Determining the Factors Influencing Enterprise Social Software Usage: Development of a Measurement Instrument for Empirical Assessment

Maurice Kügler  
EBS Business School  
Maurice.Kuegler@ebs.edu

Stefan Smolnik  
EBS Business School  
Stefan.Smolnik@ebs.edu

Philip Raeth  
EBS Business School  
Philip.Raeth@ebs.edu

Abstract

With social software's rapid advancement in the private realm, corporations aim to adopt its technologies and to transfer social software benefits, such as enhanced collaboration and knowledge sharing, to their organizations. However, enterprise social software platforms (ESSPs) often lack substantial attention. While some research into users' motives to adopt social software in the private realm exists, the body of empirical studies on ESSP adoption is rather limited. Our research objective therefore is to contribute to closing this gap in research by determining the factors influencing employees' ESSP usage. Building on previous research, we present an ESSP adoption model. We then propose an according measurement instrument for empirically assessing the factors influencing ESSP usage. A card sorting and item ranking approach is conducted in order to preliminarily validate the measurement instrument. We eventually suggest methods of classical test theory for the further validation of the measurement instrument and the assessment of the ESSP adoption model.

1. Introduction

In recent years, social software applications – such as wikis, weblogs, and social networking sites – have attracted the attention of organizations as they promise to strengthen capabilities for knowledge sharing, collaboration, and innovation [e.g., 13, 60, 61]. 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 [14, 47, 52]. Given the popularity of similar applications in the private realm (e.g., Facebook, Google+, and Twitter) [e.g., 49], organizations expect their employees to adopt and use ESSPs in the same manner and frequency right after rollout [62]. However, the passive rollout strategies employed by organizations often proved unsuccessful, resulting in ESSPs with few contributors and, thus, a low participation appeal [11, 35]. 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 with the remaining 75 percent of potential ESSP users [6, p. 39]. This issue – a lack of employee adoption and use – is frequently cited as one of the leading causes of failure of innovative organizational information technologies (IT) [e.g., 44].

While some research has investigated users’ motives to adopt social software tools in the private realm [e.g., 16, 18, 39, 50, 84], empirical research on social software adoption in an enterprise setting is still scarce (with some exceptions, e.g., [100] as well as [12]). Since research suggests that “practices and benefits are likely to be very different in an enterprise context” [74, p. 96], researchers call for further investigations on what drives ESSP usage by employees [74, 89]: “Future research should employ cross-sectional surveys to develop comprehensive theoretical models that can guide the study of such technologies in organizational contexts” [100, 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., 12, 28, 36, 68, 70]. 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., 9, 16, 32, 49, 72, 80], 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 presenting 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:

\(^1\) We follow Bock et al. [7] as well as Denison [27] by defining 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 and a differentiation from the organizational culture term, see Bock et al. [7].
RQ 1 What are the determinants of an individual's decision to use an ESSP?

RQ 2 How does organizational climate affect an individual's decision to use an ESSP?

The remainder of our 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 present our conceptual model as well as the belonging measurement instrument. Subsequently, we describe the preliminary validation of the proposed measurement instrument applying a card sorting and item ranking approach. In the final section, we outline the next steps of our study and discuss the contribution of this paper.

2. Theoretical background

We base our definition of enterprise social software platforms (ESSPs) on Kim et al.’s [47, p. 216] definition on 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 [9, 74] and social media sites with which to share various media types [47]. 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 [31] or [48] for recent market overviews on ESSPs). While companies increasingly deploy ESSPs to leverage potential organizational benefits [e.g., 14, 28, 95], employees do not necessarily use the provided technology as expected, leading to platforms that “starve for attention” [35, p. 1]. This exemplifies a common information systems (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 [2].

