

# Organizational Climate's Role in Enterprise Social Software Usage: An Empirical Assessment

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**Abstract.** *The focus of organizations' internal communication and collaboration infrastructures has recently been extended from conventional intranets to enterprise social software platforms (ESSPs). However, as ESSPs rely on content creation and interaction through users, many platforms struggle. Previous research suggests that organizational climate plays an important role during IS adoption. Accordingly, our study quantitatively explores the influence of organizational climate on both contributive ESSP usage (knowledge sharing) and consumptive ESSP usage (knowledge consumption). Our results indicate that organizational climate – measured by the dimensions of trust, collaboration norms, and community identification – influences employees' ESSP usage behaviors to a certain extent. In addition, collaboration norms appear to have a stronger impact on consumptive ESSP usage than on contributive ESSP usage. Lastly, trust was found to primarily support consumptive ESSP usage, not contributive usage.*

**Keywords:** *Enterprise Social Software, Organizational Climate, Trust, Collaboration*

## 1 Introduction

Since it is widely reported that organizational knowledge sharing positively affects profitability and productivity [1], organizations have put substantial efforts into the sharing of explicated and digitalized knowledge to reap the fruits of efficient knowledge management (KM). Technological developments in the field have taken the form of, e.g., social networking sites, weblogs as well as wikis, and promise a wide variety of benefits, such as increased knowledge sharing, innovation, and collaboration capabilities [2]. In an attempt to leverage these potential organizational benefits, software vendors have bundled individual organizational social software tools in the form of enterprise social software platforms (ESSPs). ESSPs help companies to overcome limitations of conventional knowledge management systems (KMSs) and foster the creation of valuable content while encouraging voluntary user

engagement [3]. As revealed by recent reports, a growing number of companies utilizes ESSPs throughout their organizations [4, 5].

However, chief knowledge officers (CKOs) and IT managers are still tempted to expect ESSPs to achieve similar levels of user acceptance and usage rates as private social networks (e.g., Facebook). Hence, many practitioners are in for a rude awakening when their promising platforms lack contributions by employees and, consequently, valuable user generated content. In the worst case, the lack of contributing users can diminish both attractiveness and usefulness of ESSPs to a point where the information systems (ISs) turn into failed investments. To prevent this, companies aim to convince their employees to use the platform, which turns out to be rather challenging in many institutions. Due to the novelty of these collaboration tools, research on the matter is rare and still leaves many questions unanswered [e.g., 6].

In spite of the apparent lack of research on ESSP adoption, various studies suggest successful IS adoptions to be closely related to contextual factors of companies [e.g., 7, 8]. Particularly organizational climate – defined by Bock et al. [9] as a contextual situation at a certain point in time regarding the thoughts, feelings, and behaviors of an organization’s members – is considered an important determinant of the willingness of employees to share information, as ‘people issues’ are seen as a main challenge regarding users’ information sharing behavior [10]. Since ESSPs rely primarily on voluntary usage, these tools are particularly sensitive towards interpersonal influences, such as organizational climate and personal factors [11].

Despite this likely connection between organizational climate and ESSP usage – to the best of our knowledge – there is no study that explicitly examines how certain dimensions of organizational climate (i.e. trust, collaboration norms, and community identification) affect ESSP usage yet. To address this research gap, we developed a research model to investigate individual social software adoption behavior in an enterprise setting. In order to further reveal possible differential effects between employees’ knowledge sharing and knowledge consumption behaviors in an ESSP setting, we aim to answer the following research questions:

*RQ 1: To what extent does organizational climate affect an individual’s decision to consume knowledge from an ESSP?*

*RQ 2: To what extent does organizational climate affect an individual’s decision to contribute knowledge to an ESSP?*

In the following sections, we first provide an introduction to the fundamental theoretical constructs of our research model. We then present the model as well as the measurement instrument. In the final section, we showcase our findings and provide an outlook on their theoretical and managerial implications.

## 2 Theoretical Background

### 2.1 Enterprise Social Software Platforms

Social software tools have grown enormously in popularity thanks to open architecture, the lowering of the barriers to publishing, the ease with which people can exchange and combine ideas through current social software platforms as well as the increase in available bandwidth and computing power [4, 5]. Social software allows users to “actively communicate and participate on the Internet” [12, p. 274] and “represents the revolution that is occurring as large numbers of previously passive consumers of content become active contributors” [13, p. 411].

