that are exclusively utilized for internal purposes, since this study focuses on the internal use of ESSPs. Multiple data collection methods were utilized: 1) archival sources, 2) transcripts of semi-structured interviews (each lasting 45 to 90 minutes) with individuals involved in the management of the organizations' IT departments, and 3) meeting protocols. The workshops were conducted as part of a benchmarking project regularly carried out by the authors. This project focuses on a qualitative, longitudinal, and industry-specific investigation of professional service firms concerning their knowledge management (KM) and collaboration practices. One part of the interview-based benchmarking is aimed at the participants' social software platforms. We conducted several workshops (each lasting four to eight hours) with the participating companies' chief knowledge officers as well as project employees discussing which KM and collaboration instruments they deployed and how they promote their usage. Field notes and protocols gathered in the workshops, during which individuals shared their thoughts and ideas on enterprise social software usage, provide the researchers

with valuable insights into relationships, anecdotes, and informal observations (Eisenhardt 1989). Interview transcripts as well as workshop protocols were written and analyzed by two researchers, face-to-face. Examples of the qualitative data extracted are shown in Table 2.

Table 2. Examples of Qualitative Data on Social Software Adoption	
Dimension	**Interviewees' / Workshop participants' comments or observations**
Relative Advantage	Several interviewees stated that the employees want to clearly see the benefits of using social software instead of just trying the tools for the sake of it. As an example, one interviewee stated: *"People at first want to be convinced regarding the benefits before they go ahead and try it [the system]."*
Ease of Use	All interviewees affirm that ease of use has an important impact on employees' decision to use organizational social software.
Result Demonstrability	One of our interviewees stated: *"The problem at our organization is that people [employees] regard it [contributing to social software] as additional time effort, in which they cannot afford to invest without being convinced of the potential benefits beforehand."* One other interviewee described that, in order to foster social software adoption, their organization conducted awareness workshops, which have helped them demonstrate how social software tools can add value.
Reputation	One interviewee mentioned that social software usage is seen as part of reputation management within their company and that employees' motivation to participate partly evolves from that: *"People [employees] get awarded for excellent contributions. They won't get any monetary rewards, but they are very proud [to be publicly awarded]".*
Trust	The participants of one of the workshops agreed on the point that trust among employees is of uttermost importance when it comes to organizational social software usage.
Community Identification	One interviewee expressed his observation that employees within departments that do not have a strong feeling of belonging to the company show less motivation in engaging in their organizational social software.
Private Social Software Experience	Several interviewees confirmed the importance of this aspect. One interviewee stated that employees who were not familiar with social software from the private realm had a hard time getting used to the new patterns of interaction. Another interviewee even deemed it necessary to have at least some affiliation with social software in order to use it productively.

In order to strengthen the generalizability and internal validity of our research, existing literature and theories were used to form a priori concepts (codes), to develop the interview guide, and to structure field notes and protocols (Hardgrave and Johnson 2003). In the second data collection phase, we will launch a survey to validate the proposed model (see the final section of this paper).

Conceptual Model and Research Hypotheses

Based on both (i) theory and (ii) the empirical material that we collected and analyzed, we developed a conceptual model addressing the question as to which factors affect an individual's decision to adopt ESSPs. By integrating the theoretical perspectives of IDT and SCT, we suggest that the determining factors may be categorized into three dimensions: (a) technological factors, (b) social factors, and (c) organizational climate. The technological as well as the social factors are mainly informed by IDT, whereas we draw on SCT for organizational climate factors.

Studies investigating individuals' IS adoption decisions define and operationalize the dependent variable differently. While some researchers focus on the behavioral intention to use a system (e.g., Agarwal and Prasad 1997; Hsu et al. 2007; Karahanna et al. 1999), others base their research on actual system usage by measuring system usage in subjective (e.g., frequency, duration, and intensity) or objective (e.g., system logs) terms (e.g., Igbaria et al. 1989; Limayem and Hirt 2003). Although several studies in IS research have established that there is a strong relationship between behavioral intention to use and actual system usage (e.g., Davis et al. 1989; Devaraj et al. 2008; Venkatesh 2000), other research endeavors have suggested that utilizing actual system usage measures may provide greater explanatory power than measures based on intention to use a technology (Limayem et al. 2007; Venkatesh et al. 2008). Therefore, we decided to include ESSP usage (ESSPU) as the dependent variable in our conceptual model. To address different usage types (e.g., active vs. passive) and different technologies abstracted under the ESSP umbrella, we plan to measure the type of technology (e.g., weblog, wiki, etc.) used as well as the type of usage (e.g., consumptive usage and contributive usage). Figure 1 depicts the developed conceptual model addressing employees' ESSP usage. In the following sections, we will develop the underlying hypotheses and describe the different parts of the model.

