

An explorative study on the individual adoption process of Enterprise Social Media

A comparison between users and potential users at three organizations

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i n v e l v e



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Kimberley Hazelaar

Abstract

Enterprise Social Media (ESM) enable employees within a company to visibly communicate with one another, within a (private) group. Companies are eager to implement ESM in order to become more agile and use the capacity of their employees. However, companies struggle with the individual adoption of Enterprise Social Media.

In this study I explore which critical factors influence the use of ESM, by comparing users with potential users. I also explore whether organizational context influences the individual adoption process.

To determine which factors influence the usage of – or intention to use – ESM, I conducted an extensive literature research. I propose a new framework which combines the actual use and potential use. The studies of Schöndienst et al. (2011) and Kügler et al. (2013), amongst others, are integrated in a new model: Unified Theory of Acceptance and Use of Enterprise Social Media (U/E).

A panel of experts was asked to rank all factors of U/E, based on their experience in the field of internal communication and ESM. This resulted in six critical factors, which were tested among users and potential users in three different organizations which have Yammer as an internal social media tool.

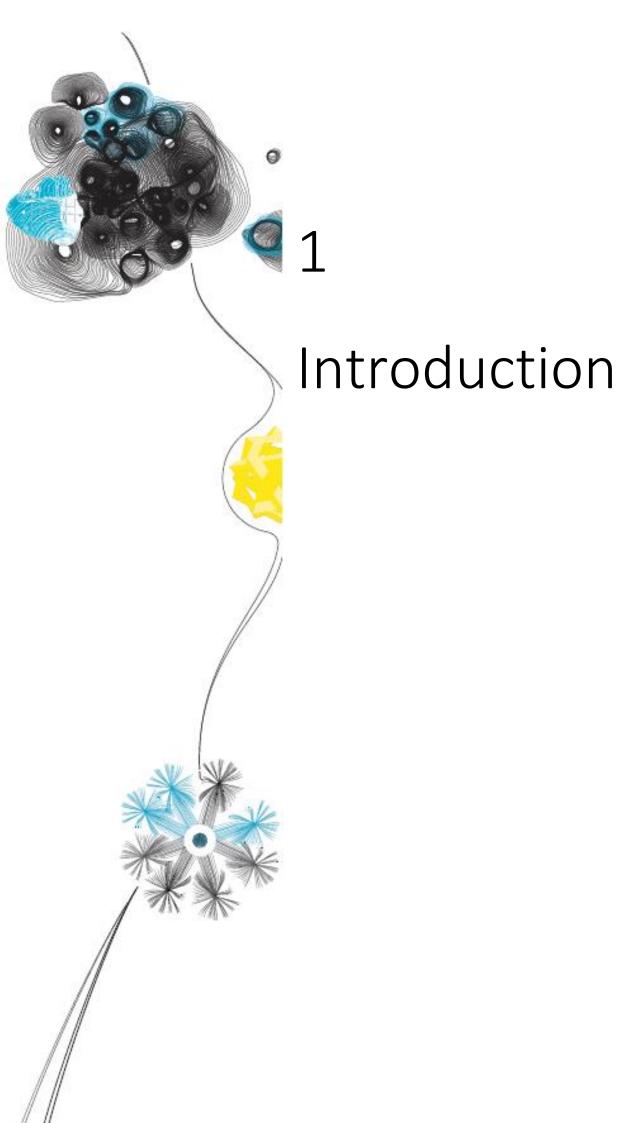
The most important result is the importance of activity of other employees rather than managers, and the correlation between Performance Expectancy, Reputation and Perceived Critical Mass regardless the user group or organizational context.

List of Abbreviations

Abbreviations	Meaning
CN	Collaborative Norms
СРА	Compatibility
СТ	Community Ties
EE	Effort Expectancy
ER	Expected Relationships
ESM	Enterprise Social Media
ESSPU	Enterprise Social Software Platform Usage
IDT	Innovation Diffusion Theory
IM	Instant Messaging
OC	Organizational Climate
PC	Privacy Concerns
PCM	Perceived Critical Mass
PCM - Emp	PCM of Employees
PCM - Man	PCM of Managers
PE	Performance Expectancy
RD	Result Demonstrability
REP	Reputation
SCT	Social Capital Theory
StR	Signal-to-noise ratio
TRU	Trust
U/E	UTAU of ESM
UTAUT	Unified Theory Acceptance Use of Technology

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Organizations want to - even need to - become more agile. They need to be successful, or to put it more dramatic: they need to survive. Companies who failed to change along with the latest innovations and changes, have known a relatively quick ending. We can think of Kodak, Free Record Shop and even Hyves. Recent examples are the difficulties for Dutch large department stores as V&D and Blokker (Elsevier, 2015). Companies who did very well, yet collapsing due to their inability to keep up with the latest developments.

Strategic agility is crucial for organizations to adapt to the ever changing environment (Van Leeuwen, 2013). As Dess and Pickens (2000) already explained: "to compete in the information age, firms must increasingly rely on the knowledge, skills, experience and judgment of all their people." (Dess & Pickens, 2000, pp. 18). That is why Enterprise Social Media (ESM) might help to involve all employees.¹

Employees play a key role in detecting changes and helping the organization innovate and adjust. ESM are one of the means to reach and connect valuable knowledge of employees within the organization. However, companies struggle to adopt ESM within their organizations (Evolve, 2014). In contrast to the adoption of social media in private spheres, where they are already widely used (Akkermans, 2013).

This contrast between private and organizational usage of social media, raises the following question: how is social media usage being influenced within organizations? What are the factors playing part in that process? I discuss usage of social media on an individual level, because of the need for involvement of all employees to create more organizational agility (Van Leeuwen, 2013).

Although 79 percent of large companies (500 employees or more) have put social media in use, it mostly involves marketing activities. Within this group of companies, 65 percent of social media usage concerns developing a certain image and reputation, along with the marketing of (new) products (Pronk & De Groot, 2012). This number shows that the focus of social media usage within organizations is mainly external.

Another recent study showed that 56 percent of large and midsize companies use social media for internal purposes (TowerWatson, 2013).² However, TowerWatson included Instant Messaging (IM) within the definition of enterprise social media. In chapter two I will argue that IM is not a social medium. Therefore, the percentage of 56 percent gives a distorted view on actual individual ESM usage.

Evolve (2014) found out that 75 percent of Dutch companies use Enterprise Social Media for internal purposes. Although this seems like a high percentage, the actual use of ESM remains behind; only a few companies pointed out that their employees actively use the available ESM (Evolve, 2014). This circumstance leads to the main goal of my thesis: researching how the usage of -or intention to use- Enterprise social media is affected.

¹ ESM are, in short, media that are used to visibly exchange information at all levels within an organization, for example Jive and Yammer. I will define ESM further in chapter 2.

² This research focused not only on Dutch companies, but covered a worldwide sample of organizations.

Recent studies on adoption of ESM (Schöndienst et al. 2011, Schlagwein, et al. 2011 & Günther et al., 2009) only focus on the factors that influence the intention to adopt ESM. Kügler et al (2013) came up with a theoretical model that tries to directly link these factors to actual usage. What is missing, is a focus on both perspectives; potential versus actual users. This study compares their respective perception of critical factors concerning the adoption of ESM.

Studying the intention as well as the actual use at the individual level, will provide insights in the difference between the perception of why social media use would (not) be preferable, and the actual experienced (dis)advantages of social media.

Furthermore, most studies (i.e. Brzozowski, 2009 & Riemer et al. 2011) focus on a social media platform in one single organization. In my explorative study, I have included three companies, to test whether organizational context also influences the individual adoption of ESM.

By integrating users and potential users in different organizational contexts, I argue that an integrated perspective on individual adoption of ESM can be found. This perspective could give more insight in the mechanisms of ESM adoption. In addition, it might also lead to effective advice regarding implementation strategies of ESM.

Given the goal of my explorative study, I have developed three research questions:

- According to literature, which factors influence the use of Enterprise Social Media? (chapter 2)
- Which critical factors differ between users and potential users of Enterprise Social Media? (chapter 3 & 4)
- Is the difference between users and potential users affected by the organizational context? (chapter 4)

In chapter 2, I answer which factors influence the use of ESM, by integrating existing theoretical models into a new framework. Previous models focused either on potential users or actual users of ESM, while my model focuses on both, and includes the organizational context. In chapter 3, I highlight the most critical adoption factors using a pre-study among an panel of experts in the field of internal communication and ESM. Subsequently, these factors are tested amongst respondents of three companies. In chapter 4, I show which critical factors differ between users and potential users of ESM, and whether the organizational context affects the individual adoption process. In chapter 5, I answer the three research questions based on the results in chapter 4. The answers to these questions lead to the final conclusion in which I reflect on my research. This is where I link the answers to the goal of the study and make suggestions for future studies. I also make recommendations concerning adoption implementation strategies of ESM.

Theoretical Framework

2

In this part of the study I answer the first research question: According to literature, which factors influence the use of ESM? I define the terms ESM and adoption based on previous studies to identify the scope of this research. Then, I integrate these factors in a new model for ESM, which incorporates users and potential users. Finally, I explain this new model.

2.1 Enterprise Social Media

McAfee (2006) introduced the term Enterprise 2.0. Enterprise 2.0 refers to organizations that implemented Web 2.0 for new ways of working together, and thus, is mainly a technological definition.³ The main focus of Enterprise 2.0 is related to knowledge management and the tools (Web 2.0) that can be used to reach knowledge sharing throughout the organization. I argue, however, that the use of Web 2.0 is more than a technology to share knowledge within an organization.

Knowledge sharing is just one of many purposes in which Web 2.0 technologies can be used. Gaona, Aguilar and Sanchez (2013) also name collaboration and easy access to information and other people as factors for which social media can be used in organizations (Gaona et al.,2013). Treem and Leonardi (2012) take it a step further and argue there are numerous purposes for using an artifact (in this case Web 2.0 technology). It depends on how users approach and use it, which will differ per person, and therefore results in an infinitive number of purposes besides sharing knowledge.

Thus, where Enterprise 2.0 focuses mainly on the Web 2.0 technology that can be used for knowledge sharing, I want to broaden the term in which purposes and technology are integrated. With the term Enterprise Social Media I refer to Social Media that are used to visibly exchange information at all levels within an organization.⁴ Instant Messaging is not included in this definition, because the exchange of information is only visible for persons invited in a conversation.

2.2 Adoption

Schlagwein (2011) states that the adoption of social media consists of two particular aspects: 1) the organization will have to facilitate the enterprise social media tools, and 2) people within the company will have to make use of this technology. In my study, the term adoption focuses on the second aspect, the individual adoption process.

There are two studies that serve as a base for my study. The first study of Schöndienst et al. (2011) focuses on the intention to adopt Microblogging, whereas the second study of Kügler et al. (2013) focuses directly on actual usage. The combination of these two studies serves as a base for a new model, which I call the UTAU of ESM (U/E). ⁵ But first, I show the two models and explain which aspects I have translated to U/E.

³ "Web 2.0 is best described as a combination of new technologies (like web services, AJAX, RSS, mashups), new types of applications (i.e. social software, like wikis, blogs, social networking), new patterns of interaction, and new principles of organisation (e.g. participation, wisdom of crowds) as well as new business models (such as long tail, webtop, etc.)" (Fuchs-Kittowski, F., Klassen, N., Faust, D. & Einhaus, J., 2009).

⁴ Brzozowski (2009), also uses the term, but does not define the scope of the term.