*Enterprise social software platforms (ESSPs)*, relying on Web 2.0 technology [14], help companies to overcome limitations of conventional KMSs and leverage the creation of valuable content while fostering voluntary user engagement [3]. Social software platforms such as *IBM Connections*, *Jive*, and *Microsoft Sharepoint* are similar to public social networks in the way that they allow “people to form online communities, and share user-created contents” [15, p. 216] except that user-generated content is predominantly of professional (instead of private) nature. Besides sharing user-created contents (UCCs) like text, pictures, videos, blogs, microblogging content, and wikis, typical features of ESSPs are activity feeds, community capabilities, tagging and tag clouds, but also media sharing [15, 16].

In our research inquiry, we differentiate between consumptive and contributive ESSP usage behavior. We define *consumptive usage* as the extent to which employees use an ESSP for acquiring knowledge from the platform (e.g., by reading a wiki entry or accessing a document). Similarly, *contributive use* reflects the extent to which employees use an ESSP for contributing knowledge to the platform (e.g., by posting a blog entry or uploading a document). Typically, ESSPs have, just like other KMSs, a higher percentage of passive readers than active writers [e.g., 17]. A possible explanation for this behavior goes back to the fact that the consumption of knowledge is generally said to entail lower costs than the contribution thereof [18].

### 2.2 Social Software Adoption

ESSPs are, like other technological innovations, subject to diffusion – “the process by which an innovation is communicated through certain channels over time among the members of a social group” [19, p. 5]. Going back to the theories of network effects and the belonging rationale that the value of a platform grows with its number of users [20], adoption by the actual users is of vital importance with community-based technologies, such as ESSPs. However, despite all the benefits of using an organizational ESSP [7, 21], getting users on board often remains difficult for the IT managers responsible for an ESSP roll-out. In cases where organizational ESSP adoption fails to lead to subsequent adoption through employees, ESSPs will likely lack a substantial user base in terms of a *critical mass of users* and will consequently not reach their full potential [17, 22].

As recent literature shows [e.g., 23], the adoption of ESSPs depends on many factors, including “economic conditions, cultural differences, and management decision processes in other business units” [24, p. 7]. Challenges might in particular exist with regard to users, content, and consequences of use [25, 26]. For instance, some of the challenges during the process of organizational ESSP adoption stem from the democratic nature of ESSPs, as senior employees in corporations might be offended by the flattening of hierarchies that occurs when all users have the right to revise published articles [27]. Furthermore, management might fear extra work or the risk of digital ‘shitstorms’, a form of public rebellion by many users in the digital realm against certain statements, policies, or measurements. In addition, a missing or weak integration of a technology into a company’s infrastructure or business processes could have a negative impact on the technology’s adoption [e.g., 26]. Furthermore, another common barrier to knowledge sharing is the “lack of sufficient extrinsic and/or intrinsic rewards to compensate individuals for the costs” [9, p. 89].

A different challenge, identified by Alavi et al. [28], relates to the cultural diversity of ESSP users within the same firm. Apart from that, users might not contribute to intra-organizational platforms in order to not ‘overload’ their peers or hesitate to make requests on the platform out of fear that others might consider them incompetent [29].

### 2.3 Organizational Climate

Due to its nature (i.e. its limited time frame and scope), the concept of organizational climate is said to be easier manipulable by decision makers in organizations than an organization’s culture, which makes the concept potentially more relevant for practitioners [9]. In order to capture the essential aspects of organizational climate [30], we incorporate three dimensions into our study: trust, collaboration norms, and community identification. These measures “are observable, quantifiable scores obtained through [...] empirical means” and are used to “examine constructs, which [...] may be used to “describe a phenomenon of theoretical interest”” [31, p. 625].

Following Kankanhalli et al. [32, p. 117], we define *trust* as the “belief that the intended action of others would be appropriate from our own point of view”, indicating that individuals are accepting the vulnerability that results from having faith in another person’s good intentions [33]. This definition relies on ‘generalized’ trust, which does not rest “with a specific individual but on behavior that is generalized as a social unit as a whole” [32, p. 117]. This statement is further confirmed by Tsai and Ghoshal [34], Ridings et al. [35], and Adler [36] since the notion of “strong generalized trust” causes that “people may trust each other without having much personal knowledge about each other” [32, p. 117].

