

SOCIAL BUSINESS

Motivation and Knowledge Sharing through Social Media within Organizations

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May, 2013

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Characters: 180,880 | Pages: 79

Abstract

Traditional knowledge management through a centralized repository framework has been the prominent approach to knowledge sharing in organizations. The advent of social media is, however, reshaping the concept of knowledge management in organizations and more and more companies deploy 'social business' communication strategies.

Through a case study approach, the study investigates employee motivation and which factors affect employees' knowledge sharing through social media in their working environment. The case study is based on both qualitative and quantitative data collection. The research was conducted in a number of Danish organizations, from different industry sectors. In total 114 employees participated in an online survey and eight interviews were conducted.

The study reviews literature concerning knowledge management and social media and how it can support knowledge sharing internally in organizations. Based on previous studies it is assumed that individual, organizational and technological factors affect employees knowledge sharing. The study shows that organizational factors have the strongest influence on employees' knowledge sharing followed by individual factors. The technological factors do not seem to affect employees' knowledge sharing as much as previously, but it is the influence from the combination of the individual and organizational factors, which determine whether an employee decides to adopt social media platforms for knowledge sharing. A key finding in the study is that employees do not hoard knowledge as much as previously due to they find it more beneficial to share knowledge than to hoard it. Employees are more concerned with providing valuable content, since the essence of knowledge sharing through social media is to provide value to colleagues and the organization.

Key words: Knowledge management, knowledge sharing, social media, Web 2.0, Enterprise 2.0, motivation, social business, internal communication.

Resumé

Motivation & videndeling på sociale medier internt i virksomheder

Sociale medier giver virksomheder nye muligheder for at optimere deres interne kommunikation og samarbejde mellem medarbejderne samt øge videndeling. Flere og flere virksomheder forsøger sig derfor med 'sociale' kommunikationsstrategier i håb om at blive en mere 'social' virksomhed. Det er dog de færreste virksomheder, som ved hvordan sociale medier kan skabe værdi, og hvordan de får medarbejdere til at bruge dem. Målet med denne afhandling er at undersøge hvad, der motiverer medarbejdere til at dele viden internt i virksomheden på sociale medier og identificere hvilke faktorer, der spiller ind. Undersøgelsen blev udført som et case studie, som består af både kvalitativ og kvantitativ dataindsamling. Undersøgelsen blev udført i en række danske virksomheder fra forskellige industrisektorer. I alt deltog 114 medarbejdere og otte interviews blev udført med deltagelse fra fire managers og fire medarbejdere.

Afhandlingen tager udgangspunkt i en række tidligere undersøgelser, som har identificeret en række individuelle, organisatoriske og teknologiske faktorer, som næsten ligeligt påvirker medarbejdernes videndeling på sociale medier. Denne undersøgelsen har resulteret i en række centrale konklusioner, som adskiller sig fra de tidligere undersøgelser, hvilket betyder at de, tidligere nævnte, faktorer, ikke påvirker medarbejdernes videndeling på samme måde som tidligere. Undersøgelsen viser, at organisatoriske faktorer påvirker medarbejdernes videndeling i højst grad efterfulgt af individuelle faktorer. De teknologiske faktorer påvirker ikke medarbejdernes videndeling, som et tidligere studie har vist (Paroutis & Al Saleh (2009)). I stedet ser det ud til at være indflydelsen fra en kombination af de individuelle og organisatoriske faktorer, som afgør, hvorvidt medarbejderne tager de sociale medier til sig til videndeling.

En central konklusion i denne undersøgelse viser at videndeling ikke længere er et 'socialt dilemma', såsom tidligere undersøgelser (Cabrera & Cabrera, 2002), (Kimmerle et al., 2008) har vist. Virksomheders interesse i at gøre viden tilgængelig for alle ser ikke længere ud til at være i konflikt med medarbejdernes ønske om at holde på deres viden for at bevare sin værdi og reducere risikoen for at blive fyret. Undersøgelsen viser en positiv udvikling i medarbejdernes villighed til at dele viden, fordi de anser videndeling for at være mere gavnlig end ikke at dele viden.

Undersøgelsen viser dog, at kun få medarbejdere har taget de sociale medier til sig til videndeling, og at medarbejdere primært deler viden via traditionelle kommunikationskanaler såsom e-mail og ansigt-til-ansigt møder. En årsag til dette ser ud til at være at medarbejderne er vanedyr og foretrækker deres nuværende arbejdsrutiner på grund af bekvemmelighed, og at det derfor tager tid

til at vænne sig til en ny platform. Selvom blot få medarbejdere har taget de sociale medier til sig, skaber platformene alligevel forretningsværdi for virksomhederne. Generelt set har de sociale medier forbedret virksomhedernes interne kommunikation og samarbejde mellem medarbejderne, samt øget videndelingen.

Størstedelen af medarbejderne er motiveret af såkaldt 'intrinsic motivation' (Deci & Ryan, 2000), som indebærer, at de er motiveret til at dele viden på baggrund af altruistiske og uselviske grunde, fordi de mener, at det er vigtigt at hjælpe deres kolleger og skabe værdi for virksomheden. Blot få medarbejdere er motiveret af såkaldt 'extrinsic motivation' (Deci & Ryan, 2000), som er monetære belønninger, såsom en højere løn, bonus eller forfremmelse.

Undersøgelsen identificerer også en række faktorer, som har negativ indflydelse på medarbejdernes videndeling. Begrænset deltagelse fra andre medarbejdere samt mangel på motivation fra ledelsen og managere identificeres som de to største barrierer, som medarbejderne mener er årsager til at de vælger videndeling på sociale medier fra. Konklusionen understreger vigtigheden af at ledelsen og managerne skal være aktivt involveret for at motivere medarbejderne til at dele deres viden. Undersøgelsen identificerede også andre barrierer, såsom mangel på relevant indhold med kvalitet, 'information overload', mangel på tid samt forståelse for sociale medier og hvilken værdi de kan skabe, blandt de top fem faktorer, som påvirker medarbejdernes videndeling negativt.

To andre bemærkelsesværdige konklusioner i undersøgelsen viser hvordan det såkaldte begreb 'gamification' på sociale medier kan være med til at motivere nogle medarbejdere til at dele deres viden mere end andre. Og hvordan en kulturel faktor, såsom den danske Jantelov derimod kan påvirke nogle medarbejdere til ikke at dele deres viden, fordi de ikke vil fremstå som at lefle for ledelsen eller managere, fordi de deler deres viden ofte på de sociale medier.

Summary

Social media provide new opportunities for organizations to enhance the internal communication, collaboration and knowledge sharing, why more and more companies deploy 'social business' communication strategies. However, few organizations understand how social media provide business value and how to motivate employees to use the platforms.

The purpose of this study is to investigate employee motivation and which factors affect employees' knowledge sharing through social media in their working environment. The research was conducted as a case study, which consists of both qualitative and quantitative data collection. The research was conducted in a number of Danish organizations, from different industry sectors. In total 114 employees participated in an online survey and eight interviews were conducted with four managers and four employees.

The study is based on previous studies, which have identified a number of individual, organizational and technological factors, which, almost equally, affect employees' knowledge sharing through social media. The results of this survey have identified a number of key findings, which differ from previous studies, which means that some of the factors no longer are considered to affect employees' knowledge sharing as much as previously. The study shows that organizational factors have the strongest influence on employees' knowledge sharing followed by individual factors. The technological factors do not seem to affect employees' knowledge sharing as much as previously, but it is the influence from the combination of the individual and organizational factors, which determine whether an employee decides to adopt social media platforms for knowledge sharing. A key finding in the study is that employees do not hoard knowledge as much as previously due to the fact that it is more beneficial to share knowledge than to hoard it. Employees are more concerned with providing valuable content, since the essence of knowledge sharing through social media is to provide value to colleagues and the organization.

A key finding in the study is that knowledge sharing is not a 'social dilemma' as previous studies (Cabrera & Cabrera, 2002), (Kimmerle et al., 2008) have found. The organizational interest in making knowledge available to all employees do not seem to conflict with the employees' individual interest in hoarding knowledge in order to stay valuable and reduce the risk of getting fired. The study shows a positive trend in employees' willingness to share knowledge, because they consider sharing knowledge to be more beneficial than to hoard it. The study, however, shows that only few employees have adopted social media for knowledge sharing and that employees, primarily, share knowledge through traditional communication channels such as: email and face-to-face meetings. A reason for this seem to be that employees are creatures of habits and prefer their current work

routines due to convenience, why it takes time to adopt a new platform in their work routine. Even though the adoption of the platforms is limited, the organizations are still reaping benefits and business value. Overall, social media have enhanced the organizations internal communication, collaboration and knowledge sharing.

The majority of the employees are motivated by so-called 'intrinsic motivation' (Deci & Ryan, 2000), which means that they are motivated to share knowledge out of altruistic and selfless reasons, because they believe that it is important to help colleagues and create value to the organization. Only few employees are motivated by so-called 'extrinsic motivation' (Deci & Ryan, 2000), which entails monetary rewards, such as a higher salary, bonus or promotion.

The study also identifies a number of factors, which affect employees' knowledge sharing negatively. Lack of other employees' participation and lack of management commitment and motivation are identified as the top two barriers to affect employees' knowledge sharing negatively. The finding emphasizes the need for management and managers to get actively involved to motivate and encourage knowledge sharing. The study also identified other barriers such as: lack of content quality and relevance, information overload, lack of time and lack of understanding of social media and the benefits it provides, among the top five factors to affect knowledge sharing negatively.

Two other noteworthy findings in the study show how the 'gamification' aspect on social media platforms may motivate some employees to share knowledge more than others. And how a cultural influence (Ardichvili et al., 2006) such as the Danish Jantelov (Law of Jante), on the contrary, may get employees to hoard knowledge, because they do not want to come off as sucking up to the management and managers by sharing knowledge too frequently on the platform.

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1.0 Introduction

In a digitalized world organizations face increasingly competitive environments and many companies are forced to downsize to cut costs to adapt to a changing marketplace. This can lead to loss of valuable knowledge unless it has been captured and stored in the organization. According to Nonaka (2007) and Newell (2009) knowledge has become a key source of competitive advantage, and also Paroutis & Al Saleh (2009) argue that knowledge has become the most important resource and strategic asset for organizations. Consequently, knowledge management and knowledge sharing have gained more focus in organizations.

Social media is slowly reshaping the concept of knowledge management in organizations and more and more companies adopt 'social business' (Rennie, 2011) communication strategies. Social media provide new collaborative platforms (Kirchner, Razmerita & Sudzina, 2008) such as social networks, blogs and wikis, which allow employees to share knowledge easier across departmental and geographic boundaries (Andriole, 2010). The platforms Chatter, Yammer and Podio are examples of social media, which are used in an organizational context for internal communication and collaboration. These platforms, also referred to as 'Enterprise 2.0' platforms, because they are deployed in a business environment, provide new opportunities for organizations to benefit from the human resources and valuable knowledge that resides in the organization, which, potentially, can enhance work routines, business practices and knowledge sharing.

Many companies already reap benefits from the collaborative nature of social media, which are improving collaboration and communication within organizations (O'Dell, 2011). According to a study conducted by McKinsey Global Institute companies, which deploy social media, have gained measurable business benefits such as: better access to knowledge, lower cost of doing business, higher revenues and more innovative products and services (McKinsey, 2009), (McKinsey, 2010). Social media provide new opportunities for organizations, however, few organizations understand the shift from traditional knowledge management and which factors affect employees' knowledge sharing through social media platforms, and how the organization can benefit from it (Kirchner, Razmerita & Sudzina, 2008), (Paroutis & Al Saleh, 2009), (HBR, 2010) (Social Semantic, 2011). Through a case study approach (Yin, 1994), based on both quantitative and qualitative methods, this thesis focuses on knowledge management and knowledge sharing through social media internally in organizations. The study investigates employee motivation and which factors affect employees' knowledge sharing through social media platforms in their working environment.

1.1 Research problem

Social media can be a facilitator for more effective knowledge sharing, however, just because employees possess knowledge, does not mean they are willing to share it (Newell, 2009). Despite the many advantages of social media, a number of case studies have found that organizations have had difficulties in motivating employees to collaborate and share knowledge through social media (Denyer et al., 2011), (Danis & Singer, 2008). According to Cabrera & Cabrera (2002) and Kimmerle et al., (2008) knowledge sharing can be considered a 'social dilemma', because organizational interests conflict with employees' individual interests. Organizations have an interest in making knowledge available for all employees, whereas it is a rational choice for employees to hoard knowledge in order to remain valuable and reduce the risk of getting fired. These conflicting interests are just one of many factors, which affect employees' knowledge sharing behavior, and why motivating employees to facilitate knowledge sharing is a challenge for many organizations.

Due to the recognition of knowledge as a source of competitive advantage and the growing significance of knowledge sharing in organizations, the purpose of this thesis is to contribute to the understanding of the human psychology behind employees' motivation (Deci & Ryan, 2000) to share knowledge through social media platforms within organizations and the factors, which affect it.