⁵ UTAU is based on UTAUT which means Unified Theory of Acceptance and Use of Technology

The first research Micro-Blogging Adoption in the Enterprise: An Empirical Analysis by Schöndienst et al. (2011), applied an adapted model of UTAUT to the adoption of Microblogging within organizations (figure 1). They focused on the intention to contribute or follow other users. The original UTAUT model of Venkatesh et al. (2003) had been alternated so it could be applied to study the individual adoption of Microblogging. Privacy Concerns (PC), for instance, was added as a new construct in addition to the original UTAUT, because of the visible character of ESM. This construct negatively influences the intention to contribute. Other constructs that were added are Collaborative Norms (CN), Reputation, Communication Benefits, Signal-to-noise ratio and Expected Relationships (ER). Facilitated Conditions were replaced by CN. My motive to use this study is because the UTAUT model is the basis for U/E, and secondly because it has been extended with factors that are specific to ESM.

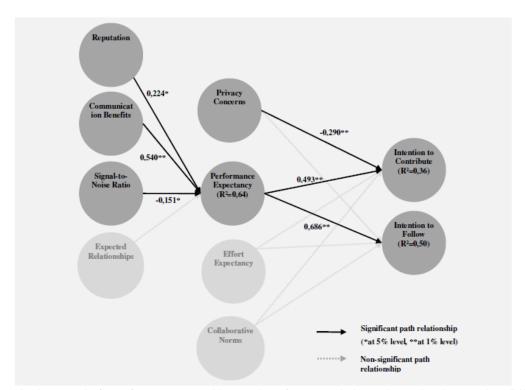


Figure 1: adapted UTAUT model used in the study of Schöndienst et al. (2011)

Kügler et al. (2013) came up with another framework based on the Innovation Diffusion Theory (IDT) and the Social Capital Theory (SCT) (figure 2). The model they ultimately propose, looks like the UTAUT model, because several constructs predict the use of ESM, with experience being the moderator of the technological and social constructs. Originally, the UTAUT model predicted the intentional behavior, instead of the actual behavior. A major advantage of this model is, that the proposed constructs directly influence the actual use, which is also part of U/E.

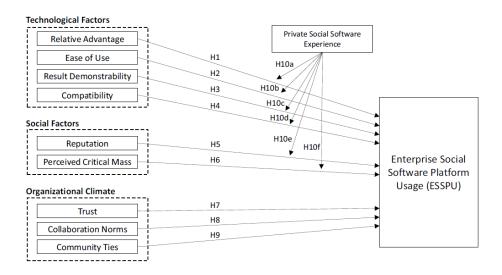


Figure 2: IDT model used in the study of Kügler et al. (2013)

In my research, both models have been integrated into U/E which contains the potential and actual usage of ESM. I explain all factors of my model, after which I present U/E as the new model on the individual adoption process of ESM.

2.2.1 Performance Expectancy

"the degree to which an individual believes that using an ESM tool would help him or her to attain gains in job performance" (Schöndienst et al., 2011)

In his case study concerning social media usage within HP, Brzozowski (2009) showed that employees would not start using an ESM tool if it remained unclear how this would affect their daily work. Respondents said that it was not clear to them whether the tool was supported by the IT department within the organization. They argued that it would not be the first time that an employee-driven initiative would shut down whenever the ambassadors for this platform left the company. The effort put in it would then be perceived as a waste. The fear for this to happen could, in general, hold people back to start using the platform. Whenever people feel that it is a temporary thing, the chance they will adopt ESM will be reduced.

Another reason for employees not to use ESM in relation to Performance Expectancy (PE) is formulated by Frield and Vercic (2011). They show that digital media within organizations are not always preferred because they cannot match the daily practices people have to carry out. So, if people expect that the use of a social platform does not fit their daily practices at work, they will less likely start making use of this platform. While this is more an adoption barrier, Sarosa (2012) argued that in the adoption process employees are approached the other way around. Namely, ESM will be a way to solve some of your problems. Thus, the way it can or cannot contribute to your job plays an important role.

Schöndienst et al. (2011) found that PE was the strongest predictor of intention to follow and contribute at organizational microblogging. Also, Kügler et al. (2013) have

included PE in their model, only they called it Relative Advantage. A predictor for PE as found by Schöndienst et al. (2011) was Communicational Benefits. Because relevant information would be available quicker and easier to find. Also, in the study conducted by Günter et al (2009) this predictor was found to be important, because it was mentioned many times within the focus-groups. While Communicational Benefits has a positive relation to PE, Signal-to-noise ratio related negatively to PE, according to Schöndienst et al. (2011). Signal-to-noise ratio refers to an information overload in which individuals can no longer easily prioritize and structure information they receive. Given the increasing amount of information, it becomes less easy to find the information one needs, although the information is still easily accessible.

In U/E, PE is directly related to the intention to use and the actual use of ESM. So, the degree to which an individual believes that using an ESM tool would help him or her to attain gains in job performance (Schöndienst et al., 2011), which is predicted by the Communicational Benefits and the Signal-to-noise ratio.

2.2.2 Effort Expectancy

"the degree of ease associated with the use of an ESM tool" (Schöndienst et al., 2011)

Kügler et al. (2013) have translated Effort Expectancy (EE) into Ease of Use. But they also added another construct: Compatibility (CPA). Ease of use is defined as EE, whereas CPA deals with the way an innovation fits the daily work routine. I argue that CPA is part of PE, following Frield and Vercic (2011) who showed that the use of social media increases when it matches daily practices at work. Therefore, I did not use CPA as a factor in U/E.

While Kügler et al. (2013) propose that EE will be positive related towards actual use, the findings of Schöndienst et al. (2011) show something else. They had predicted that EE would not have any influence on the intention to use, and their empirical data supported this hypothesis. But, other scholars contradict the finding of Schöndienst et al. (2011).

Huang et al. (2013) found that not only the content but also the ease of use enhances participation, such as lay-out and navigation. Studies concerning other technologies within organizations, like e-learning, also underline the importance of lay-out and technical functionalities (Sela & Shivan, 2009, Romiszowski, 2003).

In my discussion, I link my results of EE in relation to ESM adoption to the contradiction between the findings of Schöndienst et al. (2011) and other scholars (Kügler et al., 2013, Huang et al. (2013), etc.). In U/E, EE is directly related to the intention to use and the actual use of ESM. In other words, the degree of ease associated with the use of an ESM tool (Schöndienst et al., 2011).

2.2.3 Privacy Concerns

"the degree of concerns about the consequences of visible communication when using an ESM tool" (Günther et al., 2009)

Günther et al. (2009) discovered during their focus groups on individual adoption in organizations that people had Privacy Concerns (PC) and were therefore hesitant to contribute. The public visibility of ESM usage results in more transparent and open communication. However, this is not perceived as a positive thing by everyone. Because every contribution can be read and monitored, people are sometimes afraid to contribute. Findings of Schöndienst et al. (2011) support this finding, and show that PC is negatively related to the intention to contribute. In U/E, therefore, PC is directly related to the intention to use and the actual use of ESM. Thus, the degree of concerns about the consequences of visible communication when using an ESM tool (Günther et al., 2009).

2.2.4 Reputation

"the degree to which use of the ESM tool is perceived to enhance one's status in a social system" (Schöndienst et al., 2011)

Brzozowski et al. (2009) identified efficacy as the most important factor contributing in ESM. Which means, the extent to which someone has the feeling he or she is able to help someone else. Not only the feeling is important, but also the effect of their help, in sense of Reputation (REP) is found to be important for knowledge sharing (Wasko and Faraj, 2005). Kügler et al. (2013) relate REP directly to the actual use of ESM, while Schöndienst et al. (2012) proved that this is a determinant for PE.

Although Schöndienst et al. (2011) concluded that REP predicts PE, in U/E, REP is directly related to the intention to use and the actual use of ESM.⁶ In other words, the degree to which use of an innovation is perceived to enhance one's status in a social system.⁷

2.2.5 Perceived Critical Mass

"the degree to which ESM usage is perceived to be visible throughout the organization" (Kügler et al., 2013)

Peer pressure is a critical factor in the study of Brzozowski et al. (2009). This contradicts the results of Günther et al. (2009). Within their focus-groups, aspects of peer pressure such as Social Pressure and Top Management Support, were only mentioned sporadically.

Perceived Critical Mass (PCM) has only been researched in relation to co-workers at the same hierarchical level, while no distinction was made between them and managers or executives (Günther et al., 2009, Schöndienst et al., 2011). Brzozowski et al. (2009) showed

⁶ Following the studies of Brzozowski et al. (2009), Wasko and Faraj, 2005 and Kügler et al. (2013).

⁷ The social system is the organization where the individual works.

that when managers quit being active, employees will participate less, even when colleagues are actively contributing to ESM. Also, Huang et al. (2013) presented in their study that the actual use and support of executives has an impact on the actual use of employees.

Following Kügler et al. (2013), PCM refers to the degree to which ESM usage is perceived to be visible throughout the organization. But because of previous research where no distinction in hierarchical level was made, I have divided PCM into two separate factors: PCM of employees (PCM-emp) and PCM of managers (PCM-man). In U/E, both factors are directly related to the intention to use and the actual use of ESM.

Kügler et al. (2013) argue that the extent to which a new technology has been proven successful, affects the adoption process of individuals. They call this Result Demonstrability (RD). When employees know and even see the results achieved by others within the company, this is expected to positively relate towards actual use. But whereas Kügler et al. (2013) put this construct under the heading of technological factors, I would argue that this is a merely social factor. The primary motivation for an employee to use ESM, lies in the feeling of contributing to an achievement within their company, rather than the technology itself being successful. In U/E, therefore, RD is related to the Perceived Critical Mass of employees and managers.

Schöndienst et al. (2011) included Expected Relationships (ER) in their model as a predictor for Performance Expectancy, but did not find any correlation with PE. Hsu and Lin (2008) researched whether ER is directly related to knowledge sharing between employees, but did not find any relation.

DiMicco et al. (2008) found that employees used internal social networks mainly for gathering information. So connections they make, are mainly information or knowledge driven, rather than social. However, they also found that the initial use of ESM is to communicate with direct colleagues rather than with colleagues they do not know. This changes over time, according to their results. Therefore, the reason they start using ESM could be because their direct colleagues participate as well.

Following these findings of DiMicco et al. (2008), ER is related to the Perceived Critical Mass of employees and managers in U/E, because Schöndienst et al. (2011) did not find any relationship with PE and neither did Hsu and Lin (2008) directly with knowledge sharing.

2.2.6 Organizational Climate

The Organizational Climate (OC) represent factors such as values, norms and other underlying structures within an organizational setting which are omnipresent, but not per se visible and known by all employees. Schein (1985) already divided organizational culture into artifacts⁸, values⁹ and assumptions¹⁰. The assumptions are believed to have an impact on

⁸ Objects within the organization such as an interior which represent its culture.

the actual behavior of all employees within an organization. In U/E, the Organizational Climate contains three constructs of assumptions, which I elaborate on below.

Collaborative Norms (CN) refer to the assumptions in organizational climate regarding collaboration, knowledge sharing and cooperation. Schöndienst et al. (2011) found no significant relationship between CN and the intention to contribute or follow. Schlagwein and Prasarnphanich (2011) stated that they could not find an theoretical argument that the construct Collectivism I should have an impact on the adoption of ESM.¹¹ However, Kügler et al. (2013) added this construct in their model based on work of other research. In my discussion I link my results of CN in relation to ESM adoption to the contradiction between the findings of Schöndienst et al. (2011) and Kügler et al. In U/E, CN is directly related to the intention to use and the actual use of ESM.

