# Enterprise 2.0: User behavior and its importance for social business platform success

## An empirical study at XYZ Anonymous US, a high-tech engineering company

Graduation thesis

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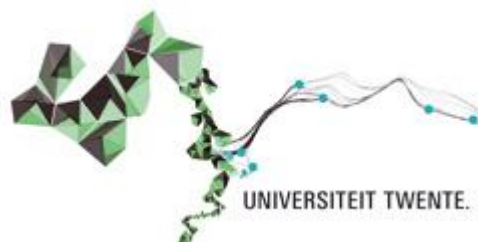
# Abstract

Social business platforms (SBPs) like IBM Connections are embedded in the field of enterprise 2.0. In theory they offer companies competitive advantage through enhanced collaboration and profound knowledge sharing options. In practice those promises were not always kept, because increase and decrease in productivity appeared for organizations after implementing a SBP. The main reason for either rise or drop of overall performance is SBP user attitude and behavior.

Especially the user empowerment, competence and willingness regarding the social business platform seem to be the best indicators for success of that platform. Empowerment is defined by the control the user has over the platform and the commitment towards it. Competence is the knowledge over the intentions of the platform, the actual/perceived using time and the actual usage according to the intentions of the platform. Willingness refers to the perceived ease of use, perceived usefulness and whether or not the user tries to find new routines of and with the platform.

In this research paper four determinants are found that positively influence the predictors for SBP success. Those determinants are the users exchange with motivated early adopters, well planned change communication, different degrees of leadership involvement and complexity that fits the abilities of the average user.

In order to test this model mixed methods, consisting out of a survey and interviews, were utilized to get a picture whether those factors are indeed relevant for SBP success. Both methods were executed at the XYZ Anonymous Company in North America.

The results indicate that all presented factors seem to be relevant, but that there is taxonomy between those factors and that some are more basic and some only relevant at later stages. In addition the terms age, training and platform attractiveness were added to the model.

It is advised to repeat this study with a broader scope to eliminate possible biases based on national and organizational cultural differences.

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# 1. Introduction

Social business platforms (SBP) are software defined environments that provide a powerful programmable interface to a cloud that can be accessed only by business associates. Information needs to be computed, networks to be created and resources need to be stored (Arnold, Arroyo, Segmuller, Spreitzer, Steinder & Tantawi, 2014). These actions make the SBP a place that facilitates knowledge sharing and creates a collaborative work environment (Azmi & Singh, 2015). It revolutionizes library operations and enhances decision making processes by organizing sharing, and managing information. Due to its digitalization it increases data speed and accuracy, while improving harmony between departments through interconnectivity (Eng & Stadler, 2014).

SBPs are a part of the concept of enterprise 2.0. Professor Andrew McAfee heavily promoted that term and used it to describe the use of Web 2.0 tools and approaches by businesses (McAfee, 2006). The term web 2.0, first time used in 2004, does, even though it does not describe a technical update of the World Wide Web, refer to a group internet based applications, that build its ideological and technological foundation. This group of applications is called social media (Kaplan & Haenlein, 2010).

A SBP is thus a social media tool in a business context that should facilitate knowledge sharing and create a collaborative work environment (Azmi & Singh, 2015).

Even though this is highly beneficial on paper organizations report both increases and decreases in productivity after introducing a SBP to their company (Makkonen & Virtanen, 2015). Most users seem to not utilize the system to its fullest potential and tend to find more convenient ways solving their problems outside of the system. This leads to the situation that SBP are sometimes not being used effectively and efficiently (Azmi & Singh, 2015).

Reasons for that lie in the attitude user express towards the technology (Ruel, 2002). At this point there is a technology hype concerning web 2.0 in a business context. A lot of companies want to introduce those tools as quickly as possible. What they do not keep in mind is that contrary to the current hype social media platforms are not

yet well received by a majority of practitioners. They don´t see the added value of the platform and are not willing to learn the new technology (Ellison, Gibbs & Weber, 2014). SBPs offer a broad selection of new possibilities. The amount of data that is going to be processed is huge and the way how it is computed is new. This new load of competences needed to work with a platform like this does not come natural to every user and requires intensive training (Ramadan & Al-Qirim, 2015).  A company can follow multiple goals with the utilization of a SBP. Possible goals are: Learning, reuse of resources, collaboration, networking, influencing change and innovation. A common problem is that not all members and leaders are equally committed to these goals. This lack of commitment goes hand in hand with a deficiency of perceived control over the utilization of the SBP which results in a performance under the potentials of the SBP (Ronen, Guy, Kravi & Barnea, 2014).

The problem that derives out of this argumentation is that although the utilization of a SBP should be beneficial for a company it often meets forces of resistance by its users, which diminish its performance.  The research question that derives out of this problem is therefore:

**What factors influence a social business platform user in order to minimize forces of resistance that diminish the performance of that platform?**

The social business platform in center of attention of this study is Anonymous Connect, which is based on IBM Connections. This platform is chosen because it is described as leading SBP and it is also known that resistant forces were present while utilizing platforms based on IBM Connections (Kiron, 2012). The data which will be used in this research paper will be gathered from employees at the XYZ Anonymous Corporation US (Anonymous). Anonymous employees are a good sample, because at a multi-national company like Anonymous with 290.183 employees and even more associates, the possible benefits of SBPs are greater and its forces of resistances are more profound (Back & Koch, 2011).

In order to find factors that influence users in order to minimize forces of resistance that diminish the performance of a SBP it is important to define SBP performance. Research suggests that the best way to describe performance of office technology is to examine the user and his attitude towards it. The user's empowerment, willingness

and competence in the use of newly introduced technology seem to be best predictors of performance of that technology (Ruel, 2002). These links will be explained in depth in chapter 2 of this research paper.

Chapter 3 describes the case "Anonymous Connect" and chapter 4 gives insides about the measurements that have been done at Anonymous in Mount Prospect, Illinois. Chapter 5 shows the results of this research and chapter 6 discusses them and gives a conclusion. In chapter 7 the paper describes its limitations and gives implications for managers and future researchers.

# 2. Theoretical Framework

Purpose of this chapter is to introduce and explain all relevant terms that will be used in this paper. It starts off by explaining the key indicators for SBP performance. Later those indicators, which are the user's empowerment, competence and willingness to work with the SBP are defined and elaborated (Ruel, 2002). Building on that, factors the user should be influenced by during the utilization process are described, in order to minimize forces of resistance towards the performance of the SBP. Those factors are the exchange with motivated early adopters, good change communication, different degrees of leadership involvement and complexity that fits the abilities of the average user.

## 2.1. Performance of Social Business Platforms

In this research paper the performance of SBP is framed in the way of how the user is operating with and feeling about it. This framing is based on validated hypotheses of Ruel in 2002. These hypotheses are:

1. The success of IT in an office context is mainly dependent of the way the technology is used and less influenced by the advancement of the technology
2. One main hurdle of the success of office technology is, if the technology tries to control the actions of the user
3. If the intention of an office technology is clear it is more likely to be adopted

Even though these hypotheses are made for office technology and this paper is about web 2.0 tools in a business context, they are still valid and useful for this paper, because SBPs are a fragment of office technology. It meets the criteria, which define office technology. Office technology and SBPs are both social in nature and have a focus mainly on improving business activities (Ruel, 2002).

The user should be the center of attention, if the goal is to analyze the performance of an office technology. There are several authors who also came to this conclusion. For example Pai & Arnott conclude in 2013 that character features like hedonism and self-esteem are better predictive factors for social media adoption, than the social media platform itself. They further elaborate, that it is highly likely that performance would increase stronger if platform creators would search for a better individual fit solution for individual users, instead of making a one size fits all system.

Research suggests that the more empowered a user feels with a new technology the better the technology will perform (Peters, Poutsma, Van der Heijden, Bakker & Bruijn, 2014). The definition of empowerment used for this argumentation mainly emphasizes control and commitment, which will be elaborated in chapter 2.1.1 (Lashley, 2001). This means that measuring the level of perceived empowerment of an employee working with a SBP is equal to testing one aspect of SBP performance (Ruel, 2002).

Next to perceived empowerment, the question whether the end-user is able/ willing to work with the newly introduced technology is fundamental (Bondarouk & Ruel, 2008). To better understand these terms they will be broken up into terms that will lead to either user competence or willingness.

The three factors, that seem to have the most impact on competence, are the amount of time the user subjectively uses the technology, the extent on how the technology is used in the way it was intended to be used and the degree of how much the user knows about the intention of the technology. Is the technology perceived as easy and useful or the extent in which the system is used in an explorative way, are good indicators to measure the willingness of end-users (Ruel, 2002). The term competence will be further explained in chapter 2.1.2 and willingness in chapter 2.1.3.

To underline the importance of willingness and competence two case studies out of an article of Bondarouk & Ruel (2008) are presented below:

*Case study InsurOrg:*

The Dutch insurance company InsurOrg introduced a knowledge sharing platform, which is called KennisNet, which was based on LotusNotes. The implementation of KennisNet did not affect any changes in employee job routines. The main reason for its failure was that it was not clear to the managers which information they should share via the platform. This had led to a lack of perceived importance of KennisNet. The lack of willingness, in terms of perceived usefulness, directed to a lack of competence, because the system was used less and not in the way it was intended.

*Case study AcademCenter:*

The HR system SAP_HR was implemented into the HR-department of AcademCenter. The targeted users did not believe in a performance improvement of their tasks. Some functions were viewed as useless and the HR-adminstration logic did not fit the SAP-HR logic. Users had to change their way of processing documents, which led to transaction being blocked for two weeks. Again it is possible to see that a lack of willingness in the form of not seeing the advantages of the system had an absence of necessary competence as consequence.

Figure 1 shows the three discussed pillars of SBP performance.
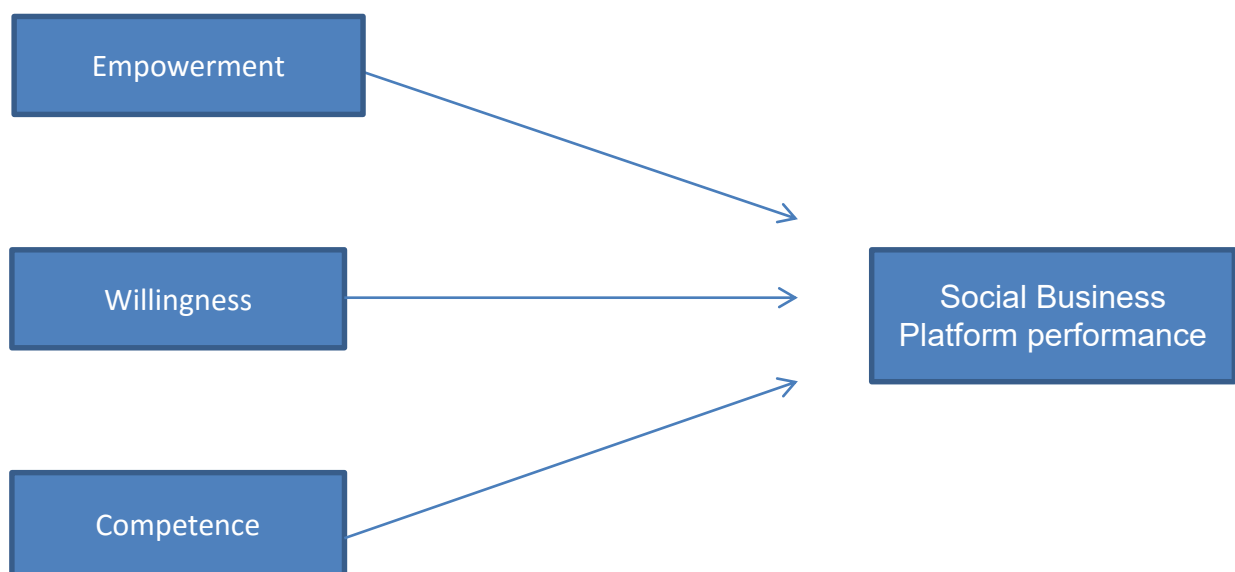


Figure 1: Antecedents for Social Business Platform success

### 2.1.1. Empowerment

As discussed in the previous chapter, the higher the empowerment towards a SBP the higher the performance of it. Empowerment in this case is described as a combination of commitment and control (Ruel, 2002).