*Collaboration norms*, representing the second organizational climate factor, refer to the “degree of consensus in the social system” and concern “human behavior in accordance with the expectations of the group or community” [32, p. 117]. Typical examples for pro-sharing norms are teamwork norms [37], the willingness to embrace diversity, an open mind toward different opinions, and tolerance for mistakes [38].

*Community identification*, the third dimension of organizational climate, is a term coined by Nahapiet and Ghoshal [30, p. 256] as the “process whereby individuals see

themselves as one with another person or group of people” and refers to a “condition where the interests of individuals merge with the interests of the organization, results in the creation of an identity based on those interests” [32, p. 117]. Furthermore, under the term’s umbrella also fall components such as the similarity of values (common goals and interests), membership (group affiliation), and loyalty (support and defense of the organization) [30].

### 3 Model Development

We developed a model addressing the question as to which factors of organizational climate affect an employee’s decision to use an ESSP. In this regard, we rely on social capital theory [30], which posits that “social capital provides the conditions necessary for knowledge exchange to occur” [32, p. 116].

As a first dimension of organizational climate, we examine trust with respect to ESSP usage. Fundamentally, *trust* has been revealed as an important element of organizational knowledge transfer. Buckman [39], for instance, describes the necessity of trust when aiming to shift organizational culture away from the hoarding of knowledge towards one where sharing of knowledge is rewarded. Seba et al. [40] further state that trust influences attitude towards knowledge sharing. Kankanhalli et al. [32] argue that fairness, a notion closely associated with trust, leads to a greater intention to share knowledge. Hsu et al. [41] find that trust entices people to engage in virtual communities and to share knowledge. Furthermore, Van Wijk states that “trust enables the transfer of organizational knowledge since it increases partners’ willingness to commit to helping partners understand new external knowledge” [42, p. 835]. Accordingly, we anticipate that a higher level of perceived trust in organizations will result in increased contributive usage of ESSPs (H1b). In line with the prior findings and research conducted by Seba et al. [40], we furthermore posit that trust also has a positive influence on consumptive ESSP usage (H1a).

*H1a: Perceived trust will positively relate to consumptive ESSP usage.*

*H1b: Perceived trust will positively relate to contributive ESSP usage.*

*Collaboration norms* have been found to be of importance for the effective transfer of knowledge [32]. In organizations with weak pro-sharing norms, knowledge contribution can be considered to come at a higher cost, which effectively leads to a lower contribution rate [e.g., 30, 32]. Collaboration norms become especially influential when the intrinsic motivation of employees to contribute knowledge is low [30]. Furthermore, collaboration norms are deeply rooted in the organization [43]. Additionally, prior research has revealed that collaboration norms are positively correlated to information exchange [32, 44, 45]. Apart from this, research also suggests a positive influence of collaboration norms on knowledge seeking behavior [43]. Consequently, we follow the line of reasoning which suggests that consumptive and contributive usage of an ESSP will depend in part on whether pro-sharing norms exist in an organization (H2a and H2b).

*H2a: Perceived collaboration norms will positively relate to consumptive ESSP usage.*

*H2b: Perceived collaboration norms will positively relate to contributive ESSP usage.*

Prior research reveals a connection between perceived *community identification* and the motivation to exchange knowledge and to cooperate [e.g., 30, 46]. In this regard, Chow and Chen [47] argue that a more extensive social network and shared goals among organizational members lead to a more favorable attitude towards knowledge sharing. Furthermore, Constant et al. [48] find that in organizations with strong community identification, employees might find the costs associated with knowledge sharing to be lower and are therefore more willing to contribute their knowledge. In addition, Suh et al. note that one of the key challenges of virtual work represents the creation of a “feeling of closeness that makes the members feel connected to the group” [49, p. 352]. Also, Van Wijk argues that “strong ties lead organizations and units to expend efforts ensuring that knowledge seekers [...] understand sufficiently and exploit newly acquired knowledge” [42, p. 835]. Based on these findings, we anticipate that existing community identification will positively relate to consumptive ESSP usage as well as contributive ESSP usage (H3a and H3b).