Trust (TRU) is the second construct that Kügler et al., 2013 have put under the heading of Organizational Climate. TRU is "the belief in the degree of good intentions, behaviors, competence and integrity of employees" (Kügler et al. 2013, pp. 3639). Trust is also an important factor in the research of Paroutis and AI Saleh (2009). They discovered that employees not only need to trust the nature of the content of ESM, but also need to trust the consequences of posting any content on ESM. Therefore, in U/E, TRU is directly related to the intention to use and the actual use of ESM.

Community Ties (CT) refer to "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" (Kügler et al., 2013, pp. 3639). Kügler et al. (2013) propose a direct relation of CT with ESM usage, following the findings of Hsu and Lin (2008). They showed that the perceived identification with a group increases the intentions of using blogs. Therefore, in U/E, CT is directly related to the intention to use and the actual use of ESM.

2.2.7 Private social media experience

Günther et al. (2009) showed that personal experience with Twitter influences the attitude of employees on the introduction of organizational microblogging. Also, in the study of Schlagwein and Prasarnparich (2011) private social media experience has been included to predict the relation between personal factors and actual usage. Similarly, Kügler et al. (2013) included private social media experience in their model as moderator for personal factors. Therefore, in U/E, private social media experience moderates the relationship of all factors, except for the OC factors.

⁹ The way people interact with each other, i.e. power-distance.

¹⁰ The underlying mechanism which determines the values and artifacts.

¹¹ Collectivity I: "the degree to which societal institutional practices encourage and reward collective distribution of resources and collective action" (Schlagwein and Prasarnphanich, 2011, pp. 3)

2.3 U/E

Based on this literature study, I developed U/E (figure 3). This model serves as the basis for a multiple case-study among three organizations. The choice for these organizations is based on employee size and use of a specific ESM technology. In my method section I clarify why size and technology were selection criteria in choosing the companies for the multiple case-study.

Furthermore, in U/E, I have not only included factors of previous studies, as cited in paragraph 2.2, but I also added PCM-man and proposed that the factors directly relate to two groups: potential users and actual users. This contradicts with previous adoption models in which factors relate to the intention or attitude towards a technology, instead of directly towards use and potential use. This is in line with the model of Kügler et al. (2013) who propose a direct relation of the factors with usage. In my method section, I explain how I have compared the results of the critical factors between these two groups.

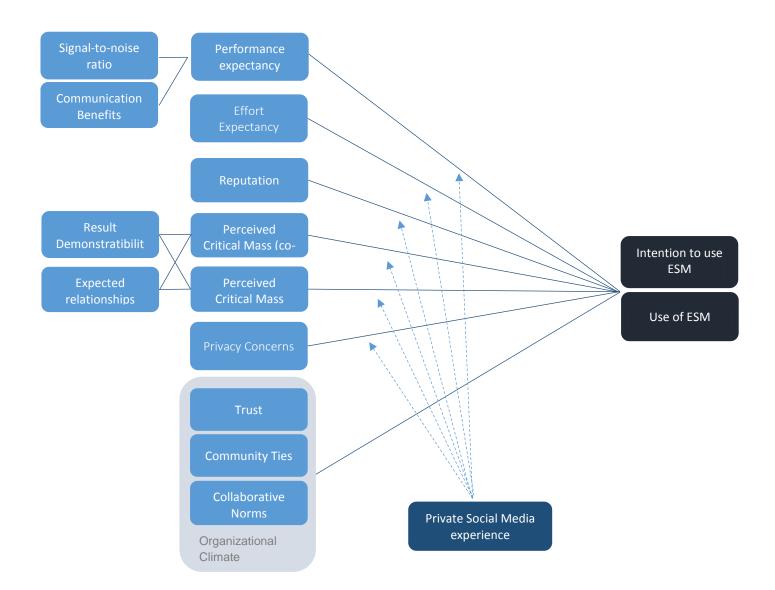
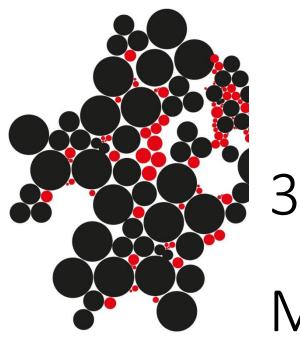


Figure 3: UTAU of ESM – Intention to use and use of Enterprise social media

The theoretical framework answers which factors influence the use of Enterprise Social Media according to literature. Remains for me to answer which critical factors differ between users and potential users of ESM, and to answer what the difference is between users and potential users affected by the organizational context. Therefore, I translated U/E into hypotheses of the critical factors. In my method section I explain how and why this was done.



Method

In this research I focus on the difference between users and potential users to be able to say something about ESM usage. Therefore, a different testing model of U/E is required, because U/E contains correlations between factors and users & potential users, whereas my study focuses singularly on the difference between users and potential users regarding the critical factors.

Firstly, I identify the critical factors by asking a panel of experts in ESM and internal communication about their experience with individual adoption of ESM in different organizations. Secondly, based on these results, I come up with hypotheses which served as a basis for the multiple case-study. Thirdly, I define the selection criteria for the three organizations that participated in my study. Then, I explain what instrument and statistical analysis I used to measure the difference between users and potential users in general, and between the three organizations. Finally, I clarify how I measured whether organizational context affects the individual adoption process.

3.1 Panel of experts

To define the critical factors, I drew upon the expertise of seventeen professionals in the field of internal communication and/or ESM. Because of their experience in this specific area, in combination with their role as external advisors, I believe they are able to point out critical factors in the individual adoption process of ESM. This way, the factors could be translated into hypotheses.

Firstly, I presented the U/E model to the panel of experts and included the definitions of each factor on paper. Secondly, each professional was asked to put ten stickers on the model; each sticker represented a vote for that specific factor. Everybody was free to place stickers according to which factor they believed is critical in the individual adoption process of ESM, based on their experience.

Appendix A shows the exercise and explanation as presented to the panel.

In total, 165 votes were cast, which were divided between fourteen factors. This resulted in a minimum of twelve votes for a factor to be included in my study (165 divided by 14). Based on these votes (see table 1), I brought all factors back to six constructs: Performance Expectancy, Effort Expectancy, Perceived Critical Mass (of co-workers and managers), Collaborative Norms and Reputation.

TABLE 1

Overview of votes per factor

Factor	Number of Votes
Performance Expectancy	34
Signal-to-Noise ratio	2
Communicational Benefits	8
Effort Expectancy	28
Privacy Concerns	9
Reputation	17
Perceived Critical Mass of employees	15
Perceived Critical Mass of managers	16
Expected Relationships	6
Result Demonstrability	2
Collaborative Norms	16
Trust	8
Community Ties	4

These are the critical factors that play a role in the adoption process of ESM according to the panel of experts. To be able to test these factors, I translated them into the following six hypotheses:

- Hypothesis 1: Performance Expectancy is perceived higher by users than potential users
- **Hypothesis 2:** Effort Expectancy is perceived higher by users than potential users
- Hypothesis 3: Reputation is perceived higher by users than potential users
- **Hypothesis 4:** Perceived Critical Mass of employees is perceived higher by users than potential users
- Hypothesis 5: Perceived Critical Mass of managers is perceived higher by users than
 potential users
- **Hypothesis 6:** Collaborative Norms is perceived higher by users than potential users

3.2 Multiple-case study

The research took place in three organizations in the Netherlands based on two criteria. The first criterion is the availability of the EMS tool Yammer. The choice for Yammer is two folded. Firstly, it is the most frequently used ESM tool in Dutch organizations (Evolve, 2014). Secondly, a recent study of Workman (2013) shows that when studying adoption of a technology it is necessary to have an understanding of that technology. It is better to analyze a specific platform instead of generalizing platforms. This because, with different platforms, other features may be apparent which may result in different motivation of how and why to use a specific platform instead of Enterprise Social Media in general. Because research in

this particular area is still scarce (Kügler et al. 2013), this study contains a multiple case study about factors which influence the adoption process in three different organizations that use the same ESM tool. This way, I tried to prevent that technological differences were considered a factor in the comparison between the three organizations.

The second criterion is the size of the company. I chose to approach large organizations (>500 employees), because I needed to compare users to potential users within an organization. The condition for an organization to take part in my research, was the guarantee of 100 participating respondents in order to meet this selection criterion.

Within each company, I asked the head of internal communication or Yammer if their company would be willing to participate in my research. I asked for this person specifically, because he or she would also have to participate in the interview about the context of Yammer usage within their company (Appendix B). Also, because they could help distribute the survey among a diverse group of employees throughout their company. In addition, I asked about the response on previous surveys, to test whether they would be able to meet the criterion of 100 respondents.

The importance of the variety of respondents was explained to them. Along with the procedure of how to approach the respondents and what the survey invitation looked like. If the company wanted to add some questions for their own information, this possibility was provided.

Instrument

After consent of the head of internal communication or Yammer, I interviewed this person to identify the implementation strategy of Yammer along with the way it is put to use within their organization.¹² Through the input of the interview, I am able to explain variances in the outcome between the three organizations.

To test the differences between users and potential users, I used a survey. The questions were put in an online survey, because in this way, it was easier to distribute the survey amongst employees across the organizations. The items that measure the critical factors, have largely been validated in previous studies (Günther et al., 2009, Schöndienst et al., 2011 and Sela & Shivan, 2009). Only for PCM-man, I created three new items based on the items of PCM-emp. In Appendix C, all items per constructs are listed. I translated each item into Dutch, because I wanted to make sure respondents understood the propositions.

To test the quality of the translations, I executed a pre-test. Five people were asked to reflect on the survey by indicating to what extent they understood the items.¹³ After the adjustments were made, another three people were asked to reflect on the quality of all items. This attempt to make the items accurate and unambiguously, the influence of the research method on the results was prevented as much as possible.

¹² A semi-structured formed the basis of the interview. See Appendix B for the questions.

¹³ Test respondents could rate each item with --, -, +-, + or ++. In addition, they could comment on whether they did or did not understand an item.

The survey had different content for respondents who used or did not use Yammer, to measure the difference between actual users and potential users. Users can rate the items based on their ESM usage, while potential users cannot. Therefore, it was necessary to formulate hypothetical items about ESM usage for this group. This way, I measured their attitude towards Yammer.

In the final survey all items were randomly showed. Also, some items were formulated in a 'negative' sentence to prevent that the presentation of the instrument would influence the answers. This way the instrument would not influence the answers of the respondents, or at least be brought back to a minimum.¹⁴

The items could be rated by the respondents using the 5-point Likert scale (Jamieson, 2013). Respondents were able to rate each proposition in a range of strongly agree, agree, neither agree nor disagree, disagree, to strongly disagree. An extra option was given in the form of No Opinion. This was done, because otherwise people without an opinion would be forced to mark an option. This would probably result in the middle option, which would influence the average, modus and median of the test results.

Furthermore, the items were divided into three pages, so the possible overwhelming look of all these items would not discourage respondents to fill in the survey or rush through it. After the items, contextual questions were asked (Appendix D). This part also contained general questions such as gender and age.