A user is viewed as committed if the user fulfills three requirements of commitment. First and the most basic is that the user uses the SBP in order to solve current work related problems (Chin, Cho & Evans, 2015). The second point is that this problem solving is not a onetime solution but is a regular aspect of the users daily work routine (Zhang, Zhang, Lee & Feng, 2015). The third aspect is that the user uses the SBP not only for current problems, but also to make progress in working habits and

routines, so that also future problem are most likely be solved via the SBP (Chin, Evans, Cho & Tan, 2015).

The term control has two different perspectives. A user can either be viewed in control when the user had influence on development or implementation processes of the SBP or if the user is in control over the SBP while using it.

During developmental stage a user is in control when the user can co-decide about interface and fields of practice of the SBP. Developer and user are looking together for a best fit solution (Kemsley, 2015). Social networks offer new functions of interconnectivity, but the link between them and the business environment is not always clear. Users in control of the implementation of a SBP are used to bridge social networks and business habits. The user in control can co-define the process of the implementation, by defining where and how the implantation will take place at what step of the utilization process (Buregio, Maamar & Meira, 2015).

User in control over the SBP while using it, know why, and for which purpose to use the SBP. It is clear to the user before using the platform, what actions he will take to solve a specific problem (Yun & Jianbin, 2015). The user in control over the SBP is aware of all relevant solutions offered by the SBP and can determine in which order he will have to use which function. A user in control is also able to give an indication about how long his work with the SBP will take (Dudezert, Fayard & Oiry, 2015).



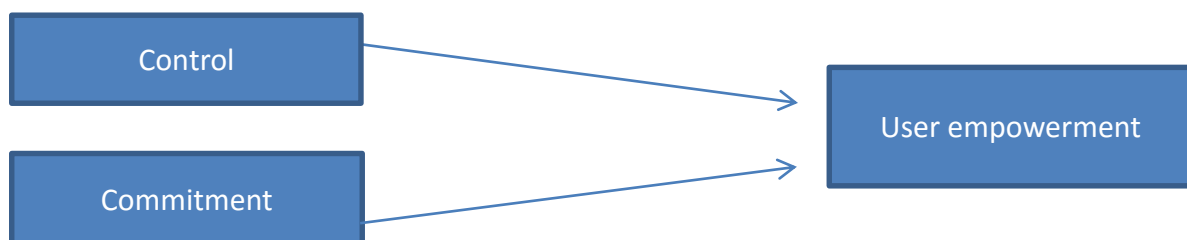Figure 2: Determinants for User empowerment

### 2.1.2 Competence

Indicators for competence in this research paper are described as conditions that show how able the user is handling the SBP. Those indicators are the subjective idea of how much time the user invests in the SBP, the knowledge over the intentions of the SBP and the assumption of how close the user works with the SBP according to those intentions.

Feelings of maturity of the SBP are highly connected to how much the SBP feels integrated into daily routines and working actions. A user that is competent in using a SBP will rank the extent of time he spends using the SBP higher, because it either is or at least feels for him like an essential aspect of his work (Alqahtani, Watson & Partridge, 2014).

In order to be able to work effectively with a SBP it is necessary to know over the intentions of it. It should be clear for every user what the additional value is in the individual case. Especially while using a platform solution that offers several new channels this is often not the case and users tend to be confused about which channel is relevant to them and why they should use it (Wu & Zhang, 2014). The main intention of a SBP should be to offer new ways of communication and collaboration and enhance knowledge sharing. A competent user is aware of that and tries to facilitate those functions with his actions (Chin, Evans & Choo, 2015). A competent user does this with certainty. This means that he is aware of these intentions of the SBP and knows that he is acting accordingly to these attentions (Kügler, Lübbert & Smolnik, 2015)
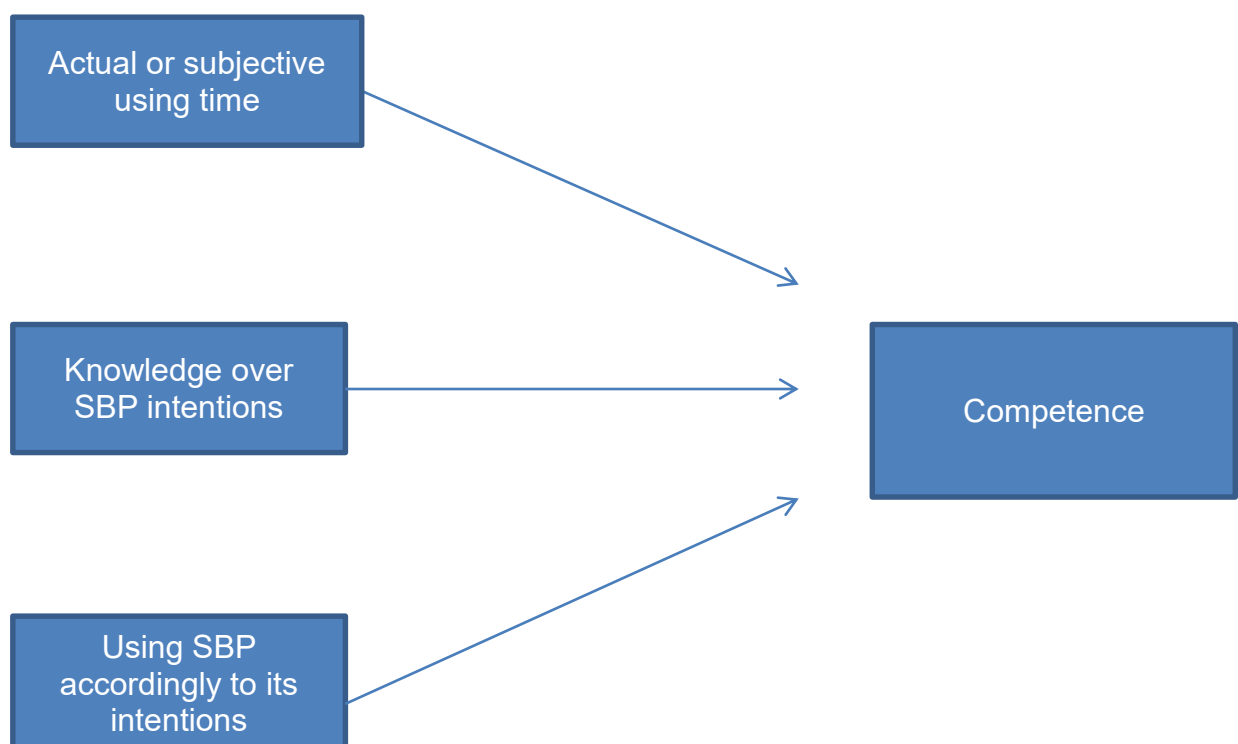


Figure 3: Determinants for user competence

### 2.1.3. Willingness

The perceived ease of use and usefulness and whether or not the SBP is used in explorative ways are indicators that determine the construct of willingness of users towards SBPs.

The complexity between SBPs varies drastically, depending on the platform and the area of usage. It is therefore not possible to say that generally learning the usage of a SBP is training intensive. The perceived ease of use is highly dependable on the perceived learnability of functions and interfaces (Alqahtani, Watson & Partridge, 2014).This is mostly the case if functions and interfaces are in some way resembling familiar concepts or structures (Levy & Karni, 2014). Next to that the complexity of the tasks that should be accomplished while using the SBP reflects strongly on the perceived ease of use of the platform (Antonius, Xu & Gao, 2015). A SBP that seems to be flexible and fits the needs of the user will be experienced as an easier platform (Isaias & Antunes, 2014).

In order to perceive a SBP as useful the user must believe that he is able to effectively solve his problems using the platform. A certain amount of trust is necessary for that. For example using the communication channels of the platform the user must believe that the receiving end of the message will be able to get and willing to read the message that has been sent. In terms of knowledge exchange the user must be certain that the given information is true and important for his job (Trimi & Galanxhi, 2014). It might be that there are several other channels present, which could be chosen above the SBP. A user that perceives the platform as useful will choose it above those other channels, because he believes that it is the most efficient way of getting the job done (Ardito, Barchetti, Capodieci, Guido & Mainetti, 2014).

SBP are at an early stage of development. To get the most out of them it is therefore necessary for businesses and users to explore new functions and possibilities. A user that is willing to work with the SBP therefore does not except that every function is presented to him, but uses the platform and tries to explore it (Wahi, Medury & Misra, 2015).
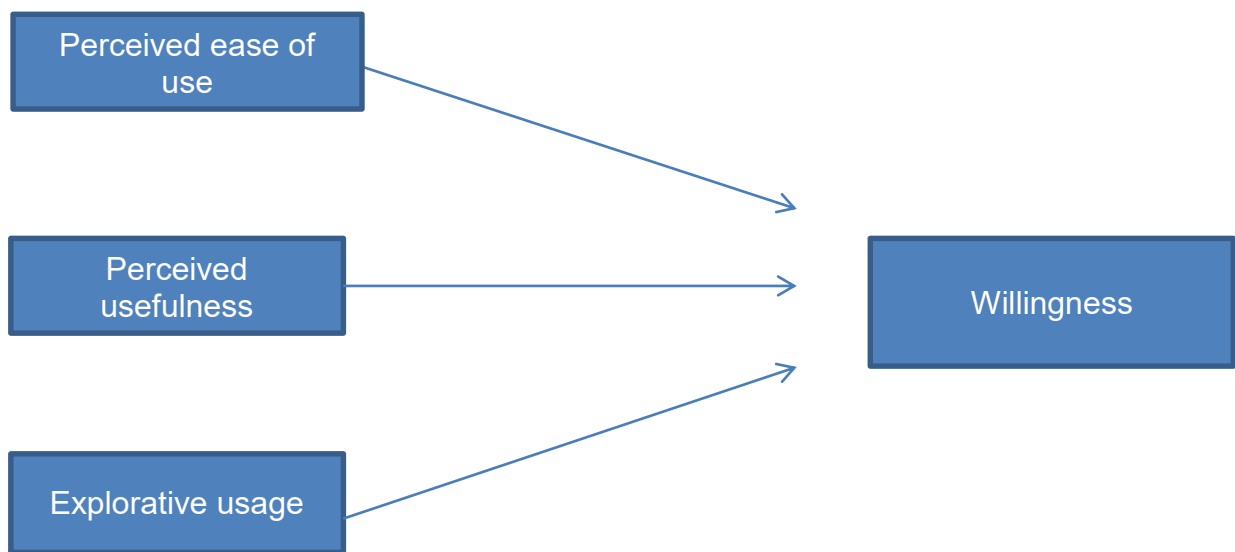
Figure 4: Determinants for user willingness

## 2.2. User conditions during the utilization of a SBP

The upcoming chapter describes the factors a user should be influenced by for utilizing a SBP with least forces of resistance. Those conditions are the exchange with motivated early adopters, well planned transparent communication, different degrees of leadership involvement and platform complexity.

Before elaborating the factorss named above, it needs to be stated, that in modern times new models of change management need to be used than before. A high level of fast interconnectivity makes change quicker and more frequent. It became much more important to forecast future change and adapt the change management accordingly (Worley & Mohrman, 2014). This is why this research paper tries to not only give a list of best practices to utilize a SBP at one specific point of time, but also tries to give recommendation during the whole change process.

### 2.2.1. Early adopters

Excitement about change and intrinsic motivation of learning newly introduced technology is center of the upcoming section. Change happening because of introducing web 2.0 applications into a business context is disruptive and moderately knowledge intensive. Early adopters in situations like this are familiar with similar technology and enthusiasts of the field in general (Reinhardt & Gurtner, 2015). In the case of SBPs this means intensive users of current private social media platforms like for example Facebook, LinkedIn, Dropbox or Twitter.

To better understand which early adopter behavior might be superior to minimize forces of resistance, it is possible to categorize it. One way of categorization is to divide it by, whether the early adopter directs his social media behavior to himself or to others. In case he directs his behavior to others he will be more influential for regular users. The reason for that is that it is more likely that he will communicate frequently with others via the SBP and will attract other employees to integrate the SBP in their daily work routines (Yeo, 2012). This will increase the perceived and actual time users spend with the platform, which is an indicator for the competence of the user working with the SBP (Alqahtani, Watson & Partridge, 2014).

One should also be aware of different roles early adopters play working first hand with new platforms. On the one hand they will play the dissemination role. They will start the propagation of the advantages, disadvantages and added value of the platform. For secondary users their opinion will most likely be the first thing they hear about the new technology (Frattini, Bianchi, Massis & Sikimic, 2014).This directly influences the perceived usefulness of the platform and thus the willingness of regular users (Trimi & Galanxhi, 2014). The second role is called imitation. Early adopters determine the way of how the platform will be used, because secondary users tend to imitate the behavior that was already shown to them or will even be trained by early adopters. It determines the way of how users will solve problems with the SBP (Frattini, Bianchi, Massis & Sikimic, 2014). In what way users solve problems is a matter of the level of control the user has over the platform. This is one of the indicators of empowerment (Yun & Jianbin, 2015).

