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Presenter Information

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Individual Enterprise Social Network Adoption: The Influence of Perceived Network Externalities and Perceived Social Capital Advantage

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Abstract. Empirical evidence indicates that Enterprise Social Networks facilitate intra-organizational knowledge sharing. While organizations continue to invest in Enterprise Social Networks, many implementation projects fail due to insufficient user adoption. Against this background, this paper investigates factors that influence individuals' adoption of Enterprise Social Networks. We thoroughly reviewed the existing literature and crafted a comprehensive adoption model. Besides commonly known adoption factors, we introduce perceived network externalities and perceived social capital advantage to account for the specific context of Enterprise Social Networks. We tested our model using structural equation modeling and empirical survey data of 155 respondents. Our results show that perceived network externalities are by far the strongest predictor for enterprise social network adoption, followed by perceived enjoyment and perceived social capital advantage. In contrast to other studies, we find perceived usefulness and perceived ease of use to be insignificant.

Keywords: Enterprise Social Networks, Technology Adoption, Structural Equation Modeling, Network Effects, Collaboration

1 Introduction

During the last decade, Enterprise Social Networks (ESNs) have increased in popularity because they change how organizations disseminate knowledge among their employees [1]. Set within the boundaries of an organization, ESNs are integrated software systems that bundle several software services for social interaction and collaboration [2]. ESNs share several functionalities with their public counterparts, for example newsfeeds, profile pages and direct messaging [3]. Empirical studies have shown that ESNs have several positive effects on organizations, especially with regards to knowledge sharing.

For instance, scholars identified that ESNs improve task performance [4], collaboration [5], knowledge transfer, expert search and innovation capacity [6].

However, researcher also recognized that ESNs are often not able to deliver those anticipated benefits due to lacking user adoption [7]. In fact, employees seem to avoid ESNs although companies provide access to them. This issue has been confirmed by several studies that showed that ESN implementation projects often result in sparse user participation [e.g. 8, 9]. Yet, it causes ESNs to be ineffective since they derive much of their value from user contributions. For instance, the lesser coworkers are using the ESN, the harder it becomes to identify experts for particular topics.

Based on the current state of research, we are not able to comprehend nor to explain why employees are reluctant to use ESNs. One reason is that prior research varies with regards to pre-adoption and post-adoption believes [10, 11]. While some studies were conducted in the pre-adoption stage, others have chosen the post-adoption stage where employees have already used and tested the ESN. The information system field has, however, highlighted the importance of differentiating between pre- and post-adoption studies because users have diverging believes about the technology in the two stages [12].

Another reason is that prior research has focused on varying levels of analysis [11]. While some studies have focused on the organizational adoption level [e.g. 5, 13], others have focused on the individual adoption level [e.g. 8, 14]. The insights derived from those two adoption levels are again very distinctive. On the organizational level, researchers are interested in the process of how organizations' implement ESNs and their influence on performance. As opposed to this, studies that focus on the individual level theorize about ESN adoption behavior of employees.

While ESN adoption on the organizational level continuous to grow, numerous studies reported that ESN adoption on the individual level lacks behind significantly [3, 11, 15]. Although the adoption motives on the organizational level are relatively clear and well researched, we do not yet understand the motives of ESN adoption on the individual level. We see opportunities in investigating individuals' intentions to use ESNs in the pre-adoption stage. By so doing, we help companies and executives to understand why employees are reluctant to adopt ESNs. Furthermore, we help organizations to decide for the correct incentive mechanisms to overcome ESN adoption barriers. Much of technology adoption literature has pointed out that generic adoption models such as the technology acceptance model (TAM) should be tailored to a specific technology to optimize their explanatory power [16, 17]. After thoroughly reviewing the existing ESN literature, we found that the influence of individuals' pre-adoption believes has yet to be quantified. Although several qualitative papers identified factors that potentially influence individuals' adoption of ESNs, the actual impact of those factors has not been verified.