Statistical analysis

All empirical data gathered via the online surveys, were imported into SPSS. For each construct the Cronbach's Alpha was determined. The items which lower the Cronbach's Alpha were deleted from the study or single items had been used. Gliem and Gliem (2003) have established some statistical rules for the Cronbach's Alpha:

- > .9 Excellent
- > .8 Good
- > .7 Acceptable
- > .6 Questionable
- > .5 Poor, and
- <.5 Unacceptable

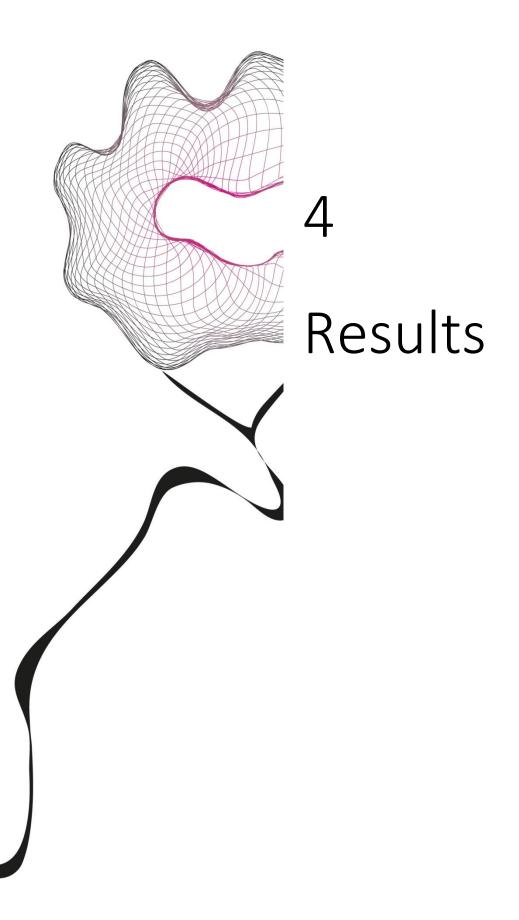
(Gliem & Gliem, 2003, pp. 231)

¹⁴ All negative items are marked red within Appendix C.

In the result section of this study all constructs are analyzed and finalized. The constructs were checked for outliers, by defining the Z-score of each construct. Each data with a Z-score beneath -3,92 or above 3,92 was removed from the analysis.

A t-test was used to measure the difference between users and potential users for each critical factor. In addition, to see how these factors correlate, the Pearson's r was measured.

The same statistics were measured per company. This way, the general results could be compared with the results per company. If the results of one - or several - companies differ from the general findings, this could indicate the impact of organizational context on the individual adoption process of ESM (question 3). To explore this further, I compared the scores for actual users of the participating companies to each other and repeated this for the potential users. I tried to explain the differences between general findings and results per company, along with differences between companies, based on the interview with the head of internal communications or Yammer (Appendix E).



In this chapter, I show the results of the multiple case study and answer which critical adoption factors differ between users and potential users (question 2) and whether organizational context affects this difference (question 3). Firstly, I describe the distribution and number of respondents. Secondly, the coherence of the critical factors is shown. Thirdly, I answer the second research question based on a t-test and correlations between the factors. Then, I show the difference between users and potential users per company by means of a t-test and factor correlation to answer the third research question. Finally, I attempt to explain the answer to the third research question by analyzing the differences between users for each company and the differences between potential users for each company. In addition, I use information of the interview with the head of internal communication or Yammer.

Description of the respondents

The online survey was open for all employees for at least four weeks per company, to ensure the possibility for participation. In total, 65,4 percent was an actual user of Yammer. I propose that the reason for this rate, is the way the survey was distributed. At Company A, the survey was integrated in a larger survey about media usage within the organization, which was send by e-mail. The distribution of all respondents (table 2) shows that the potential users are the majority. Considering the problems with adoption of ESM, this sample size seems closer to reality than the distribution of respondents at Company B and C. In these latter organizations, the survey was distributed via their Intranet, and brought under the attention by a news item, resulting in a majority of actual users participating in the survey. Probably, because they felt called upon as Yammer was mentioned.

TABLE 2

Lice of Vermor	Compony	Compony P	Compony C	Total
Use of Yammer A	Company A	Company B	Company C	Total
C	10	04	50	100
CYes	42	91	56	189
0 No	71	14	15	100
, Total	113	105	71	289

Distribution of respondents per company

According to Wilson van Voorhis and Morgan (2007) a sample size of 30 per cell is required for a comparison between two groups. A minimum of 7 participants is required in an analysis of three cells or more, to establish a respectable effect size. For Company B and C participated respectively fourteen and fifteen potential users. Although these groups are too small for a valid comparison, I did compare the potential users to the actual users within these companies, considering the low power of the outcomes. The analysis of correlations requires a sample size of 50, and therefore this was left out for potential users of company B and C (Wilson van Voornis & Morgan, 2007).

Coherence of critical factors

To measure whether the propositions in the online survey measure the same factor, a Cronbach's alpha test was conducted. The outcome determined which items could be included for each factor (table 3), based on the definition of Gliem and Gliem (2003).

cronbach s aipha	per lactor		
	α	Nr of items	Ν
PE	.807	5	238
EE	.639	4	225
REP	.685	3	231
PCM-emp	.708	3	242
PCM-man		Single item	202
CN		Single item	277

TABLE 3 Cronbach's alpha per factor

Cronbach's alpha for PCM-man and CN remained too low, despite deleting items that devaluate alpha. Therefore, for these factors, a single item has been used.¹⁵ Results based on single items, however, are treated with great caution, because of risks as reliability and error measurement issues. Nevertheless, the predictive validity is equally valid as multiple-item measures (Petrescu, 2013). Therefore, these constructs were still included in this study.

4.1. Difference between users and potential users of Yammer

I compared the results between actual users and potential users for each critical factor to answer the second research question "Which critical factors differ between potential users and actual users of ESM?". Table 4 shows the mean, standard deviation and correlations for both groups.

¹⁵ The single item for PCM-man is "I think it is important that my direct manager also uses Yammer (when I would make use of it)" and the single item for CN is "I think within my organization collaboration is seen as important"

									-		
		Mean	SD	Ν	1	2	3	4	5	6	7
Users:											
1.	PE	2.69	1.07	170	-						
2.	EE	3.05	0.87	164	.44**	-					
3.	REP	2.27	0.99	162	.62**	.32**	-				
4.	PCM-emp	3.00	0.85	145	.53**	.27**	.52**	-			
5.	PCM-man	2.92	1.19	165	.57**	.21*	.48**	.38**	-		
6.	CN	3.45	1.17	181	.11	.09	.10	.26**	01	-	
Potent	ial users:										
1.	PE	2.28	0.80	68	-						
2.	EE	3.12	0.71	64	.24	-					
3.	REP	1.91	0.96	69	.55**	.18	-				
4.	PCM-emp	2.04	0.79	57	.38**	.16	.59**	-			
5.	PCM-man	1.88	0.97	77	.16	.04	.25*	.38**	-		
6.	CN	2.80	1.47	96	07	.00	.27*	.43**	.12	-	

Means, Standard Deviations and correlations for the different factors for both users and potential users

* Correlations significant at the .05 level (2-tailed)

** Correlations significant at the .01 level (2-tailed)

To test the hypotheses about the factors of ESM, I conducted a t-test (table 5). Levene's test of homogeneity showed significant results for PE, EE and CN, and therefore no equal variances were assumed at these factors. Hence, an adjusted t, df and p was used.

TABLE 5

TABLE 4

T-test for the means of PE, EE, REP, PCM-emp, PCM-man, CN and PC.

	t-test	Df	р	Cohen's d
PE	-3.248	155.4	.001	0.43
EE	,656	130.9	.513	
REP	-2.533	229	.012	0.37
PCM-emp	-7.432	200	.000	1.17
PCM-man	-6.636	240	.000	0.96
CN	-3.730	159.5	.000	0.49

The results show that users of Yammer rate PE higher than potential users, thereby confirming Hypothesis 1 (Cohen's d=0.43, indicating a small effect). Furthermore, Hypothesis 3 was confirmed as users rated Reputation higher than potential users (d=0.37,

indicating a small effect). Also Hypothesis 4, 5 and 6 were confirmed (respectively d=1.17, 0.96 and 0.49, indicating a large and small effect). Users significantly rated Perceived Critical Mass of their fellow employees and managers higher than potential users, as well as the Collaborative Norms. Hypothesis 2 is rejected, because no significant difference was found for Effort Expectancy between users and potential users.

Besides the hypotheses, medium correlations between factors have been found between REP & PE and REP and PCM-emp for both users and potential users. PE also correlates meanly with PCM-emp and PCM-man among users of Yammer. These correlations link Performance Expectancy to Perceived Critical Mass of Employees and Managers for users of Yammer, while this link is missing for potential users. However, correlation does not imply any causality and therefore these correlations require further research on how these factors are influenced by each other.

4.2 Influence of organizational context on the individual adoption process

In order to answer whether the difference between users and potential users of Yammer is affected by the organizational context (question 3), additional comparisons were necessary. Firstly, the difference between users and potential users for each critical factor was measured per company. Table 6 shows the means, standard deviations and correlations for both groups per company.

			Mean	SD	Ν	1	2	3	4	5	6	7
	Users:											
	1.	PE	2.72	0.63	31	-						
	2.	EE	2.88	0.70	34	.48**	-					
	3.	REP	2.17	0.93	29	.68**	.31	-				
	4.	PCM-emp	2.44	0.76	27	.52**	.07	.66**	-			
	5.	PCM-man	2.78	1.04	31	.22	.01	.27	.07	-		
	6.	CN	2.44	1.36	41	.17	00	.03	.30	19	-	
	Potent	ial users:										
	1.	PE	2.34	0.76	44	-						
4	2.	EE	3.16	0.64	38	.34*	-					
	3.	REP	1.83	1.03	44	.67**	.26	-				
Company	4.	PCM-emp	1.81	0.76	40	.50**	.27	.71**	-			
m	5.	PCM-man	1.61	0.88	54	.30	.19	.42**	.35*	-		
ö	6.	CN	2.34	1.41	68	03	.06	.26	.22	00	-	

Means, Standard Deviations and correlations for both users and potential users per company

TABLE 6

* Correlations significant at the .05 level (2-tailed)