1.2 Research question

Which factors affect employees' knowledge sharing behavior through social media within organizations?

1.3 Thesis structure

The structure of this thesis is as follows:

The first chapter consists of the introduction of the purpose and focus of this thesis as well as the research question. As a central component of this thesis, the concept of social media is introduced in chapter two, which entails the explanation of how it can support knowledge sharing in organizations.

The concept of knowledge management and the knowledge sharing process that happens in organizations is explained in chapter three. This entails an explanation of the shortcomings of traditional knowledge management through a centralized repository framework in order to highlight the benefits social media are providing for organizations. The management's and manager's key role in knowledge management and in the motivation of employees to share knowledge is also explained.

Chapter 4 introduces and explains the main framework for this thesis, which focuses on employee motivation and the factors, which affect employees' knowledge sharing through social media. The framework is based on previous studies, which have identified a number of individual, organizational and technological factors, which affect employees' knowledge sharing.

Chapter 5 and 6 explain the research methods applied for the collection and analysis of the empirical data collected for this case study. The three case study companies, Berlingske Media, Waoos and Damco, are also introduced.

The empirical data collected is discussed and analyzed in the analysis section in chapter 7. Key findings are summarized in part conclusions in every section. Central research results are summarized in chapter 8. All findings are finally summarized and presented in the conclusion in chapter 9.

2.0 Theoretical framework

In the following sections, the theoretical framework for this thesis is presented and described. This includes clarification of key concepts and terms within knowledge management and social media. The theoretical framework forms the foundation for the discussion and analysis of the data collected for this study.

2.1 What is social media?

Social media have changed how we communicate and how businesses operate, but what defines this phenomenon, which is affecting our lives so fundamentally? Many different definitions and categorizations of social media exist, why no single definition can explain the phenomenon. Kaplan & Haenlein's (2010) definition of the concept will be referred to in this thesis, since it captures the essence of what social media is. To understand what the concept of social media is, it is necessary to take a look at the evolution of the Web, before it is possible to give a more detailed definition of the concept.

Web 1.0 characterizes the early stage of the Web. Technically, at this stage, users were only able to view webpages, but not contribute with content. In the Web 1.0 era content and pages were static and the focus was on presenting content, not creating it, so at this stage user-generated content was not possible. Web 2.0 represents the second phase of the Internet evolution (O'Reilly, 2005), (McAfee, 2009). The key difference to Web 1.0 is that Web 2.0 technically allows users to interact, participate and contribute with user-generated content (Kaplan & Haenlein, 2010) on the Web, which was not possible earlier. The development in technology, simply, have allowed people to communicate and have a dialogue, which have lead to the rise of well-known social media platforms such as Facebook, LinkedIn and Twitter, where people can communicate and be social. Web 2.0 is the foundation for the creation of social media platforms, and people and user-generated content is the core of social media, which leads to Kaplan & Haenlein's (2010) definition:

"Social media is a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content".

Within this general definition of the concept, various types of social media platforms exist, which can be distinguished further. Social media include many different applications and platforms such as: social networks (Facebook, LinkedIn), wikis (Wikipedia), blogs and micro-blogs (Twitter), content communities (YouTube), RSS feeds and social bookmarking tools (Delicious) (Kaplan & Haenlein, 2010), (Razmerita et al., 2009). These social media platforms are examples of well-known platforms for communication in our private lives as well as for external communication and customer reach in companies. However, social media is slowly reshaping how businesses communicate internally as well. It is important to make the distinction between social media platforms for external and internal use for the research and focus of this thesis. The term social media is often used in relation to, or as a synonym for Web 2.0 as well as 'Social software' or Enterprise 2.0. The terms, however, have slightly different meanings, but all belongs under the umbrella term of social media. Web 2.0 (O'Reilly, 2005), (McAfee, 2009) and 'Social software' (Newell, 2009) refers to the technological tools that facilitate knowledge sharing. According to McAfee (2006) the social media platforms enable the introduction of a new knowledge management model named KM 2.0 or Enterprise 2.0. The term 'Enterprise 2.0' (McAfee's, 2006) refers to the use of social media in an organizational context, which only focuses on the platforms and the applications, which organizations can buy or build to make the practices and knowledge sharing of employees visible in the organization. Platforms such as Chatter, Podio and Yammer are examples of Enterprise 2.0 platforms, which, specifically, have been developed for internal communication and collaboration in organizations. The platforms consist of elements from Facebook, LinkedIn and Twitter, which have been adapted to a business environment.

2.2 Social media in organizations

Social media is providing new collaborative platforms, which allow employees to create and share knowledge easier across departmental and geographic boundaries. Social media include many different applications and tools such as: social networks, wikis, blogs, content communities, RSS feeds and social bookmarking tools (Kaplan & Haenlein, 2010), (Razmerita et al., 2009). Unlike traditional communication channels, these platforms are easy to use, user-controlled, low cost and self-organizing (O'Dell, 2011), (Razmerita et al., 2009). The platforms provide new opportunities for organizations to benefit from the human resources and valuable knowledge that resides in the organization, which, potentially, can enhance work routines, business practices and knowledge sharing.

Social media is slowly reshaping the concept of knowledge management in organizations and more and more companies adopt 'social business' (Rennie, 2011) communication strategies. But what is a

social business? The concept has many different definitions among experts and the companies, which have decided to become a social business. IBM is one of the companies, which are at the forefront of using social media, both for internal and external communications, which have become a social business (IBM, 2012a). According to Alistair Rennie, IBM's General Manager for social business, becoming a social business means integrating social media into business practices and processes in order to build stronger relationships among employees, customers and business partners (Rennie, 2011). According to IBM, the framework of a social business is to: Enable its employees - and customers - to more easily find the information and expertise they seek. Help groups of people bind together into communities of shared interest and coordinate their efforts to deliver better business results faster (IBM, 2012a). According to an IBM study, a key element to a social business is trust. An organization needs a certain level of trust to empower its employees to share their ideas and expertise (IBM, 2012a). However, becoming a social business is not simply deploying a new social media platform and hoping for the best. It is a process and long-term strategic approach to reshaping a business culture, which is highly dependent on executive leadership and corporate strategy (IBM, 2012a).

Companies such as IBM, Siemens AG and Royal Dutch/shell (KPMG) have successfully adopted social media as part of their knowledge management strategy and are already gaining measurable business benefits (Bernal, 2010), (O'Dell, 2011). Some of the benefits include: more innovative products and services, more effective marketing, better access to knowledge, lower cost of doing business, and higher revenues (McKinsey, 2009), (Social Semantic, 2011), (McKinsey, 2010). In a different study conducted by American Productivity & Quality Center (APQC), some of the benefits organizations reap by deploying social media are: improved collaboration, facilitation of knowledge transfer and in general better preparation for the future. Additionally, the study showed that employees were not only contributing with content, but creating new content by interacting with one another, which lead to a broader and more democratic flow of information and involvement (O'Dell, 2011). This is indeed collective intelligence or 'wisdom of the crowds' (Surowiecki, 2005) at work. Surowiecki coined the term 'wisdom of crowds' in 2005. He argues that large groups of people are smarter than an elite few. No matter how intelligent one person is, large groups of people are better at solving problems, fostering innovation and coming to wise decisions (Surowiecki, 2005). And the organization's employees are for many companies an unused source of knowledge, which can improve the organization's competitive advantage if their knowledge is shared and distributed in more effective ways through social media (O'Dell, 2011).

Social media present a more practice approach than traditional communication channels, such as email and face-to-face meetings, which allow organizations to observe the processes and practices through which knowledge is created (Newell, 2009), (McAfee, 2006). This provides new opportunities

for organization, which allows them to track what employees are doing online and with whom, and thereby generate new information based on patterns of behavior. With this information available it is possible to analyze activities such as: tagging, rating, recommending, commenting, editing, viewing and so on in order to improve the employee experience, as well as determine what information is most valuable and to see who is connected to whom. This will make it possible to determine the right content the employees need for a particular task (O'Dell, 2011). The privacy alarms this raises are addressed by employees' opting-in.

The many benefits and new opportunities emphasize the potential social media have for knowledge sharing in organizations. So far, the most commonly used social media platforms in a business environment, which also have shown measurable business benefits, are social networks (Facebook and LinkedIn), blogs/micro-blogging (Twitter) and wikis (Wikipedia) (McKinsey, 2009), (McKinsey, 2010). These are, however, examples of social media for external communication and customer reach. Central to this thesis are Enterprise 2.0 platforms for internal communication and collaboration such as Chatter¹, Yammer² and Podio³, which the participating companies in this study are using to enhance their internal communication, collaboration and knowledge sharing.

According to McAfee (2006) the Enterprise 2.0 platforms enable the introduction of a new knowledge management model named KM 2.0 or Enterprise 2.0. The new model tries to harness the use of collective intelligence, which promotes knowledge sharing and more effective distribution of knowledge within the organization. McAfee further argues that: "Enterprise 2.0 technologies have the potential to let an intranet become what the internet already is – an online platform with a changing structure built by distributed, autonomous peers – a collaborative platform that reflects the way the work really gets done" (McAfee, 2006). Unlike traditional communication channels, the new technologies do not focus on capturing knowledge, but on enhancing knowledge sharing by facilitating collaboration. The challenge for organizations is to motivate employees to adopt social media to use it in a work context.

¹ <http://www.salesforce.com/chatter/overview/>

² <https://www.yammer.com/product/>

³ <https://company.podio.com/>

2.3 Social media and knowledge sharing

In the following section, the most commonly used social media platforms are presented and described in order to give an understanding of how they can support knowledge sharing in organizations. The Enterprise 2.0 platforms Chatter, Yammer and Podio, which are central to this thesis and knowledge sharing internally in organizations are also introduced and described.

Social networks

Social networks refer to online communities or networks, such as Facebook and LinkedIn, where users can create a profile and share their expertise, experiences and skills, and discuss topics of interest with other people (Razmerita et al., 2009), (Li & Bernoff, 2008). Social networks allow people to connect on a large scale and share knowledge irrespective of their location, and blogs are providing a platform for more effective communication in online communities. The technology encourages and enables the development of informal networks and relationships inside the organization, which tends to be more creative, which generates more ideas. The networks make it possible for organizations to see how their employees really connect through personal profiles and the relationships they establish with other employees (Newman & Thomas, 2009), (Li & Bernoff, 2008).

For example, in 2007 IBM launched an internal social network, similar to Facebook, on the intranet, which was called Beehive and later Social Blue (IBM Research, 2011). The employees could create a personal page and connect with other IBM employees. They could share personal information (family and hobbies) as well as information about current and previous projects and their skills and their expertise (DiMicco et al., 200). Research on the usage of Beehive showed that the employees shared their personal information more freely, since they knew that the other users were from the same company and the site was not public, but behind the company firewall. This reduced the privacy concerns when the employees shared personal information and opinions about IBM (DiMicco et al., 2008). The internal social network made it possible for the employees to connect and it increased the communication between employees, who did not know each other personally (so-called 'weak ties'), but shared similar interests (DiMicco et al., 2008). Furthermore, the sharing of personal and professional knowledge as well as the opportunity to connect with senior managers was found useful for career advancement. Last but not least, according to the interviewed IBM employees, the fact that the social network was closed allowed for more honest and critical comments and discussions, which could facilitate better learning opportunities (DiMicco et al., 2008). A key benefit of social

networks for organizations is that the informal networks strengthen the social relationship between employees, which foster trust and thereby improved collaboration and increased knowledge sharing. Social media provide new opportunities for more effective knowledge sharing, but also impose a number of challenges, which companies need to consider before implementing it in the organization. Many companies are reluctant to adopt social media for knowledge sharing, because it may reduce managerial control and be used to express negativity about the organization (Newell, 2009), (Bernal, 2010), (Li & Bernoff, 2008). For instance, blogging could be used to publish information on the company strategy or even deride organizational decision-makers. Furthermore, some fear that it may lead to chaos if employees are allowed to add and change content without an authority to fact check. Some companies are also concerned about the amount of time employees will spend using the tools (Andriole, 2010), (Kirchner, Razmerita & Sudzina, 2008), (Li & Bernoff, 2008: 23), (O'Dell, 2011: 112). Newell (2009) and McAfee (2009) emphasize the importance for organizations to understand that the mere implementation of social media will not promote use of the platforms and knowledge sharing among employees. Newell (2009) argue that new technologies provide constraints on, and opportunities for, human action, and that this human action is embedded in a social and institutional context. This institutional context both empowers and controls behavior, because it legitimizes some forms of behavior while 'prohibiting' other forms. Technology is just a facilitator, and just because employees possess knowledge, does not mean they are willing to share it (Newell, 2009), (Kimmerle et al., 2008). This emphasizes the need for the management to understand what motivates employees to share knowledge and what does not, in order to facilitate successful knowledge management (Bock, 2005).

Enterprise 2.0 platforms

Central to this study is the use of social media for internal communication and collaboration. McAfee (2006) coined the term Enterprise 2.0, which refers to the adoption and use of social media in an organizational context. Chatter, Yammer and Podio are examples of Enterprise 2.0 platforms, which the participating companies in this case study have adapted for internal communication and knowledge sharing. A short introduction of the platforms is presented below.