Some of these factors have specific characteristics in the ESN context. Social capital for instance is broadly defined as the resources that are accumulated through the relationships among people [18]. Although social networks are generally associated with the accumulation of social capital [18], in ESNs, this effect is limited to coworkers. Another example are network effects [8]. Network effects describe that the utility that user derives from the consumption of a social media site increases with the number of

other users that are using the same site [19]. Again, in ESNs, network effects are limited to coworkers, raising the question of whether they play an attenuated role in the ESN context. In this paper, we address the problem of employees' ESN avoidance [20] by proposing and testing a research model that explains individual ESN adoption in the pre-adoption stage. Consequently, we propose the following research question:

RQ: Which factors influence individuals' adoption of enterprise social networks?

We tested our proposed model using survey data of 155 respondents and found that perceived network externalities are by far the strongest predictor for ESN adoption ($\beta=0.419$), followed by perceived enjoyment ($\beta=0.270$) and perceived social capital advantage ($\beta=0.177$). In sum, these three factors explain individual ESN adoption to 65,8 percent. We contribute to the current discourse by revealing a dominant influence of perceived network externalities. With our results, we help companies to address ESN avoidance.

The remainder of this paper is structured as follows. In the next chapter, we clarify the theoretical background of our study. Then, we report the conceptual development and our hypotheses. Next, we explain our methodology and our data set before we present the results of our study. Finally, we discuss our findings and conclude with avenues for future research.

2 Theoretical Background

2.1 Enterprise Social Networks

Our study relates to two broad research streams: ESNs and technology adoption. The roots of ESNs go back to public social networks like Friendster, CyWorld, Myspace, Facebook or LinkedIn. With the rise of public social networking sites, more and more organizations have adopted social networking sites for organizational purposes. Thereby, it is crucial to distinguish between two types of how organizations use social networks. On the one hand, firms use social networks to communicate with external stakeholders such as customers, vendors or the public as a whole. In those cases, organizations usually maintain webpages on a public social network, for instance on Facebook. On the other hand, organizations can use social networks for internal communication and social interaction within the enterprise [2]. These social networks are typically referred to as ESNs. Both types of social networks have similar functionalities like profile pages, friend requests, direct messaging and activity streams. However, ESNs typically provide certain additional functionalities for collaboration such as services for document sharing or wikis [21]. Another distinguishing factor is that public social networks are available to everyone, but ESN are only accessible for an organizations' employees.

ESNs are integrated systems that bundle several software services for social interaction and collaboration. More precisely, ESNs are defined as 'web-based platforms that allow workers to (1) communicate messages with specific coworkers or broadcast messages to everyone in the organizations, (2) explicitly indicate or implicitly reveal particular coworkers as communication partners, (3) post, edit, and sort text and files

linked to themselves or others, and (4) view messages, connections, text, and files communicated, posted, and sorted by anyone else in the organization.’ [2, p.2]. Since ESNs bundle various software services, prior research identified that different ESN user types exist and that those user types appropriate value from ESNs in different ways, for example by deriving useful information outside of business related tasks [22].

2.2 Technology Adoption

Our study also relates to the research stream on technology adoption. Much of the literature in this stream goes back to the work of Davis [23] who introduced the TAM. Based on the Theory of Reasoned Action, the TAM postulates that technology adoption is determined by two primary constructs: perceived usefulness and perceived ease of use. Moreover, Davis [23] elaborates that the design features of a technology influence its perceived usefulness and its perceived ease of use. Since the TAM is a rather generic model, researchers have made several adjustments and extensions to tailor the TAM to specific contexts. For instance, Venkatesh and Davis [24] introduced several constructs to account for social influences and cognitive processes. In another study, scholars integrated trust to explain the adoption of online shopping [16]. Another prominent adoption model is the Unified Theory of Acceptance and Use of Technology (UTAUT). Introduced by Venkatesh, Morris, Davis and Davis [25], UTAUT attempted to synthesize the variety of TAM extensions into a unified model. Although UTAUT successfully merged several stand-alone constructs into higher-level constructs, researchers continued to develop new constructs for their adoption models. A major reason for this trend is that the influencing factors vary considerably across contexts and technologies [17]. Consequently, researchers have to find the right balance between common factors that ensure the generalizability of their study, and specific factors that explicitly capture the technologies’ context.

In the ESN context, we identified several papers that paved the way for our study. Most of those papers are conceptual or qualitative in their design and try to capture potential adoption factors and related adoption barriers. In Table 1, we summarize these papers and clarify how we extend them.