Technological and Social Factors

IDT (Moore and Benbasat 1991) includes eight independent variables, namely relative advantage, ease of use, result demonstrability, compatibility, image, visibility, trialability, and voluntariness. According to Moore and Benbasat (1991), a distinction can be made between perceptions of an innovation itself and perceptions of using the innovation. Since our research aims to shed light on the use of an innovation (i.e. ESSPs), we follow Karahanna et al.'s (1999) approach and redefine the IDT constructs so that they reflect perceptions of using ESSPs instead of perceptions of ESSPs themselves.

Figure 1. Conceptual Model
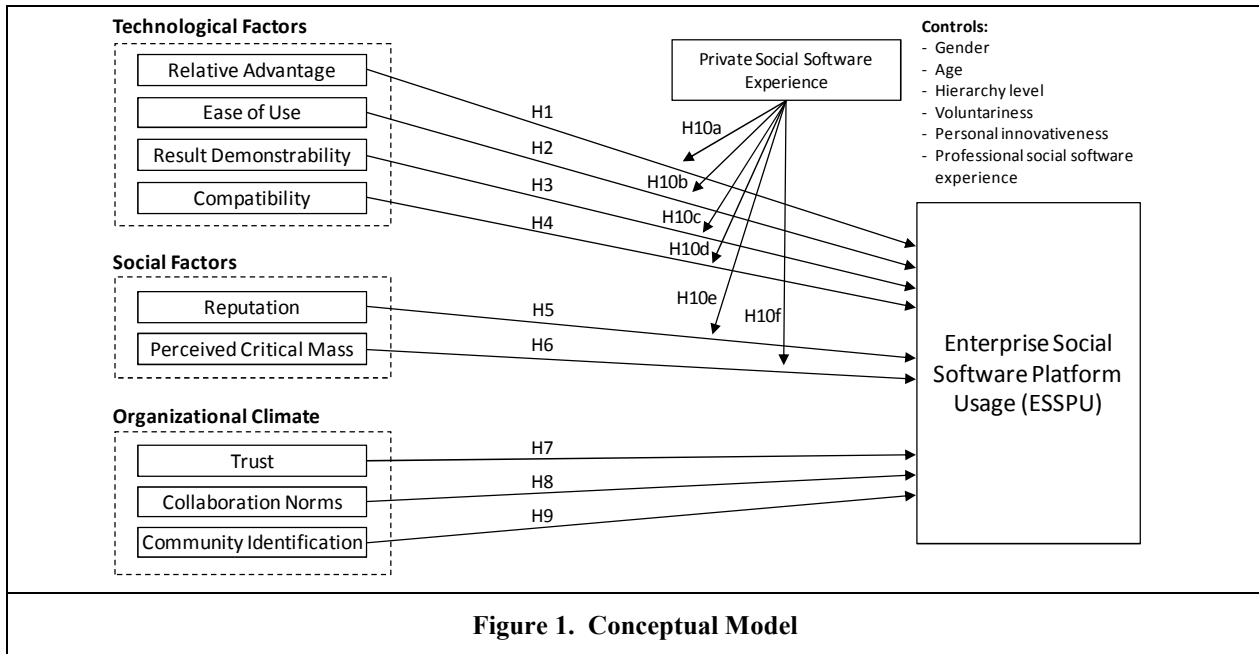
Relative advantage (RA) can be defined as the degree to which using the ESSP is perceived as being better than using its predecessor (Moore and Benbasat 1991), i.e. RA assesses what job-related benefits the technology offers from a user perspective. Over the past decades, the expected favorable outcome of IS usage (e.g., perceived usefulness in the TAM (Davis et al. 1989), attitude in the theory of planned behavior (TPB) (Ajzen 1991), and performance expectancy in UTAUT (Venkatesh et al. 2003)) has been established as an essential driver of an individual's decision to use an IS in various usage contexts (e.g., Agarwal and Karahanna 2000; Bhattacherjee 2001; Taylor and Todd 1995). In the context of social software, Hester (2011) as well as Schöndienst et al. (2011) have approved the relevance of RA in individuals' adoption decisions. Several interviewees in our interview study also support this view. One interviewee stated: *"People at first want to be convinced regarding the benefits before they go ahead and try it [the system]."* Consequently, we suggest that perceived RA has a positive effect on ESSP usage behavior (H1). Table 3 lists all the hypotheses included in our model and lists corresponding literature with prior conceptualizations for the belonging constructs.