Salesforce Chatter transforms the way you collaborate with people in your company. As both a collaboration application and a platform for building collaborative cloud-computing apps, Chatter helps you connect and share information securely like never before—all in real time.⁴ (Chatter is owned by Salesforce.com)



Podio is an online work platform with a new take on how everyday work gets done. Podio gives people more power than ever before to manage their work in their own way. Podio users create workspaces to collaborate with specific groups of people, use an Employee Network for company-wide communication across departments and locations, and get their work done using Podio Apps.⁵ (Podio is owned by Citrix).



Yammer is a secure, private social network for your company. Yammer empowers employees to be more productive and successful by enabling them to collaborate easily, make smarter decisions faster, and self-organize into teams to take on any business challenge. It is a new way of working that naturally drives business alignment and agility, reduces cycle times, engages employees and improves relationships with customers and partners.⁶ (Yammer is owned by Microsoft.)

⁴ <http://www.salesforce.com/chatter/features/>

⁵ <https://company.podio.com/about>

⁶ <https://www.yammer.com/about/who-we-are/>

Blogs

Blogs (short for web-logs) are journals or personal websites, which allow people to contribute and share knowledge online. Blogs are editorial in nature and are created by an individual or a group of people and consist of blog posts displayed in reverse chronological order (the most recent post appears first). Blogs usually represent the opinion and viewpoint of a single person and can vary widely in content and can be dedicated to whatever subject the blogger finds interesting. Blogs primarily contain text, but can also feature both images and videos. Blogs can be one-way and simply distribute information to an audience, but often users are allowed to comment on the posts (Razmerita et al., 2009), (Newman & Thomas, 2009). Blogs are cumulative, i.e. posts accumulate over time, whereas for instance wikis are iterative, i.e. the content is continually edited (Stenmark, 2008). Blogs are starting to gain momentum as a powerful communication method inside organizations, which, potentially, can replace, emails, newsletters and memos as a new form of communication on the intranet. It can take a variety of forms, such as postings by the HR department, updates from the CEO or news from the marketing department (Newman & Thomas, 2009). Joey Bernal, who is an Executive IT Specialist with IBM, argues that internal blogging can be just as valuable to an organization as externally facing blogs and help drive innovation within the organization (Bernal, 2010). At IBM as much as 17,000 blogs⁷ exist, where employees share knowledge and experiences (Winman, 2011). Many managers also have blogs, where they discuss topics, which interest them (Bernal, 2010). Another example is Royal Dutch/shell, where blogs are used as online note-taking platforms, where researchers can document their research like a network between experts (O'Dell, 2011).

The use of blogs has several advantages for an organization. Blogs have the potential to involve employees in collaborative activities, knowledge sharing, reflection and debate (Williams & Jacobs, 2004). They provide a means of collecting and organizing insights and opinions and thereby reinforce organizational objectives of fostering knowledge and information sharing as away of enhancing productivity. Blogs may include links to other blogs and websites, which makes it easy for employees to find additional relevant information (Dearstyne, 2005). Furthermore, blogs can empower employees to express their ideas and concerns as well as provide feedback, which was not previously possible in a similar environment with traditional communication channels (Andriole, 2010), (McAfee, 2006), (Williams et al 2004). And contrary to for instance emails, blogs can be archived and become a part of its departmental record (O'Dell, 2011). Finally, blogs are rather cheap to implement, so if the blog is not a success it can easily be shut down (Dearstyne, 2005).

⁷ <http://www.ibm.com/blogs/zz/en/>

Wikis

A Wiki is a collaborative platform, which allows users to add, modify or delete content in one place in an easy way. Ward Cunningham created the first wiki in 1995. The word 'wiki' is based on the Hawaiian word, 'wikiwiki', which means quick or fast. The term was appropriate to adopt, because the system was designed to be quick to install, use and share (Newman and Thomas, 2009).

Doolan (2007) argues that wikis are effective to build online learning communities and to create a sense of community. And contrary to, for instance, emails, wikis can be used effectively for a single user or large teams to collaborate on projects. Here the wiki serves as a shared repository for documents, ideas, comments, notes, to-do lists, and any other content the project needs to maintain. The wiki provides a complete history of the content and can easily be expanded and shared with new project members (Newman and Thomas, 2009). Wikis (such as Wikipedia) are based on the concept of collective intelligence or 'wisdom of the crowds' and the idea that it should be easy to collaborate on content in real time and participate in the ongoing evolution of the content in an iterative way (O'Dell, 2011), (Razmerita & Kirchner, 2011), (Razmerita et al., 2009), (Bernal, 2010), (McAfee, 2006).

Wikis are effective tools for knowledge management inside the organization, and Joey Bernal, who is Executive IT Specialist with IBM, argues that wikis can be one of the most cost-effective ways for a community to collaborate, with the main requirement being the employee's time and willingness to participate (Bernal, 2010). The key concept is that anyone can contribute, regardless of expertise. And since anyone also can remove content, contributions need to be helpful and accurate. IBM has been capitalizing on the use of wikis for years and with 433,362 employees worldwide (IBM, 2012), IBM has an impressive 1 million daily page views on the IBM Connections Wiki⁸ (Winman, 2011). Siemens AG has also seen the benefits of the use of wikis, which are being used for a variety of projects and purposes: meeting minutes, agendas, product documentation, glossaries and reports (O'Dell, 2011).

Social media provide new opportunities for more effective knowledge sharing, but they also impose a number of challenges, which companies need to be aware of before they consider implementing a social media platform to enhance communication and collaboration. Many companies are reluctant to adopt social media for knowledge sharing, because they can reduce managerial control, and may be used by some to express negativity about the organization. For instance, blogging could be used to publish information on the company strategy or even deride organizational decision-makers. Furthermore, some fear that it may lead to chaos if employees are allowed to add and change

⁸ <http://www-10.lotus.com/ldd/lcwiki.nsf/>

content without an authority to fact check (Bernal, 2010), (Li & Bernoff, 2008). Some companies are also concerned about the amount of time employees will spend using the tools (Andriole, 2010), (Kirchner, Razmerita & Sudzina, 2008), (Li & Bernoff, 2008). The benefits, however, seem to outweigh the cost by implementing social media platforms for communication and knowledge sharing, since many companies are already reaping the benefits, as previously mentioned. Many organizations, however, do not have an understanding of which factors affect employees' knowledge sharing through social media (Paroutis & Al Saleh, 2009), (HBR, 2010), (Social Semantic, 2011). And one of the major challenges organizations face is to motivate employees to adopt and share knowledge on the platforms (Kirchner, Razmerita & Sudzina, 2008).

3.0 Knowledge sharing in organizations

The focus of this thesis is to investigate the research area of knowledge management with focus on internal communication and knowledge sharing through social media. The following section provides an introduction of the concept of knowledge and the knowledge sharing process that happens in organizations.

Knowledge sharing is the process in which employees mutually exchange their tacit and explicit knowledge (Nonaka, 2007) in order to create new knowledge. Tacit knowledge resides in the minds of the employees and is the 'know-how' and skills that individuals have based on personal experience. Explicit knowledge is tacit knowledge, which has been written down in manuals or guides in order for it to be communicated to other employees in the organization, who will then also possess this knowledge without having to have the same experience (Newell, 2009). Knowledge sharing is considered to be an important process of social interaction in organizations (Lin, 2007a), (Van Den Hoof & De Ridder, 2004), (Ardichvili et al., 2003), which occurs at individual and organizational levels (Lin, 2007b). At the individual level, knowledge sharing involves both knowledge 'donation' and knowledge 'collection' (Lin, 2007a), (Van Den Hoof & De Ridder, 2004).

Knowledge donation involves the employees' willingness to actively communicate with colleagues, as well as, consult with colleagues to learn from them (i.e. knowledge collection). At the organizational level, knowledge sharing is capturing, organizing, reusing, and transferring the experience-based knowledge, which resides within the organization and making that knowledge available to all employees (Lin, 2007b).

To sum up, in this thesis, knowledge sharing is viewed as the process in which know-how and skills are exchanged through knowledge donation and knowledge collection. This is illustrated in figure 1, which has been developed and based on the constructs and framework of Lin (2007a + b) and (Van Den Hoof & De Ridder, 2004).

Knowledge sharing can now be related to social media, the central part of this thesis, which slowly is reshaping knowledge management in organizations. The collaborative nature of social media such as: social networks, blogs and wikis provide new platforms for more effective knowledge

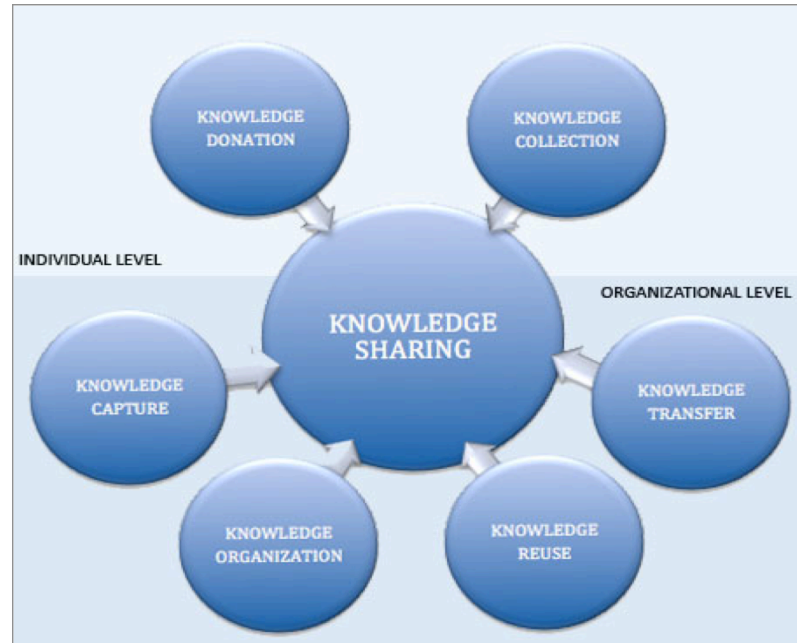


Figure 1: Knowledge sharing model.

sharing and communication within organizations, since they enable the active participation and involvement of employees (Kirchner, Razmerita & Sudzina, 2008), (Andriole, 2010).

3.1 Knowledge sharing: From channel to platform

In order to understand why social media is providing new opportunities for knowledge sharing, it is important to understand the shortcomings of traditional knowledge management and the technologies that most organizations, currently, are using for communication and knowledge sharing. McAfee (2006), (2009), refers to these centralized depositories and technologies as 'channel' (i.e. email and instant messaging) and 'platform' (i.e. intranets and information portals). The important difference between the two is the level of privacy and visibility.

Channels keep communication private. Employees beyond the sender and receiver(s) cannot view the content and usually are not aware that communication has taken place. Information sent via channels is not widely visible or searchable and is not collaborative of nature (McAfee, 2009). McAfee argues that privacy is what people want at times, but this is not always the case, while some

communication may benefit from a higher level of visibility, while this can be seen as a shortcoming of channel technologies, such as email and instant messaging (McAfee, 2009).

Platform technologies are the opposite of channels, since the content is widely visible and searchable for everyone with access to the platform. Access to platforms can be restricted, however, if necessary and if sensitive content is communicated. The advantage of platform technology is the level of transparency and that content is available to all members of the organization (McAfee, 2009). According to a survey conducted by Davenport (2005), many users are not happy with the channels and platforms that are available to them. For example did the study find that only 44% of the survey respondents felt that it was easy to find the information they needed on the company intranet (Newell, 2009). And further more, the current technologies do not capture knowledge effectively, since channels cannot be accessed and searched, and only a small percentage of people's shared knowledge ends up on shared platforms (McAfee, 2006).

Social media is different from traditional knowledge management tools. The key difference from traditional knowledge management is that not only can knowledge be shared, the knowledge creating process and

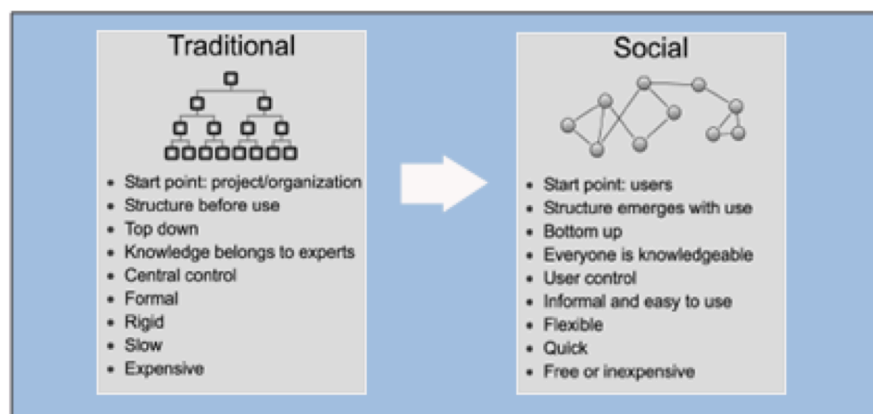


Figure 2: Traditional versus social software (Payne, 2008).

output is visible to employees. Put differently, social media allow users to observe who adds, deletes and amends content over time, as well as what they have added, deleted and amended (McAfee, 2006). Applications such as Lotus Notes work from the top-down, putting the group, organization or project first. Whereas social media have a bottom-up approach and works best without imposed top-down control (Payne, 2008), which is illustrated in figure 2.