Table 1. Overview on related studies

Study	Results	Research Gap
[3]	Privacy concerns negatively influence ESN adoption.	Exclusive focus on privacy concerns; influence of other contextual factors neglected.
[7]	Categorization of ESN adoption factors based on a qualitative study.	Model yet to be quantitatively tested.
[8]	Provide a conceptual model that explains ESN usage based on a qualitative study.	Model yet to be quantitatively tested.
[9]	Hedonic usage motivations dominate ESN continuance intentions.	Focus on continuance intentions; network effects neglected.
[14]	Conceptual model that explains knowledge sharing intentions in ESNs.	Model yet to be quantitatively tested.
[26]	Perceived usefulness and ease of use predict individual social software adoption.	Focus on social software in general; ESN context neglected.

3 Conceptual Development and Hypotheses

Next, we turn to the conceptual development and our hypotheses. The conceptual model is largely based on the TAM whereby we added and developed several ESN specific constructs. To identify these context specific constructs, we extensively reviewed the ESN and the technology adoption literature. Table 2 gives an overview on our constructs and their definitions.

Table 2. Dimensions and construct definitions

Dimension	Construct	Definition	Source
Technological factors	Perceived usefulness	The degree to which an individual believes that using ESNs will enhance his or her job performance.	[17]
	Perceived ease of use	The degree to which an individual believes that using ESNs will be free of effort.	[17]
	Perceived enjoyment	The extent to which the activity of using ESNs is perceived to be enjoyable in its own right.	[27]
Social factors	Perceived social capital advantage	The degree to which an individual believes that using ESNs will develop his social capital.	[28]
	Perceived network externalities	The degree to which an individual believes that the majority of coworkers will use ESNs.	[29]
	Social norm	The degree to which an individual believes that his coworkers expect him to use ESNs.	[30]
Individual factors	Concerns about information disclosure	Beliefs about potential uncertain negative consequences related to information disclosure on ESNs.	[3]
Organizational factors	Organizational support	The perceived facilitation provided by the organization to make employees' adoption of ESNs easier.	[31]
Behavioral intentions		The strength of one's intention to use ESNs.	[17]

Similar to many other adoption studies, we use the behavioral intentions to use ESNs as the central outcome of our study. For all other constructs, we hypothesize either a positive or negative influence on the behavioral intentions to use ESNs. Following preceding studies, we categorize our antecedents into multiple dimensions [8]. These dimensions are: technological factors, social factors, individual factors and organizational factors. The technological dimension comprises perceived usefulness, perceived ease of use and perceived enjoyment. Perceived usefulness and perceived ease of use are widely accepted in the information system literature and are defined as 'the degree to which an individual believes that using a particular system would enhance his or her job performance' and 'the degree to which an individual believes that using a particular system would be free of effort' [32, p.320]. We assume a positive relationship for both factors. Perceived enjoyment was included for two main reasons. First, ESNs usage may be joyful, for instance when direct messaging is used for informal talk. This is comparable with engaging in coffee corner chitchat in the physical world. Second, perceived enjoyment has shown to play an important role in public social network adoption [33]. Since ESNs have similar functionalities, we argue that perceived enjoyment is relevant in the ESN context as well. In sum, we propose the following three hypotheses:

H1: Perceived usefulness has a positive influence on the behavioral intentions to use an ESN.

H2: Perceived ease of use has a positive influence on the behavioral intentions to use an ESN.

H3: Perceived enjoyment has a positive influence on the behavioral intentions to use an ESN.

With the social dimension, we focus on influences that are induced by other human beings. Thereby, we identified three constructs that determine the social dimension in the ESN context: perceived social capital advantage, perceived network externalities and social norms. While going through the extant literature, we found that several studies highlighted the potential of social media in general, and of ESNs in particular, to facilitate the accumulation of social capital [18]. Social capital has typically been divided into a bridging and a bonding aspect. Whereas the bridging aspect pertains to the initiation of new social ties, the bonding aspect puts emphasis on the nurturance of existing social ties [28]. Since ESNs support both aspects, we assume a positive effect of perceived social capital advantage on the behavioral intentions to use ESNs. Next, we turn to perceived network externalities. This construct goes back to several econometric studies that demonstrated the significance of network effects for technology adoption. We draw upon the results of Sledgianowski and Kulviwat [33] and hypothesize that ESN adoption is more likely to occur when employees expect the vast majority of coworkers is using the ESN. Lastly, we attend to the the social norm construct which captures the extent to which users perceive that others expect them to use a particular technology [34]. In the ESN context, those ‘others’ consist of colleagues, superiors and subordinates [30]. Consequently, we expect that these persons might induce a normative pressure to use ESN. We summarize the social dimension with the following three hypotheses:

H4: Perceived social capital advantage has a positive influence on the behavioral intentions to use an ESN.