Since the acceptance of IS by individuals is known to be one of the major causes of failure of innovative IT, IS adoption has been a subject of great interest to both researchers and practitioners for the last decades [e.g., 4, 21, 25]. This major IS research stream studies how and why individuals adopt new IT [92]. As observed by Warner [98], 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 [42, 96]. Assessing acceptance behavior surrounding such emerging collaborative technologies therefore requires a theoretical foundation that combines both technological and social factors [10]. As recent research results indicate [e.g., 100], a third set of factors – namely organizational context - might be crucial in terms of IS adoption by employees [58]. While some studies do examine the adoption of public social software [e.g., 16, 18, 39, 50, 84], research exploring employees’ enterprise social software adoption is still scarce. Wattal et al. [100] investigate individuals’ blog usage within an organization. Hester [36] develops and empirically tests a model of individual wiki acceptance in the workplace. Paroutis and Al Saleh [70] conduct a qualitative exploration into determinants of organizational social software usage. Brzozowski et al. [12] empirically investigate the effect of visible feedback and visible activity from managers and coworkers on employees’ organizational social software usage. Günther et al. [33], by means of qualitative data, develop an adoption model for microblogging in the enterprise based on Venkatesh et al.’s [92] unified theory of acceptance and use of technology (UTAUT) and subsequently test it by launching a quantitative study [79].

Innovation diffusion theory (IDT) seeks to explain which factors will influence the adoption of an innovation. According to Rogers [77, 78], what is most important in determining an organizational innovation’s adoption rate is the innovation itself, i.e. its characteristics. Moore and Benbasat [64] drew on Rogers’ work in developing IDT, which models eight constructs that capture user perceptions regarding an IT innovation. Thus, Moore and Benbasat [64] established a set of technology characteristics that could be considered antecedents to individual adoption of an IS. Studies on organizational technology adoption based on IDT have shown that the perceived characteristics of technological innovations, as proposed by IDT, do have a significant impact on employees’ intentions to adopt the respective innovations [e.g., 65, 71]. 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., 2, 38]. Consequently, we base our 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 suggests that employees’ ESSP usage is likely to be contingent upon contextual factors [e.g., 12, 28]. In our study, these contextual factors – namely organizational climate – are drawn from social capital theory (SCT). Social capital is...
We developed a conceptual model addressing the question as to which factors affect an employee’s decision to adopt an ESSP (please refer to [51] for a detailed and empirically grounded model construction including the hypotheses’ derivation). 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., 2, 38, 45], others base their research on actual system usage by measuring system usage in subjective (e.g., frequency, duration, intensity) or objective (e.g., system logs) terms [e.g., 40, 56]. 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., 26, 29], other research endeavors suggest that utilizing actual system usage measures may provide greater explanatory power than measures based on intention to use a technology [57, 94]. Therefore, we decided to include ESSP usage (ESSPU) as the dependent variable into our conceptual model. Figure 1 depicts the developed conceptual model addressing employees’ ESSP usage. In the following sections, we will briefly introduce the model by discussing the posited hypotheses.

3.1. Technological and social factors

Moore and Benbasat [64] distinguish between perceptions of an innovation itself and perceptions of using the innovation. Since it is the use of an innovation (i.e. ESSPs) that our research focuses on, we follow Karahanna et al.’s [45] approach and redefine the IDT constructs so that they reflect perceptions of using ESSPs instead of perceptions of ESSPs themselves.

In the context of our study, relative advantage (RA) assesses what job-related benefits the technology under study – ESSPs – offers from a user perspective [64]. In the context of social software, Hester [36] as well as Schöndienst et al. [79] have approved the relevance of RA in individuals’ adoption decisions. Consequently, we suggest that an individual’s perception of the relative advantage of using an ESSP is positively related to her/his ESSP usage (hypothesis H1).

Ease of use (EOU), which goes back to Rogers’ [77, 78] notion of complexity, is defined as the degree to which an individual perceives the usage of an ESSP to be free of physical and mental effort [64]. The basic rationale behind this construct is to expect IS usage to increase with decreasing effort for using the IS. The studies of Schöndienst et al. [79] as well as Richter and Koch [73] propose this relationship to hold in the context of social software. We therefore posit that an individual’s perception of the ease of use of using an ESSP is positively related to her/his ESSP usage (hypothesis H2).