In the case of electronic technology in general it is highly likely that main early adopters are young males. These young male tend to be also the opinion leader of new technology. It is necessary to notice that convincing them of product advantages is crucial for the success of the whole implementation process. They tend to determine at early stages, whether the technology is suited to solve current and future business problems (Chau & Hui 1998). This will influence the commitment the users show towards the SBP. The degree of commitment in return affects the level of empowerment (Chin, Evans, Cho & Tan, 2015).

Bringing all this together and making it tangible for SBPs it is first necessary to recognize the immense impact early adopters will have on the regular user during the

whole utilization process. They will be opinion leaders (Chau & Hui 1998) that communicate over the quality of the product and will give lead in how the platform will be used (Frattini, Bianchi, Massis & Sikimic, 2014). So in the likely case that the implementers of a SBP can choose their early adopters, at a pre-launch for example it is advised to train them in the way that they will be able to use the SBP as intended and make sure that the first experiences are as pleasant as possible. After securing this it would also be helpful to choose early adopters that show an external social media behavior to maximize adverting effects (Yeo, 2012).

In figure 5 all influences the exchange with early adopters has on regular users are described and how this influences SBP performance by having an impact on empowerment, competence and willingness.
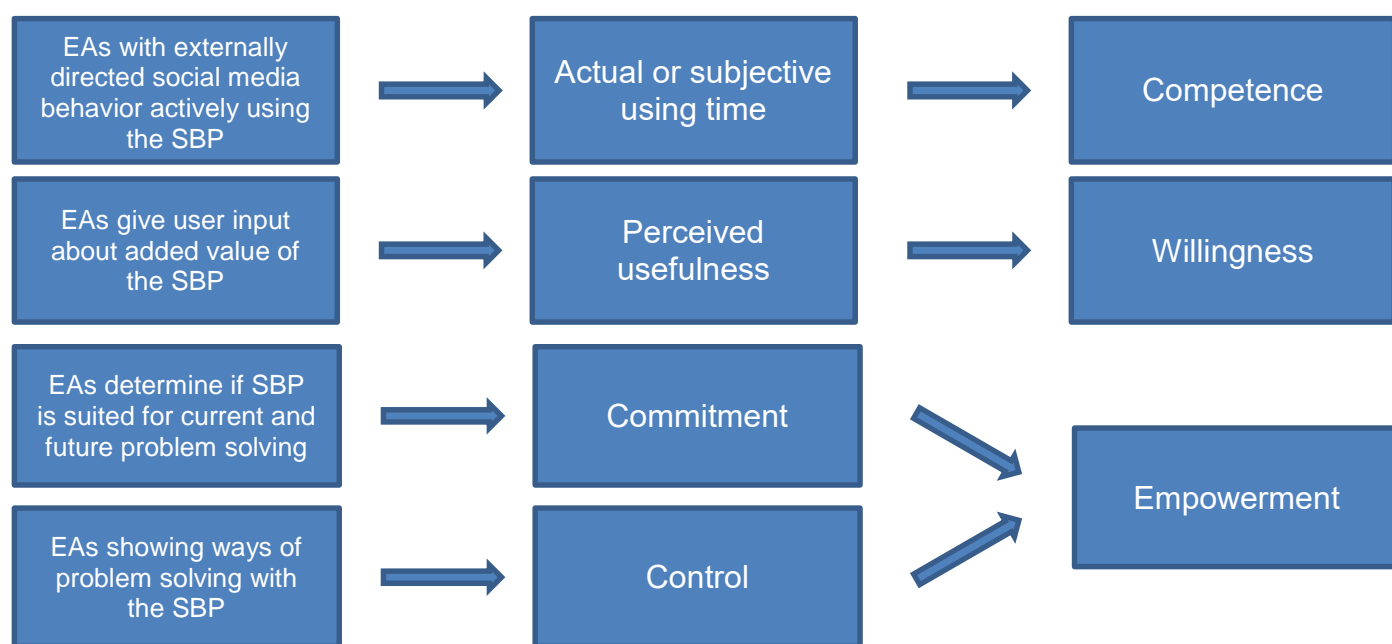


Figure 5: Influences of exchange with early adopters

### 2.2.2. Communication

Big multinational firms are always looking for opportunities to create or enhance competitive advantage. Enterprise 2.0 offers with its web 2.0 based technologies opportunities to leverage skills and knowledge of a multi-national company. It will most likely change the way of how an organization communicates. Despite the obvious advantages, not all employees are equally willing to adopt a newly introduced SBP. Communication about the platform and the change process seems

to be one central aspect of how to improve the transition process and to make the utilization as smooth as possible (Husin, Heikal & Swatman, 2010).

First thing that needs to be acknowledged is that every employee identifies specifically with the organization he is working for. This means the employee has a picture of a character the firm has for him. This character is bound to the goals and intentions the company follows. Introducing a SBP without communicating about its intentions, will make the user uncertain about his view of the character of the firm on the one hand (Chreim, 2002) and on the other hand not knowing about the intentions of the SBP will negatively influence the competence of the employee working with the platform (Chin, Evans & Choo, 2015).

In the last paragraph the term "uncertainty" was dropped. Organizational change can lead to uncertainty on three different interrelated types: Strategic, structural, and job-related (Bordia, Hobman, Jones, Gallois & Callan, 2004). Introducing a SBP can affect all these types of uncertainty (Trimi,& Galanxhi, 2014). One way of reducing uncertainty is giving a feeling of control to the employee. This can happen through transparent change communication, that does not only give input, but also listens. Employees must know about what is going to happen in order to feel in control of the situation. Also listening to their expectations and wishes during development and implementation phases will give a feeling of control. Another advised aspect is that communication should include information about functionalities and trainings to give employees who don´t feel comfortable with the platform the chance to gain knowledge about it and therefore become in control of the platform (Bordia, Hobman, Jones, Gallois & Callan, 2004). Enhancing as well the control the user has over the implantation as well as over the platform will increase empowerment of the employee.

One take away of this part of the chapter so far is that change communication can influence the empowerment of an employee, by providing a feeling of control. One possible limitation to that is that the employees are not equally receptive at all stages of the change. Organizational change can be divided into four stages of employee emotions. The first is high in arousal, mixed with hedonic tones and anticipations. The second stage has either positive or negative emotions towards the change. This emotional reaction has a big impact on the third stage with is the coping stage. In the

fourth stage the arousal is lower and the main goals are more evaluative (Liu & Perrewe, 2005). Therefore change communication does not only need to be transparent, but that the transparency needs to be tailored and timed according to the situation and stage. In more emotional stages the learnability of the user is lower, the amount of transparency should be relatively low, to not overstimulate the user (Liu & Perrewe, 2005). An overstimulation would lead to a lowered perceived ease of use and usefulness thus lower the willingness of the user to use the SBP, because the user neither sees new functions nor has time to learn them (Nohynek, 2014).

Figure 6 shows all influences change communication has on the user and the effects on empowerment and willingness.
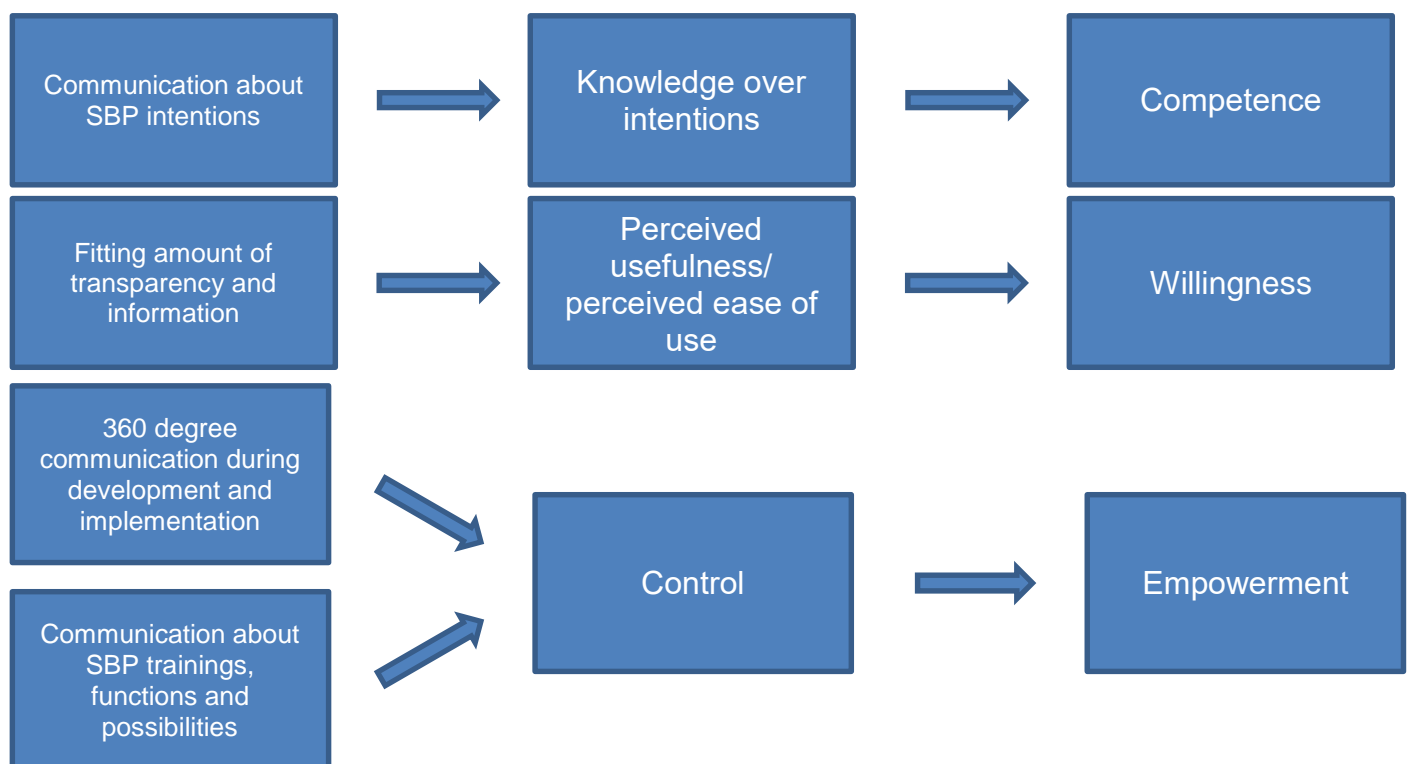


Figure 6: Influences of change communication on the user

### 2.2.3. Leadership Involvement

Leadership is one of the most important factors in change management (Murigu, 2012).The rise of advanced information technology has transformed organizational leadership. The term of e-leadership is introduced. Dealing with the utilization of web 2.0 applications in a business context in mind it is possible to state that a more "virtual" leadership approach is needed, to enhance SBP usage by being technological pioneers (Avolio, Sosik, Kahai & Baker, 2014).

Utilizing a SBP can become an essential ingredient of organizational performance. In this upcoming chapter the influence of leadership effectiveness during that process is discussed. To overcome resistance towards change leaders play a central role. Leaders can be role models and key drivers for change, but in order to do so they must be trained and educated in the topic of relevance (Bateh, Castaneda & Farah, 2013). Fitting to the previous topic it is underlined that communication especially by leaders is central for e-leadership. With introducing a SBP the computer becomes a mediator between virtual teams. The e-leader might never physically meet his employees. Therefore e-leader communication must be more structured and whole, because there are less meeting points (Avolio, Sosik, Kahai & Baker, 2014).

A good virtual leader should enhance the companies trust in the SBP (DasGupta, 2011), interestingly this trust relationship between leader and SBP seems to be vice versa. In the virtual work environment a company has many communication channels to choose from. Picking one channel will create a bond of trust between the leader and the channel. If the employee switches towards the SBP as his main communication tool and learns about its advantages it will positively affect the standing of the virtual leader who recommended using the tool. This means for a multinational company that consensus between all managers is very important, about which platform to use for what reasons. Otherwise it might result in a technology clash that will reduce the trust given into the technology and the leaders, which results consequently in a lack of commitment towards the platform, because it is unclear on what the user should focus. (DePaoli, Ropo & Sauer, 2014).