Ease of use (EOU), which is similar to Rogers' (1983) notion of complexity, is defined as the degree to which an individual perceives the use of an ESSP to be free of physical and mental effort (Moore and Benbasat 1991). EOU has been shown to have a significant impact on IS usage in a variety of usage contexts (Compeau et al. 2007; Lee et al. 2003). The basic rationale behind this construct is to expect IS usage to increase with decreasing effort of using the IS. According to a study by Schöndienst et al. (2011) investigating organizational microblogging usage, this relationship seems to hold in the context of social software. Richter and Koch (2008) report similar findings from an organizational wiki rollout: "the more we reduced the complexity and options of functions of the wiki, the more the [...] people (trainers, etc.) were interested in using the platform" (p. 1). Our interview study also supports this notion. All interviewees affirmed that EOU has an important impact on employees' decision to use social software. These findings provide substantial justification for positing that EOU will have a positive effect on employees' ESSP usage (H2).

Result demonstrability (RD) refers to the degree to which the result of using an ESSP is observable and communicable to others (Moore and Benbasat 1991). Agarwal and Prasad (1997) as well as Karahanna et al. (1999) have found RD to be an important factor influencing individuals' IS usage behavior. Potential users of innovations are concerned with rationalizing their adoption decisions. Additionally, being able to observe and communicate results achieved by using an IS might be important in acquiring tangible or intangible organizational gratification. Making the usage results observable is particularly relevant to social software, since employees – due to the lack of clarity on usage benefits compared to traditional IS (e.g., enterprise resource planning systems) – need to be convinced that it is worth investing their time and effort in using the ESSP. In support of this argument, McAfee (2009b), with regards to social software, states: "Few knowledge workers feel they have the time to take on an additional responsibility, especially one with ill-defined goals" (p.4). In the same vein, one of our interviewees stated: *"The problem at our organization is that people [employees] regard it [contributing to social software] as additional time and effort, in which they cannot afford to invest without being convinced of the potential benefits beforehand."* Following these arguments, we expect that RD will positively affect individual ESSP usage (H3).

Compatibility (CPA) is defined as the degree to which ESSP usage is perceived as being consistent with the existing values, needs, and past experiences of employees (Moore and Benbasat 1991). An innovation's compatibility with work routines is vital since it has been shown that individuals in organizations are often reluctant to change their work habits. Change reluctance is known to be one of the biggest inhibitors of technology adoption. This might be especially true in the case of an ESSP as a technology addressing employees' communication behavior. Previous research has confirmed that the perceived compatibility of an innovation with individuals' value systems has a positive influence on the adoption of this innovation (Cooper and Zmud 1990; Hardgrave et al. 2003; Tornatzky and Klein 1982). We therefore suggest that compatibility will have a positive impact on employees' ESSP usage (H4).

Reputation (REP), originally termed image in IDT, is concerned with the degree to which the usage of an ESSP is perceived to enhance an employee's image or reputation within his or her social system, i.e. within the organization (Moore and Benbasat 1991). Employees might be more willing to collaborate, share, or contribute knowledge when they feel that it will strengthen their reputation (Hester 2011). Reputation has been shown to affect IS adoption concerning several types of IS (e.g., Plouffe et al. 2001), including social software (Schöndienst et al. 2011). Wasko and Faraj (2005) find that employees increasingly engage in knowledge sharing activities when they perceive it to enhance their professional reputation. Thus, reputation building might be a powerful motivator in the kind of social cooperation that takes place during ESSP usage (Parameswaran and Whinston 2007). In support of this, one interviewee stated that social software usage is seen as part of reputation management within the company he works for and that employees' motivation to participate partly evolves from this: *"People [employees] get awarded for excellent contributions. They won't get any monetary rewards, but they are very proud [to be publicly awarded]."* Based on this discussion, and drawing on Rogers (1983, p. 215), who argues that "undoubtedly one of the most important motivations for almost any individual to adopt an innovation is the desire to gain social status," we posit that reputation is positively related to a user's ESSP usage (H5).

According to Moore and Benbasat (1991), *perceived critical mass (PCM)* (initially named visibility) can be defined as the degree to which ESSP usage is visible in the organization. This construct reflects Rogers' (1983) assertion that innovations that can be readily seen by others would diffuse more quickly. The underlying notion is that employees' perceptions about the number of people who are already using the ESSP affect their usage behavior (Compeau et al. 2007). This notion is consistent with the theory of network externalities (Katz and Shapiro 1986), which suggests that the value of using a technology increases if more people use the same technology. This relationship is known to be of great importance for social software, since it is the actual users who make the software valuable through the user-created content they contribute (Wattal et al. 2010). In addition to this, perceived critical mass might put a kind of normative pressure on employees not using the ESSP, or it might serve as a mechanism to motivate users to adopt an ESSP in order to achieve a sense of belonging (Hester 2011; Venkatesh and Morris 2000). Therefore, we propose that PCM will have a positive impact on employees' ESSP usage (H6).