Result demonstrability (RD) refers to the degree to which the result of using an ESSP is observable and communicable to others [64]. Since potential users of innovations are concerned with rationalizing their adoption decisions, RD is assumed to be positively related to adoption of that innovation. Additionally, being able to observe and communicate results achieved by using an IS might be important in acquiring tangible or intangible organizational gratification. Agarwal and Prasad [2] as well as Karahanna et al. [45] already found RD to be an important factor influencing individuals’ IS usage behavior in other contexts. We state that making the usage results observable is of particular importance.
with 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 the time and effort using the ESSP. Following this argument, we expect that an individual’s perception of the RD of using an ESSP is positively related to her/his ESSP usage (hypothesis H3).

We define compatibility (CPA) as the degree to which ESSP usage is perceived as being consistent with the existing values, needs, and past experiences of employees [64]. Compatibility of an innovation 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. Previous research confirmed that perceived compatibility of an innovation with individuals’ value systems has a positive influence on the adoption of this innovation [23, 34, 87]. This might especially be true in the case of ESSPs as a technology addressing employees’ communication behavior. We therefore suggest that an individual’s perception of the compatibility of using an ESSP is positively related to her/his ESSP usage (hypothesis H4).

Reputation (REP), originally termed image in IDT, is concerned with the degree to which usage of an ESSP is perceived to enhance an employee’s image or reputation within her/his social system, i.e. within the organization [64]. Reputation has been shown to affect IS adoption concerning several types of IS [e.g., 71], including social software [36, 79]. Wasko and Faraj [99] found that employees increasingly engage in knowledge sharing activities when they perceive that it enhances their professional reputation. Hence, we posit that an individual’s perception of the reputation of using an ESSP is positively related to her/his ESSP usage (hypothesis H5).

Going back to Moore and Benbasat’s [69] definition of visibility, we define perceived critical mass (PCM) as the degree to which ESSP usage is perceived to be visible in the organization. This construct goes back to Rogers’ [82] 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 [22]. 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 [100]. The theory of network externalities [46], which suggests that the value of using a technology increases if more people use the same technology, also supports this notion. We consequently propose that an individual’s perceived critical mass is positively related to her/his ESSP usage (hypothesis H6).
3.2. Organizational climate

We define trust (TRU) as the degree of belief in good intentions, behaviors, competence, and integrity of employees [63]. This definition is based on the notion of generalized trust, which is that 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) [43]. Trust has been recognized as a key antecedent of effective knowledge exchange [e.g., 75] and cooperation [e.g., 1]. In their qualitative study, Paroutis and Al Saleh [70] find that trust is a key determinant concerning organizational social software usage. Hence, we suggest that an individual’s perception of trust is positively related to her/his ESSP usage (hypothesis H7).

Collaboration norms (CN) refer to the degree of consensus in the organization concerning cooperation, collaboration, and teamwork [19, 43]. 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 [8]. Norms of collaboration and teamwork have in other contexts been shown to improve information exchange [e.g., 67]. Expanding on this idea, we hypothesize that an individual’s perception of collaboration norms is positively related to her/his ESSP usage (hypothesis H8).

On the basis Levin and Cross' [53] definition of tie strength, we define community ties (CT) as the degree to which an employee perceives people in her/his organization to have strong social ties to their co-workers and a feeling of closeness to each other. Research suggests that an individual’s identification with a group or collective increases her/his motivation to exchange knowledge and to cooperate with that group [54]. In the social software context, Hsu and Lin [39] show that perceived community ties increase individuals’ blog usage intentions. However, distinct and contradictory identities of group members might implicate significant barriers to collaborative activities, such as information sharing and knowledge creation [66]. Against this background, we posit that an individual’s perception of community ties is positively related to her/his ESSP usage (hypothesis H9).