A top down strategy pushing employees to spend more time using the SBP and showing why it is an effective and efficient tool for the company, will improve the user competence and willingness (Gilley, Gilley & McMillan, 2009). Communication needs to be top down at least at some point, because it is important for employees to know that they work accordingly to the intentions of the business and the technology (Morgan & Zeffane, 2003). Top down actions can therefore have positive impact on user willingness and competence by providing a framework why the technology is useful and letting the user work more with the platform, while ensuring that he is doing that like it is intended.

Push the SBP top down into the company might be beneficial at some point, but there is evidence that shows that it also has negative influences on the whole change process and might result in technology repulsive behavior. It is shown that the integration of new routines especially at early stages is much higher, if there is less dominance behavior by managers (Murigo, 2012). The more prominent the leader the less input from the employee. This can result in lower levels of control of the implementation by the employee (Penava &Sehic, 2014). This shows that top down communication at early stages could have negative influence on user empowerment by reducing the control over the implementation (Buregio, Maamar & Meira, 2015).

Thus as for change communication also the degree of management involvement seems to be timing related. It would be advisable to use less leadership involvment at early stages to increase user control (Murigo, 2012), but more guidance in later stages to facilitate user competence, willingness and commitment (Morgan & Zeffane, 2003).

Figure 7 presents all factors that leadership has on the willingness and competence of the user.
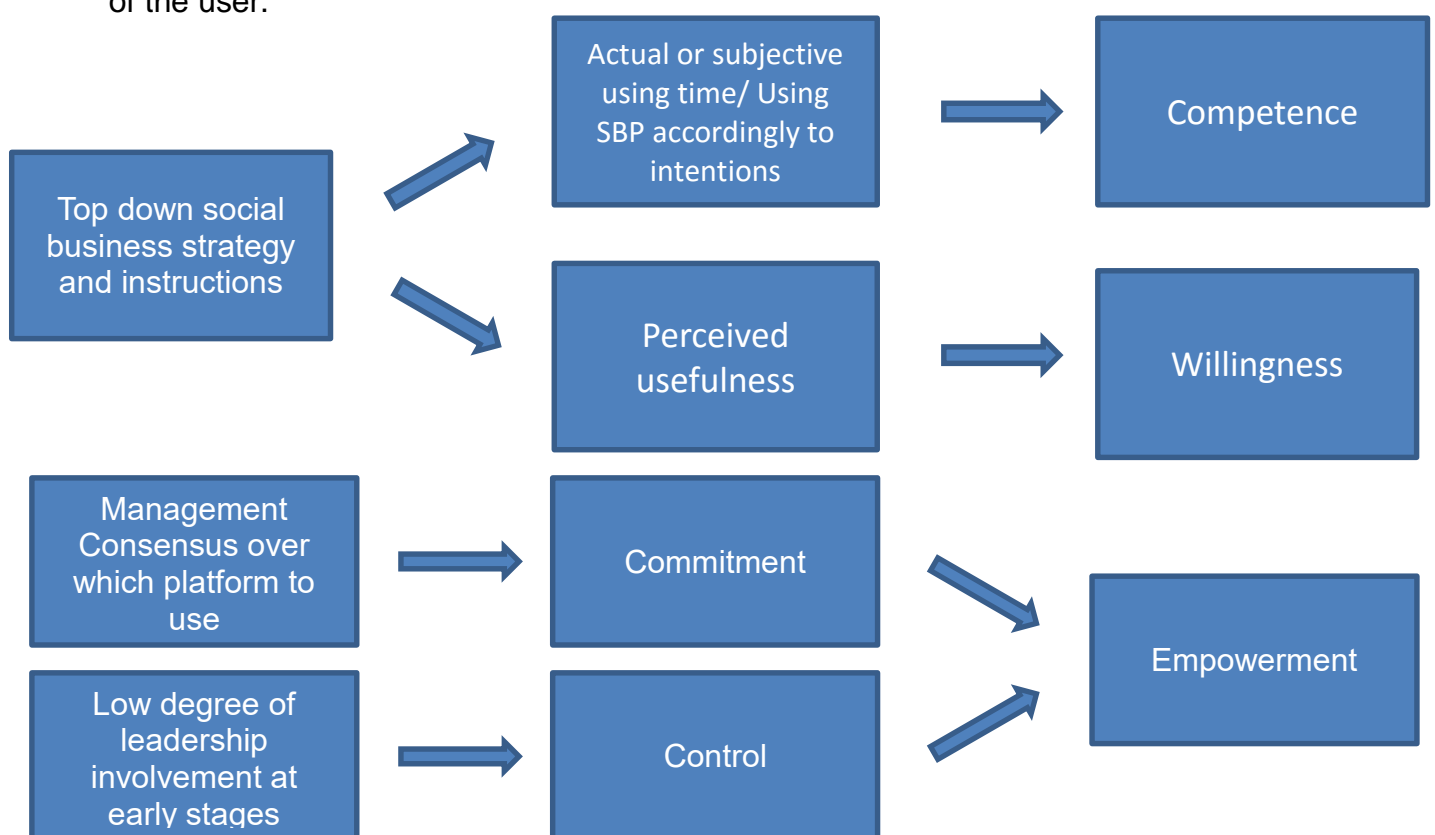


Figure 7: Influences of leadership on the user

### 2.2.4. Complexity

The aim of this chapter is to talk about levels of complexity that lead to successful adoption of SBPs in organizations. The interplay between the complexity of the task and the perceived ease of use and explorative usage stands central in this given argumentation.

The variables which are discussed in this chapter can be seen as extrinsic, because the user gets affected by the technology (Antonius, Xu & Gao, 2015). It is important to acknowledge that extrinsic variables can have a big impact on enhanced value of a social platform, by touching individuals mind and working habits in as well positive as negative ways (Durao & Dolog, 2014).

Changing a technical aspect can affect the attitude towards the technology. For example reducing the general complexity of the platform to a more intuitive level of difficulty can positively influence the perceived ease of use and can subsequently enhance the performance of the enterprise 2.0 software (Antonius, Xu & Gao, 2015). It is shown that the likelihood for explorative usage tends to be higher in familiar technology environments (Vila, & Ribeiro-Soriano, 2014). It is therefore recommended to choose the user friendliest solution that still meets business goals that want to be achieved by introducing the technology and to make sure that change drivers like early adopters or leaders are well trained and up to the challenge (Gardner, 2013).

The search for a user friendly platform might be difficult. User willingness can be strongly connected to familiarity with privately used technology as social media sites. The problem for SBPs is that developers often stand in conflict with developing a similar product, because it makes the switch towards competitors easier. Finding a user friendly SBP is a task that needs research and planning (Murray & Häubl, 2011).

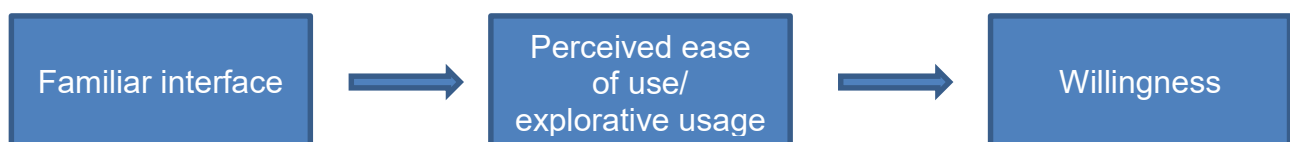Figure 8 displays the influence a familiar interface has on user willingness.



Figure 8: Influence of a familiar interface on the user

## 2.3. Theoretical model

The goal of this chapter is to draw all theoretical ideas together and to show them in figure 9 to 11. It is summarized which user conditions influence empowerment, competence and willingness.
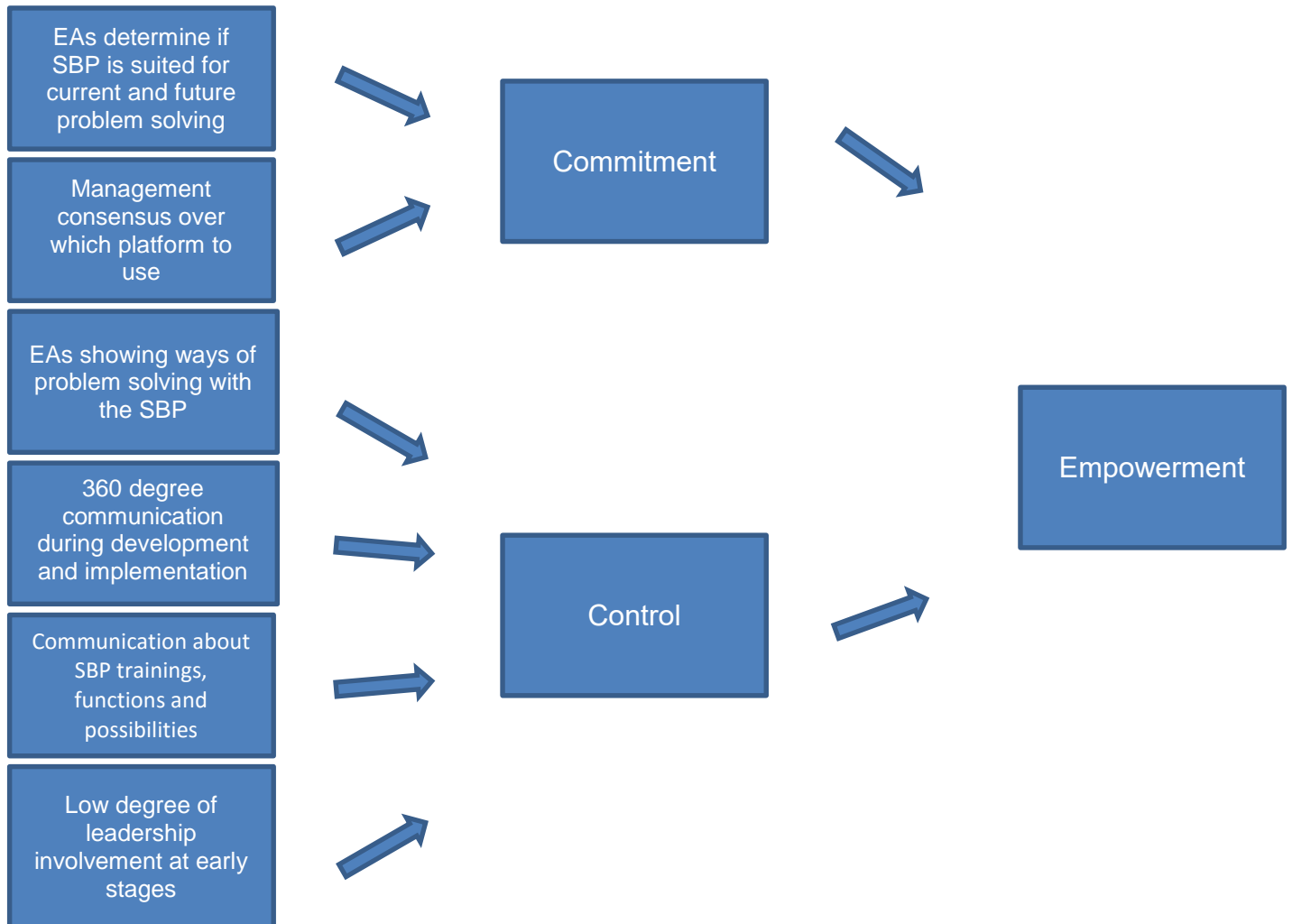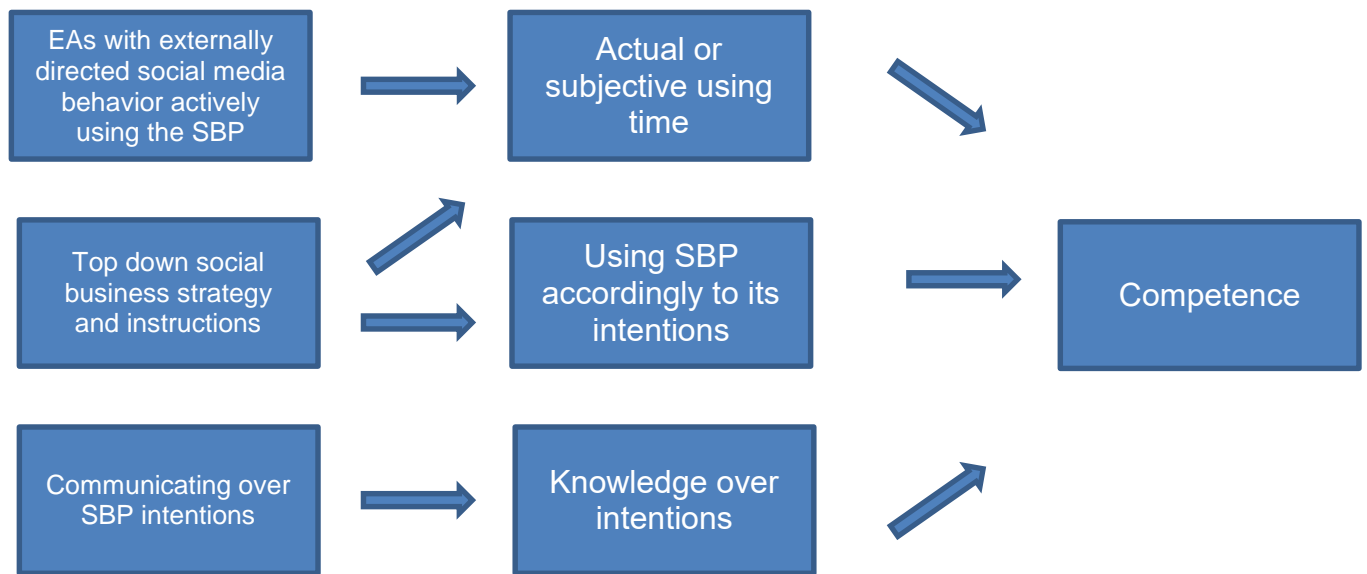