*H3a: Perceived community identification will positively relate to consumptive ESSP usage.*

*H3b: Perceived community identification will positively relate to contributive ESSP usage.*

In summary, our hypotheses posit that consumptive and contributive ESSP usage will be influenced by the degree to which the organizational climate is perceived to support trust, collaboration norms, and community identification. Figure 1 depicts the hypotheses in graphical form.

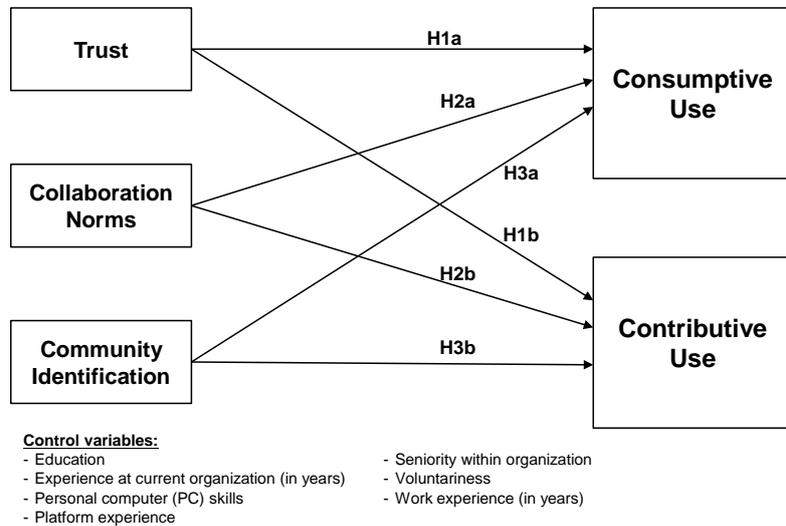


Fig. 1. Conceptual Model

## 4 Research Approach

Our investigation focuses on the behavior of individual users instead of organizations. Despite organization-wide ESSP implementations, it is the actual users who decide on an individual basis whether or not to actually use the platform. Data collection for this study followed a two-step approach. First, we conducted an exploratory investigation to address practitioners' perceptions of social software use. Afterwards, we created an initial item pool and ranked the measurement items in an IS expert panel of five researchers. Only the best fitting items were selected for a web-based pre-test and measured with the help of seven-point Likert-type scales reaching from "strongly disagree" to "strongly agree." This pre-test led to a draft survey that was successfully tested with 89 participants. Once the pre-test was carried out successfully, the final survey was deployed among the employees of a professional services firm from the US. All questions of the online survey were mandatory in order to proceed to the next page of the survey. We therefore did not have to deal with missing or incomplete responses. Since the focus of this study lies on organizational climate's influence on ESSP usage behavior, we want to make sure that the respondents' cultural background does not influence the results. We therefore chose a data sample from only one country for this data analysis and, consequently, excluded all answers from respondents outside of the US. Accordingly, this study is based on a final number of 271 usable data sets from US employees of a professional services firm. The final items used in this study are shown in Table 1.

**Table 1.** Conceptualization of Constructs

<b>Construct</b>	<b>Item</b>	<b>Question</b>	<b>Literature Sources</b>
Trust	TRS1	People in my organization will not take advantage of others even if the opportunity arises.	[50]; [51]
	TRS2	In general, people can rely on each other in my organization.	
	TRS3	Overall, the people in my organization are trustworthy.	
Collaboration norms	CN1	There is a norm of collaboration in my organization.	[9], [32]
	CN2	Knowledge sharing is regarded as important in my organization.	
	CN3	Sharing information is strongly encouraged in my organization.	
Community identification	CI1	People in my organization have a feeling of togetherness or closeness with one another.	[9]; [50]
	CI2	People in my organization have a strong feeling of being 'one team'.	
	CI3	People in my organization maintain close ties with one another.	
Consumptive Use	CONS1	I use the system to obtain information provided by my colleagues.	[52]; [53]
	CONS2	I use the system as a way of acquiring knowledge.	
	CONS3	I use the system to retrieve information made available on the platform.	
Contributive Use	CONT1	I use the system to contribute my knowledge to the platform.	[53]; [54]; [55]
	CONT2	I use the system to submit knowledge to it.	
	CONT3	I use the system to provide my colleagues with information.	