The construct private social software experience (PSSE) addresses the phenomenon that, nowadays, many employees already know social software from the private realm. Such prior user experience with similar technology can be regarded as “free training” [30, p.2]. This ability to use a specific type of IS can play a key role in a potential user’s perceptions and usage of that IS [e.g., 15, 24]. Prior research has shown that technology experience has a mediating effect on usage-determining factors [e.g., 86], which we expect to be prevalent with PSSE as well. We therefore expect that the influence of RA (H10a), EOU (H10b), RD (H10c), CPA (H10d), REP (H10e), and PCM (H10f) will be moderated by private social software experience so that the effects will be stronger for individuals with less PSSE.

We will control for the variables gender, age, hierarchy level, voluntariness, personal innovativeness, and professional social software experience, since these variables might affect ESSP usage.

4. Development and validation of measurement instrument

In order to test the presented conceptual model, we will adopt the survey method for data collection and consequently test the hypotheses by applying the partial least squares (PLS) method to the data. We focus on investigating the adoption behavior of individual users rather than an organization as a whole: although an organization implements a particular ESSP, the actual users decide the extent of its use. Thus, we suggest that it is vital to examine the behavior of individuals in terms of IS adoption. Therefore, our unit of analysis is the individual.

4.1. Operationalization of constructs

In order to enhance the measurement instrument’s validity, the operationalizations for the conceptual model’s constructs should be measured using tested and proven items adapted from prior studies’ measures [81]. Thus, we adopted items identified in previous studies and modified them for use in the ESSP context, where available. After screening the literature for existing measures, we created initial item pools for each of the constructs. We extended the item pools by additional items where important aspects of the content domain of a construct have not been covered. We hereby followed the item writing suggestions put forth by MacKenzie et al. [59]. Most items will be measured using seven-point Likert-type scales anchored from "strongly disagree" to “strongly agree". Gender will be coded using a dichotomous dummy variable, age will be coded as a continuous variable, and hierarchy level will be coded as an ordinal variable.

In order to conceptually validate the proposed measures and to further reduce the number of items for the final questionnaire, the next step of instrument development involved a conceptual validation of the measurement instrument.
4.2. Conceptual validation

Addressing the issue of construct validity of the proposed constructs, we conducted two rounds of a card sorting and item ranking exercise similar to the ones proposed by Moore and Benbasat [64] and Kankanahalli et al. [43]. This validation step was particularly necessary because the items for measuring the constructs were adapted from various sources or even newly developed for the purpose of this study. In the card sorting stage, a group of judges (in our case a group of IS researchers) is provided with a number of cards containing the definition of one target construct each. In addition to that, each judge gets a number of cards each containing one of the proposed items for the constructs. The judges are then asked to independently assign each item card to one of the construct cards. The goal of the card sorting stage is to assess the convergence and divergence of items within categories. If, for example, one item is consistently being placed within a particular category, then it is considered to demonstrate convergent validity with the related construct, and discriminant validity with the other constructs [64]. If, however, certain items do not meet the validity criteria, modification or removal of these items should be considered. In order to assess the consistency of the item-to-construct-assignments, we calculated the item placement ratio (IPR) for each construct. The IPR is the percentage to which judges have correctly assigned all its items to the intended target construct [64].

In addition to the card sorting stage, each judge is asked to rank all the items she/he assigned to a certain construct according to their representativeness with regard to the belonging construct (item ranking stage). Items that appear to represent their respective construct weakly should be considered for modification or removal as well.

Instead of handing out cards and ranking points to the judges physically, we decided to provide them with a computer-based spreadsheet tool that allowed the judges to assign the items to the available constructs and subsequently rank the items accordingly. The tool allowed the judges to either assign the items to one of the constructs or to indicate that they could not match the item with any of the available constructs to ensure that the judges did not force fit any item into a particular construct [64].