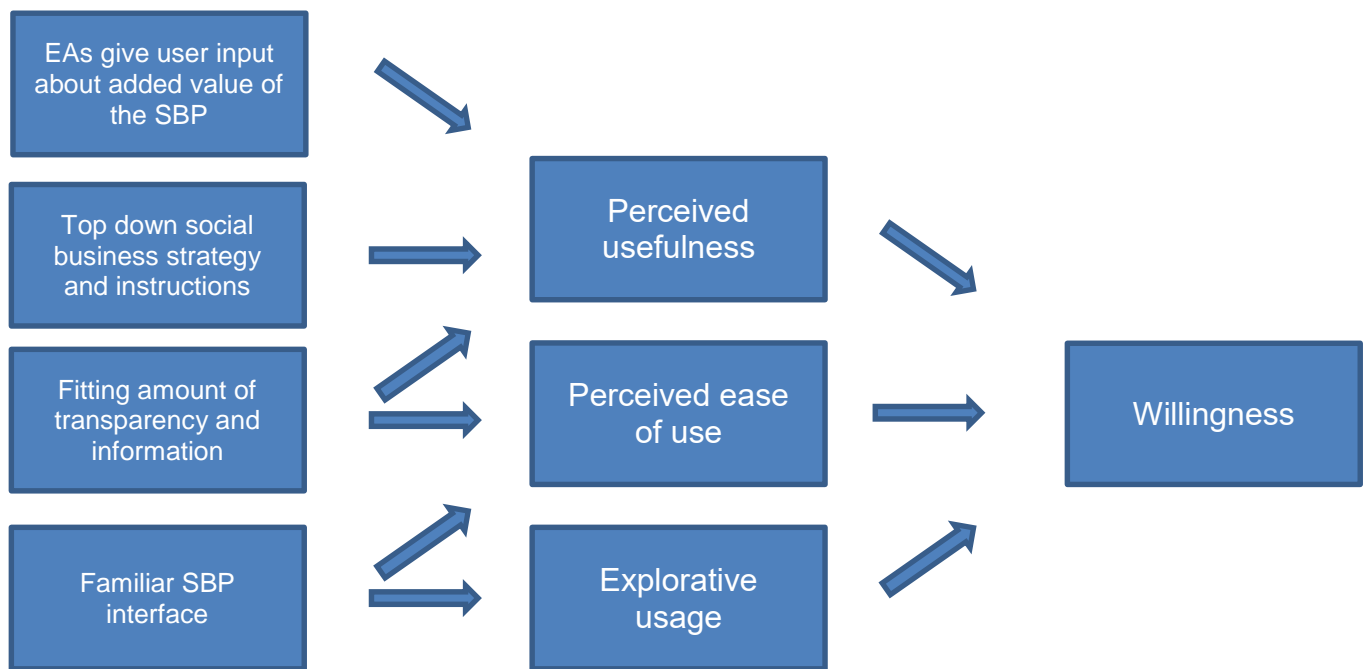Figure 9: Empowerment

Figure 10: Competence



Figure 11: Willingness

# 3. Case study: Anonymous Connect

In this chapter the SBP Anonymous Connect (AC) and its utilization plan, which is the center of the empirical analysis of this paper, is discussed. This information was gathered using several Anonymous internal data bases on Anonymous Connect.

Anonymous had the goal to become a highly connected enterprise 2.0. They recognized that to stay competitive they needed to accept the fact that only a highly interconnected firm with fast communication channels can have the innovative power, which is needed to outperform its competitors.

To enable networking they developed an action plan which was divided into 4 areas of attention. These four areas in that system were: Technology, Guidelines, Associates & Leadership and Organization.

## 3.1. Technology

The technology chosen for that purposes was Anonymous Connect which is based on IBM Connections. In October 2014, 259817 Anonymous associates were on Anonymous Connect. A survey in May 2014 showed that AC increased the access to knowledge by 22%, improved the quality of ideas by 20% and that 16% of the daily work is now done with it. It had the goal to encourage the dialog, collaboration and the exchange of ideas within and across projects and borders. It got available to all associates with access to the Anonymous intranet in September 2013. It got mobile in July, 2014.

AC tries to overcome 4 different challenges Anonymous had to face in the past:

Due to the fact that Anonymous is a globally operating company it is clear that different employees work in different time zones. AC offers time-independent documentation in a Wiki.

The second challenge can also be attributed to the global factor of the company. There are long distances between the different departments of Anonymous, even though they sometimes need to collaborate closely together. AC offers global exchange of information within a team through special blogs and a discussion forum where members can meet after, before or instead of face2face meetings.

An implemented file sharing tool should increase reaction time, because it offers the sharing of new content immediately.

At last the company gained transparency by using AC, because it offers the possibility to assign, manage and publish tasks and to-do lists.

## 3.2. Guidelines

8 social business principles were given as guidelines:

1. Listen and engage in social business conversations. Use the insides gains to create new business opportunities and to improve customer and associate satisfaction

2. Explore and try out new things. Tread unfamiliar paths and be open for unconventional ideas. Things that go wrong won't be blamed. The goal is to be fast and to have learning cycles that are ongoing and thorough.

3. Being transparent as a matter of principle. Information is open and accessible for all associates. Communities encourage openness while still complying with all laws and policies concerning intellectual property and sensitive data.

4. Recognize and respect everyone in the social business environment. Every voice is heard and input is judged on its merits to serve the best interest of Anonymous.

5. The power of the networks given will work as collective intelligence. The usage of input given by colleagues and external stakeholders shall spark creative ideas for better products, services, solutions and decisions.

6. Wherever appropriate teams organize themselves. The power of communities is harnessed to act on customer demands and create a more flexible company.

7. The working environment should be intuitive and user-friendly. The entire organization uses AC, which should make the daily work more enjoyable and more efficient.

8. Experience should be shared and learned throughout the Anonymous organization. It should create an atmosphere of social collaboration and co-creation that continuously fosters learning, adaption and improvisation.

## 3.3. Associates & Leadership

From a strategy perspective 7 steps were given to implement AC:

1. Understand the value proposition of Enterprise 2.0
2. Decide about your Social Business value
3. Derive your explicit Social Business strategy from your business strategy
4. Define your Social Business organization
5. Derive the resulting use cases
6. Define change and enabling activities
7. Implement, Monitor and optimize

To enable employees with the new technology an enterprise 2.0 mentoring was installed. Cross-generational duos where picked to conquer the world of Web 2.0. Normally the knowledge transfer at Anonymous is from senior executives down to future management prospect. In this case it was mostly the other way around, because the younger generation seems to have more experience with web 2.0.

## 3.4. Organization

To organize the implementation of AC several mile stones were set. Starting with the platform phase in 2012 and ending in March 2014 with the pilot phase of new created agile and global teams. The concept of the teams where that they would work highly efficient with a long term focus, but still remain agile, flexible and self-driven with the possibility to adapt quickly to sudden changes. For Anonymous this is part of becoming an Enterprise 2.0.

The formulated goal state of Anonymous is to have a continuously improving platform with all associates involved. They want to be open for external input and experience organizational development on a social level.

# 4. Methodology

Mixed methods were done for this research paper. An online survey questionnaire was conducted and qualitative interviews were taken. Both were done at the XYZ Anonymous Corporation North America with focus on the Anonymous SBP Anonymous Connect, which is based on IBM Connections.

## 4.1. Mixed Methods

The reason why mixed methods were chosen for this research paper is to gain the best possible methodological fit. Methodological fit is defined as internal consistency among elements (Edmonson & McManus, 2007). It is assumed that mixed methods are the best methodological fit for this research because qualitative research results are more easily influenced by the researcher´s biases and idiosyncrasies (Johnson & Onwuegbuzie, 2004). The knowledge gained during qualitative research might also be not generalizable to other people and quantitative numbers can be used as a benchmark (Johnson & Onwuegbuzie, 2007). In nascent studies, which this one is qualitative results are vulnerable to finding significant associations among novel constructs. The research might fall too far outside the relevant focus (Edmonson & McManus, 2007). Quantitative measurements would not be a good fit for nascent studies, which is the case for the field of enterprise 2.0 as an unexplored and complex topic, because the researcher might miss out on phenomena, because the focus might be too narrow (Teddlie & Tashakkori, 2009). Mixed methods are a solution for this situation, because the narratives can be used to add meaning to the numbers and the numbers can be used to add precision to the narratives (Johnson & Onwuegbuzie, 2004). This is why it is chosen for this research paper, to start with quantitative measurements as a first scope and benchmark. The qualitative measurements should give meaning to the numbers and can be interpreted easier using the given numbers. The qualitative method is also suited for broadening the scope if necessary (Tashakkori & Creswell, 2007).

Even though executing both methods will take more time for the researcher it is worth it in this case, because using and comparing both results will give clear indication about the fit of literature and methodology (Johnson & Onwuegbuzie, 2007). It is assumed that Ruels (2002) studies about office platform performance are still valid for a SBP. In case of a misfit between quantitative and qualitative results it gives

indication that a new and different framework for SBPs needs to be created. It would show that the constructs of empowerment, competence and willingness are not connected to the factors like it is shown in figure 9 to 11. It would likely give indications about new relationships.

## 4.2. Quantitative survey

Goal of the survey is to measure the current performance of Anonymous Connect and to find constructs that define the scope of the qualitative interviews (Tashakkori & Creswell, 2007). As discussed in chapter 2.1 the performance of office technology can be best assessed by measuring the user's attitude towards the SBP (Ruel, 2002). To measure this attitude a validated questionnaire by Ruel (2002) was used. The original questionnaire was made for office technology. The survey used for this research used the same nature of the questions and given constructs, but tailored them for the Anonymous Connect context. Questions that only fit to the office technology context, but not to Anonymous Connect were deleted.

Before sending out the survey it was checked by the Human Resources Department and Market Research Department of Anonymous Tools North America to avoid unethical questions or questions that do not fit Anonymous policies.

The questionnaire was sent out via email by the Communication Department to every Anonymous Tools employee in the United States and Canada. The mail was sent on a Tuesday, because internal Anonymous mails have the highest reach on Tuesdays. One week later a reminder was conducted. Anonymous Connect itself was not used as a communication tool on that matter, to not artificially enlarge the number of Anonymous Connect users compared to non-users.

The survey tool used was Qualtrics, because Anonymous policies dictate using this tool for all Anonymous related research in the United States. All analysis of the results was done vie the statistical analysis program SPSS. To ensure the validity Cronbach´s Alpha for each construct was calculated. Cronbach´s Alpha values above 0.8 were considered reliable (Nunnally, 1978). To give an answer of how well Anonymous Connect performs the means and standard deviations of the constructs of "empowerment", "willingness" and "competence" are measured. To check, whether one of the background variables impacts the constructs t-tests were conducted.