H5: Perceived network externalities have a positive influence on the behavioral intentions to use an ESN

H6: Social norms have a positive influence on the behavioral intentions to use an ESN

Next, we turn to the individual dimension which focuses on concerns about information disclosure exclusively. Often coined as privacy concerns, this construct reflects individuals’ inherent worries about possible loss of information privacy [35]. Studies have shown that those concerns play a significant role in a variety of contexts such as online marketing, electronic commerce, data analytics, communication and social networks [36]. Following Buettner [3], we expect that concerns about information disclosure concerns negatively impact the behavioral intentions to use ESNs. In our context, those concerns are targeted towards opportunistic coworkers and the employer. Thus, we hypothesize:

H7: Concerns about information disclosure have a negative influence on the behavioral intentions to use an ESN.

Lastly, we attend to the organizational dimension which covers the influence of the organizational environment. More precisely, this dimension emphasizes the relevance of organizational support for technology adoption. Several studies have found that organizational support, and especially top management support, is a critical factor for the successful implementation of a new technology [31]. In their qualitative study, Chin, Evans and Choo [7] revealed that the ESN context is no exception. In fact, said authors showed that lacking top management support hinders ESN adoption through missing of role models and unclear ESN usage purposes. Thus, we formulate our final hypothesis and summarize our conceptual model in Figure 1:

H8: Organizational support has a positive influence on the behavioral intentions to use an ESN.

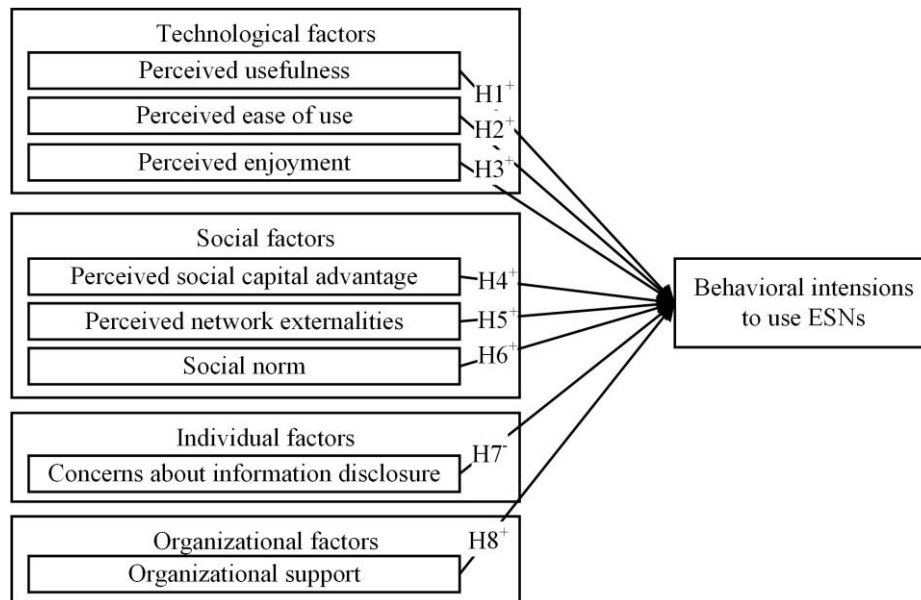


Figure 1. Conceptual Model

4 Method and Empirical Data

To test our conceptual model, we used a quantitative-empirical research approach and crafted a measurement instrument for our latent constructs. Thereby, we used existing and validated items where possible [37]. Table 3 provides an overview on our construct operationalizations. Once we had measures for all constructs, we conducted a card sorting exercise to assess the domain coverage of our constructs and to ensure the validity of our measurement instrument [38, 39]. The card sorting exercise was completed by