Although Moore and Benbasat (1991) suggest to assess trialability and voluntariness as potential IS adoption determinants, we do not consider these two factors relevant in the context of our research. We agree with Parthasarathy and Bhattacherjee (1998) that trialability seems irrelevant in the context of

online services, because it can be assumed that a social software platform can be tested before using it. We further consider individuals' use of the ESSPs under study voluntary. We therefore do not include this factor in our research model as a potential adoption determinant. The research results of Hester (2011) support our view concerning these two attributes. Her study finds that neither trialability nor voluntariness is positively related to the use of the social software under consideration.

Organizational Climate

Following Kankanhalli et al.'s (2005) approach, we inform the contextual factors included in our study – namely organizational climate – using SCT. In particular, we focus on trust, norms, and identification since these aspects are organizational resources rooted within social relationships that can influence the efficiency of organizational members' coordinated action. Thus, trust, norms, and identification are appropriate for defining the organizational context (Nahapiet and Ghoshal 1998).

Trust (TRU) can be defined as the degree of belief in good intentions, behaviors, competence, and the integrity of employees (Mishra 1996). We base our definition on the notion of generalized trust, which is a form of trust that is not affiliated with a specific individual, but is built on the generalized behavior of a social unit (in the context of our study, the members of an organization) (Kankanhalli et al. 2005). Trust has been recognized as a key antecedent of effective knowledge exchange (e.g., Ridings et al. 2002) and cooperation (e.g., Adler 2001). As an example, an Ernst and Young case study reports that trust did influence consultants' knowledge sharing behavior (e.g., consultants resisted using a KM system due to mistrust) (Markus 2001). In their qualitative study, Paroutis and Al Saleh (2009) find that trust is a key determinant of organizational social software usage. In support of this, the participants in one of our workshops agreed that trust among employees is of uttermost importance when it comes to fostering social software usage. Based on the findings from the literature as well as from our qualitative data, we suggest that trust is positively related to employees' ESSP usage (H7).

Collaboration norms (CN) refer to the degree of consensus in the organization concerning cooperation, collaboration, and teamwork (Coleman 1990; Kankanhalli et al. 2005). Norms are deeply rooted in the organization and may influence human behavior according to the expectations of the members of the organization, i.e. the employees (Bock et al. 2006). Norms of collaboration and teamwork have been shown to improve information exchange (e.g., Orlikowski 1992). Consequently, we expect that collaboration norms will have a positive impact on ESSP usage behavior (H8).

Nahapiet and Ghoshal (1998) define *community identification (CI)* as "the process whereby individuals see themselves as one with another person or group of people" (p. 256). Research has suggested that an individual's identification with a group or collective increases his or her motivation to exchange knowledge and to cooperate with that group (Lewicki and Bunker 1996). In the social software context, Hsu and Lin (2008) show that community identification increases individuals' blog usage intentions. On the other hand, distinct and contradictory identities of group members might implicate significant barriers to collaborative activities, such as information sharing and knowledge creation (Nahapiet and Ghoshal 1998). One interviewee supported this notion when observing that employees within departments without a strong feeling of belonging to the company show less motivation in engaging in social software. Against this background, we posit that community identification will be positively related to ESSP usage (H9).

The construct *private social software experience (PSSE)* addresses the phenomenon that, nowadays, many employees already know social software from the private realm. While social media can have different qualities and specifications (e.g., a weblog is very different from a social network platform), it involves some similar core principles, such as user-generated content, collaboration, or a platform character (McAfee 2009a). Hence, such prior user experience with similar technology can be regarded as "free training" (Drakos et al. 2010, p.2). This ability to use a specific type of IS can play a key role in a potential user's perceptions and use of that IS (e.g., Carlson and Zmud 1999; Daft and Lengel 1986). Using a new IS requires the user to acquire new skills and new patterns of interaction (Dennis and Garfield 2003). However, when an individual already has some experience with related technologies, *anchoring* occurs, which inevitably makes the individual use his or her information from past experience, and thus influences his or her perception of and decision-making regarding a technology (Venkatesh 2000). In the case of social software from the private realm where mainly hedonic motivation (i.e. the fun or pleasure