## 4.3. Qualitative interviews

The goal of this research was to explore the conditions the users at the Anonymous Corporation are in during the utilization of Anonymous Connect. It is compared how this situation fits the theoretical model given in chapter 2.4. The respondents for this study were grouped into three different groups. In the first group were three members out of the task force direct responsible for the implementation of Anonymous Connect. This included exclusively employees from the internal IT service department of Anonymous "Corporate Sector Information Systems and Services – CI". The second group was the two leaders of the Anonymous Tools Corporation. In the third and last group were five line managers, which work for the Anonymous Tools Corporation. Due to reasons of anonymity the answers of the top management group and the line management group are grouped together in one big "management" group, which makes it two groups of focus. One group filled with people directly out of the task force of Anonymous Connect which will be called "Anonymous Connect" group and one group with managers, which will be called "management" group. The two groups were defined as target group to enable the researcher to distinguish between the planned course Anonymous Connect should have taken, which can be represented by the "Anonymous Connect" group and the actual course represented by the "management" group. To further analyze the respondent statements, the answers were grouped together into different topics using transcripts and the qualitative data analysis program Atlas.ti.

The qualitative method chosen were semi-structured interviews. Semi-structured interviews are broader and provide a more holistic overview over the situation (Denzin & Lincoln, 2005). Guiding the interviews too strongly with pre-written questions, could lead to confirmation biases. A confirmation bias is present, if the interviewee tries to answer the questions accordingly to the expectations of the interviewer (Nickerson, 1998). Keeping in mind that utilizing a social business platform is very complex in nature semi structured interviews give the opportunity to dive in deep into the topic without restricting the perception of the respondents, while still giving the opportunity to find constructs, that make it comparable with the previously done survey (Louise Barriball & While, 1994).

## 4.4. Operationalization

The operationalization chapter of this research paper is divided into two. First it describes the online survey and its constructs that were built on Ruel, 2002. Secondly the interview topics based on the literature of chapter 2 and the benchmark which is represented by the survey.

### 4.4.1. Operationalization survey

The constructs used to measure the performance of Anonymous Connect are called "empowerment", "willingness" and "competence". As discussed in chapter 2.1 those constructs have determinants that were measured with this survey. The concept of "empowerment" includes questions about the commitment towards and control over Anonymous Connect as a tool and its implementation and development. The construct of "Competence" includes questions about the knowledge over the intention of Anonymous Connect, whether it is used appropriately to those intentions and how much it is used. The construct of "willingness" consists out of questions about the perceived usefulness, ease of use of Anonymous Connect and if Anonymous Connect is used in explorative ways. The constructs are measured on a scale from 1 to 5, where 1 represents an extreme negative attitude towards Anonymous Connect and 5 an extreme positive attitude. Table 1 shows the constructs and how they were split up into single survey items.

| Construct | Determinant | Item |
|---|---|---|
| **Empowerment** | Commitment | - In my work I use the possibilities of AC, which are relevant to my work<br>- I use AC often in my daily work<br>- I use AC to make progress in my working habits |
| **Empowerment** | Control | - When I start to use AC I know in advance for which task I will use it for<br>- I can determine the amount of work I do with AC<br>- I can determine the sequence of my tasks working with AC<br>- I can determine how fast I carry out my |

| | | work using AC |
|---|---|---|
| | | - I had a say in the development of AC |
| | | - I had a say in the implementation of AC |
| **Competence** | Used as intended | - AC experts will not consider the way I use AC as the most appropriate |
| | | - I do not succeed in using AC as it should be used |
| | | - I do not use AC in the optimum way |
| | | - I use AC in accordance to the manuals and/or documentation as intended |
| | | - AC experts will not agree with my way of using AC |
| **Competence** | Time used | - I use AC often during my regular work |
| | | - I spend a significant amount of my working time using AC |
| **Competence** | Knowledge over intention | - The goals of AC are clear to me |
| | | - The thought behind AC is clear |
| | | - I know where effective use of AC should lead |
| **Willingness** | Perceived as useful | - I think AC is a good idea |
| | | - AC contributes to my effectiveness |
| | | - AC is not my preference, because there are better ways than using AC |
| | | - AC is useful for my work |
| | | - Work processes are effectively improving |
| | | - That amount of work carried out by AC is high |
| **Willingness** | Perceived as easy | - It is easy to learn to work with AC |
| | | - Most functionalities are easy |
| | | - The screens of AC are easy to understand |
| | | - I find AC flexible in use |
| | | - I think AC is easy in use |
| **Willingness** | Used in | - I probably use AC in ways which are new, |

| | explorative ways | in comparison with the initial goals of AC |
| | | - With certain functionalities of AC I probably work in an unusual way |
| | | - By trial and error I still find out new aspects of AC |

Table 1: Operationalization Anonymous Connect (AC) survey

Next to those questions about the performance of Anonymous Connect the questionnaire includes the background variables gender, age, tenure, hiring status, which is divided by management level, full time employee and other, work place, education level, profession, number of work locations, and private social media usage.

### 4.4.2. Operationalization interviews

The interviews were semi-structured. The topics of the interviews were similar to the main conditions described in chapter 2.2. Every respondent should at least give a statement about early adopters, change communication, leadership involvement and complexity. One interview took between thirty and ninety minutes. Table 2 describes the interview topics, its connection to the given literature and some examples of questions, even though those questions were not asked all the time or in the same way.

| SBP performance indicator | Determinant | Condition | Question example |
| --- | --- | --- | --- |
| **Empowerment** | Commitment | Contact to early adopters, leadership involvement | - For what kind of problems is AC suited?<br>- What alternatives exist next to AC? |
| **Empowerment** | Control | Contact to early adopters, change communcatio n, leadership | - How did you figure out to solve problems with AC?<br>- Where did you got information about the functions of AC?<br>- How do you feel using |

| | | involvement | AC? |
|---|---|---|---|
| **Competence** | Actual or subjective using time | Contact to early adopters, leadership involvement | - How were you promoted to use AC?<br>- What were the main influences for you to use AC? |
| **Competence** | Knowledge over intentions | Change communication | - Why do you think AC was introduced?<br>- How were you informed about the intentions of AC? |
| **Competence** | Using accordingly to intention | Leadership involvement | - Where have you learned about how to use AC?<br>- What do you wish to know about AC? |
| **Willingness** | Perceived usefulness | Contact to early adopters, change communication, leadership involvement | - What do you think is the added value of AC and what made you convinced about that?<br>- How did you receive information about AC capabilities? |
| **Willingness** | Perceived ease of use | Contact to early adopters, complexity | - How do you feel about the information you get via AC?<br>- What do you think about the interface of AC? |
| **Willingness** | Explorative usage | Complexity | - How do you react if you encounter a new problem while using AC?<br>- Does AC remind you of other platforms of sites you use? |

## 4.5. Anonymous as a case company for enterprise 2.0

In order to do a meaningful research it is necessary to pick a research object which reflects the need of the researcher in as many points as possible. Anonymous as a company does exactly this. In the upcoming chapter it is described, why Anonymous and Anonymous Connect are a good example for a social business analysis.

A SBP can be seen as a collaborative tool that brings the employees of a company closer together. It is a tool where the effort to participate is minimized and a broad audience can be given. The bigger the audience the bigger the possible positive effect (Back & Koch, 2011). Anonymous with 290.183 associates is a perfect example for a company, where a SBP meets a large audience and the possible gains are maximized.

Traditional knowledge management usually has been a mainly top down approach. The successes of these approaches were mostly not quite as high as expected. With the introduction of web 2.0 elements into knowledge management, completely new bottom up approaches were introduced (Alberghini, Cricelli & Gromaldi, 2013). Anonymous used a mainly bottom up strategy introducing Anonymous Connect and is therefore a textbook example of the idea the new way of knowledge management.

Even though this "optimal" approach is present it is stated that web 2.0 applications in a business context can face resistance, due to organizational factors (Alqahtani, Watson & Patridge, 2014). Early interviews with Anonymous had shown that there a resistance forces in the company, which made an analysis of those possible.

Next to these organizational characteristics it is also important that the SBP which is on display meets the classical criteria of a web 2.0 tool which is used in a business context and that it is used in the way those tools are intended to be used. For Anonymous Connect this is precisely the case. The main goal of enterprise 2.0 tools should be the coordination and networking among people within the same organization. They should promote innovation, communication and effectiveness (Alqahtani, Watson & Partridge, 2013). The platform itself should include blogs, wikis, pod-casting, mashups, and social networks, aggregating the collective intelligence of all employee users (Urena & Herrera-Viedma, 2013). This role and possibilities are

perfectly reflected by Anonymous Connect, which makes it a good example for a web 2.0 tool in a business context.


# 5. Results

This chapter presents the results of as well the quantitative survey as the qualitative interviews. Both are given in the most objective way possible without any form of interpretation. The interpretation of the given results can be found in chapter 6 of this research paper.

## 5.1. Results survey

At first the survey sample is described. Afterwards all relevant results are given. All irrelevant or insignificant outcomes are not included in this chapter.

### 5.1.1. Sample

The questionnaire was completed by 103 respondents of which 62.6% were male. The average age of the employees was 41.5, which is relatively high compared to the overall Anonymous average age of 38.2. The average tenure is 8 years. 33.3% of the employees who took the test work on a management level and 63.62% were full time employees. The percentage for the management level is above the overall Anonymous average which is below 20%. More than 90% of all respondents work in the main Tools facility of Tools North America in Mount Prospect. 91% have graduated from a college with at least a Bachelor degree. The percentages for each profession can be found in table 3.

| Profession | Percentage | Anonymous overall | Anonymous Mount Prospect |
|------------|------------|-------------------|--------------------------|
| **Sales/Marketing** | 44.7% | 23.2% | 39.5% |
| **Engineers** | 17.5% | 31.1% | 12.4% |
| **Other** | 15.5% | 23% | 5.4% |
| **Supply Chain** | 13.6% | 16.6% | 21.9% |
| **Finance** | 7.8% | 5.1% | 15.6% |
| **IT** | 1% | 1% | 5.2% |

Table 3: Profession

62.6% worked only in one location, 18.19% in two and 19.21% in three or more locations. The average time spent on private social media is 1.1 hour a day. The most used private social media site is LinkedIn with 82% of the respondents using it.

64% use Anonymous Connect, which is relatively low compared to the official adoption rate given by Anonymous Connect which is above 95%.

### 5.1.2. Performance Anonymous Connect

The performance of Anonymous Connect in this research paper is as described in chapter 2.1 mainly defined as how empowered, competent and willing an employee is working with Anonymous Connect. All these constructs were tested with a cronbach´s alpha test and all three scored with cronbach´s alpha higher than 0.8. It is remarkable that all sub-scales even scored higher than 0.85. Table 3 shows all constructs with their cronbachs alpha score.

Also to find in table 4 are the means and standard deviation of all three constructs and seven sub-constructs. To illustrate which sub-construct belongs to which main construct the acronyms "emp", "com" and "wil" are used behind the sub-construct representing empowerment, competence and willingness. The overall mean score is 3.01 and a linear regression analysis showed that none of the constructs differed significantly from this overall mean, using a significance interval of 0.1.

| Construct | Mean | Standard deviation | Cronbachs alpha |
|---|---|---|---|
| **Commitment (emp)** | 2.92 | 0.88 | 0.92 |
| **Control (emp)** | 3.17 | 0.61 | 0.94 |
| **Knowledge over intentions (com)** | 2.83 | 0.76 | 0.88 |
| **Appropriate usage (com)** | 3.19 | 0.83 | 0.91 |
| **Perceived usefulness (wil)** | 3.16 | 0.68 | 0.94 |
| **Perceived ease of use (wil)** | 2.94 | 0.85 | 0.86 |
| **Explorative usage (wil)** | 3.1 | 0.76 | 0.9 |
| **Empowerment** | 3.04 | 0.54 | 0.81 |
| **Competence** | 3.01 | 0.59 | 0.81 |
| **Willingness** | 3.06 | 0.45 | 0.83 |

Table 4: Overview constructs

To check whether one of the background variables have significant impact on either one of the three main constructs or the overall performance score, linear regression tests were conducted for all possible situations. There was no background variable to be found that influenced the overall performance. There is also no significant effect to be found for gender, tenure, hiring status, profession and level of education.