Table 3. Construct operationalizations

Construct	Items	
Behavioral intentions to use ESNs	[17]	Assuming I had access to an enterprise social network, I intend to use it.
		Given that I had access to an enterprise social network, I predict that I would use it.
		I plan to use enterprise social networks in future.
		I will suggest using enterprise social networks to others.
Perceived usefulness	[17]	I believe that using enterprise social networks would improve my performance in my job.
		I believe that using enterprise social networks in my job would increase my productivity.
		I believe that enterprise social networks enhance my effectiveness in my job.
		I believe I would find enterprise social networks to be useful in my job.
Perceived ease of use	[17]	I believe that my interaction with enterprise social networks would be clear and understandable.
		I believe that interacting with enterprise social networks would not require a lot of my mental effort.
		I believe that I would find enterprise social networks to be easy to use.
		I believe that it would be easy to get enterprise social networks to do what I want them to do.
Perceived enjoyment	[27]	I believe I would find using enterprise social networks to be enjoyable.
		I believe the actual process of using enterprise social networks would be pleasant.
		I believe I would have fun using enterprise social networks.
Perceived social capital advantage	[40]	I believe that using enterprise social networks would strengthen the tie between colleagues and me.
		I believe that using enterprise social networks would create new relationships with co-workers.
	[41]	I believe that using enterprise social networks would enable me to stay in contact with co-workers easily.
		I believe that using enterprise social networks would enable me to network with important members of my organizations.
Perceived network externalities	[42]	I believe that a high proportion of my co-workers would use enterprise social networks.
		I believe that most of my superiors would use enterprise social network.
		I believe that many of my subordinates would use enterprise social networks.
		I believe that many people I work with would use enterprise social networks.
Social norm	[30]	I believe that my colleagues would think that I should use enterprise social networks.
		I believe that my superior would think that I should use enterprise social networks.
		I believe that the information systems manager would think that I should use enterprise social networks.
		I believe that my subordinates would think that I should use enterprise social networks.
Concerns about information disclosure	[35]	I am concerned that the information I disclosed on an enterprise social network could be misused.
		I am concerned about disclosing information on an enterprise social network, because of what others might do with it.
		I am concerned about disclosing information on an enterprise social network, because it could be used in a way I did not foresee.
Organizational support	[31]	I believe that the company would provide me guidance on how to use enterprise social networks.
		I believe that the management would provide the necessary help and resources to enable me to use enterprise social networks.
		I believe that I am given the necessary support and assistance to integrate enterprise social networks in my work routine.

twelve experienced researchers via a digital spreadsheet and raised no concerns regarding potential construct correlations. Additionally, we followed Urbach and Ahlemann [43] and conducted a pre-test to receive feedback from a controlled sample. In particular, we wanted to confirm that our respondents grasp our introduction on ESNs although they are required to have no prior ESNs experience. The pre-test was conducted with eight students and further confirmed the validity of our survey.

We then distributed the survey digitally and measured all items with seven-point Likert scales [37]. To minimize the influence of our survey design, we randomized the order of the constructs as well as the order of the items within the constructs [44]. We sampled young professionals and university students and checked whether they had ESN experience. Due to our focus on pre-adoption beliefs, we excluded those with ESN experience from our study. In total, we collected feedback from 247 subjects. After removing incomplete and invalid responses, we ended up with a final sample of 155 responses. Our sample consists of 42% female respondents. The age of the respondents ranges from 18 to 43 and the average age is 24. Roughly 50% of the respondents were university students and the overwhelmingly majority has public social network experience.

We used a reflective measurement approach [43, 45] and performed several checks to ensure the accuracy of our measurement model. First, we carried out an exploratory factor analysis to assess potential multicollinearity issues. In line with the results of the card sorting exercise, the exploratory factor analysis suggested nine constructs. Next, we conducted a confirmatory factor analysis and reviewed the factor loadings. Except for a single item, all loadings were above the 0.80 level, positioning them in the upper acceptance range [45]. We then evaluated the reliability of our measurement model by calculating Cronbach's Alpha and Composite Reliability. Moreover, we estimated the average variance extracted to ensure convergent validity. For all constructs, we obtained satisfactory results, further confirming the robustness of our measurement model. We report the results of these robustness checks in Table 4. We also ensured