** Correlations significant at the .01 level (2-tailed)

			Mean	SD	Ν	1	2	3	4	5	6	7
	Users:											
	1.	PE	2.82	1.02	85	-						
	2.	EE	3.15	0.93	83	.46**	-					
	3.	REP	2.34	0.94	83	.58**	.36**	-				
	4.	PCM-emp	3.16	0.78	69	.56**	.28*	.47**	-			
	5.	PCM-man	2.94	1.20	87	.59**	.24*	.41**	.25*	-		
	6.	CN	3.67	0.96	87	.26*	.13	.23*	.16	.06	-	
	Potent	tial users:										
	1.	PE	2.42	1.04	10							
Ω	2.	EE	3.20	0.99	11							
ny	3.	REP	2.18	0.81	11							
pa	4.	PCM-emp	2.76	0.50	7							
Company	5.	PCM-man	2.55	0.82	9							
ŏ	6.	CN	4.00	0.96	14							
			Mean	SD	Ν	1	2	3	4	5	6	7
	Users:					1	2	3	4	5	6	7
	1.	PE	2.46	1.16	54	-	2	3	4	5	6	7
		PE				1 - .37**	2	3	4	5	6	7
	1. 2.	PE	2.46	1.16	54	-	2 - .27	3	4	5	6	7
	1. 2. 3.	PE EE	2.46 2.98	1.16 0.86	54 47	- .37**	_	3 - . 55 **	4	5	6	7
	1. 2. 3. 4. 5.	PE EE REP PCM-emp PCM-man	2.46 2.98 2.22 3.10 2.96	1.16 0.86 1.12 0.89 1.27	54 47 50 49 54	- .37** .68** .54** .69**	- .27 .26 .23	- .55** .65**	- .61**	-	6	7
	1. 2. 3. 4. 5. 6.	PE EE REP PCM-emp PCM-man CN	2.46 2.98 2.22 3.10	1.16 0.86 1.12 0.89	54 47 50 49	- .37** .68** .54**	- .27 .26	- .55**	-	5 - 12	-	7
	1. 2. 3. 4. 5. 6. Potent	PE EE REP PCM-emp PCM-man CN	2.46 2.98 2.22 3.10 2.96 3.85	1.16 0.86 1.12 0.89 1.27 0.87	54 47 50 49 54 55	- .37** .68** .54** .69**	- .27 .26 .23	- .55** .65**	- .61**	-		7
	1. 2. 3. 4. 5. 6. <i>Potent</i> 1.	PE EE REP PCM-emp PCM-man CN	2.46 2.98 2.22 3.10 2.96 3.85 2.00	1.16 0.86 1.12 0.89 1.27 0.87	54 47 50 49 54 55	- .37** .68** .54** .69**	- .27 .26 .23	- .55** .65**	- .61**	-		7
C	1. 2. 3. 4. 5. 6. <i>Potent</i> 1. 2.	PE EE REP PCM-emp PCM-man CN tial users: PE EE	2.46 2.98 2.22 3.10 2.96 3.85 2.00 2.94	1.16 0.86 1.12 0.89 1.27 0.87 0.73 0.64	54 47 50 49 54 55 14 12	- .37** .68** .54** .69**	- .27 .26 .23	- .55** .65**	- .61**	-		7
any C	1. 2. 3. 4. 5. 6. <i>Potent</i> 1. 2. 3.	PE EE REP PCM-emp PCM-man CN tial users: PE EE REP	2.46 2.98 2.22 3.10 2.96 3.85 2.00 2.94 1.96	1.16 0.86 1.12 0.89 1.27 0.87 0.73 0.64 0.87	54 47 50 49 54 55 14 12 14	- .37** .68** .54** .69**	- .27 .26 .23	- .55** .65**	- .61**	-		7
npany C	1. 2. 3. 4. 5. 6. <i>Potent</i> 1. 2. 3. 4.	PE EE REP PCM-emp PCM-man CN tial users: PE EE REP PCM-emp	2.46 2.98 2.22 3.10 2.96 3.85 2.00 2.94 1.96 2.43	1.16 0.86 1.12 0.89 1.27 0.87 0.73 0.64 0.87 0.61	54 47 50 49 54 55 14 12 14 10	- .37** .68** .54** .69**	- .27 .26 .23	- .55** .65**	- .61**	-		7
Company C	1. 2. 3. 4. 5. 6. <i>Potent</i> 1. 2. 3. 4. 5.	PE EE REP PCM-emp PCM-man CN tial users: PE EE REP	2.46 2.98 2.22 3.10 2.96 3.85 2.00 2.94 1.96	1.16 0.86 1.12 0.89 1.27 0.87 0.73 0.64 0.87	54 47 50 49 54 55 14 12 14	- .37** .68** .54** .69**	- .27 .26 .23	- .55** .65**	- .61**	-		7

* Correlations significant at the .05 level (2-tailed)

** Correlations significant at the .01 level (2-tailed)

To test the hypotheses for the critical factors of Yammer at each company, I conducted three t-tests (table 7). Levene's test of homogeneity showed a significant results for PE at Company C, and therefore no equal variances were assumed at these factors. Hence, an adjusted t, df and p was used.

	Company A			Compar	ny B		Company C			
	t-test	Df	р	t-test	Df	р	t-test	Df	Р	
PE	-2.253	73	.027	-1.177	93	.242	-1.827	32,16	.077	
EE	1.752	70	.084	.170	92	.865	175	57	.862	
REP	-1.448	71	.152	522	92	.603	789	62	.433	
PCM-emp	-3.371	65	.001	-1.319	74	.191	-2.240	57	.029	
PCM-man	-5.577	84	.000	-1.044	88	.299	-1.179	64	.243	
CN	366	107	.715	1.205	99	.231	.010	67	.992	

TABLE 7 *T*-test for the means of PE, EE, REP, PCM-emp, PCM-man, CN and PC per company

According to the results of the t-test, significant differences have been found at Company A for PE, PCM-emp and PCM-man. At company C, there is a significant difference for PCM-emp. That no significant difference was found at Company B, and just one at Company C, is most likely due to the fact that for these companies a small number of potential users participated in this research. CN and REP only showed significant differences comparing all users with potential users of Yammer. Indicating that organizational context might influence the individual adoption process.

Secondly, I tested whether correlation between factors is depending on the context. In table 6 the correlation per factor is visible, and the medium (>,500) and strong (>,700) correlations are highlighted.

Table 6 shows that for Company A REP, PCM-emp and PE have a significant medium correlation for both users and potential users of Yammer. At Company C, these factors also meanly correlate for users of Yammer, besides a medium correlation of PCM-man with those three factors. At Company B, PE correlates meanly with REP, PCM-emp and PCM-man for users of Yammer. It seems like the underlying mechanisms of the critical factors are independent from the organizational context and user group, because for the major part the correlations between those groups are similar.

The third step of testing whether the organizational context is affecting the difference between users and potential users of Yammer, was the comparison of users for each company. If factors are rated the same by different user groups, it might mean that the organizational context has no or little influence on these factors. Therefore, I tested for each factor how it was rated by all users per company. In table 8 the results are visible.

TABLE 8

Comparison	of	users	per	company
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Factors	Users			
		Company A	Company B	Company C
	Company A	2,72 (31)		
PE	Company B	,621	2,82 (85)	
	Company C	,261	,041	2,46 (54)
	Company A	2,88 (34)		
EE	Company B	,125	3,15 (83)	
	Company C	,602	,284	2,98 (47)
	Company A	2,17 (29)		
REP	Company B	,445	2,34 (83)	
	Company C	,838	,512	2,22 (50)
	Company A	2,44 (27)		
PCM-emp	Company B	,000	3,16 (69)	
	Company C	,001	,674	3,10 (49)
PCM-man	Company A	2,00 (31)		
	Company B	,431	2,21 (87)	
	Company C	,118	,276	2,44 (54)
CN	Company A	2,44 (41)		
	Company B	,000	3,67 (87)	
	Company C	,000	,295	3,85 (55)
	-			

There is no significant difference between users per company at the factors EE, REP and PCM-man. PE differs significantly between company B & C, while PCM-emp and CN differ significantly between A & B and A & C. These latter two factors were rated highest among all users and clearly the users of company A lowered the mean for these factors in the test among all respondents.

The mean of factors for users at company A show something else: all factors are rated below 3, that means negatively. So, these factors cannot explain why employees of company A are using Yammer in the first place. It means that other mechanisms might influence the reasons of their usage or that organizational context or the implementation strategy influences these factors a priori.

Users at Company A rated the factors PCM-emp and CN very different than users of Yammer at Company B and C. This might mean that PCM-emp and CN are factors that

influence the individual adoption process for users of Yammer in Company B and C, while this is not the case at Company A, hinting to organizational context influencing this process.

The final step answering the third research question, contained a comparison of potential users at the three companies. Table 9 shows the results for each critical factor.

TABLE 9

Comparison of potential users per company

Factors		Potential Users				
			Company B	Company C		
	Company A	2,34 (44)				
PE	Company B	,779	2,42 (10)			
	Company C	,170	,209	2,00 (14)		
	0	0.40(00)				
	Company A	3,16 (38)	// />			
EE	Company B	,849	3,20 (11)			
	Company C	,354	,373	2,94 (12)		
	Company A	1,83 (44)				
REP	Company B	,284	2,18 (11)			
	Company C	,652	,579	1,96 (14)		
	Company A	1,81 (40)				
PCM-emp	Company B	,002	2,76 (7)			
	Company C	,016	,352	2,43 (10)		
	Company A	1,61 (54)				
PCM-man	Company B	,002	2,55 (11)			
	Company C	,002	,903	2,50 (12)		
	Company A	2,34 (68)				
CN	Company B	,000	4,00 (14)			
	Company C	,000	,770	3,86 (14)		

Similar to the analysis of users per company, no differences have been found for PE, EE and REP, while PCM-emp and CN differ for potentials users at Company A between Company B & C. In addition, the same difference is visible for PCM-man.

According to the results, organizational context seems to partly matter in the individual adoption process of Yammer. This because the perception of CN and PCM-emp differ between users and potential users of Company A and Company B & C.

Looking at the difference within each company, PCM-emp differed for company A and C, being the only critical factor that was significantly different between users and potential users within more than one company. However, the low response rate for potential users at Company B and C should be taken into account before drawing any conclusions.

5 Conclusions & Discussion

In this chapter I start by answering the three research questions. In the discussion I reflect on the theoretical framework, method and results so that the strong and weak points of this study are exposed. Additionally, I make recommendations for future studies and suggest how to use the outcomes of this study within an organizational context.

5.1 Conclusion

In this paragraph, the three research questions are answered.

1. According to litterature, which adoption factors influence the use of Enterprise Social *Media*? In chapter two, I discussed previous studies on individual adoption of ESM. This resulted in a new framework: U/E (figure 3). Perceived Critical Mass is split into employees and managers, to see whether this difference matters. Furthermore, Intention to use is, in contradiction to the original UTAUT model, not a predictor for actual use. In line with Kügler et al. (2013) the factors directly link to actual use and to potential use, integrating both perspectives.

2. Which critical adoption factors differ between users and potential users of Enterprise Social Media? Results from all respondents show that the difference between users and potential users is significant at five factors:

- Performance Expectancy;
- Reputation;
- PCM-man (single item);
- PCM-emp, and
- Collaborative Norms (single item)

Users rated these five factors significantly higher than potential users. In addition, results of correlation show a medium correlation between Reputation and Performance Expectancy & Perceived Critical Mass of Employees for both users and potential users, linking to an underlying mechanism for individual adoption. Although correlations do not tell the direction of the coherence, I would interpret Reputation as an indirect factor; one can influence the Performance Expectancy and Perceived Critical Mass off employees, which then will increase one's perception of their Reputation via ESM. Further research should also focus on how factors influence each other in the adoption process of ESM to form a more comprehensive representation mechanisms of the of individual adoption.

3. Is the difference between users and potential users affected by the organizational context? Based on the results, it seems that the importance of the critical factors differs per company, while the interrelationship of the adoption factors is similar for users and potential users, as well as for each company. Further research should focus on how organizational context influences the individual adoption process of employees for ESM.

5.2 Discussion

The main goal of my study was to research how the usage of -or intention to use- Enterprise social media is affected, in order to be able to come up with interventions on how activity for ESM could be improved. Organizations are eager to get answers on this subject, because they embed ESM in their organization to become more agile.

I chose to research the individual adoption process of ESM by means of an explorative research which focused on comparing users to potential users at three different companies where Yammer was available as ESM. Results showed that five factors significantly differed comparing all users to all potential users.

Performance Expectancy was significantly rated higher by users than potential users, confirming the findings of, among others, Schöndienst et al. (2011). For Effort Expectancy no significant difference between users and potential users was found. This result is in line with the findings of Schöndienst et al. (2011), but contradicts arguments of Kügler et al. (2013) and Huang et al. (2013) to incorporate EE as an adoption factor for ESM. Even within the three companies, no significant differences could be found for this factor. This could be due to the fact that many employees have personal experience with the use of social media. The lack of integration in other IT systems at the three companies does not make it easy for users of Yammer, which could explain the low results for EE in this group (Appendix E).