3.2 Knowledge management 2.0: The management's and manager's role

The importance of managing knowledge to improve efficiency has taken place in organizations, since the days of Frederick Winslow Taylor invented the principles of Scientific Management in 1911. The purpose of knowledge management is to enhance organizational performance by explicitly designing and implementing tools, processes, systems, structures, and cultures to improve the creation, sharing and use of knowledge (De Long & Fahey, 2000). The approach to knowledge management is slowly being reshaped due to social media, which provide new opportunities for knowledge sharing in organizations.

The traditional approach to knowledge management focuses on transfer (i.e. email) and storage of knowledge in a centralized repository (i.e. database or intranet), where it can be stored and searched, and hopefully found by the employees, who need the information (Newell, 2009). Traditional knowledge management approaches are structural of nature⁹, where it is assumed that knowledge easily can be captured and transferred across people, places and time. Much effort, therefore, goes into codifying knowledge (i.e. converting tacit to explicit knowledge¹⁰), rather than relying on collaborative practices and personal networks (Newell, 2009). This 'command and control' approach stems from Taylor's time (Newell, 2009), whereas social media call for a flatter, flexible and decentralized structure in the organization in order for knowledge sharing to happen in collaboration among employees. Social media platforms such as: Facebook, YouTube, Twitter, blogs and wikis present a more processual/practice approach, which allow observation of the processes and practices through which knowledge is created (Newell, 2009), (McAfee, 2006).

Social media provide new opportunities for more effective knowledge sharing, but it is crucial that organizations do not assume that technology alone can facilitate organizational change. Simply implementing Web 2.0 technologies will not foster collaboration and innovation and thereby improve knowledge sharing (Newell, 2009), (McAfee, 2009). Alavi & Leidner (2001) argue that it is not the mere existence of knowledge in the organization, which forms the basis for achieving competitive advantage. It is the organization's ability to conduct successful knowledge management and effectively harness and use the existing knowledge to generate new ideas and knowledge assets. Other scholars argue that the success of knowledge management 2.0 greatly depends on management taking on an active role when adopting social media for knowledge sharing (McAfee, 2006), (Newell, 2009), (Stenmark, 2008), (Paroutis & Al Saleh, 2009), as well as, the participation of employees and their willingness to share knowledge (Newell, 2009).

⁹ Knowledge is viewed as a cognitive resource, a possession, which can be captured and transferred across people using ICT (information and communication technology) (Newell, 2009: 145).

¹⁰ Transferring it from the individual to the collective (Newell, 2009: 145).

Stenmark (2008) has developed a framework of different management attitudes, which management can take on when implementing social media in the organization. The management can be either supportive or obstructive to the implementation of social media. In addition, their support or opposition can be either active or passive (Stenmark, 2008). The framework is illustrated in figure 3 below.

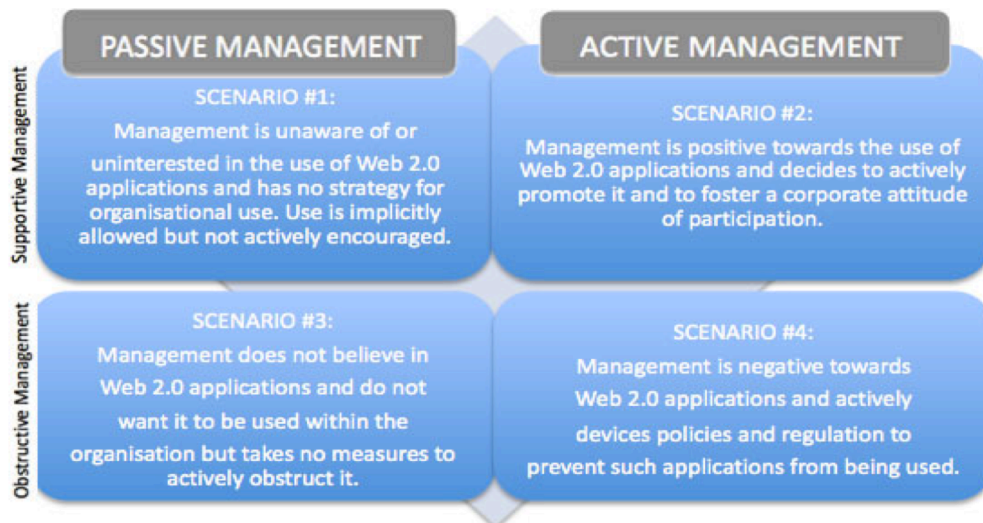


Figure 3: Stenmark's four management attitudes (Stenmark, 2008).

In addition to management taking on the right attitude when implementing social media in the organization, it is crucial that management create the right circumstances in order to facilitate knowledge sharing. According to Newell (2009) managers need to be aware of organizational, social and cultural factors when conducting knowledge management 2.0. The challenge for managers is to develop *enabling contexts*, understand *knowledge processes* and deploy knowledge for specific *purposes*, as well as, align the three in order to facilitate successful knowledge management (Newell, 2009).

1. Develop *enabling contexts* – including organizational cultures, structures and opportunities for collaborative forms of work and coordination, reward and recognition system and career opportunities that support knowledge work.

2. Understand *knowledge processes* – that is the processes and practices through which knowledge is shared, integrated, translated and transformed (but also hoarded, constrained and protected).
3. Deploy knowledge for specific *purposes* – that is to accomplish specific tasks as set by particular interest groups (and not assuming that knowledge is necessarily good, or good for its own sake).

4.0 Motivation and knowledge sharing

In order to understand why employees chose to share or hoard knowledge, it is necessary to understand the human psychology behind the employees' motivation to do so. The concept of motivation has been discussed frequently by using Deci & Ryan's (2000) framework and original separation of motivation into extrinsic and intrinsic motivation, which explains some of the factors, which drive people to action. Deci & Ryan's (2000) framework is applied for the investigation of the motivation behind why employees share or hoard knowledge.

Motivation can be divided into two categories based on the different reasons and goals, which drive a person to action: intrinsic motivation (internal) and extrinsic motivation (external). The two types of motivation influence individual employees' intentions regarding an activity as well as their behaviors.

Intrinsic motivation

Intrinsic motivation refers to motivation that is driven by an interest or enjoyment in the task itself or enjoyment in helping others, and exists within the individual rather than relying on any external pressure or reward. People who are intrinsically motivated are more likely to engage in the task willingly, as well as, work to improve their skills, which will increase their capabilities as well as the organization's productivity (Deci & Ryan, 2000).

Extrinsic motivation

Extrinsic motivation refers to the performance of an activity, which leads to a desirable outcome.

Extrinsic motivation focuses on goal-driven reasons, such as monetary rewards and career advancement (Deci & Ryan, 2000). Extrinsic motivation is typically based on the perception of the cost (effort) and benefit (reward) associated with sharing knowledge. If the perceived benefits exceed or equals the cost, then knowledge sharing will happen. Many organizations have reward systems, which can be useful for motivating the employees to share knowledge.

4.1 Knowledge sharing - a social dilemma?

Why do people share or hoard knowledge? According to some scholars, knowledge sharing can be considered a 'social dilemma', which explains the theory behind why people share or do not share knowledge (Cabrera & Cabrera, 2002), (Kimmerle et al., 2008).

A social dilemma refers to a situation where organizational interests conflict with the employees' individual interests. Such situations arise when employees are faced with prioritizing short-term, selfish interests and the long-term interests of a group or organization. Organizations have an interest in making knowledge available for all employees, but from an employee's point-of-view it is a rational choice to hoard knowledge due to their individual interest in saving time and conserve power in order to remain valuable and reduce the risk of getting fired. And employees, who hoard knowledge still have access to all information (Kimmerle et al., 2008), (Cabrera & Cabrera, 2002), (Casimir et al., 2012), (Gammelgaard, 2004).

Especially in times, where many companies are forced to downsize, the motivation to share knowledge may diminish, because employees have a good reason for hoarding knowledge. Cabrera & Cabrera (2002), however, argue that most employees are willing to share knowledge even if there is a cost by doing so, as long as the majority of employees contribute. The dilemma for employees is stronger the higher the costs are for knowledge sharing. For instance, the cognitive effort it takes to share and edit information as well as the time it takes away from work that needs to be done, which create real business benefits. Furthermore, some employees may be uncomfortable and fear that the knowledge they share may be incorrect (Kimmerle et al., 2008) and of poor quality (Gammelgaard, 2004). Depending on the weight of these costs and benefits, which represent the factors that affect the employees' knowledge sharing, some employees may feel that they are better off hoarding, rather than sharing their knowledge. Consequently, some organizations establish incentive systems, which reward knowledge sharing (Kimmerle et al., 2008). In order for employees to have an incentive to share their knowledge, the expected benefits (i.e. rewards or appreciation by colleagues) must be perceived higher than the cost (Casimir et al., 2012). Kimmerle et al. (2008) argues that employees

who strongly identify with the organization are more likely to share their knowledge, since they adopt organizational goals as their own (Kimmerle et al., 2008).

4.2 Factors that affect employees' knowledge sharing

Given the increasing interest towards knowledge management and knowledge sharing in the past decade, vast amounts of literature and studies exist on factors, which affect employees' knowledge sharing (Riege, 2007). Since the focus of the thesis is on knowledge sharing through social media, literature and studies focusing on this particular area have been selected for the theoretical framework, which are presented and described in the following sections.

The following literature and studies have identified a number of factors, which affect employees' knowledge sharing through social media: Paroutis & Al Saleh (2009), Kirchner, Razmerita & Sudzina (2008), Sajeva (2007), Lin (2007b) Van Den Hoof & De Ridder (2004), Bock (2005) virtual communities (Hsu et al., 2007), (Ardichvili, 2003), knowledge sharing in multinational corporations with focus on managerial support (Riege, 2007). Furthermore, factors such as: organizational culture (De Long & Fahey, 2000), (Al Alawi et al., 2007), cultural influences on knowledge sharing (Ardichvili et al., 2006) and critical barriers to effective knowledge management (Sajeva, 2007), also have been identified as key factors to affect employees' knowledge sharing. The literature selected for this thesis is just a small selection, and no single framework exists, which presents all the possible factors, which affect employees' knowledge sharing through social media in an organizational context.

4.2.1 Towards a research model

In order to limit the theoretical framework for this thesis, more recent and updated theories, have been selected and applied in the analysis section. Studies and literature from the 2000s till now, have identified several factors, which affect employees' knowledge sharing behavior as well as identified three main categories they fit into. These categories are: Individual, organizational and technological factors (Paroutis & Al Saleh, 2009), (Lin, 2007b), (Kirchner, Razmerita & Sudzina, 2008), (Sajeva, 2007). When referring to individual factors, most scholars emphasize the importance of motivation, trust and perceived usefulness, which refers to the degree to which a person believes that using a particular system or platform will enhance his or her performance (Paroutis & Al Saleh, 2009), (Kirchner, Razmerita & Sudzina, 2008). Organizational factors refer to the role of the management (Riege, 2007), (Stenmark, 2008), and organizational culture (De Long & Fahey, 2000), (Al Alawi et al.,

2007), cultural influences (Al Alawi et al., 2007), and the technological factors refer to the technologies that are being used in the organization such as the intranet and social media.

Paroutis & Al Saleh (2009), Lin (2007b) and Kirchner, Razmerita & Sudzina (2008) provide the most systematic framework of individual, organizational and technological factors, which affect employees' knowledge sharing through social media, why this literature have been selected as the main framework for this thesis. Based on this previous research a research model has been developed for this thesis. The research model provides a framework and overview of the most common individual, organizational and technological factors, which affect employees' knowledge sharing through social media. These factors are summarized and presented in the research model illustrated in figure 4 below, which will be refereed to throughout the analysis and discussion.