Five IS researchers participated in the first round of the card sorting and item ranking exercise. Altogether, the five judges assigned 89% of the items onto the targeted constructs, i.e. the first round brought forth an IPR of 89%. However, several changes in items were necessary after this round since the judges felt that these items were ambiguous or not clear in their meaning. Therefore, one item of the trust construct, one item of the perceived critical mass construct as well as two items of the relative advantage construct were removed from the item pool. In addition, one item each for the collaboration norms construct, the perceived critical mass construct, the reputation construct, and the result demonstrability construct needed to be modified. Table 1 shows the detailed results of the first round of card sorting and the IPRs of the first and second round of card sorting.

<table>
<thead>
<tr>
<th>Actual Category</th>
<th>Target Category</th>
<th>Total # of Items</th>
<th>IPR 1st Round</th>
<th>IPR 2nd Round</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>CN</td>
<td>20</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>CT</td>
<td>CT</td>
<td>20</td>
<td>100%</td>
<td>95%</td>
</tr>
<tr>
<td>CPA</td>
<td>CPA</td>
<td>15</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>EOU</td>
<td>EOU</td>
<td>20</td>
<td>95%</td>
<td>100%</td>
</tr>
<tr>
<td>PCM</td>
<td>PCM</td>
<td>17</td>
<td>85%</td>
<td>93%</td>
</tr>
<tr>
<td>PI</td>
<td>PI</td>
<td>15</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>PSSE</td>
<td>PSSE</td>
<td>10</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>PFSSE</td>
<td>PFSSE</td>
<td>10</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>RA</td>
<td>RA</td>
<td>23</td>
<td>77%</td>
<td>100%</td>
</tr>
<tr>
<td>REP</td>
<td>REP</td>
<td>17</td>
<td>85%</td>
<td>80%</td>
</tr>
<tr>
<td>RD</td>
<td>RD</td>
<td>15</td>
<td>75%</td>
<td>95%</td>
</tr>
<tr>
<td>TRU</td>
<td>TRU</td>
<td>18</td>
<td>90%</td>
<td>80%</td>
</tr>
<tr>
<td>VOL</td>
<td>VOL</td>
<td>10</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
<td>6</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Overall item placement ratio (IPR) 89% 95%

Legend: CN – Collaboration norms  PCR – Perceived critical mass  RA – Relative advantage
CT – Community ties        PI – Personal innovativeness  REP – Reputation
CPA – Compatibility       PSSE – Private social software experience  RD – Result demonstrability
EOU – Ease of use         PFSSE – Professional social software experience  TRU – Trust  VOL – Voluntariness
The second round of card sorting was subsequently conducted by another five IS researchers. This stage of card sorting yielded an IPR of 95%, showing significant improvement in the IPRs of the constructs containing the modified items. All constructs could score an IPR of at least 80%, which can be considered a satisfactory item placement consistency. Thus, a high degree of construct validity and potential reliability had been achieved [64]. Table 2 lists the preliminary item pool after the second round of the card sorting and item ranking exercise including the according sources.

5. Next steps

As the next step in the measurement instrument validation process, 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, its wording, and its instructions. We will subsequently implement their feedback for further refinements of the survey instrument. As a last step in validating the measurement instrument, we will launch a web-based pre-test in order to confirm the results of the card sorting and item ranking as well as to evaluate the reliability of the reflectively measured constructs. By means of the data collected during the pre-test, we will assess the quality of the scales by trialing the indicator loadings of the items on their respective construct. Furthermore, we will test the model for convergent validity by analyzing average variance extracted (AVE), composite reliability (CR), and Cronbach’s alpha as recommended by Lewis et al. [55] to take necessary corrective actions, if needed.