Table 4. Results of the measurement model

Construct	Lowest Item Loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Behavioral intentions to use ESNs	0.858	0.947	0.958	0.792
Perceived usefulness	0.851	0.900	0.929	0.767
Perceived ease of use	0.507	0.737	0.831	0.560
Perceived enjoyment	0.869	0.893	0.933	0.823
Perceived social capital advantage	0.809	0.791	0.863	0.613
Perceived network externalities	0.914	0.943	0.959	0.855
Social norm	0.815	0.828	0.886	0.661
Concerns about information disclosure	0.905	0.919	0.948	0.858
Organizational support	0.801	0.838	0.901	0.752

discriminant validity by checking cross loadings and the Fornell-Larcker ratio [43, 46]. Due to space constraints those measures are not reported but are available upon request. Finally, we tested our hypotheses through a structural equation model and partial least squares estimation [43]. We used SmartPLS [47] and tested our model for statistical significance with bootstrapping and 5,000 sub-samples, two tailed testing, and a minimal significance level of 0.05.

5 Findings

The results of our structural model are summarized in Table 5. We find support for three out of eight hypotheses. Surprisingly, we cannot confirm the influence of the established TAM constructs perceived usefulness and perceived ease of use, leading to the rejection of H1 and H2. However, for perceived enjoyment, we find a highly significant and moderately strong influence of 0.270. This influence confirms the importance of hedonic usage motivation for ESN adoption. Thus, we accept H3. Turning to the social dimension, we uncover a mediocre influence of perceived social capital advantage on the behavioral intentions to use ESNs. Indicated by a significant coefficient of 0.17, we show that employees who assume that ESNs (1) support the creation of new social ties and (2) facilitate the nurturance of existing social ties, are more likely adopt ESNs. Consequently, we accept H4. Perceived network externalities are, however, by far the strongest predictor for ESN adoption. In fact, perceived network externalities influence the behavioral intentions to use ESNs with a highly significant coefficient of 0.419. Our study thereby reveals that ESN adoption hinges fundamentally on the perception of how many coworkers use the ESN. Hence, we accept H5. In contrast to this effect, we did not find an influence for social norm, uncovering that normative pressure of coworkers is unlikely to cause ESN adoption. Thus, we reject H6. Contrary to our expectations, we were also not able to confirm the negative influence of concerns about information disclosure. The insignificant relationship shows that privacy concerns can be neglected for ESN adoption, at least in our sample. As a result, we reject H7. Lastly, we discard H8 because of the insignificant path from organizational support to the behavioral intentions to use ESNs.

Table 5. Results of the structural model

Dimension	Construct	Coefficient
Technological factors	Perceived usefulness	0.033
	Perceived ease of use	0.041
	Perceived enjoyment	0.270 ***
Social factors	Perceived social capital advantage	0.177 *
	Perceived network externalities	0.419 ***
	Social norm	0.065
Individual factors	Concerns about information disclosure	-0.064
Organizational factors	Organizational support	0.038
R ² = 0.658; Number of observations = 155; Dependent variable = behavioral intentions to use ESNs; Significance: *** = below 0.001, ** = below 0.01, * = below 0.05, no asterisks indicate insignificance.		

6 Discussion

The main contribution of our study is that we explain why employees are reluctant to adopt ESNs. In the following, we elaborate on the influence of particular constructs and their implications. First, we found that the behavioral intentions to use ESNs primarily depend on employees' perception about the number of other people using the same ESN. Hence, we confirm a strong influence of perceived network effects in the ESN adoption context. Furthermore, executives can use our results to foster ESN adoption and we thus help organizations to realize anticipated benefits from ESN implementation projects. At the same time, this raises the question of how organizations should cope with this effect. On the one hand, we advise organizations to concentrate on acquiring an initial critical mass of users. According to our results, this is the most promising approach for ensuring subsequent ESN adoption. On the other hand, achieving said critical mass is not an easy task to accomplish. Similar to other digital platforms [48], ESNs' network effects are inherently associated with the chicken-and-egg problem. In other words, ESNs need a large active user base to be attractive for new users. However, when an ESN is launched, there are no existing users in the system. We therefore recommend organizations to ensure two things. First, organizations should automatically create ESN user accounts for their employees. By so doing, they ensure that users get onto the ESN without hassles. Furthermore, ESNs with many user accounts convey the impression that the majority of the workforce uses the ESN. Second, organizations should, especially in the beginning, reserve time for their employees to create content on the ESN. Hence, employees have the chance to fill the ESN with a variety media content, making it not only perceived as having a large user base, but also increasing available content.