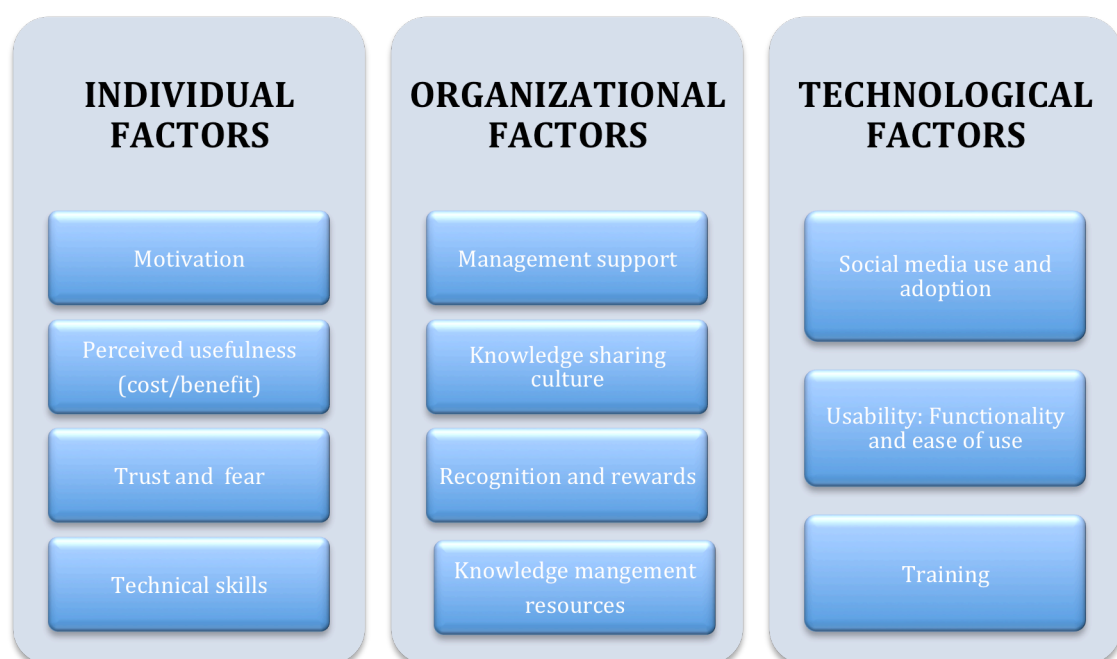


Figure 4: Factors that affect employees' knowledge sharing behavior.

Each category has sub-categories of the most common factors, which affect employees' knowledge sharing. These are elaborated and described in table 1, which provides an overview of the factors discussed in this thesis. The identified factors can be considered as both drivers and barriers depending on the point of view. For instance, if managers take on a supportive role, the factor can increase the employees' use of social media. And on the other hand, if managers take on a passive role, it becomes a barrier for the employees' knowledge sharing behavior. The factors are described in table 1 as barriers. It is important to note that the number of factors presented in table 1 do not present an exhaustive list and that many other factors, which affect employees' knowledge sharing through social media in an organizational context exist.

Knowledge sharing barriers	
Factors	Description
Individual factors	
Motivation	Lack of motivation and commitment Unwillingness to do extra work Lack of time Lack of participation and contribution from colleagues Lack of recognition from colleagues Lack of content quality and relevance Information overload Lack of understanding of social media and its benefits
Perceived usefulness (cost/benefit)	The benefits of using the platform to share knowledge should outweigh the costs
Trust and fear	Lack of trust in colleagues and fear of misuse of shared knowledge Fear of giving up expert power, authority Fear of becoming replaceable if too valuable knowledge is shared Fear of reducing job security Fear and uncertainty of providing faulty information
Technical skills	Lack of technical skills
Organizational factors	
Management support	Lack of management support and commitment to promote knowledge sharing
Knowledge sharing culture	Hierarchical organizational structure, that does not foster a knowledge sharing culture Lack of participation and contribution from colleagues Knowledge sharing is not promoted or expected
Recognition and rewards	Lack of monetary reward system (extrinsic motivation) and recognition (social reward) from colleagues
Knowledge management resources	Lack of knowledge management strategy Lack of money and time for knowledge management Lack of staff with knowledge management skills
Technological factors	
Social media use and adoption	Lack of employee willingness to change their current work routines and adopt social media
Usability: Functionality and ease of use	Low level of usability, which makes the tools too complicated to use
Training	Lack of training for using social media platforms

Table 1: Knowledge sharing barriers.

4.3 Knowledge sharing drivers and barriers

In this section the relevant literature and studies concerning factors, which affect employees' knowledge sharing behavior are presented and described.

A qualitative study by Paroutis & Al Saleh (2009), based on 11 in-depth interviews, provides relevant research findings regarding knowledge sharing through social media. Paroutis & Al Saleh divide the factors into the three, before mentioned, categories of individual, organizational and technological factors, which affect employees' knowledge sharing behavior. Four key determinants of knowledge sharing were identified: history, outcome expectations, perceived organizational/management support and trust. The factors are a combination of drivers and barriers to adopt social media for knowledge sharing.

1. History

One of the key individual barriers to adopt social media for knowledge sharing is the effectiveness and convenience of using existing tools. The employees are comfortable with their current work routines and social media platforms means change, which may become a barrier to get employees to share knowledge and adopt the new tools. This fear is a combination of lack of knowledge of the new tools as well as an understanding of the benefits they provide. The study found that, particularly, the older generation, preferred traditional communication (e.g. face-to-face) instead of adapting the social media tools (Paroutis & Al Saleh, 2009). Furthermore, time was mentioned as a key barrier. Taking the extra time out to contribute and share knowledge will take time away from work that needs to be done (Paroutis & Al Saleh, 2009). The study also found that the successful adoption of social media platforms depends on a combination of organization's approach to knowledge management as well as the employees' willingness to share knowledge. The study also emphasize the importance for organizations to have a knowledge management strategy and that the objectives is clearly communicated to employees in order to get past the change barriers the new tools present (Paroutis & Al Saleh, 2009).

2. Outcome expectations

Outcome expectations refer to the expected consequences of one's own behavior (Hsu et al., 2007). The importance of outcome expectations in determining knowledge sharing is consistent with expectancy theory, which proposes that a person chooses to behave or act in a certain way, because

he or she is motivated to do so over other behaviors due to the expected outcome will be valuable. In other words, the employee must think that their contribution is worth the time and effort (Paroutis & Al Saleh, 2009). In this case, outcome expectations refer to the perceived usefulness and expected consequences of the use of social media, which affects the employees' willingness to share their knowledge. The study found several drivers to use social media. Some of the benefits were: it helped the employees to do their job more effectively, it reduced e-mail overload, it helped avoid answering the same questions multiple times, it helped manage personal knowledge more effectively, it generated discussions on areas of interest, it made it possible to obtain help and solve business problems and communicating more effectively with remote team members (Paroutis & Al Saleh, 2009). The study also found that some of the employees were intrinsically motivated to share knowledge, simply because they enjoyed helping others (Paroutis & Al Saleh, 2009). Recognition was also among the key motivators and drivers. In the study employees emphasized the importance of having their contribution recognized by their superiors and receiving credit for the ideas shared in the organization, because it is a way to establish their credibility and expert status (Paroutis & Al Saleh, 2009). It is important to note, that the motivation from recognition do not come through monetary rewards, but through social reward and recognition among colleagues. Social rewards include things like approval, status, respect, praise, recognition, positive feedback and mutual benefits (Paroutis & Al Saleh, 2009). Prior studies also provide results that social reward is a strong motivator for adopting and using social media for knowledge sharing (Ardichvili et al., 2003), (Hsu et al., 2007), (Wasko & Faraj, 2005).

3. Perceived organizational/management support

Many different organizational and managerial factors play an important role when employees need to be encouraged to adopt and use social media for knowledge sharing. Some of the factors and forms of encouragement include: communicating the benefits of the social media tools, providing training for the employees and rewarding the participation of the most active users. Notably, these factors are related to the implementation phase, which emphasizes that management need to have a clear vision and strategy from the beginning and that managers on the operational level create awareness and provide the right training in order to encourage the employees to adopt the new tools. The study found that some employees are discouraged due to their lack of technical skills, which make them go back to their old work routines (Paroutis & Al Saleh, 2009).

4. Trust

Trust is another key factor and potential barrier, which affects employees' willingness to share knowledge through social media. Different dimensions of trust was identified in the study including: trusting the quality and accuracy of the information, trusting that others will treat the information they share with care, and trusting that others will reciprocate and provide the necessary help when needed. Fear of publishing something confidential or violating company policy was also mentioned as a factor, which could hinder participation (Paroutis & Al Saleh, 2009). A noteworthy finding of this study is that trust is not only a prerequisite for knowledge sharing and collaboration through social media, but also, to a large extent, the outcome of such sharing and collaboration. It is impossible to build a virtual environment of knowledge sharing and collaboration without general trust, but once the knowledge sharing takes place, it enhances and reinforces trust. Many of the respondents in the study have been able to establish and maintain strong social networks virtually, which was not possible before social media existed (Paroutis & Al Saleh, 2009).

The studies conducted by Lin (2007b) and Kirchner, Razmerita & Sudzina (2008) also identifies several factors, which affect employees' willingness to share knowledge. Many of the factors are similar to the ones identified by Paroutis & Al Saleh (2009) and can be categorized into the three main categories of individual, organizational and technological factors that affect knowledge sharing, which is presented in the research model in figure 4.

Two key individual factors were identified in the quantitative study, based on 172 participants, by Lin (2007b): the enjoyment in helping others and knowledge self-efficacy. Enjoyment in helping others is derived from the concept of altruism, which involves the willingness of an employee to help others without expecting anything in return. Self-efficacy refers to the measure of one's own competence to complete a task and reach goals (Bandura, 1986). Knowledge self-efficacy is typically found in employees believing that their knowledge can help to solve job-related problems and improve work efficiency. When these employees are intrinsically motivated to share knowledge it may have a positive affect and motivate others to share their knowledge as well (Lin, 2007b), (Kirchner, Razmerita & Sudzina, 2008). A quantitative study conducted by Wasko & Faraj (2005) also found that employees are intrinsically motivated to share knowledge, because they enjoyed helping others. Recognition was also among the key drivers, which was identified. Employees were motivated to share knowledge because they gained social reward and got professionally recognized among their colleagues.

A case study conducted by Kirchner, Razmerita & Sudzina (2008), based on interviews with employees from Microsoft, SAS and Motorola in Denmark, also provides relevant research findings regarding knowledge sharing through social media. The study identifies fear as one of the key factors, which affect employees' knowledge sharing behavior negatively. Employees viewed knowledge as power and feared that sharing it meant they risked becoming replaceable (Kirchner, Razmerita & Sudzina, 2008). A similar finding was identified by a study by Sajeve (2007).

The study by Lin (2007b) also identified another key factor such as management support to influence knowledge sharing and emphasizes that to promote a knowledge sharing culture the management needs to be actively engaged. Many other studies have also found that management support is crucial in order to create the necessary encouragement and motivation to get employees to share knowledge and maintain a positive knowledge sharing culture in the organization (Stenmark, 2008), (Riege, 2007), (Lin, 2007b). The study also showed that some organizations use monetary rewards, such as a higher salary and bonuses and non-monetary rewards such as: promotion and job security, to encourage employees to share knowledge (Lin, 2007b). A key finding is however, that extrinsic motivation (e.g. monetary rewards) only promotes temporary compliance.

Furthermore, the study, conducted by Lin (2007b), found that technological tools positively affect employees' willingness to share knowledge, because it enables faster communication and knowledge sharing among employees. Furthermore, the tools expand social networks by overcoming geographical boundaries, which promotes more effective collaborative activities (Lin, 2007b). The prerequisite, however, according to Kirchner, Razmerita & Sudzina (2008) for active usage is a high level of user-friendliness. The tools must be easy to use in order for employees to adopt the tools for both finding and sharing knowledge. Furthermore, the content quality and relevance is crucial. The content must have a clear benefit for the employees otherwise they will not use it (Kirchner, Razmerita & Sudzina, 2008). The study by Lin (2007b) also showed that employees tend to collect new knowledge through these new tools, rather than donating and sharing it. This can be explained by the fact that knowledge is power and employees hoard knowledge for personal advantage rather than seeing it as an organizational resource.

A number of studies have also found that cultural influences (Ardichvili et al., 2006) and organizational culture (De Long & Fahey, 2000), (Al Alawi et al., 2007) is among the key factors, which affect employees' knowledge sharing. Each organization has its unique culture, which is reflected in values, norms and practices, why a number of different factors affect the individual employee's knowledge sharing depending on the organization they work in. A study conducted by Al Alawi et al. (2007) identified a number of key factors, which affect the individual employee's knowledge sharing behavior. Among the factors mentioned in the study are:

Trust

Interpersonal trust or trust between co-workers is an extremely essential attribute in organizational culture, which is believed to have a strong influence over knowledge sharing.

Communication between employees

Communication here refers to social interaction through oral conversations and the use of body language while communicating. Human interaction is greatly enhanced by the existence of social networking in the workplace. This form of communication is fundamental in encouraging knowledge transfer).

Information systems

The term information system is used to refer to an arrangement of people, data and processes that interact to support daily operations, problem solving and decision-making in organizations. Organizations use different information systems to facilitate knowledge sharing through creating or acquiring knowledge repositories, where employees share expertise electronically and access to shared experience becomes possible to other staff.

Reward system

Employees need a motivator in order to share knowledge. It is unrealistic to assume that all employees are willing to easily offer knowledge without considering what may be gained or lost as a result of this action.

Organizational structure

Traditional organization structures are, usually, characterized by complicated layers of responsibility with certain details of information reporting procedures. Nowadays, most managers realize the disadvantages of bureaucratic structures in slowing the processes and raising constraints on information flow. In addition, such procedures often consume great amount of time in order for knowledge to filter through every level.