## 5 Results

For the data analysis of our research inquiry, we relied on the partial least squares (PLS) method, a structural equation modeling approach [56]. This method allowed us to assess the measurement model within the context of the structural model [57]. Furthermore, the technique does neither require a multivariate normal distribution nor a large sample size. In addition, PLS is designed for causal-predictive analysis in circumstances of low theoretical information and is suitable for early phases of theory development [58].

**Table 2.** Descriptive Statistics and Psychometric Properties

### 5.1 Measurement Model

	Mean	SD	CR	AVE	CA	Coll Norm	Comm Id	Cons Use	Contr Use	TRU	VOL
<b>CollNorm</b>	5.71	1.18	0.95	0.86	0.92	<b>0.93</b>					
<b>CommId</b>	4.94	1.37	0.96	0.90	0.94	0.48	<b>0.95</b>				
<b>ConsUse</b>	5.78	1.18	0.87	0.70	0.79	0.26	0.13	<b>0.83</b>			
<b>ContrUse</b>	4.32	1.77	0.97	0.92	0.95	0.18	0.11	0.38	<b>0.96</b>		
<b>TRU</b>	5.34	1.19	0.91	0.76	0.84	0.52	0.66	0.21	0.09	<b>0.87</b>	
<b>VOL</b>	3.82	1.74	0.89	0.80	0.78	-0.08	0.07	-0.15	-0.10	0.04	<b>0.89</b>

*Notes:*  
 The bold diagonal elements represent the square root of the AVE; the off-diagonal elements are the correlations among factors. For discriminant validity, the diagonal elements should be larger than the off-diagonal elements (Fornell and Larcker 1981).  
 All items underlying the above constructs were measured using seven-point Likert-type scales (1 = strongly disagree, 7 = strongly agree).  
 SD: Standard deviation; CR: Composite reliability; AVE: Average variance extracted; CA: Cronbach's alpha.  
 CollNorm: Collaboration norms; CommId: Community identification; ConsUse: Consumptive use; ContrUse: Contributive use; TRU: Trust; VOL: Voluntariness.

In order to assess the measurement model's convergent validity, we computed the measures' Cronbach's alpha (CA) [59], average variance extracted (AVE) [57], and composite reliability (CR) [56] values (Table 2). The according values exceeded the recommended value of 0.7 for CR and of 0.5 for CA.

All AVE values were above the suggested threshold of 0.5 [60], which led us to the conclusion that the constructs had a sufficient convergent validity. We further evaluated our model's discriminant validity by (a) examining the items' cross-loadings and (b) by means of the Fornell-Larcker criterion [60]. The items' loadings and cross-loadings (Table 3) show that all items are correlated most strongly with their intended constructs, as suggested by Chin [56]. The square root of the average variance extracted values for each construct exceeded all respective interconstruct correlations (Table 2), thus fulfilling the Fornell-Larcker criterion [60].

### 5.2 Structural Model

In order to validate the structural model's quality, we determined its cross-validated redundancy ( $Q^2$ ) via a Stone-Geisser Test [61, 62]. We measured the  $Q^2$  using a blindfolding approach. The  $Q^2$  results were all greater than 0, suggesting that the model has good predictive validity.

Once we calculated the parameter estimates for the paths in the structural model, we applied a bootstrapping algorithm (1,000 subsamples; number of cases equal to sample size ( $n = 271$ )) to compute the individual paths' t-values (Figure 2).

Ultimately, the model predicts 11.3% of the variance with respect to consumptive ESSP usage and 16.6% of contributive ESSP usage's variance. Our data support H1a at the  $p < 0.05$  confidence level. The path coefficient *indicates* a positive relation (0.138). Contrary, H1b, which predicted trust to be positively related to contributive knowledge, is not supported by our data. Hypothesis H2a, concerning collaboration norms and consumptive ESSP usage, is supported at the  $p < 0.01$  confidence level. With respect to contributive usage, hypothesis H2b revealed a weaker, but still significant relationship between collaboration norms and contributive usage. Lastly, hypotheses H3a and H3b were refuted, indicating that community identification do not play a significant role in the prediction of ESSP usage behavior.