derived from using a technology) determines technology use (e.g., Brown and Venkatesh 2005; van der Heijden 2004), we expect the anchoring mechanism to lead to a more favorable perception of ESSPs by employees. Prior research has shown that technology experience has a mediating effect on usage-determining factors (e.g., Thompson et al. 1994), which we expect to be even more prevalent with PSSE. Because the interview data clearly supports this notion, we expect that PSSE will have a moderating effect on RA (H10a), EOU (H10b), RD (H10c), CPA (H10d), REP (H10e), and PCM (H10f), such that the effects will be stronger for individuals low in PSSE. It is important to note that these experiences not only apply to technological but also to the social factors, since the social and the material are strongly interrelated (e.g., content is connected to its author). We will control for the variables gender, age, hierarchy level, voluntariness, personal innovativeness, and professional social software experience, because these variables might affect ESSP usage.

No.	Hypothesis
**Table 3. Research Hypotheses and Prior Operationalizations of the Respective Constructs**
H1	An individual's perception of the relative advantage (RA) [1] of using an ESSP is positively related to his or her ESSP usage.
H2	An individual's perception of the ease of use (EOU) [2] of using an ESSP is positively related to his or her ESSP usage.
H3	An individual's perception of the result demonstrability (RD) [3] of using an ESSP is positively related to his or her ESSP usage.
H4	An individual's perception of the compatibility (CPA) [4] of using an ESSP is positively related to his or her ESSP usage.
H5	An individual's perception of the reputation (REP) [5] of using an ESSP is positively related to his or her ESSP usage.
H6	An individual's perception of perceived critical mass (PCM) [6] is positively related to his or her ESSP usage.
H7	An individual's perception of trust (TRU) [7] is positively related to his or her ESSP usage.
H8	An individual's perception of collaboration norms (CN) [8] is positively related to his or her ESSP usage.
H9	An individual's perception of community identification (CI) [9] is positively related to his or her ESSP usage.
H10	The influence of RA (H10a), EOU (H10b), RD (H10c), CPA (H10d), REP (H10e), and PCM (H10f) will be moderated by private social software experience (PSSE) [10] so that the effects will be stronger for individuals with less PSSE.

[1] Compeau et al. (2007); Karahanna et al. (1999); Moore and Benbasat (1991)
[2] Compeau et al. (2007); Karahanna et al. (1999); Moore and Benbasat (1991)
[3] Compeau et al. (2007); Moore and Benbasat (1991); Taylor and Todd (1995)
[4] Compeau et al. (2007); Karahanna et al. (1999); Moore and Benbasat (1991)
[5] Compeau et al. (2007); Moore and Benbasat (1991); Wasko and Faraj (2005)
[6] Compeau et al. (2007)
[7] Chiu et al. (2006); Kankanhalli et al. (2005); Krasnova et al. (2010)
[8] Fisher et al. (1997); Kankanhalli et al. (2005)
[9] Chiu et al. (2006); Hsu and Lin (2008); Kankanhalli et al. (2005)
[10] Brown et al. (2010); Limayem et al. (2007); Venkatesh et al. (2003)

Next Steps and Contribution

In the second data collection phase, we will launch a survey to validate the proposed model. We have therefore established an initial item pool based on established measures from previous studies (see Table 3). To ensure the survey instrument's content validity, we will employ established procedures as proposed in the literature (e.g., card-sorting) (Moore and Benbasat 1991). Thereafter, we will discuss the survey instrument with a panel of ESSP users (semi-structured, face-to-face interviews) regarding its length, the format of the scales, construct validity, and question ambiguity, and consequently implement their feedback for further refinement. As a last step in validating the measurement instrument, we will launch a web-based pre-test. We will then launch the survey instrument in the field. Using the survey's empirical data, the instrument's psychometric properties will be explored by applying second-generation modeling techniques. Following the validation guidelines of Straub et al. (2004) as well as Lewis et al. (2005), we will test the measurement model for reliability, convergent validity, discriminant validity, and predictive validity. Given an adequate measurement model, the structural model will be analyzed to test the associations hypothesized in the conceptual model. IS researchers call for IS adoption research focusing on a specific class of technology in order to increase the resulting models' explanatory power (e.g., Venkatesh and Bala 2008). Following this line of thought, our work seeks to further the research on individual acceptance of ESSPs by unifying the theoretical perspectives of IDT (reflecting the technological and social factors affecting ESSP usage) and SCT (capturing employees' perceptions of the organizational climate) within a single ESSP adoption model. Our research thereby also provides significant implications for practitioners whose main organizational social software challenge "revolves around adoption" (Healey 2011, p.17).

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