Reputation did significantly differ between users and potential users in my research. However, Reputation also correlated with PE and PCM-man for both users and potential users, hinting to a link between these factors. According to the results of Schöndienst et al. (2011), Reputation is a predictor for Performance Expectancy. Although correlations do not show the direction of the influence, I argue, based on results of my research, that PE and PCM-emp predict Reputation, rather than vice versa. For none of the specific companies, Reputation showed a significant result between users and potential users, indicating that this might not be a critical adoption factor.

Perceived Critical Mass was significant for employees as well as for managers. PCMemp was also significant at the companies A & C and correlated with REP and PE. Based on these results I argue that PCM-emp might be predicting PE, rather than usage of – or intention to use – ESM as proposed by Kügler et al. (2013). PCM-man was added in this study and it was necessary to use a single item that referred to the extent in which someone thinks it is important that their manager uses ESM (as well, in case of an actual user). Users rated this factor significantly higher than potential users, not only when comparing all respondents, but also at Company A. This is in contrast to Company C, for which results showed only a significant difference for PCM-emp, indicating that there might be a difference for these factors indeed. Future research should focus on whether it is relevant to split PCM into an employee and manager component.

Collaborative Norms also showed significantly higher results for users than potential users of ESM. However, this factor did not significantly differ within one of the companies.

The mean for CN for potential users was 2.80, which means that it is negatively perceived. Because the potential user group was mostly represented by employees of Company A, it is likely that this influenced the results for all potential users. It is also visible that in Company A the means for all critical factors are rated below three for both users and potential users. This indicates that other factor(s) influence the individual adoption process for users of Yammer. In addition, Collaborative Norms was measured as a single item. Schöndienst et al. (2011) did not find any direct relationship between CN and the intention to use Microblogging. Based on my results I argue that CN indirectly influences the individual adoption process, instead of directly as proposed by Kügler et al. (2013).

The challenge of this explorative research was to link results of actual users and potential users, which could result in new perspectives while building on previous studies. I have attempted this by comparing users to potential users of ESM for the same critical factors to see whether their perception actually differed from each other. Difficulties of this approach were:

1. The distribution and number of respondents. Results showed that for company B and C an insufficient number of potential users participated in my research. This caused difficulties for the analysis per company, as well as the risk for biased results comparing all users with potential users because over seventy percent of the potential users were employees of company A. For future research it is very important to assure a good distribution of users and potential users for each company. Integrating survey items in an existing survey as executed at Company A is a good way to gain a representative group of respondents.

2. The coherence of the constructs. Although previous studies (Sela & Shivan, 2009, Schöndienst et al. 2011, Kügler et al., 2013) had already validated most of the propositions that were used in my research, only Performance Expectancy has a coherence that could be classified as good. For PCM-man and CN a single item has been used because of the low Cronbach alpha scores. I propose that this difficulties occurred because items for both users and potential users were combined in the constructs. Furthermore, the factor Perceived Critical Mass of managers was added in this study, for which new propositions were formulated based on PCM-emp. In future research items for PCM-man should be validated, in order to be able to measure this factor.

3. Testing how organizational context influenced the individual adoption process. In addition to comparing users and potential users, I also explored whether organizational context affects the individual adoption process of ESM. Because of the small amount of potentials users, but also because of the lack of qualitative data directly linked to the results, it was not possible to find any causal relationship. Future research will need to use at least a two-stage research, in order to test the quantitative data for the impact of organizational context (implementation strategy, technology, etc.).

4. Drawing conclusions based on the significant differences. In this research employees could indicate whether they used Yammer or not. I recommend an in depth approach of this dependent variable, by measuring the intensity and form of usage along with their attitude towards their ESM tool for users. For potential users, the attitude towards ESM should be measured. This way, not only differences between users and actual users can be found, but it is also possible to determine causal relations along with predictors for different kind of usage of ESM.

In this research I explored the integration of users and potential users in a comparative study, in order to be able to enrich the current discourse on individual adoption of ESM. By combining these groups within a new framework and involving organizational context, I tried to come up with a new perspective on this subject. The main result of my study is the importance of activity of other employees rather than managers, and the correlation between Performance Expectancy, Reputation and Perceived Critical Mass, regardless the user group or organizational context. Therefore, integrating ESM into work processes of employees is the crucial recommendation for companies. According to results of this research – and that of Schöndienst et al. (2011), Performance Expectancy might be key to the use of ESM.

6 Bibliography

• Akkermans, M. (2013, October 3). Zeven op de tien gebruiken social media. Retrieved on 10 October 2013.

http://www.cbs.nl/nl-NL/menu/themas/vrije-tijd-cultuur/publicaties/artikelen/archief/2013/2013-3907-wm.htm

• Becker, L. (2000). Effect Size. Retreived on 26 April 2015. http://www.uccs.edu/lbecker/effect-size.html

- Bøving, K.B. & Bøker, K. (2003). Where is The Innovation?' Proceedings of The Diffusion and Adoption of Networked Information Technologies. In: J. Damsgaard & H.Z. Henriksen. Kluwer Academic Publishers, Copenhagen, pp. 39-52. Brown, L.A.;1; 1981, *Innovation Diffusion: A New Perspective*, Methuen, London.
- Boyd, D. & Ellison, N. (2007). Social Network Sites: Definition, History and Scholarship. *Journal of Computer-Mediated Communication 13,* (1), pp. 210-230.
- Brzozowski, M. (2009). WaterCooler: Exploring an Organization Through Enterprise Social Media. Paper prepared for GROUP '09, May 10-13.
- Brzozowski, M., Sandholm, T. & Hogg, T. (2009). Effects of Feedback and Peer Pressure on Contributions to Enterprise Social Media. Paper prepared for GROUP '09, May 10-13.
- Dess, G. & Pickens, J. (2000). Changing roles: leadership in the 21th century. *Organizational Dynamics*, (28), pp. 18-34.
- DiMicco, J., Millen, D., Geyer, W., Dugan, C., Brownholtz, B. & Muller, M. (2008). Motivations for Social Networking at Work. *CSCW '08.*
- Elsevier. (2015). Wie zijn verantwoordelijk voor problemen VD en Blokker? Retrieved on 18 April 2015.

http://www.elsevier.nl%2FEconomie%2Fachtergrond%2F2015%2F2%2FWie-zijnverantwoordelijk-voor-problemen-VD-en-Blokker-1702472W%2F&ei=y0ctVa2sIc_napW9gdAl&usg=AFQjCNGXOy893RwoNQSf_V0BCQryqQi5JA &sig2=fGJ_qLyR6WDVPVRBK1eUyA

- Frield, J. & Vercic, A. (2011). Media Preferences of Digital Natives' internal communication: A pilot study. *Public Relations Review 37*, pp. 84-86.
- Gaona, A., Aguilar, L. & Sanchez, O. (2013). 7th International Conference on Knowledge Management in Organizations: Service and Cloud Computing Advances in Intelligent Systems and Computing ,(172), pp. 319-331.
- Gliem, J. & R. Gliem (2003). Calculating, Interpreting, and Reporting Cronbach's Alpha Reliability Coefficent for Likert-Type Scales. *Midwest Research to Practice Conference in Adult, Continuing and Community Education.*

https://scholarworks.iupui.edu/bitstream/handle/1805/344/Gliem+&+Gliem.pdf?sequence=1

- Goldhaber, G., Yates, M., Porter, D., & Lesniak, R. (1978). Organizational communication: State of the art. *Human Communication Research*, *5*, 76–96.
- Günther, O., Krasnova, H., Riehle, D. & Schöndienst, V. (2009). Modeling Microblogging Adoption in the Enterprise. *15th Americas Conference on Information Systems.*

- Hsu, C. & Lin, J. (2008). Acceptance of blog usage: The roles of technology acceptance, social influence and knowledge sharing motivation. *Information & management 45* (1), pp. 65-74.
- Huang, J., Baptista, J., & Galliers, R. (2013). Reconceptualizing rhetorical practices in organizations: the impact of social media on internal communication. *Information & Management 50*, (2-3), pp. 112-124.
- Jamieson, S. (2013). Likert Scale. Retreived on 26 April 2015. www.britannica.com/EBchecked/topic/1085454/Likert-scale
- Kaplan, & Haenlein, . (2010). Users of the world unite! The challenges and opportunities of Social Media. *Business Horizons, 53,* (1), pp. 59-68.
- Kügler, M., Smolnik S., and Raeth, P. (2013).46th Hawaii International Conference on System Sciences.
- Lister, Martin. (2003). *New media: A critical introduction.* London: Routledge.
- McIver, J. P., & Carmines, E. G. (1981). Unidimensional scaling. Thousand Oaks, CA: Sage.
- Palen, L. & Grudin, J. (2003). Discretionary Adoption of Group Support Software: Lessons from Calendar Applications. *Implementing Collaboration Technologies in Industry Computer Supported Cooperative Work*, pp 159-180.
- Paroutis, S. & Al Saleh, A. (2009). Determinants of knowledge sharing using Web 2.0 technologies. *Journal of Knowledge Management, 13* (4), pp.52 63.
- Petrescu, M. (2013. Marketing research using single-item indicators in structural equation models. *Journal of Marketing Analytics* (1), pp. 99-117.
- Pronk, D. & Groot, de B. (2012, December 12). Vier op de tien bedrijven gebruiken sociale media. Retrieved on 10 October 2013.

http://www.cbs.nl/nl-NL/menu/themas/bedrijven/publicaties/artikelen/archief/2012/2012-3733wm.htm

- Riemer, K., Diederich, S., Richter, A. & Scifleet, P. (2011). Tweet Talking Exploring the Nature of Microblogging at CapGemini Yammer. Sydney: The University of Sydney. *Business information systems working paper series.*
- Rogers, E.M. (1995). *Diffusion of innovations (4th edition)*. The Free Press. New York.
- Romiszowski, A. (2003). The future of E-learning as an educational innovation: Factors influencing project success and failure. *Brazilian Review of Open and Distance Education Teorias Aspectos Teoricos e Filosoficos.*
- Ruck, K. & Welch, M. (2011). Valuing internal communication; management and employee perspectives. *Public Relations Review 38,* pp. 294-302.
- Sarosa, S. (2012). Adoption of Social Media Networks by Indonesian SME: A case study. *Procedia Economics and Finance*, (4), pp. 244-254.
- Schein, E. H. (1985). *Organizational Culture and Leadership* (1st ed.). San Francisco: Jossey-Bass.

- Schlagwein, D. & Prasarnphanich, P. (2011). Cultural Determinants of Organizational Social Media Adoption. *19th European Conference on Information Systems*. ECIS 2011: Helsinki, Finland.
- Schöndienst, V., Krasnova, H., Günther, O. & Riehle, D. (2011). Micro-Blogging Adoption in the Enterprise: An Empirical Analysis. *10th International Conference on Wirtschaftsinformatiek.*
- Sela, E. & Y. Shivan. (2009). Enterprise E-learning Success Factors: An Analysis of Practitioners' Perspective. *Interdisciplinary Journal of E-Learning and Learning Objects*, (5), pp. 335-343.
- Thong, J.Y.L. & Yap, C.S. (1995). CEO Characteristics, Organizational Characteristics and Information Technology Adoption in Small Businesses. Omega The International Journal of Management Science, 23, (4), pp. 429-442.