**Table 3.** Loadings and Cross-Loadings

		<b>Coll Norm</b>	<b>Comm Id</b>	<b>Cons Use</b>	<b>Contr Use</b>	<b>TRU</b>	<b>VOL</b>
<b>Collaboration norms</b>	<b>CN1</b>	<b>0.884</b>	0.449	0.219	0.187	0.479	-0.031
	<b>CN2</b>	<b>0.949</b>	0.452	0.275	0.165	0.483	-0.090
	<b>CN3</b>	<b>0.943</b>	0.420	0.235	0.139	0.472	-0.113
<b>Community identification</b>	<b>CI1</b>	0.468	<b>0.951</b>	0.137	0.088	0.677	0.071
	<b>CI2</b>	0.440	<b>0.942</b>	0.118	0.078	0.649	0.084
	<b>CI3</b>	0.444	<b>0.949</b>	0.12	0.135	0.569	0.058
<b>Consumptive use</b>	<b>CONS1</b>	0.297	0.120	<b>0.875</b>	0.398	0.221	-0.133
	<b>CONS2</b>	0.159	0.137	<b>0.750</b>	0.299	0.129	-0.013
	<b>CONS3</b>	0.178	0.086	<b>0.870</b>	0.255	0.149	-0.180
<b>Contributive use</b>	<b>CONT1</b>	0.166	0.129	0.342	<b>0.962</b>	0.088	-0.063
	<b>CONT2</b>	0.157	0.092	0.353	<b>0.970</b>	0.078	-0.080
	<b>CONT3</b>	0.185	0.091	0.402	<b>0.941</b>	0.087	-0.134
<b>Trust</b>	<b>TRU1</b>	0.275	0.408	0.125	0.033	<b>0.715</b>	0.086
	<b>TRU2</b>	0.544	0.646	0.231	0.098	<b>0.957</b>	0.032
	<b>TRU3</b>	0.479	0.649	0.162	0.085	<b>0.931</b>	-0.004
<b>Voluntariness</b>	<b>VOL1</b>	-0.073	0.073	-0.163	-0.103	0.035	<b>0.960</b>
	<b>VOL2</b>	-0.085	0.057	-0.073	-0.062	0.030	<b>0.824</b>
<i>Notes:</i> <i>CollNorm: Collaboration norms; CommId: Community identification; ConsUse: Consumptive use; ContrUse: Contributive use; TRU: Trust; VOL: Voluntariness.</i>							

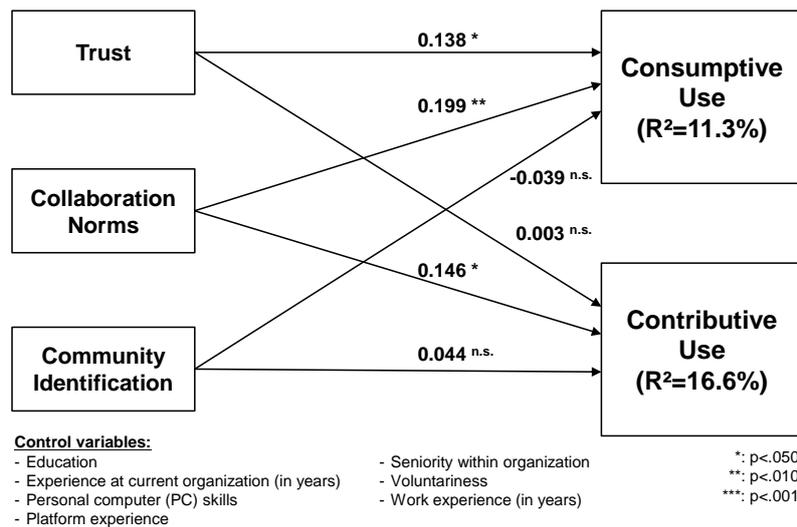
## 6 Discussion

Our study aimed to examine the influence of organizational climate on employees' ESSP usage behavior. We conclude that organizational climate plays a certain role in explaining consumptive ESSP usage and contributive ESSP usage. These results are in line with earlier conclusions of Janz and Prasarnphanich [63], Kayworth and Leidner [18], Schultze and Boland [64], and others who emphasize the importance of

organizational culture and the work environment as key influences for the successful implementation of KMSs.