A significant effect using a confidence interval of 95% can be found for the background variable age and the competence in using Anonymous Connect. It is shown that there is a significant difference between the age group of 18 to 24 to the next higher group with (F=5,532 / sig=0,001) and between the group 55+ and the next lowest (F=3,472 sig=0,01) . This is shown in table 5.

| Age | Mean (Competence) | Standard deviation |
| --- | --- | --- |
| 18 to 24 | 3.66 | 0.64 |
| 25 to 34 | 3.22 | 0.42 |
| 35 to 44 | 3.2 | 0.44 |
| 45 to 54 | 3.1 | 0.56 |
| 55+ | 2.89 | 0.59 |

Table 5: Means and standard deviation Age on Competence

The second effect that is to be found using a confidence interval of 95% is between the number of privately used social media channels and the willingness to use Anonymous Connect. Employees who use no or only one social media channel at home score significantly lower than employees who use more than one channel (F=3,019 sig=0,013) This is shown in table 6.

| Number of channels | Mean (Willingness) | Standard deviation |
| --- | --- | --- |
| None | 2.42 | 0.21 |
| One | 2.44 | 0.2 |
| Two | 3.39 | 0.4 |
| Three | 3.04 | 0.31 |
| Four | 3.14 | 0.52 |
| Five | 3.07 | 0.39 |

| Six+ | 3.03 | 0.4 |
| --- | --- | --- |

Table 6: Number of Social Media Channels Used on Willingness

## 5.2. Results Interviews

The statements of the respondents were grouped together into eight topics, which will be listed together with the respondent's statements. It will be differentiated for each group, whether there was unity between the "management" group and the "Anonymous Connect" group. To underline each general statement, anonymous citations are presented. To get a better understanding about which respondent said what, brackets were added with a short anonymous identification. Participants out the "management" group are named M1-M7 and participants out the "Anonymous Connect" group AC1-3. In addition to the 8 general interview topics one extra passage is written with topic unrelated, but still interesting statements.

### 5.2.1. Responsibility for the utilization of Anonymous Connect

Talking about responsibility it is stated, that the "Anonymous Connect" group feels responsible for the implementation of Anonymous Connect. One statement that describes that perfectly is: "I feel 100% responsible for the tool. Really about everything that is Anonymous Connect."(AC1) The only limitation given to that statement was that the feeling of responsibility shrank over time, because the task force grew too much over the past years: "The main responsibility for the project lay first on too few, now maybe on too many shoulders…" (AC2)

In the "management" group the variation of feelings of responsibility was great. On one side it was very passive but accepting: "I am a regular user of Anonymous Connect, but I don´t feel responsible for it." (M4) On other parts there were opinions against the own usage and the usage of their team members: "Nobody uses it, so why should I start using I and make everyone feel bad."(M6) The last group of statements given was generally positive. It showed the will to make it the number one tool of communication: "I feel it and try to drive all my communication towards it."(M1)

### 5.2.2. Communication about Anonymous Connect

When it comes down to communication it is possible to state that every respondent in all of the two groups was unhappy with the communication at this current point. The differences between the two groups are twofold.

On the one hand the "Anonymous Connect" group is assuring that the communication is only malfunctioning at the moment, but will improve in the future. "The communication about Anonymous Connect is supposed to be bottom up, as soon as more people recognize it as what it is, the message will be spread like wildfire."(AC1)

The "Anonymous Connect" group also underlines that the SBP should be something that should not be forced on the employees and therefore there should be not much managerial involvement. "Anonymous Connect was not forced on anybody, which is greatly appreciated."(AC3)

On the other hand in the "management" group was complete agreement that there needs to be top-down communication. It is also stated that this should have been done earlier. This topic had the biggest emotional response of all topics, to underline that, more than just one citation is given. "The top down communication was just not there and now nobody knows how much time one is supposed to invest…"(M6) "There was to less communication by the leaders about what Anonymous Connect actually is."(M7) "It is important to break up routines and this need to happen from top to bottom."(M5) "It was presented to early with no clear implementation structure."(M3)

### 5.2.3. Spread of Anonymous Connect

There are several recurring statements to be found about the spread of Anonymous Connect. There were no differences in direction between the two groups; the only difference is how drastic it is seen.

For example while talking about the actual usage numbers of Anonymous Connect, both groups state that the number of actual regular Anonymous Connect users is lower than the number of active Anonymous Connect accounts. The "Anonymous Connect" group estimates the actual number to be around 50 percent. The "management" group assumes the number to be around twenty percent. "Officially almost everyone has an account, but merely 20 percent are using it." (M5)

One message that was given by each group was that the adoption rate and actual utilization differs strongly as well for departments as for cultures. A department that uses more information technology in general also seems to have utilized Anonymous

Connect stronger. "In CI it is much further implemented, than in other Anonymous units. I assume this is because technical people feel stronger connected to things like it." (AC2) In terms of culture it is said that cultures which are willing more willing to learn about technologies are also deeper into Anonymous Connect."…Americans for example are less likely to adopt something complicated than others." (M4)

Hype at the beginning of the Anonymous Connect was mentioned by the "Anonymous Connect" group stating that there were a lot early adopters that wanted to be part of a first feeling of interconnecting with Anonymous Connect. This resulted in a platform break down in the first weeks because too many people wanted to start their account. This was after a pilot than ran only for a few thousand selected early adopters. "Anonymous Connect started with a hype. Early adopters were more than excited to get started and so was the first wave after them." (AC1)

### 5.2.4. Ease of use

The ease of use of Anonymous Connect is a topic that was exclusively mentioned by the "management" group. The "Anonymous Connect" group only mentioned it as an argument for the choosing of IBM Connections as backbone to Anonymous Connect. For the "management" group the ease of use was one of the most mentioned topics. In general it is to say that Anonymous Connect is not perceived as easy or intuitive. "It is just not intuitive enough."(M2) Or "It must be easier to handle."(M5) During this topic it became clear that Anonymous Connect gets compared a lot to other, private social media channels as Facebook, but cannot live up to this comparison. "It looks like Facebook, but it is much harder to use." (M4) The overall complexity of the program seemed to repel the respondents from it. "Anonymous Connect is too complicated, because it has too many communication channels and you are always affright of missing important information." (M6) A recurring statement between the topics is that employees in different countries or cultures might react different to the complexity of the SBP. "Usability requirements are different from country to country." (M1)

### 5.2.5. Training

Training was one of the topics where the least recurring statements occurred. It seemed like almost none of the respondents were informed in the same way about the training possibilities. The only two points that were mentioned more than once

were that training in Anonymous Connect is a generally good idea. "A Anonymous Connect boot camp would be nice."(M5) and that the lack of training is one reason Anonymous Connect is not utilized as much as it could be. "We don´t know enough about the functions of Anonymous Connect and nobody ever told us. This makes us feel less empowered." (M6)

Besides that the opinions were very different and started and the point where it was stated that there was no Anonymous Connect training at all. "Was there training?"(M4)

 The next opinion was that there was no physical training but online tutorial videos, which were not up to the challenge of helping the user with such a complex program. "There was no training for me except some videos. Those were not really helpful." (M7)

One respondent out of each group was talking about a reverse monitoring training. During that training young and technological attracted employees gave trainings about the functions of Anonymous Connect and the idea was to create a collaborative sandbox. Those two respondents were pleased by the trainings given and by how it was executed, "Reverse monitoring was a well working training idea." (M1)

Also one respondent out of each group were talking about a training that was given by one teacher in front of a class. Both state that the training was useful and that the feedback given was overall positive. "The training received mainly positive feedback." (AC2)

Another respondent out of the management group was talking about a mandatory training "everyone" had to take. The person was not satisfied with the training, because in the eyes of the respondent it was designed for a younger audience. "I think the trainings weren´t targeted right?!" (M2)

The insight gained from interviewing one respondent of the "Anonymous Connect" group showed that there were physical trainings offered, but that they were retreated quite fast because of low interested and therefore they were not financially respectable. "…trainings were no success from a financial perspective. The number of participants was too low." (AC1)

### 5.2.6. Knowledge sharing

The knowledge sharing function of Anonymous Connect is one topic with the highest degree of consensus between all respondents. The overall opinion especially of the "Management" group was that knowledge sharing is the main function of Anonymous Connect. "I mainly use it to post and read interesting articles."(M1) "To me it is a knowledge sharing tool." (M5)

Even though this is given and generally viewed as positive some limitations were given. Some were concerning the stage in which Anonymous Connect is at the moment which makes in interesting only on the surface level. It is stated that it is hard to dive in deep into a topic, because the communities necessary for that are not existent. "Anonymous Connect is less useful for technical people, because there no real communities for those kind of knowledge sharing." (M6)

Another limitation of the knowledge sharing aspect is that it is not targeted enough and that it is hard to figure out which information is relevant. This argumentation was exclusively given by the "management" group. "Knowledge sharing is difficult, because it is just too much information and I can´t see what is relevant to me." (M6)

The main limitation given by the "Anonymous Connect" group is that the focus lies to heavily on knowledge sharing and that this focus eliminates the usage of other functions of the SBP. "Knowledge sharing is a too big part of it right now. Platforms like this should also be fun."(M2)

### 5.2.7. Global interconnectivity

Global interconnectivity needs to be viewed from two different level of perspective. The one is acknowledging the possibility and the other is the actual current situation.

Both groups were enthusiastic about the idea that Anonymous Connect offers the possibility of connecting all employees with each other. Some respondents saw in it cultural opportunities "The possibility to exchange with people and cultures around the globe is amazing…." (M5) Others see it from a more job functional perspective "It has the potential to get me the right person at the right time on a global scale." (M1) It is also mentioned that this is seen as Anonymous Connects main function. "The most important aspect is that it connects people." (M3) It is again to find that Anonymous

Connect is getting compared with private social media channels as Facebook. "It is like work Facebook. This is the strong part of it, because it connects." (M2)

The previous passage was about a desired potential state of Anonymous Connect. The real actual situation is viewed differently. It is mainly stated that this were the big mishaps lie. Both groups speak equally about it and the opinions can be sub-categorized into two different streams. The one is already discussed in chapter 5.2.6 and states that due to a too high focus on knowledge sharing the interconnectivity suffers. "Interconnecting people was never really fulfilled. People don´t talk, they just post articles. The problem is the lack of human interaction."(M5) The other point that is made refers to chapter 5.2.2 and accuses the communication about Anonymous Connect. "The connectivity could be higher, but people just don´t know what they are allowed to post and what they are not." (M4)

### 5.2.8. Time and money

Investment of time and money is a topic in which the opinions differ strongly between the two groups. It is also a topic where the answers can be subdivided into two different categories. It is either the investment of time and money on a personal level or on a business level.

On a business level the difference between the two groups is again due to the perception of the status of Anonymous Connect. The "Anonymous Connect" group sees the platform in an early stage and therefore sees it as a necessity to invest time and money into the platform. "The developers need money to make it an easier tool." (AC3) "Anonymous Connect is the next big thing and it just needs time and attention." (AC1) The "management" group which sees Anonymous Connect in a later stage is less willing to invest in it. Most of them do not see added value that outweighs more investments. "Generally at this point you would have to invest more than you get out of it." (M3)

On a personal level the "Anonymous Connect" group emphasizes that time investment will come naturally and with it acceptance. "…the more people work with it, the more it will become a routine." (AC2) Most respondents out of the managerial group state that they are not willing to invest more time into Anonymous Connect, either because their jobs are too demanding, so that they don´t have enough spare

time or because they do not see the point of it. "I don´t have the time to learn it." (M4) "People would only spend money or time, if there is a real reason to use it." (M3)

### 5.2.9. Topic unrelated statements

In this passage some statements are listed that were unrelated to any underlying topic, but still reflect interesting and relevant thoughts or opinions. Some of them were made by a single person and some were made by more than just one respondent.

The statement is made by one person out of the "management" group and underlines that the transition towards an enterprise 2.0 is not solely dependent on the success of Anonymous Connect. It was mentioned that there already are replacement programs for it and that it might be that even though Anonymous Connect fails, Anonymous can still become a highly interconnected firm with the usage of web 2.0 applications. "There is already a replacement with the app Anonymous Events. It connects people much easier." (M2)

The attractiveness was also a point that was made by some people out of the "management" group. Mentioning this always happened while comparing Anonymous Connect to private social media channels like LinkedIn or Facebook. "Anonymous Connect is just not pretty to use which makes it less appealing than platforms you know." (M3)

Unrelated to the platform itself one comment was made by one person out of each group stating that it is not the fault of Anonymous Connect, but the fault of the mindset of the people. The reason given for that is age. It is stated that older people are not willing to adapt to those new technologies and that no training can change that. This statement was followed by the comparison to email, where it was said that emails only had a chance as some older people were retired. "Age is the problem. The older the less social media mindset there is." (AC1)

One aspect mentioned solely by the "Anonymous Connect" group is transparency. The new possibility of connecting a top manager with an intern and vice versa was something that was pointed out as a great chance. Next to that the opportunity of becoming less hierarchical and more democratic was described as a preferable

situation. "Transparency is a big addition. It is possible to make every discussion public. People will be able to get insights on every level." (AC1).