• Tilburg University. (2015). Correlaties. Retreived on 26 April 2015. https://www.tilburguniversity.edu/nl/studenten/vaardigheden/spsshelpdesk/edesk/correlat/

• TowerWatson. (2013, May 23). Just Over Half of Employers Using Social Media Tools for Internal Communication. Retrieved on 10 October 2013.

http://www.towerswatson.com/en/Press/2013/05/just-over-half-of-employers-using-social-mediatools-for-internal-communication

• Treem, J., and Leonardi, P. (2012). Social Media Use in Organizations: Exploring the Affordances of Visibility, Editability, Persistence and Association. *Communication Yearbook, 36.*

• Van Leeuwen, S. (2013, November 19). Stop met veranderen, word strategisch wendbaar! Strategische wendbaarheid als overlevingsstrategie. Retreived on 24 November 2014. https://www.managementsite.nl/wendbaarheid-strategie-concurrentiekracht

- Venakatesh, V. & Davis, F. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science 46,* (2), pp. 186-204.
- Venkatesh, V., M. Morris, G. Davis & F. Davis. (2003). User acceptance of information technology: toward a unified view. *MIS Quarterly 27* (3), pp. 425-478.
- Wilson Van Voornis, C. & Morgan, B. (2007). Understanding Power of Rules of Thumb for Determining Sample Sizes. *Tutorials in Quantitative Methods for Psychology* 3 (2), pp. 43-50.

Appendix A - Experiment

Experiment:

Net heb je in de presentatie de inleiding gehoord over de toedracht van het onderzoek. Om het model dat ik wil testen toegankelijk te maken voor de uiteindelijke vragenlijst, heb ik een experiment voor twee verschillende groepen opgesteld. Het is niet mogelijk om alle constructen uit het model mee te nemen, want dan wordt de vragenlijst te lang en is de kans groot dat mensen deze niet afmaken of ongeconcentreerd in gaan vullen. Het doel van dit experiment is dus om het aantal constructen terug te kunnen brengen op basis van jullie input.

Hieronder leg ik kort even uit wat de spelregels zijn:

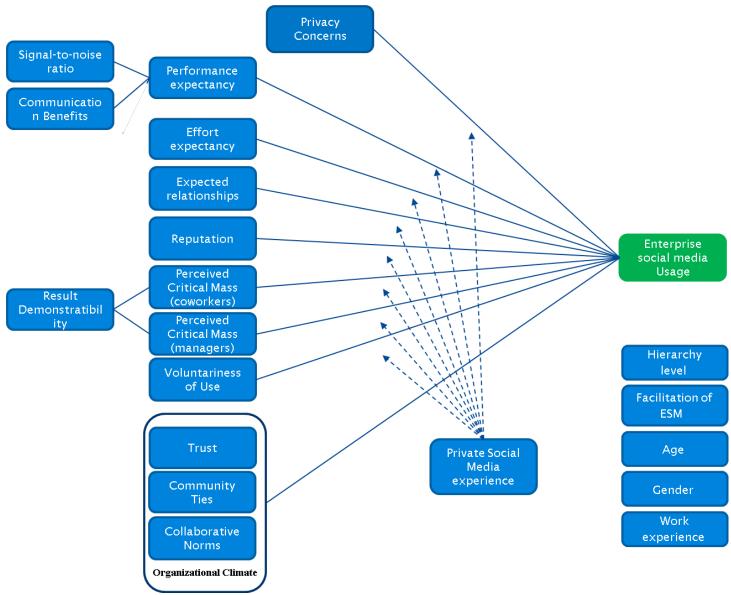
- Zo meteen werk je dit boekwerkje bladzijde voor bladzijde door. Het is nadrukkelijk niet de bedoeling om van tevoren de bladzijden door te lezen. Terugbladeren mag daarentegen wel. Soms loopt een stap over meerdere bladzijden door, dan kan je gewoon doorlezen. ledere stap wordt nadrukkelijk afgesloten.
- 2. Verder werk je individueel aan dit document, dus overleg is ook **niet** toegestaan. Het gaat om je eigen mening. Toelichting vragen van een begrip kan natuurlijk wel even bij iemand anders.
- 3. Vragen stellen over het experiment mag, graag zelfs. Het is belangrijk dat je voor jezelf helder hebt wat er wordt bedoeld en wat er van je wordt gevraagd.

Alvast heel erg bedankt voor je medewerking!

Kimberley

Stap 1 – inlezen in de materie:

Hieronder heb ik nogmaals het model met de uitleg van alle constructen¹⁶ en het doel van het onderzoek neergezet. Lees dit op je gemak even door. Schroom niet om vragen te stellen als je een definitie onduidelijk vindt.



Doel onderzoek: aangeven welke factoren bepalen of een individu wel/geen gebruik wil maken van interne social media. Daarbij wil je juist de belangrijkste factoren aan kunnen geven. Het gaat er om dat vooral de meest bepalende factoren naar voren komen en dus niet zoveel mogelijk.

Signal-to-noise ratio: in hoeverre iemand vindt dat de ruis in de communicatie verminderd is door de komst van interne social media.

Communication benefits: de mate waarin communicatie sneller en soepeler verloopt door de komst van interne social media.

Performance Expectancy: de mate waarin iemand gelooft dat het gebruik van interne social media helpt om betere prestaties te bereiken in het werk dat hij/zij moet uitvoeren.

¹⁶ Je kan een construct ook wel zien als een factor die wel of geen invloed heeft op het daadwerkelijke gebruik van interne social media door een individu. Het wordt een construct genoemd, omdat het uit verschillende onderdelen bestaat die je meet tijdens je onderzoek. Samen maken deze gemeten onderdelen het construct. Of bepaalde onderdelen wel samengevoegd mogen worden tot een construct, (ofwel een factor) bepaal je met statistiek.

Privacy concerns: in hoeverre iemand angst heeft dat interne social media ervoor zorgt dat er inbreuk op de privacy van hem/haar plaatsvindt.

Effort expectancy: de mate waarin iemand het als moeilijk of juist eenvoudig ervaart om interne social media te gebruiken.

Expected relationships: de mate waarin iemand verwacht dat gebruik van social media bijdraagt aan het bouwen van relaties binnen de organisatie.

Reputation: in hoeverre iemand vindt dat het gebruik van interne social media bijdraagt aan iemand zijn/haar status binnen het sociale systeem van de organisatie.

Result demonstrability: de mate waarin iemand ervaart dat interne social media zichzelf als succes heeft bewezen, doordat het resultaat zichtbaar is bij anderen.

Perceived Critical Mass: de mate waarin iemand beschouwt dat hij/zij deel moet nemen aan interne social media omdat anderen dit ook doen. Hierbij wordt onderscheid gemaakt in 'groepsdruk' door collega's of door (direct) leidinggevenden.

Voluntariness of Use: de mate waarin mensen de keuze wordt gelaten om gebruik te maken van interne social media.

Trust: het geloof in de goede intenties, gedragingen, competenties en integriteit van alle mensen die binnen dezelfde organisatie werkzaam zijn.

Community ties: de mate waarin mensen het gevoel hebben dat ze een sterke band hebben met mensen die voor dezelfde organisatie werken.

Collaborative Norms: in hoeverre iemand het gevoel heeft dat er een cultuur heerst waarin samenwerking, kennisdeling en medewerking gangbaar zijn binnen de organisatie.

Deze constructen doen sowieso mee in de vragenlijst, en hoeven dus niet beoordeeld te worden: **Private social media experience:** de mate waarin iemand in zijn/haar privéleven gebruik maakt van social media.

Enterprise social media usage: het uiteindelijke gebruik van social media. Bij niet-gebruikers wordt dus de intentie van het gebruik van interne social media gemeten.

Dit is het einde van stap 1. Als je alle definities hebt doorgenomen en begrepen, mag je door naar de volgende stap.

Stap 2 – beoordeling van de verschillende constructen

Nu je alle definities van de verschillende constructen en het gebruik hebt gelezen en begrepen, volgt stap 2. Je krijgt nu tien stickers die je mag verdelen over alle constructen. De bedoeling is dat je met de aantallen stickers aangeeft welk(e) construct(en) jij het belangrijkst vind om mee te nemen in het onderzoek. Je mag hierbij tien stickers verdelen over allemaal verschillende constructen of alle tien de stickers bij 1 construct plaatsen, oftewel geheel naar eigen inzicht. Als je met het beoordelen van de verschillende constructen maar het doel van het onderzoek in je achterhoofd houdt.

Je mag de stickers plakken op het model dat op bladzijde 2 staat.

Ook hier geldt, mocht je vragen hebben of de uitleg onduidelijk vinden, dan hoor ik het graag!

Appendix B - semi-structured interviews

Questions for the head of ESM

These we asked in Dutch.

Platform-related:

- Which enterprise social media platform(s) do you have within your company?
- Which is the most important platform and why?
- What are the functionalities of this platform?
- When was the platform first implemented?

Facilitation-Related

- Is the ESM platform facilitated by the organization or is it decentralized?
- How was the availability of the platform communicated towards all employees?
- Have (any) employees received any training towards the use of ESM?
- Is the ESM platform integrated within existing IT?

Culture-related

- How would you describe the power relations within your company?
- Do departments throughout the company work together closely?
- Are there any issues known related to openness?
- Is change within the organization often met with resistance?

Questions for the employee who works in a primary process of the organization These we asked in Dutch.

Platform-related:

- Which enterprise social media platform(s) do you know within your company?
- Which platform do you think is most important and why?
- When did you first hear/know about this ESM platform?

Facilitation-Related

- How did you know about the existence of this ESM platform?
- Did you receive any training towards the use of ESM?

Culture-related

- How would you describe the power relations within your company?
- Do departments throughout the company work together closely?
- Are there any issues known related to openness?
- Is change within the organization often met with resistance?

Appendix C – items online survey per factor

Construct:	Items - users:	Items - Non users	Source(s):
Performance Expectancy (PE)	Ik vind dat het gebruik van Yammer bijdraagt aan mijn dagelijkse werkzaamheden	Ik denk dat het gebruik van Yammer bij zou kunnen dragen aan mijn dagelijkse werkzaamheden	Schöndienst et al. 2011, Kügler et al. 2013
	Ik vind dat Yammer ervoor zorgt dat ik mijn werkzaamheden sneller uit kan voeren	Ik denk dat gebruik van Yammer ervoor zou kunnen zorgen dat ik mijn werkzaamheden sneller uit kan voeren	Schöndienst et al. 2011, Kügler et al. 2013
	Ik vind niet dat Yammer bijdraagt aan mijn productiviteit	Ik denk niet dat Yammer bij zou kunnen dragen aan mijn productiviteit	Schöndienst et al. 2011, Kügler et al. 2013
	Ik vind dat Yammer aansluit bij de manier waarop ik mijn werk graag doe	Ik denk dat Yammer goed aan zou kunnen sluiten op de manier waarop ik mijn werk graag doe	Kügler et al. 2013
	Ik vind dat het gebruik van Yammer op de lange termijn bijdraagt aan mijn werkzaamheden	Ik denk dat gebruik van Yammer op de lange termijn bij zou kunnen dragen aan mijn werkzaamheden	Added fort his study
Effort Expectancy (EE)	Ik vind dat ik in staat ben optimaal gebruik te maken van de functionaliteiten van Yammer	Ik denk dat ik in staat ben om de functionaliteiten van Yammer optimaal te gebruiken	Schöndienst et al. 2011
	Ik vind het lastig te werken met Yammer	Ik denk dat het lastig is te leren werken met Yammer	Schöndienst et al. 2011
	Ik vind dat het een opgave is om gebruik te maken van Yammer	Ik denk dat het voor mij een opgave zou zijn om Yammer te gebruiken	Kügler et al. 2013
	Ik vind dat benodigde informatie eenvoudig te vinden is via Yammer	Ik denk dat ik benodigde informatie eenvoudig zou kunnen vinden via Yammer	Sela & Shivan 2009
Reputation	Ik vind niet dat mijn prestaties	lk denk niet dat ik mijn	Schöndienst et al.