Furthermore, a study conducted by Ardichvili et al (2006) investigated how cultural factors influence knowledge sharing in virtual communities of practice, which have similarities to knowledge sharing through social networks. The study found that cultural factors play a significant role in the employees' knowledge sharing, but that they have different levels of importance among employees depending on the country they are from (Ardichvili et al., 2006).

5.0 Research method

In the following section, the methodological considerations, which are applied, are described. In combination with the theoretical concepts, the research method helps illustrate and explain the methods used for the collection and analysis of the empirical data collected for this study.

This thesis, is based on a case study approach (Yin, 1994), which consists of a combination of qualitative and quantitative research methods, which is the foundation for the investigation of the research question: *Which factors affect employees' knowledge sharing behavior through social media within organizations?*

The data was collected through an online survey questionnaire (appendix 1), which was distributed to a number of Danish companies from different industry sectors, which are using social media for internal communication and knowledge sharing. The majority of the companies are from industry sectors, such as telecommunications, media and marketing, banking and financial services and shipping and logistics. Additionally, eight semi-structured interviews were conducted with four managers and four employees, which supports the quantitative data. The survey results are presented in appendix 2 in table 1-13.

The theoretical framework is presented and described in the theory section. Theoretical concepts within the area of knowledge management and social media are clarified. This forms the foundation for the understanding of knowledge management and the use of social media and how it can support knowledge sharing in an organizational context. The theoretical framework is applied to the empirical findings, which are discussed and analyzed in the analysis section. The quantitative data is presented first in every section and then discussed and analyzed supported by the theoretical framework and the qualitative data. Key findings are summarized in part conclusions in every section in the data analysis section, which finally are presented in the conclusion.

Vast literature and studies exist on factors, which affect employees' knowledge sharing through social media, why the most relevant and recent frameworks have been selected for this thesis. Recent studies and literature from the beginning of the 2000s till now, have identified several factors, which affect employees' knowledge sharing behavior, as well as, identified three main groups they fit into. These groups are individual, organizational and technological factors.

Paroutis & Al Saleh (2009), Lin (2007b) and Kirchner, Razmerita & Sudzina (2008) provide the most systematic framework of factors, which affect employees' knowledge sharing through social media,

why this literature have been selected as the main framework for this thesis. Based on these previous studies a research model has been developed for this thesis, which is illustrated in figure 4 on page 28. The research model provides a framework and overview of the most common individual, organizational and technological factors, which affect employees' knowledge sharing. The three categories of factors and their sub-categories are elaborated and described in table 1 on page 29, which provides an overview of the factors discussed in this thesis.

In order to understand which factors affect employees' knowledge sharing, it is necessary to understand the human psychology behind employees' motivation to share knowledge. The concept of motivation has been discussed frequently by using Deci & Ryan's (2000) framework of intrinsic and extrinsic motivation, which is applied to explain some of the factors that drive people to action. Furthermore, the concept of 'social dilemma' is also referred to due to its relevance, since some scholars (Cabrera & Cabrera, 2002), (Kimmerle et al., 2008) argue that knowledge sharing can be considered a social dilemma, because organizational interests conflict with employees' individual interests.

Case study examples from multinational companies such as: IBM, Siemens AG and Royal Dutch/shell (KPMG), which are currently using social media successfully for knowledge sharing, support the analysis, in order to exemplify and further the understanding of how social media can support knowledge sharing in organizations.

To further the understanding of the discussion and analysis, references are made to knowledge management theory, as well as, relevant and additional literature and surveys on the subject. The majority of the literature has been found through Copenhagen Business School's database EBSCOhost, which provides access to a vast range of academic articles and literature online. The combination of the selected literature and frameworks provide a foundation for the understanding of the factors that affect employees' knowledge sharing behavior.

5.1 Delimitation

The research area of knowledge management and the use of social media for knowledge sharing in an organizational context would be relevant to investigate for both external and internal use, however, the focus of this thesis is on knowledge sharing internally in organizations.

Knowledge sharing can, naturally, take place between employees through traditional communication

channels as well as social media platforms, but the focus of this thesis has been limited to investigate knowledge sharing through social media platforms.

Social media cover a wide range of tools, however, the analysis will only be supported and exemplified by the most commonly used social media platforms such as: social networks, wikis and blogs. These are the social media platforms, which have contributed the most to the evolution that is occurring within knowledge management so far.

Many factors affect employees' knowledge sharing behavior. In order to limit the framework for this thesis, the most relevant previous studies, which have identified factors that affect employees' knowledge sharing, have been selected. Based on the previous findings, a new research model has been developed, which combines the most common factors, which affect employees' knowledge sharing, which have been identified in these studies.

6.0 Data collection

In the following section the data collection methods, which are applied to this case study, are introduced and described.

6.1 A case study approach

The research method, for this thesis, is based on a case study approach (Yin, 1994), which consists of a combination of qualitative and quantitative data collection. The case study approach, was chosen as research method, since it is a distinctive form of empirical inquiry (Yin, 1994), which allows for an in-depth investigation, over a longer period of time, of a specific and relevant situation, event or topic of interest (Flyvbjerg, 2011). The case study refers to a study design in which one or a small number of case examples are selected in order to study them within their own context (Yin, 1994).

This case study is based on the participation of a small number of Danish companies, from different industry sectors, which are using social media platforms for internal communication and knowledge sharing. The majority of the companies are from industry sectors, such as telecommunications, media and marketing, banking and financial services and shipping and logistics. The three companies, Berlingske Media, Wao and Damco, are presented as case studies and eligible examples to investigate the research question. In order to investigate employee motivation and determine, which

factors affect employees' knowledge sharing through social media in their working environment, an online survey questionnaire (appendix 1) was distributed and eight semi-structured interviews were conducted with four managers and four employees.

The case study design provides a systemic way of investigating events, collecting data, analyzing information and reporting the results, which provides insight into the specific research topic or situation, which can extend experience and further what is already known through previous research as well as present new topics for future research. According to Yin (1994), the case study research method is, particularly, useful when the researcher has little control over events and when 'what' and 'why' questions are posed (Yin, 1994).

A major strength of case study data collection is the opportunity to use triangulation and use multiple sources of evidence, such as interviews, surveys and observations in the research process (Yin, 1994). This provides a deeper understanding of the research topic. Qualitative data collection, such as interviews, put emphasis on the interpretation of behavior and opinion in a specific context and provides insight into why a certain behavior exists. Whereas quantitative data collection, such as survey questionnaires, has a more systemic approach and puts focus on the quantifiable nature of the data collected and provides insight into the frequency of a certain behavior (Brewerton and Millward, 2008). It is important to note, that a case study approach has implications. However, the different data collection methods each have their strengths and by combining two methods, the validity of the research increases due to the multiple sources of evidence. This has an influence on the research outcome, which makes the findings and the conclusion of this study more reliable and accurate (Yin, 1994). The fact that this study is based on research from a number of cases further increases the reliability of the findings (Yin, 1994).

In general, the findings that are made in this study are not generalizable and may not necessarily be applicable for other organizations (Yin, 1994) due to, for instance, organization's structure, business culture, employee demographics and so on play a role in the result of this survey. The findings, however, provide a deeper understanding of the research area of knowledge sharing through social media in an organizational context and can be taken as indicative results and suggestions for further research.

6.2 Case studies

The three case study companies Berlingske Media, Waoow and Damco, which have participated in this survey are presented and described in the following section. The three companies are from different sectors, with different organizational structures and approaches to knowledge management. Berlingske Media and Waoow have contributed with the highest number of participating employees in the survey and Damco is the only participating company with a strategic approach to knowledge management.

Case: Berlingske Media

Berlingske Media is Denmark's largest media and news publishing group producing content for print, Web, Web-TV, radio and mobile phones (Berlingske Media, 2013).



Berlingske Media has a long and proud history in Denmark and has had a big influence on the media market through all its national, regional and local titles. The flagship title 'Berlingske' was launched in 1749, making it one of the world's oldest existing newspapers. Berlingske Media's operations are spread throughout Jutland and Sealand. The Headquarters is located in central Copenhagen, where about 1100 of the around 2.300 employees work.

Berlingske Media have more than 200 media titles all over Denmark. Some of the strongest brands from Berlingske Media are: Berlingske, B.T., Århus Stiftstidende, Jydske Vestkysten, Weekendavisen and Berlingske Business Magasin (Berlingske Media, 2013).

Berlingske Media does not have a strategic approach to knowledge management or a clearly stated strategy for the use of social media, at this point. So far, the approach has been a trial and error process in the different departments, and social media have only been capitalized on for external use and customer reach.

The use of social media for knowledge sharing internally in the organization was initiated in July 2011, when the social network Chatter (appendix 4) was implemented as part of a larger CRM-

system called 'Salesforce'. At this point, the platform is only used in the Advertisement department, where approximately 100 employees have been invited to use the platform across the different departments in Denmark. The goal and purpose of the implementation is to enhance the internal communication and to provide a platform, where employees can share knowledge and communicate and collaborate on more efficiently (A. Lorentzen, personal interview, January 24, 2013).

Case: Waoo!

Waoo is one of the leading FTTH (fiber to the home) companies in Denmark's broadband market (Waoo, 2012). Waoo is privately owned and was established in 2010.



Waoo is a well-recognized brand in the telecommunications sector and reaches more than one in four Danish homes with superfast fiber-based Internet, television and telephony services. The Waoo headquarter is located in Tilst in Jutland where 80 employees, currently, work (Waoo, 2012).

Being a relatively new established company in 2010, Waoo is among the first moving companies that see the value in the use of social media for both internal and external use. The company joined Facebook in June 2011¹¹ for external use and customer reach and implemented Podio (appendix 5), shortly after, for internal knowledge sharing in October 2011. Approximately 60 employees were invited, at that time to, use the platform. The goal was to give the employees one platform to share information easier across departments in the company. The platform has primarily been used for HR related matters and information that is relevant for all employees (S. Jensen, telephone interview, February 28, 2013).

¹¹ <https://www.facebook.com/waoo.dk>

Case: Damco

Damco is one of the world's leading providers of freight forwarding and supply chain management services. For more than 100 years, they have been providing their customers with transportation and logistics solutions



all over the world. Damco is part of the A.P. Moller - Maersk Group's logistics activities (Damco, 2013).

With 10,800 employees in over 300 owned offices across 90 countries and representation in a further 30 countries, Damco manages more than 2,7 million TEU of ocean freight and supply chain management volumes and more than 210,000 tons of air freight annually. The Damco headquarter is based in The Hague in Holland, where approximately, 150 people work.

Damco initiated the use of social media for knowledge sharing internally in the organization in March 2012, when they launched the internal social network 'Damco People Network', which is based on Jive software (appendix 6). What sets Damco apart from many other companies that are implementing social media platforms for internal communication is their clearly stated strategy, and the awareness of the involvement of top management and managers to motivate the employees is crucial. Prior to the implementation of the platform, an employee engagement survey was carried out, with the purpose of determining the employees' communication needs as well as key drivers and barriers for knowledge sharing

The goal behind the implementation was to enhance knowledge sharing and collaboration within the organization by giving the more than 10,000 employees, who work for Damco, one platform to connect, communicate and collaborate on across their global networked business. There are, currently, approximately, 5000 users out of around 8500, who were invited to join the 'Damco People Network' (C. B. Hoengaard, telephone interview, January 30, 2013).

6.3 Survey questionnaire design

The primary source of empirical evidence, for this thesis, is based on an online survey questionnaire, designed in Google Docs (appendix 1). The survey questionnaire includes a total of five pages and consists of 15 questions. The survey was distributed to a number of Danish companies from different industry sectors, which are using social media platforms for internal communication and knowledge sharing. A total of 114 employees participated in the survey. The survey results are presented in appendix 2, table 1-13.

The survey design and the questions were developed and based on the inspiration from a survey conducted by the American non-profit association AIIM, (Association for Information and Image Management), which focuses on success factors for Enterprise 2.0 applications (Aiim, 2011).

The online survey questionnaire was chosen as data collection method, since it is an effective way to gather information quickly from a large group of people (Van Selin and Jankowski, 2006), (Jobber, 2004). There are many advantages when using an online survey for data collection. One of the main advantages is that it is either free or very low-cost to conduct an online survey. Furthermore, the technical aspect of online surveys makes it possible to collect the data efficiently (Van Selin and Jankowski, 2006), due to the easy access to the web survey tool provided by the link, which was provided to the pre-selected group of participants. The data was automatically and conveniently stored in Google Docs database for later analysis. Furthermore, online surveys provide convenience for the participants in several ways. Respondents can answer the questionnaire at a convenient time, and can take as much time as they need to answer the individual questions (Evans & Mathur, 2005).