# 6. Discussion

The upcoming chapter discusses the insights that can be gained out of the empirical analysis and the literature presented in chapter 2. At first the results of the survey are discussed. At the end a conclusion that tries to give an answer to the research question is given.

## 6.1. Discussion survey

The first and main point that can be drawn out of the survey is that Anonymous Connect is performing moderately. With an average score of 3.04 out of 5 and a standard deviation of 0.52 it can be concluded that there are some forces present that restricted AC, but also positive influences.

It was shown that the older the respondent the lower the score for competence in the usage of Anonymous Connect. This gives the implication to focus competence trainings and education for SBPs on workers above 55, because they score significantly lower in that category.

People that use two or more social media channels at home scored significantly higher in willingness to use Anonymous Connect than people who use less. This already gives a good indication that familiarity of the SBP and willingness are connected. This is because the construct of willingness consists out of the perceived ease of use and usefulness (Ruel, 2002). Those both are highly related to SBP complexity (Antonius, Xu & Gao, 2015) meaning that the more complex it is for the employee to learn the technology the less willing he/she is to later work with it.

## 6.2. Discussion interviews

In this passage the results of the interviews are brought back and discussed against the results of the terms of empowerment, competence and willingness.

### 6.2.1. Empowerment

Two user prompting factors are labeled to influence the user commitment. First it is said that early adopters determine, whether the user thinks that the SBP is suited for current and future problem solving. There were some indications given during the interview that this is true and actually makes a difference. Anonymous Connect started with hype. The first early adopters were excited to start working with Anonymous Connect and this excitement spilled over to the next wave users. Those managers that received reversed monitoring training were also convinced about the method and declared that early adopters are a good way of promoting the platform.

But as for every other determinant also the scores for commitment in the survey were just moderate, even though early adopters were exciting at the beginning. A possible explanation for that is that there was no management consensus over which platform to use. It was declared that there were already other platforms available and also that those platforms are superior to AC. It is likely the case that this lessened the commitment towards AC.

In terms of control the reversed monitoring training gave the early adopters the chance to show other users ways of problem solving with AC. This was described as positive, but some respondents were not even aware that those trainings existed. Clear communication about trainings or functions was therefore not present for everyone, which probably resulted in lower levels of control. Some respondents also reported that they only see themselves as users and not responsible at all for the platform, which also resulted in negative effects on control.

A positive influence was given by the low degree of leadership involvement at early stages. This is to see, because people report that the bottom up integration was widely appreciated and that hype was present at the introduction phase of AC.

### 6.2.2. Competence

The scores for competence are also moderate which shows that there are also some forces of resistance active that hind the platform to perform optimally.

Probably the main source for those forces was the missing of top down communication. It was one of the main topics of the interviews and strongly wished for. The using time suffered under this condition, because respondents reported that they were not sure about how much they were allowed to invest into AC. The intentions also seem only moderately clear to the respondents. Some respondents were aware of as well the communication as the knowledge sharing aspect of the SBP, while others only saw it as a knowledge sharing platform. They were asking for official information from above.

Competence was probably positively influenced, by those users that directed most of their activities towards AC, which was mentioned a couple of times.

It is also necessary to notice that respondents of the "Anonymous Connect" group stated that AC is at an early stage and that using time and knowledge about it will increase during the upcoming bottom up integration.

### 6.2.3. Willingness

The perceived usefulness is moderate, because respondents see the benefits in knowledge sharing and global interconnectivity, but don´t see AC at that point yet. The potentials AC has as a communication tool were widely appreciated, but rarely used. So there was communication about the added values of AC, even though its origin might be unclear. It is likely though that this communication is carried over by early users, due to the fact that there was only a bottom up approach present.

Overstimulation of information was also a topic mentioned by the respondents. They were not aware about which information was relevant to them. The amount of information was declared too much, what made AC less useful and easy to use.

 It was also mentioned that it was unclear, whether or not the benefits of learning the functions of AC will out weight the costs necessary to learn it. Employees are thus affright that it is not appreciated by their leader if they invest in AC.

AC seems to resemble the user of other private social media platforms, which speaks for its familiarity which is generally a good thing, but it is also said that it just looks less good and is less easy to handle. All these mixed conditions present probably led to the moderate scoring that was given in the willingness category of the survey.

## 6.3. Discussion theoretical model

Discussing the model presented in the figures 9 to 11 it becomes clear that the factors described in that model are correct, but that it is a simplification of the real picture which is a lot more complex.

There is only little talk about early adopters and how well the bottom up integration works. It is possible to conclude that there definitely is positive impact of it, but that this impact is not as important as for example leadership instructions, which seems to be a basic need, for successful utilization of a SBP. The importance value of the factors therefore seems to differ. Next to that it seems that the topics in some way interrelated. For example during the interviews it became clear that the employees were expecting change communication by their leaders. It is thus possible to say that the factors differ in value and have thin borders.

Training was one of the major topics of the interviews and it should be included into the model. It has a mediating role for several factors that influence the user during the utilization process of a SBP. It is important to acknowledge that it is not only the quality of the training that influences SBP performance, but also the communication about the training. Training will influence willingness by enlarging perceived ease of use and usefulness. It will give control to the user and therefore heighten his empowerment. Good training also provides information about the intentions of the platform and will automatically increase the using time and this user competence. Good communication on the other hand will improve general awareness of the trainings and attendance. Training is thus a mediator that should be integrated into the model.

The user age is a factor that according to the survey negatively influenced the competence of the user. During the interviews there were statements about a less social media mindset by the elderly and that this would decrease the willingness to use a SBP. Age therefore is a factor that should be added to the model, but its real influence is not yet to define at this point.

Users were complaining about the attractiveness of AC and that this would lead them to the usage of other platforms instead of it. It seems to decrease the commitment towards AC and thus the empowerment of the user and should be added to the model.

Figure 12 shows only the additions that can be made to the SBP performance model.
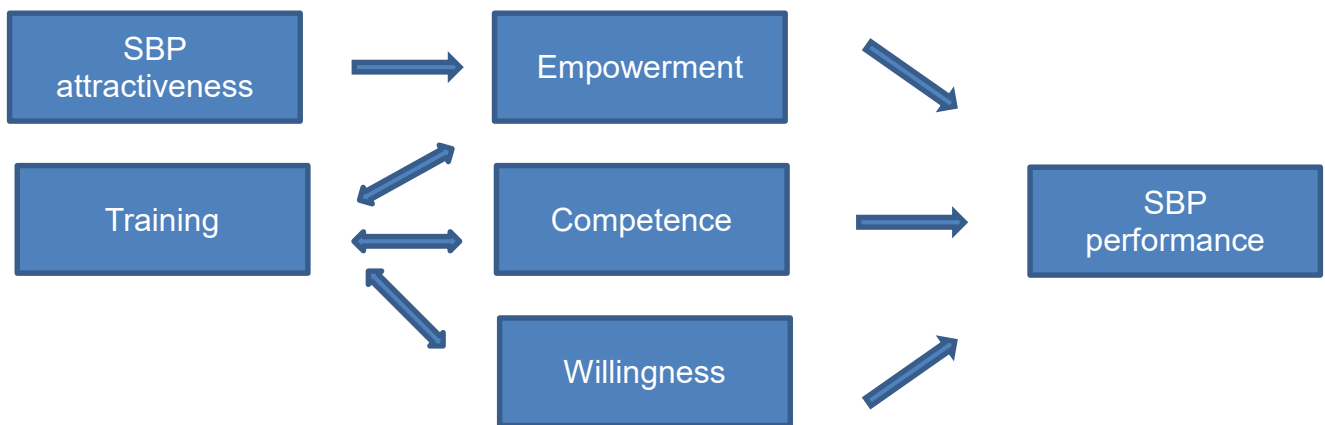


Figure 12: SBP performance model additions.

## 6.4. Conclusion

To give an answer to the research question it is possible to say that there were several forces of resistance present at Anonymous. All those forces of resistance are related to the missing or only partially presence of the listed factors of chapter 2.

Being exposed to excited early adopters definitely has positive impact on the performance of a SBP. An example is the hype situation that was present at Anonymous at the implantation phase and the positive feedback that was received on reversed monitoring trainings.

Having well planned change communication in place has great impact on the user and consequently on the performance of SBPs. Information overstimulation and lacking of information about training obviously diminished performance of AC.

Low leadership involvement with bottom up approaches seems to be beneficial in terms of control over the SBP. Top down instructions was one of the most desired actions and is definitely an influence a user should have during the utilization of a SBP.

Using familiar and less complex interfaces was also shown as a factor that would prevent forces of resistance towards the SBP by amplifying the willingness of the user.

Additionally, training and SBP attractiveness are found to be factors that influence the success of a SBP.

# 7. Limitations, future research recommendations and managerial implications

This chapter critically discusses the research by giving its limitations and recommendations for mangers and researchers.

## 7.1. Limitations

The first thing that comes to mind is that this research was done at one tech company only. Including more companies also from different braches will give more and more detailed insights. As mentioned in this research paper, for example the acceptable complexity of the platform is highly dependable on the degree of IT technology in the department. It is therefore possible that the forces of resistance regarding complexity Anonymous had would be less drastic for an IT company, but maybe even more drastic in a less technological business, like for example health care (Kamel Boulos, & Wheeler, 2007).

A limitation of this paper is that it was done in only one country. It was mentioned during the interviews that there are cultural differences between countries in which Anonymous Connect got implemented. One person identified the US as a country that is not willing to learn a complex technology. It might be interesting for future research to repeat this study at different Anonymous locations.

The role of early adopters is a well described and prominent topic of this research paper. Unfortunately there was no early adopter to be found that was willing to get interviewed about the topic of Anonymous Connect. It would be interesting to see, whether they are still excited about using AC.

## 7.2. Recommendations for future research

One recommendation for future research is to choose more than just one company to build the research on. Select companies out of different branches with different degrees of daily IT technology usage and from diverse countries and cultures.

Enterprise 2.0 is one of the big topics of the future and at this point the size of the impact it will have is only weakly predictable. It is therefore important for future research to keep the development in mind as well of the technology as of the general mindset towards it. SBP are at a very early stage and technical updates might change the rules that are relevant for this topic in a very close future. For example boosts in usability might decrease the importance of trainings (Wahi, Medury, & Misra, 2015).

The survey showed that there is an impact of the number of social media channels used and willingness to use Anonymous Connect. In the interviews there were comments about a social media mindset. For future research it would be interesting to further analyze the bond between private social media and social business.

In chapter 6.3 it is mentioned that it is highly likely that there is taxonomy between the different factors that influence the success of a SBP. It would be interesting to go deeper on that and to identify which factors are very basic needs and which are more detailed improvements in general performance.

## 7.3. Managerial implications

Implications for the management are that all presented categories were verified as important influencers of the utilization of a SBP. This means that early adopters, change communication, leadership involvement and the complexity of the SBP are main predictors of the success of the utilization of a SBP. Therefore task forces of companies or managers interested in introducing a SBP could keep those fields in mind, because they directly influence the user. Managers should always be aware that the success of a SBP mainly lies on the user and that they should put the user in their center of attention (Ruel, 2002).

The user should be in exchange with excited early adopters. Two things need to happen for that. First it is important to identify excitement and to grant those excited employees early access to the platform. Secondly it is important to give them a stage,

where they can communicate openly over the SBP and its advantages. Reversed monitoring is one good working example mentioned in the research paper.

Next to that the user should receive good communication and should also have the possibility to give feedback. It is important that the user for example knows about trainings that can improve his working routines with the platform. It should also be explained to the user what the benefits of the SBP are and why it was introduced. Timing the communication exchange is also very important, because information about a SBP can be a lot and it is important that the user does not get overstimulated by it.

Leaders should influence the user twofold. On the one hand they should grant the user the freedom to explore the platform and not being forced to do it. On the other hand the user must have clear instructions about what to do with the platform and how much to invest. It is important to know for the user that the SBP is the new way of communicating and that it will pay off for him, if he starts learning about the functions and possibilities of the SBP.

Lastly it is important to research which private social platforms are familiar to the general user of the SBP. The SBP of choice will perform better if the usability standards and general complexity match the capabilities of the user. In the case that the platform chosen exceeds the complexity levels of the average user it is also possible to search for usability optimizers, by the developers or by third party offerings, which are available for every major SBP. The general attractiveness of the platform can be fixed the same way.

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