(RE)	zichtbaarder zijn door gebruik van Yammer	prestaties zichtbaarder zou kunnen maken via Yammer	2011
	Ik vind dat mijn competenties	Ik denk dat mijn competenties	Schöndienst et al.
	zichtbaarder zijn geworden	meer zouden worden erkend als	2011
	door gebruik van Yammer	ik Yammer zou gebruiken	
	Ik vind dat erkenning voor mijn	Ik denk dat erkenning voor mijn	Schöndienst et al.
	werkzaamheden is	werkzaamheden toe zou nemen	2011
	toegenomen door het gebruik van Yammer	als ik Yammer zou gebruiken	
Collaborative	lk denk dat samenwerking	Ik denk dat samenwerking	Schöndienst et al.
Norms (CN)	belangrijk wordt bevonden	belangrijk wordt bevonden	2011
	binnen onze organisatie	binnen onze organisatie	2011
	Ik vind niet dat binnen onze	Ik vind niet dat binnen onze	Schöndienst et al.
	organisatie goed wordt	organisatie goed wordt	2011
	samengewerkt	samengewerkt	
	Ik vind dat kennisdeling wordt	Ik vind dat kennisdeling wordt	Schöndienst et al.
	aangemoedigd binnen onze	aangemoedigd binnen onze	2011
	divisie	divisie	
Perceived	Ik zie dat een groot gedeelte	Ik denk dat een groot gedeelte	Kügler et al. 2013
Critical Mass	van mijn directe collega's	van mijn directe collega's	0
– co-workers (PCMc)	Yammer ook gebruikt	Yammer wel gebruikt	
	Ik denk dat anderen positief	Ik denk dat anderen positief	Kügler et al. 2013
	zijn over mijn bijdragen op	zouden zijn over mijn bijdragen	
	Yammer	wanneer ik Yammer actief zou	
		gebruiken	
	lk ken mensen met wie ik	lk ken mensen met wie ik	Kügler et al. 2013
	regelmatig te maken heb, die	regelmatig te maken heb, die	-
	Yammer ook gebruiken	wel Yammer gebruiken	
Perceived	lk zie dat mijn direct	lk denk dat mijn direct	Added for this study
Critical Mass – managers	leidinggevende Yammer ook	leidinggevende Yammer wel	
(PCMm)	gebruikt	gebruikt	
	Ik zie dat de hoogste	Ik denk dat de hoogste	Added for this study
	managers binnen onze	managers binnen onze	
	organisatie Yammer ook	organisatie Yammer wel	
	gebruiken	gebruiken	
	Ik vind het belangrijk dat mijn	Ik vind het belangrijk dat mijn	Added for this study

direct leidinggevende ook	direct leidinggevende zichtbaar
gebruik maakt van Yammer	gebruik maakt van Yammer
	wanneer ik dit zou gebruiken

Appendix D – Questions about context

	Question	Response options (if applicable)
Control Variables:		
Age	Wat is uw leeftijd?	0-99
Gender	Wat is uw geslacht?	Man/vrouw
Hierarchy level	Wat is uw huidige functie qua	Leidinggevende
	niveau binnen de organisatie?	medewerker
Facility ESM	Zijn er trainingen gegeven om te	Ja/nee
	leren werken met interne social	
	media?	Ja/nee
	Zijn er trainingen gegeven om te	
	leren op welke manier je het	
	interne social medium kan	Ja/Nee
	gebruiken?	
	Zijn er instructies beschikbaar	
	voor het gebruik van interne	
	social media?	
Moderators:		
Private social software	Hoeveel jaar maakt u privé al	0-99
experience	gebruik van social media?	
	(Facebook, Twitter, Foursquare,	
	Hyves, etc.)	
	Hoe vaak draagt u gemiddeld	Nooit, ik doe er eigenlijks niks mee
	actief bij (posten, reageren, liken)	Nooit, ik lees alleen heel af en toe iets
	op social media buiten het werk	Soms, ik lees vooral en like of volg andere mensen af en
	om?	toe
		Soms reageer ik ergens op
		Ik reageer/plaats wel een keer per week als ik erop zit
		Ik lees dagelijks, maar reageer/plaats zelf nauwelijks
		Ik draag dagelijks actief bij door een bericht te plaatsen of
		te reageren
		Ik draag dagelijks veel bij, ik post iedere dag wel
	Van haavaal platforman maakt u	meerdere berichten en reageer/like veel anderen
	Van hoeveel platformen maakt u gebruik in uw privé omgeving?	1 2
	georaik in aw prive onigeving:	3
		>3
Perceived Organizational	Openness	5-point Likert scale

Culture			
	informality	5-point Likert scale	
	Team work	5-point Likert scale	
	Hierarchical	5-point Likert scale	
	Collaboration	5-point Likert scale	
	Conservativeness	5-point Likert scale	
	dynamic	5-point Likert scale	
Dependent varia	ble		
Functionalities	Kunt u aangeven welke	Lezen van berichten	
used	onderstaande functionaliteiten	Volgen van collega's	
	van interne social media u	Delen van reeds bestaande berichten	
	gebruikt?	Delen van documenten	
		Delen van links	
		Plaatsen van reacties	
		Polls aanmaken	
		Plaatsen van nieuwe berichten	
		Liken van andere berichten	
		Evenement aanmaken	
		Aangeven dat je bij een evenement bent	
		Groep aanmaken (rond een thema)	
		Aanmelden bij groepen (rond een thema)	
		Deze lijst werd gefinaliseerd op basis van welke	
		functionaliteiten beschikbaar waren voor medewerkers per	
		bedrijf.	
Intensity of use	U gaf aan gebruik te maken van	Minder dan een keer per week	
-	functionaliteiten. Kunt u per		
	functionaliteit aangeven hoe vaak	Een paar keer per week	
	u hier gebruik van maakt?	Dagelijks	
		Staat de hele werkdag open	

Appendix E – Context analysis

1. Platform

Question/			
Company	ESM platforms	Importance Yammer	Year of implementation
A	Naast Yammer is er een functionaliteit op het intranet waar mensen kunnen reageren op nieuwsitems.		December 2013
В	beschikbaar als intern social medium. Er waren 3 verschillende platformen, vanwege de mailadressen	medewerkers die niet op het hoofdkantoor werken. Zij hebben recentelijk toegang gekregen tot Yammer, en laten hun stem	tezamen met de andere twee platformen. Dat is ongeveer 5 jaar geleden geweest. Sinds 2 jaar is er de betaalde versie
С	Alleen Yammer is beschikbaar als social media tool.		in Nederland beschikbaar was.

2. Implementation

p						
Question/	Communication	Training in how-to and when-	Integration with other IT			
Company	existence of Yammer	to use Yammer	systems			
A	Begonnen bij de eigen afdeling (communicatie). Om zo ook iedereen kennis te laten maken met het (soort) medium. Divisiebreed verder niet, maar bij leidinggevenden is het wel meegenomen in overleggen.	hebben een workshop gehad. De presentatie daarvan is gestuurd naar klantcontact, waar het ook is	Beveiliging vanuit IT is hoog, dus wordt niet toegejuicht dat het gebeurt. Het is verder niet geïntegreerd met andere systemen.			
В	In het begin bewust klein gehouden. Er is gekeken naar voor welke groepen het relevant zou kunnen zijn om er gebruik van te maken. Langzamerhand uitgebreid met nieuwe groepen waar het relevant voor zou kunnen zijn.	spot: als iemand iets doet wat niet helemaal handig is, wordt daar op gereageerd. Kan publiekelijk met #Yammertip of persoonlijk (afhankelijk van de	in het veld, is geen mogelijkheid voor Yammer. Er is een test aan de gang met smartphones als primair toestel voor de werkzaamheden. Op kantoor moeten mensen eenmalig apart naar de Yammer site, en daarna worden ze onthouden. Maar er			
С	In het begin is gewerkt met uitnodigen vanuit Yammer zelf, via berichten op intranet en broodtrommelsessies	over social verzorgd. Dat wordt	geopend. Maar het is daar niet in geïntegreerd. Dus mensen moeten apart naar Yammer om			

	communicatie gevraagd om het te geven. De inhoud is een combi van hoe en waarvoor. Het is een open inschrijving, dus het blijft vrijblijvend.	dat ze het aan hun favorieten toe kunnen voegen. Mensen in
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Question/	Integration other		
Company	communication means	Responsible department(s)	Access Yammer
A		Niemand is er formeel verantwoordelijk voor. Vanuit de uitbreiding van de middelenmix wordt dit meegenomen door communicatie.	heeft toegang. Externen krijgen een mail adres van het bedrijf en
В	geen mogelijkheid om	Communicatie, is iemand 20 uur per week verantwoordelijk voor community management en de implementatie.	platform. Met de toegang van
С	Opgenomen in communicatieplannen, linken vanuit berichten naar Yammer.	het niet alleen maar gebruikt	van het bedrijf. Nadeel is dat de externen waar veel mee wordt samengewerkt bij de gratis versie

3. Culture organization

Question/				Attitude towards
Company	Power relations	Collaboration	Openess	Change
A	Verticaal. Streven is wel dat het meer horizontaal wordt. Afstand tot de directie is relatief groot.	Zijn nu standaard ketenoverleggen waarbij over de afdelingen heen wordt gedacht. Maar mensen weten toch nog vaak	maar wordt niet altijd naar geleefd. Maar staan bijvoorbeeld wel pittige reacties op nieuwsberichten op intranet, dus dat is een	Niet vanzelfsprekend om kennis te delen.
В	Verticaal. Erg hiërarchisch. Hoe dichter je bij het primaire proces komt, hoe horizontaler het wordt.	gezamenlijke noodzaak is waarin een project wordt opgericht voor samenwerking over afdelingen heen wordt het gedaan, maar anders is er geen	betrokken, maar bang om iets verkeerd te doen. Alles is wel bespreekbaar, maar dat wordt niet altijd opgepakt door anderen. Het blijft dan bij iets opmerken/vertellen zonder dat er opvolging	Het ligt aan wat voor verandering. Maar als er iets nieuws aankomt wat bijdraagt aan de doelen, dan is er niet per se een negatieve houding omdat het iets nieuws is.

		tussen mensen op kantoor en in het veld.		
C	het eerste gezicht niet zo, maar het sturingsmodel is wel zo ingericht. Wordt wel getracht om het horizontaler in te gaan richten qua verantwoordelijkheden. De sfeer is wel	tussen staf en primaire proces (front desk). De samenwerking is aan verbetering toe; is op dit moment geen vanzelfsprekendheid. Hangt ook samen met de verantwoordelijkheden die op de juiste plek	Maar het is wel heel erg zo dat niemand elkaar aanspreekt op gedrag. Mensen zijn op dit moment nog wel voorzichtig, maar bezig met een transitie dus om opener, meer gericht op	veranderen, waarbij niet het einddoel helemaal bekend is, maar meer de richting. Daardoor is het voor veel mensen lastig zich voor te stellen wat