In order to make the case study sampling as representative as possible and collect a minimum of 100 respondents, the non-probability method of purposive sampling was applied (Mack et. al, 2005). Purposive sampling means that the participants have been, specifically, chosen according to pre-selected criteria relevant to the research question, and that the sample size is not fixed, but depends on resources and the time available (Mack et. al, 2005). The participants selected for this survey are employees, who have been invited to use the social media platform for knowledge sharing internally in the organization they work in. The survey link was provided to all these employees. The employees, however, had to voluntarily choose to take the survey, which can affect the response rate negatively, since some employees may have perceived the survey as spam and not relevant to them (Evans & Mathur, 2005). This lack of control of how many respondents will participate and complete the questionnaire is, however, one of the main disadvantages when using online surveys (Evans & Mathur, 2005). The survey was also posted on social media platforms such as: Facebook, LinkedIn and Twitter, however, the participation has been very limited on these platforms, which has little significance and affect on the survey results.

6.4 Questionnaire construction

The survey questionnaire (appendix 1) includes a total of five pages and consists of 15 questions. The questions are constructed in a restricted manner in order to get answers, which are specific and related to the research question. The questions are constructed and based on the, previously, mentioned Aiim survey, as well as the theoretical framework of the three categories of factors - individual, organizational, technological - that affect employees' knowledge sharing.

The questions relate to employees knowledge sharing behavior and their use of social media platforms during work. The first part of the questionnaire focuses on how frequent employees share knowledge, which type of knowledge they share and which platforms they share it on. Traditional communication channels have also been included as part of the answer options in order to determine the adoption level of the new social media platforms. The second part, and the majority of the questionnaire, entails questions, which focuses on employee motivation and the drivers and barriers to knowledge sharing. Demographic questions are included in the last part of the questionnaire in order to provide a profile of the participants.

The questionnaire consists of a range of different survey questions types, which each have their advantages, when collecting data. The question types in the questionnaire are: Selection questions: multiple choice (selects one), multiple select questions (all that apply), Scale questions: Likert Scale (Fraenkel & Wallen, 2006). It is important to note that in some of the questions, the respondents may have selected more than one option, so the results may add up to more than 100%. A comment section is provided with some of the questions in order for the respondent to provide a different answer than the options available. This makes the questionnaire more exploratory and qualitative of nature, which can lead to new discoveries and interesting findings.

It is crucial that the respondents understand the questions in order to provide a true and valid response (Jobber, 2004). Due to the case specific situation and focus on knowledge sharing as a research area, specific concepts and wording have been used throughout the questionnaire. However, the fact that the employees are familiar with social media and knowledge sharing should limit the risk of the respondents not understanding the questionnaire when they read it. In order to prevent misunderstandings, the concepts of knowledge sharing and social media was explained, when the questionnaire was sent out.

6.5 Interviews

In addition to the empirical findings provided by the survey questionnaire, qualitative data was collected through eight semi-structured interviews with four managers and four employees, who are

using a social media platform for knowledge sharing. Six of the interviews were conducted in the three case companies Berlingske Media, Wao and Damco. The interviews were conducted either face-to-face or over the phone over a time frame of approximately 45 minutes. An interviewee profile of the managers and the employees are presented in figure 5.

PARTICIPANTS / MANAGERS	COMPANY	POSITION
Allan Lorentzen	Berlingske Media	Project Manager
Sara Kyed L. Jensen	Wao	Management Coordinator
Christian Hoengard	Damco	Global Head of Marketing & Communications
Jonathan Wichmann	Maersk	Head of Social Media

PARTICIPANTS / EMPLOYEES	COMPANY	POSITION
Pernille Rosenquist	Berlingske Media	Key Account Manager
Valdemar Stilling	Wao	Controller
Sandra Heerwagen	Damco	PA to Global CCO
André Dethlefsen	Nykredit	Business Analyst

Figure 5. Interviewee profile

Data collection through interviews provides a great opportunity to collect useful information on the research topic in order to answer the research question (Yin, 1994). The open-ended nature of interviews put emphasis on the interpretation of behavior and opinion in a specific context (Yin, 1994) and provides insight into the participant's daily life experience and why a certain behavior exists. The interviews were semi-structured (Kvale, 2009). This type of interview was chosen in order to obtain as much useful information as possible, in order to gain insight into the employees' knowledge sharing behavior and opinion about the use of social media in a work context. This method is flexible and allows for follow-up questions to be brought up during the interview as a result of what the interviewee says. This allows the interviewee to express their opinion freely about their experience (Kvale, 2009). The interview questions consist, mostly, of the open-ended questions 'what' and 'how', which forces the interviewee to explain and elaborate on the questions. The interview questions for the managers and the employees were different due to the fact that they

may have different perspectives on knowledge sharing due to their different positions and knowledge possession. The questions posed for the employees were the same as in the survey questionnaire (appendix 1), however, in the interview, the interviewee had the opportunity to explain and elaborate on the questions, which provides new insight into the employees' knowledge sharing behavior, which was not possible in the survey. The questions for the managers were different in terms of managers possessing more insight into the strategic background of using social media for knowledge sharing. The questions for the managers are presented in the interview guide in appendix 3.

7.0 Data analysis

This study contributes to existing research by investigating employee motivation and which factors affect employees' knowledge sharing through social media, which will be analyzed and discussed in the following sections.

7.1 Adoption and use of social media platforms

Employees play a central role in knowledge sharing and social media can be a facilitator for more effective knowledge sharing to unlock valuable knowledge in organizations. Enterprise 2.0 platforms such as Chatter, Yammer and Podio provide new ways to communicate and collaborate for organizations and their employees internally in the organization. The use and adoption of these platforms was investigated in a number of Danish companies from different industry sectors based on an online survey questionnaire (appendix 1), as well as eight semi-structured interviews with four managers and four employees. In total 114 responses were registered. A profile of the respondents is illustrated in table 2 in order to get an overview of the participants in the survey. The table is a summary of the survey results, which is presented in appendix 2, table 12 and 13.

RESPONDENT PROFILE		
		<i>In total: 114</i>
POSITION		
Manager	24	21%
Specialist	53	46%
Office worker	23	20%
Trainee	5	5%
Other	9	8%
AGE		
20-29 years	24	21%
30-39 years	48	42%
40-49 years	33	29%
50-59 years	6	5%
60+ years	2	2%
Other	1	1%
GENDER		
Female	48	42%
Male	66	58%
WORKING YEARS		
< 1 year	2	2%
1-5 years	79	69%
5-10 years	18	15%
10-15 years	9	8%
20-30 years	3	3%
30+ years	3	3%

Table 2. Respondent profile

The survey shows that the majority of the participants (63%) are relatively young and that only few senior respondents have participated (table 2, page 45). The participation of female and male respondents is almost 50/50, with only 8% more male respondents. The majority of the respondents (69%) have worked from 1-5 years in their organization, which, most likely, correlates to the majority of the respondents' relatively younger age. All levels of positions are represented in the survey, but it is noteworthy that almost 50% of the respondents are specialists (table 2, page 45). Specialists are employees, who possess a high level of expert knowledge within a field, which they often are hired for.

The survey results show that 95% of the employees share knowledge with their colleagues. Only 5% are passive and never share their knowledge. Over half of the employees frequently share knowledge. 55% of the employees share knowledge daily and some several times daily. 25% only share knowledge occasionally (weekly) and 15% rarely (monthly), which is illustrated in table 1 below (appendix 2, table 1).

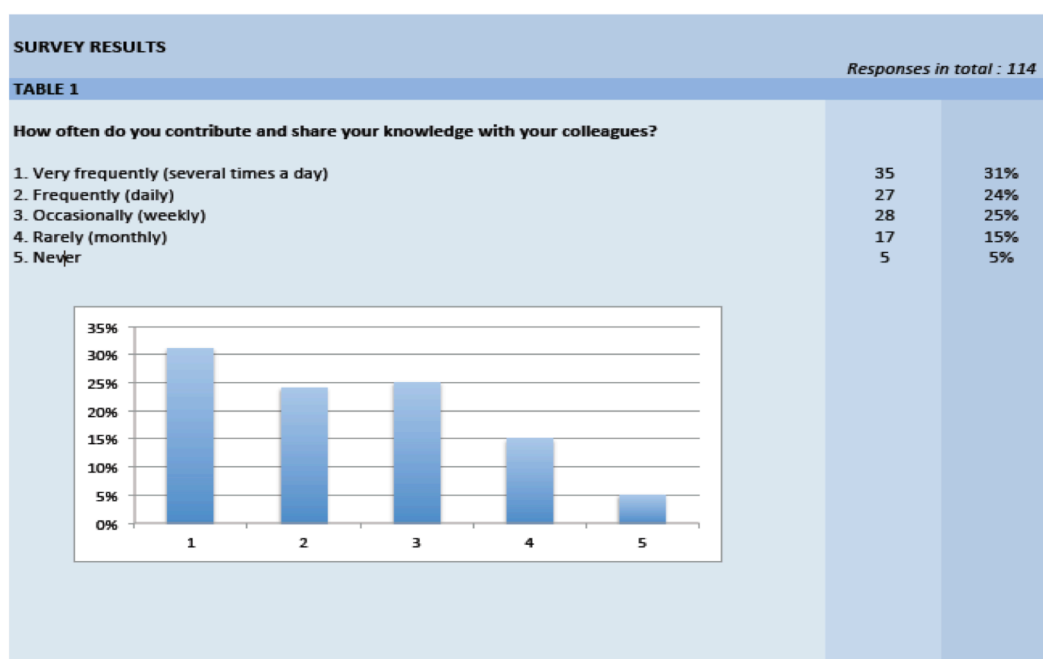


Table 1. Knowledge sharing frequency (appendix 2).

The fact that 95% of the employees actively share knowledge is very positive, but the survey shows that employees by far share knowledge through traditional channels (McAfee, 2006, 2009), such as email and face-to-face meetings, which is illustrated in table 2 below. 91% share knowledge through email and 79% through face-to-face meetings. Chat (41%), intranet (27%) and Google Docs (24%) are

the second most popular ways to share knowledge after email and face-to-face meetings. The social media platforms, Yammer (14%), Podio (13%) and Chatter (14%), score very low compared to traditional communication channels. The usage of wikis score 14% and blogs scores as low as 4%, which is illustrated in table 2 below (appendix 2, table 2).

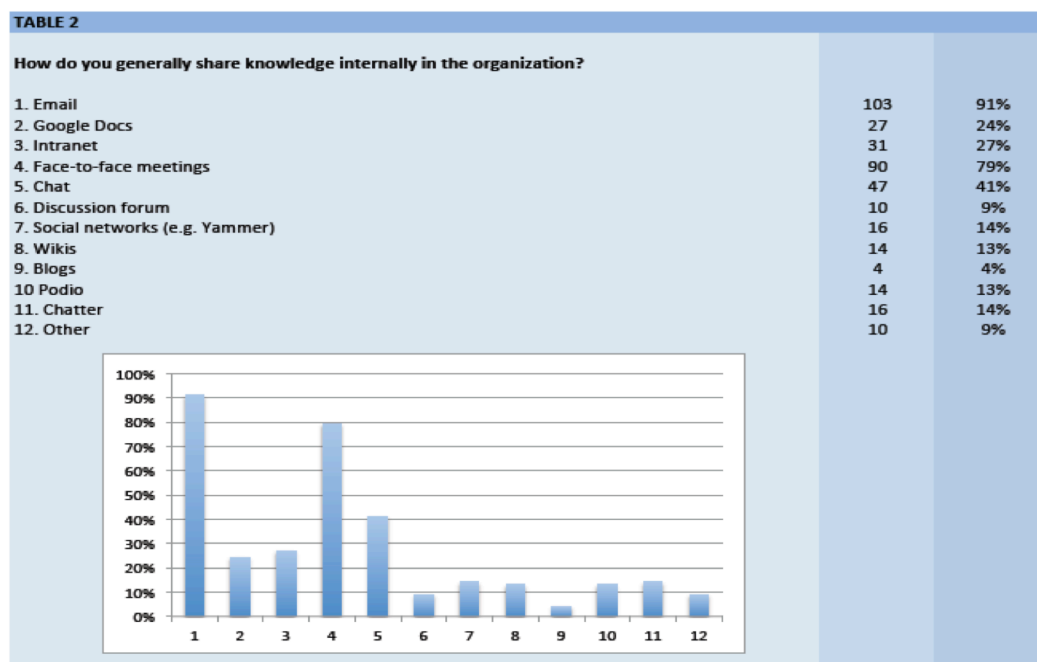


Table 2. Communication channels and platforms employees share knowledge on (appendix 2).

The use of traditional communication channels versus social media platforms is illustrated in table 3.

TRADITIONAL COMMUNICATION CHANNELS		SOCIAL MEDIA PLATFORMS	
EMAIL	91%	SOCIAL NETWORKS	
		❖ YAMMER	14%
		❖ CHATTER	14%
		❖ PODIO	14%
FACE-TO-FACE MEETINGS	79%	WIKIS	14%
CHAT	41%	BLOGS	4%
INTRANET	27%	GOOGLE DOCS	24%

Table 3. Use of traditional channels versus social media platforms

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The survey shows that the adoption of social media platforms is limited, at this point. 95% of the employees actively share knowledge, which is positive, but the survey shows that employees by far share knowledge through traditional channels, such as email and face-to-face meetings. 5% of the employees never share their knowledge. 91% of the employees share knowledge through email and 79% through face-to-face meetings. Only a limited amount of employees have adopted the Enterprise 2.0 platforms: Chatter (14%), Yammer (14%) and Podio (13%) as part of their work routine. The usage of wikis only score 14% and blogs score as low as 4%. Many individual, organizational and technological factors affect employees' knowledge sharing behavior, which, consequently, means that there can be different reasons to the limited adoption and why employees still, primarily, use traditional communication channels, when they communicate.