Our findings, however, paint a more detailed picture of organizational climate's influence on ESSP usage. The results indicate that collaboration norms exercise the greatest influence on both, consumptive (*H2a*) and contributive (*H2b*) ESSP usage. However, to our surprise, collaboration norms have a stronger impact on consumptive ESSP usage than on contributive ESSP usage. This dependency indicates that employees tend to consume peer-generated content only if they trust their peers and feel that this kind of activity conforms to the company's collaboration norms. This result is in line with the findings of Bock et al. [43, p. 364] who conclude that "collaborative norms do play an important role in encouraging knowledge seeking."

Furthermore, it supports the notion that ESSP users select their knowledge sources wisely. This could be attributed to the fact that ESSPs are not used, unlike social networks such as Facebook, in the user's free time, but during work hours and in a corporate setting, where productivity stands above personal interest.



**Fig. 2.** Results of Hypotheses Tests

Furthermore, our findings reveal the influential role of trust on consumptive ESSP usage (*H1a*). However, trust has no significant impact on contributive ESSP usage (*H1b*). Interestingly, these results contradict prior studies of Buckman [39], Seba et al. [40], Kankanhalli et al. [32], and Hsu et al. [41]. Therefore, our findings suggest that research results gained in the field of knowledge sharing might not be directly transferable to the social software context. Researchers should investigate organizational social software as a phenomenon of its own instead. Similarly, Chiu et al. [50, p. 1883], in their research on virtual communities, conclude: "Contrary to our expectation, trust did not have a significant impact on quantity of knowledge sharing."

Eventually, our findings reveal that community identification neither had an effect on consumptive ESSP usage (H3a) nor on contributive ESSP usage (H3b). This finding contradicts prior results by Chow and Chen [47, p. 463] who found that “shared goals significantly contribute to attitudes toward knowledge sharing.” It further contradicts Hsu et al.’s [41, p. 166] findings who showed that “members who think knowledge sharing would increase the scope and depth of associations among virtual community members tend to share knowledge with others.”

## **7 Implications, Limitations, and Future Research**

Our study represents a contribution to theory as it follows Schlagwein and Prasarnphanich’s [65, p. 9] request to carry out research on “individual acceptance of social media that take[s] cultural determination into account.” In addition, the study can be seen as a continuation of Kankanhalli et al.’s [32, p. 135] study on usage determinants of KMSs, in which the researchers were able to “demonstrate the value of using [...] social capital theory for the usage of collective technologies.”

Furthermore, our research inquiry is one of the first attempts to provide empirical evidence for the influence of organizational climate on ESSP usage behavior. It might thereby be able to push forward the theoretical understanding of enterprise social software adoption and can be used as foundation for further research endeavors in this context. In addition, the model offers a way of assessing and predicting the successful usage of ESSPs by offering empirical support for the positive effects of organizational climate. Although the model can only explain a minor overall percentage of ESSP usage’s variance, it nevertheless helps to understand the underlying forces that drive the implementation process of enterprise social software systems. At the same time, it calls for further investigations on the influence of various other determinants of ESSP usage.

Our research inquiry further presents evidence for the notion that contributive ESSP usage is more climate-driven than consumptive ESSP usage. This finding can help IT managers to adjust their priorities accordingly when implementing ESSPs and integrating them into the existing organizational IT landscape.

Our study also has several limitations. It relies on data from merely one company. Consequently, generalizability of the findings might be limited. However, the professional service firm under study appeared to be a very qualified research subject as it had employed the ESSP under study company-wide for more than two years at the time of the data collection.

Another limitation might be that the company itself managed the survey distribution. Although clear instructions were given, there is no guarantee that the complete work force was equally represented in the study. However, due to the diverse department affiliations and hierarchy levels of the survey participants, potential clustering and unequal representation appear not to be an issue.

Our study focuses on organizational climate as an important determinant of employees’ ESSP usage. However, as proven by the moderate  $R^2$ -values, organizational climate can only provide a part of the answer to explain employees’ ESSP usage be-

havior. Consequently, further research on other dimensions of ESSP adoption (e.g., perceived usefulness, perceived ease of use, etc.) must be taken into consideration when attempting to depict a complete model of ESSP adoption and usage. For further relevant constructs that account for the remaining unexplained variance in ESSP usage, articles by Kankanhalli et al. [32], Raeth et al. [26], Ali-Hassan and Nevo [66], Brown et al. [67], and Kügler et al. [22, 68] can serve as excellent starting points.

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