Regarding data collection, we are currently in the process of initiating an organizational social software benchmarking study. We invite companies to take part in the study and in return offer to provide them with an individual results report as well as a

<table>
<thead>
<tr>
<th>Table 2. Preliminary item pool after 2nd round of card sorting</th>
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</thead>
<tbody>
<tr>
<td><strong>Construct</strong></td>
</tr>
</tbody>
</table>
| Collaboration norms (CN) | 1. People in my organization collaborate well with each other.  
2. Knowledge sharing is regarded important in my organization.  
3. Sharing information is strongly encouraged in my organization. | [7, 8] |
| Community ties (CT) | 1. People in my organization have the feeling of togetherness or closeness with each other.  
2. People in my organization have a strong feeling of being ‘one team’.  
3. People in my organization keep close ties with each other.  
4. I feel like being ‘part of the family’ in my organization. | [5-7, 17] |
| Compatibility (CPA) | 1. Using the system is compatible with most aspects of my work.  
2. I think that using the system fits well with the way I like to work.  
3. Using the system fits into my work style. | [64] |
| Ease of use (EOU) | 1. My interaction with the system is clear and understandable.  
2. Interacting with the system does not require a lot of my mental effort.  
3. I find the system to be easy to use.  
4. I find it easy to get the system to do what I want it to do. | [91] |
| Perceived critical mass (PCM) | 1. A high proportion of my co-workers uses the system.  
2. Many people I work with use the system.  
3. Most of my co-workers use the system. | [37, 85, 90] |
| Personal innovativeness (PI) | 1. If I heard about a new information technology, I would look for ways to experiment with it.  
2. Among my peers, I am usually the first to try out new information technologies. | [3] |
| Private social software experience (PSSSE) | 1. How many years of experience do you have with social software (e.g., blogs, wikis, social networks, etc.) in the private realm?  
2. How would you rate your experience with social software (e.g., blogs, wikis, social networks, etc.) in the private realm? | [86] |
| Professional social software experience (PFSSE) | 1. How many years of experience do you have with social software (e.g., blogs, wikis, social networks, etc.) in the workplace?  
2. How would you rate your experience with social software (e.g., blogs, wikis, social networks, etc.) in the workplace? | [86] |
| Relative advantage (RA) | 1. Using the system enables me to accomplish tasks more quickly.  
2. Using the system enhances my effectiveness on the job.  
3. Using the system increases my productivity.  
4. Using the system improves my job performance. | [64, 93] |
| Reputation (REP) | 1. Using the system will improve my image within the organization.  
2. Using the system will enhance my personal reputation in the organization.  
3. Using the system improves my status in the organization.  
4. By using the system I will gain more recognition in my organization. | [39, 43, 79, 99] |
| Result demonstrability (RD) | 1. I think that I could very easily demonstrate the results of using the system.  
2. I would have no difficulty telling others about the results of using the system.  
3. The results of using the system are apparent to me.  
4. I believe I could communicate to others the consequences of using the system. | [22, 64] |
| Trust (TRU) | 1. People in my organization will not take advantage of others even when the opportunity arises.  
2. In general people can rely on each other in my organization.  
3. Overall, the people in my organization are trustworthy. | [17, 41] |
| Voluntariness (VOL) | 1. Although it might be helpful, using the system is certainly not compulsory in my job.  
2. Using the system is voluntary in my organization. | [64] |
comparative report comparing the other participants’ anonymized results with their own results. Thus, on the one hand the participating companies gain valuable insights into their social software initiative (e.g., by determining factors that increase their employees’ ESSP usage or by identifying potential areas of improvement). On the other hand, we will be able to validate our research model by means of the collected data. After participant acquisition is completed, we will provide each of the participating companies with a hyperlink to the online end-user survey, asking them to distribute it via email to all or a subset of their employees along with the request to participate in the survey.

Using the collected empirical survey data, we will explore the instrument’s psychometric properties by applying second-generation modeling techniques. We will employ the software package SmartPLS 2.0 M3 [76] for the related statistical calculations. Following the validation guidelines of Straub et al. [82] as well as Lewis et al. [55], 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.

6. References


[64] Moore, G.C. and I. Benbasat, Development of an instrument to measure the perceptions of adopting an information technology