Our study also generated relevant insights with regards to other constructs, one being the insignificant effect of concerns about information disclosure. With our findings, we contrast those of Buettner [3] who found a negative effect for the same construct in a similar context. Based on this dissent, we contend that privacy concerns are not relevant for all ESN adopters. In fact, we attribute this discrepancy to demographic factors. Whereas Buettner [3] recruited working professionals, we surveyed students and young professionals, resulting in a lower age range and a lower average age. Concerns about information disclosure might therefore have a stronger effect for older people. Besides, Buettner [3] also mixed pre-adoption and post-adoption beliefs in his study. To us, this also indicates that concerns about information disclosure might be of greater importance for continuance intentions than for the initial adoption.

Next, we unraveled that the accumulation of social capital plays a significant role for ESN adoption. While prior studies showed that social networks have a positive impact on the accumulation of social capital [18, 28], we investigated this relationship in a reversed way. In particular, we showed that potential adopters who believe that ESNs enable them to (1) form new social ties and to (2) facilitate the nurturance of existing social ties, are more likely to adopt ESNs. Organizations can make use of our results by highlighting social functionalities of ESNs, for example friend requests, following and direct messaging.

Although perceived social capital advantage and perceived network externalities demonstrated the relevance of social factors, we could not confirm that peers and reference groups create a normative pressure that positively influences ESN adoption. Our findings thus suggest that the number of other users as well as available social functionalities are critical for ESN adoption, but that the expectations of others are not. Communicated usage expectations, for example from colleagues or superiors, might therefore turn out to be ineffective.

By confirming the influence of perceived enjoyment, we verified that hedonic usage motivations predict ESN adoption. Our findings complement those of Meske, Junglas and Stieglitz [9] who found a similar effect for continuance intentions. According to our study, organizations can increase ESN adoption by highlighting joyful aspects of ESN usage to potential adopters. For instance, when they introduce the ESN to the workforce, organizations should emphasize pleasant features that are known from public social networks, for instance scrolling through one's newsfeed or commenting on post of others. Although several studies showed that ESNs also increase job performance and innovation capacity [e.g. 4], we found that such performance related factors are of no relevance for ESN adoption. Instead, we find that, similar to public social networks [49], joy related factors outweigh performance related factors. This argument is also supported by the fact that perceived usefulness had no effect on ESN adoption. Our findings contrast several existing studies that found that perceived usefulness has been a strong predictor for technology adoption in the workplace [e.g. 17, 49]. Consequently, our study suggests that ESNs are rather perceived as leisure-oriented social information systems than as productivity boosters. Lastly, we found that the influence of perceived ease of use was insignificant as well. Although perceived ease of use had typically a slightly weaker effect than perceived usefulness, it still was a crucial predictor in many adoption studies. There are two reasons that explain this insignificant effect. First, almost all of our respondents had experience with public social networks. Subsequently, our respondents might have assumed that they can transfer existing public social network knowledge to ESNs, making ESNs easier for them to use than for people without public social network experience. Second, our sample has a rather young average age which is usually associated with higher technological self-efficacy.

The main limitation of our study is that we sampled university students and young professional. Our results might therefore not be transferrable to older generations without further ado. However, our study paves the way for several future research avenues. First, researchers should dig deeper into the effect of perceived enjoyment. To do so, scholars could make use of the existing gamification literature. For instance, future research could theorize and empirically validate how specific ESN functionalities provide users with joy. Next, the strong influence of perceived network externalities needs further investigation. From an organizational perspective, it is crucial to understand how many users are necessary to reach a critical mass that sufficiently triggers network effects. While we modeled network effects linear, the effect could also follow an exponential function. Finally, future research could also disentangle the link between social capital accumulation and specific ESN functionalities. Currently, we only know that ESNs support the accumulation of social capital, but we do not comprehend which functionalities trigger this accumulation.

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