7.2 Social media: The benefits and business drivers

The organizations are, however, still gaining benefits and business value from social media even though the adoption is limited. The survey shows that the social media platforms are providing benefits in many ways, and in general improve the internal communication and collaboration in the organizations. The top five benefits are presented in figure 6. More can be found in appendix 2, table 10.

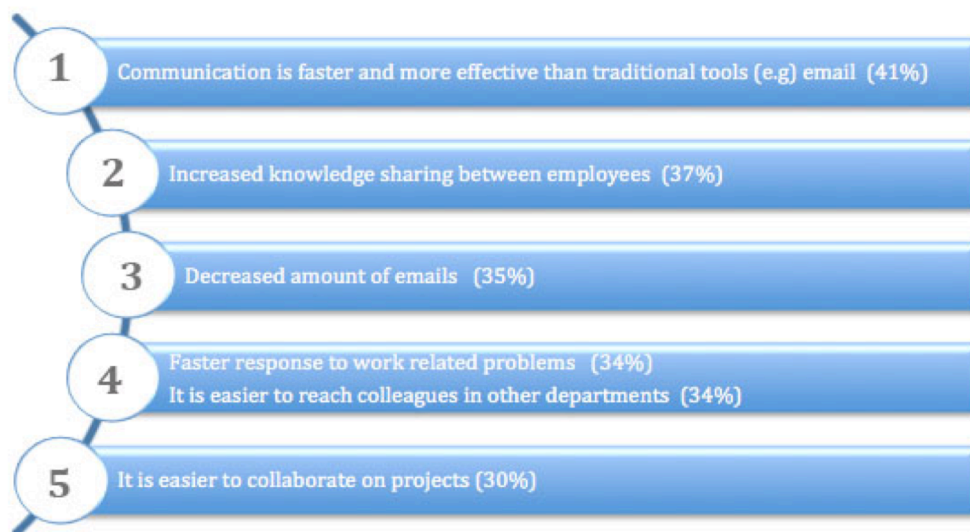


Figure 6. Top five benefits from the adoption of social media platforms.

The survey results show that 41% of the employees find that the number one business driver from the use of social media platforms is that communication is faster and more effective than through traditional channels such as email and face-to-face meetings. Furthermore, 37% of the employees find that knowledge sharing is increased and the amount of emails has decreased (35%). The internal communication has also been improved by other benefits such as: reaching colleagues in other departments is easier (34%), employees get faster response to work related problems (34%) and it is easier to collaborate on projects (30%). These findings are similar to previous research conducted by Lin (2007b), which found that technological tools positively affect employees to share knowledge, because it enables faster communication and knowledge sharing (figure 4).

The telecommunications company Waoow is among the companies, which are reaping benefits from the use of social media for knowledge sharing internally in the organization. According to Valdemar Stilling, who works as a Controller at Waoow, the social media platform Podio provides a much more informal way of sharing knowledge than for instance email: "It's an easy way to communicate. All the documents are in one place and related to a topic in one thread. It reduces the number of irrelevant emails I have to send, when I can post the information in one place" (V. Stilling, telephone interview, February 22, 2013). Sara Kyed L. Jensen, who is a Management Coordinator with Waoow, also points out that the company is gaining benefits from using Podio, which mainly has been used for human resource matters and for information that is relevant for all employees: "The platform has reduced the workload when we update documents, and the platform has been very useful for new employees to get an overview and keep updated on what happens in the organization" (S. Jensen, telephone interview, February 28, 2013).

The transportation and logistics company Damco is also benefitting from implementing a social media platform in the company. The customized internal social network 'Damco People Network' is already a success. Christian Bech Hoengaard, who is Global Head of Marketing & Communications, explains how the company is already reaping the benefits: "We have already seen an increase in productivity in the company, and the goal is to increase the revenue even more" (C. B. Hoengaard, telephone interview, January 30, 2013). Sandra Heerwagen, who is a Personal Assistant to the Global CCO, agrees with Hoengaard. "It is a lot easier to search for and find information as well as look for people with a certain expertise than it is on the intranet. The search function on the platform is so much better." She adds: The social network is really helpful due to the global reach of Damco, which makes it really easy to get hold of colleagues even if they are in a different country" (S. Heerwagen, personal interview, February 8, 2013).

The media production company, Berlingske Media, is also benefitting from the use of the platform Chatter. Allan Lorentzen, who is a Project Manager in the company, explains: "The platform is a success, because it has improved communication in the department we use it in. Relevant content

and information is available to all in one place, which makes it easier to find. However, in terms of all the opportunities it provides, we are far from seeing the full potential and benefits it can provide” (A. Lorentzen, personal interview, January 24, 2013).

Even though the organizations are reaping benefits from the use of social media platforms, they are far from seeing the full potential and reaping all the benefits it can provide and becoming ‘social business’ (Rennie, 2011), (IBM, 2012a), where the adoption and the use of the social media platforms include the whole organization. Becoming a social business is a process and happens in stages and over time (IBM, 2012a). Each organization is unique, why the success of the individual organization will depend on a number of different factors (Al Alawi et al., 2007).

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Despite the limited adoption and employee participation, the companies are still reaping benefits and gaining business value from the use of social media platforms for internal communication and collaboration. Overall, the social media platforms have enhanced communication and improved knowledge sharing and collaboration among the limited group of employees, who participate on the platforms. The key benefits and business drivers, which have been identified in this study, are presented below.

KEY BENEFITS & BUSINESS DRIVERS

- Communication is faster and more effective than through traditional tools (e.g. email)
- Knowledge sharing is increased
- Irrelevant emails are decreased
- Reaching colleagues in other departments is easier
- Work related problems get solved faster
- Collaborating on projects is easier
- Workload is reduced when documents need to be updated
- Employees can easier stay updated on what happens in the organization

The companies are however, far from seeing the full potential and gaining all the benefits the platforms can provide and becoming ‘social business’, where the adoption and the use of the social media platforms include the whole organization.

7.3 Motivation and knowledge sharing

Many factors affect the individual employees' willingness to share knowledge. These factors and the motivation that lies behind why employees share or hoard knowledge is discussed and analyzed in the following sections.

7.3.1 Knowledge sharing - a social dilemma?

Knowledge sharing can be considered a 'social dilemma', according to some scholars (Cabrera & Cabrera, 2002), (Kimmerle et al., 2008). A 'social dilemma' refers to a situation, where organizational interests conflict with the employees' individual interests. Organizations have an interest in making knowledge available for all employees, but from an employee's point-of-view it is a rational choice to hoard knowledge in order to save time, conserve power and thereby remain valuable and reduce the risk of getting fired (Kimmerle et al., 2008), (Cabrera & Cabrera, 2002), (Casimir et al., 2012), (Gammelgaard, 2004). Especially in times, where many companies are forced to downsize, the motivation to share knowledge may very likely diminish, because employees have a good reason for hoarding knowledge in order to remain valuable. As one of the respondents (manager/40-49 years old), commented in the survey questionnaire: "A rapid changing business and job insecurity does not encourage knowledge sharing between employees" (appendix 2, table 6).

In a study conducted by Kirchner, Razmerita & Sudzina (2008) fear of giving up power and authority was identified as a key factor, which affects employees' willingness to share knowledge, because employees feared to become replaceable and lose their job (figure 4). However, contrary to this previous finding, a key finding in this study is that fear of giving up power and authority (4%) and fear of becoming replaceable (5%) are among the lowest scoring factors, which affect employees' knowledge sharing (appendix 2, table 5). Employees are more concerned with providing wrong and faulty information (14%), which is a factor that may prevent them from sharing knowledge (appendix 2, table 5). Jonathan Wichmann, who is Head of Social Media for Maersk, and the main force behind how the Danish shipping company is pioneering the use of social media for external use and customer reach (Klor, 2013), comments on the new development in employees' willingness to share knowledge. He emphasizes the importance of sharing relevant content on social media platforms: "The essence of social media is to share relevant content with your colleagues. If it's not relevant people will consider it as useless information, and you don't want to waste your colleagues' time. You want to provide value" (J. Wichmann, telephone interview, January 29, 2013). The fact that employees no longer fear giving up power and authority and becoming replaceable as much as, previously, can be due to different reasons. The study conducted by Kirchner, Razmerita & Sudzina

(2008) was conducted five years ago in 2008, which have allowed for a development in employees' willingness to share knowledge. The familiarization with social media platforms such as: Facebook, LinkedIn and Twitter, over the years, very likely, also have contributed positively to the development. Christian Bech Hoengaard from Damco, believes that employees' willingness to share knowledge may be linked to the fact that social media platforms are recognizable from our private lives. "People are willing to learn new things. The social media platforms are recognizable with features from Facebook, LinkedIn and Twitter. And our behavior in the work place is not necessarily different from our private lives" (C. B. Hoengaard, telephone interview, January 30, 2013).

Not every employee wants to share their knowledge, since some believe they will lose their value. However, Joey Bernal, who is an Executive IT Specialist with IBM, argue that among a new upcoming generation of users this will not be the norm (Bernal, 2010: 105). This is in line with the finding in this study, which shows that employees believe they become more valuable by sharing knowledge. Jonathan Wichmann from Maersk agrees with Joey Bernal. He believes that employees are realizing that it is more beneficial to share knowledge than not to share it. "You become more valuable by sharing knowledge. You create social capital, and thereby you motivate and influence people to engage and become involved, by sharing knowledge that means something to you" (J. Wichmann, telephone interview, January 29, 2013).

The fact that more employees do not hoard knowledge, as much as previously, can also be due to the fact that they are hired for the specific knowledge they possess. The survey shows that almost 50% of the respondents are hired as specialists as illustrated in the respondent profile in table 2 on page 45. Valdemar Stilling from Wao explains: "I'm not afraid of losing my job. Knowledge sharing is a part of my job. Knowledge is dynamic and evolves all the time. Besides, the time I need to put into posting content, at this point, is not enough to create a risk for me losing my job" (V. Stilling, telephone interview, February 22, 2013). It is important to note that the positive development should be seen in the light of the majority of the participants in the survey (63%) are relatively young (between 20-39 years) and that only few senior respondents have participated (table 2, page 45). Andre Dethlefsen, from Nykredit, agrees that it is important to share knowledge to provide value to the organization: "It is important that I share my knowledge. It's a part of my job. Besides, knowledge sharing can be a fun break away from working, where I spend five minutes on sharing knowledge, which I find interesting and relevant for my colleagues (A. Dethlefsen, personal interview, February 7, 2013).

The interviews indicate that knowledge sharing is becoming an integral part of employee's work life, and that it even can be a fun break away from work to share relevant knowledge. It does not seem like employees' perceive any costs with sharing knowledge, due to the positive development in their willingness to share knowledge. However, this may be correlated to the fact that knowledge sharing

is a part of some of the employees' job description as well as the fact that the majority of the participants in the survey (63%) are relatively young and that only few senior respondents have participated.

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A key finding in this study is that knowledge sharing may not be such a 'social dilemma' after all, as previous studies (Cabrera & Cabrera, 2002), (Kimmerle et al., 2008) have found. Organizational and the individual employees' interests do not seem to conflict. Not even in times, where many companies are forced to downsize. The survey results show that fear of giving up power and authority (4%) and fear of becoming replaceable (5%) are among the lowest scoring factors, which affect employees' knowledge sharing. The finding indicates a positive development in employees' willingness to share knowledge in organizations and that knowledge sharing is becoming a more integral part of employee's work life.

Fear of sharing knowledge, which, previously, was associated with giving up power and authority and the risk of becoming replaceable, is no longer a primary concern among employees. This study shows that employees, now, are more concerned with providing wrong and faulty information (14%), since the essence of sharing knowledge on social media platforms is to provide relevant content to colleagues and provide value to the organization. The fear of sharing knowledge also seems to have diminished due to more employees, simply, are hired for their specific knowledge possession and that knowledge sharing is expected from them as part of their job description.

The study indicates that there may be a correlation between employees' age and position and their willingness to share knowledge, since the majority of the participants (63%) in the survey are relatively young (between 20-39 years) and almost 50% are hired for specialist positions, and that only few senior respondents have participated. The study also indicates that the positive development may, very likely, be linked to the fact that social media platforms are recognizable from our private lives and that employees' knowledge sharing behavior in the work place not necessarily is different from our private lives.

7.4 Factors that affect employees' knowledge sharing

The analysis and discussion of the factors, which affect employees' knowledge sharing is based on the research model developed for this thesis, which was introduced, earlier, in the theory section. The research model systematically summarizes the most common individual, organizational and technological factors, identified from previous research, which affect employees' knowledge sharing behavior through social media. The research model is illustrated in figure 4 below, which will be referred to throughout the analysis section.

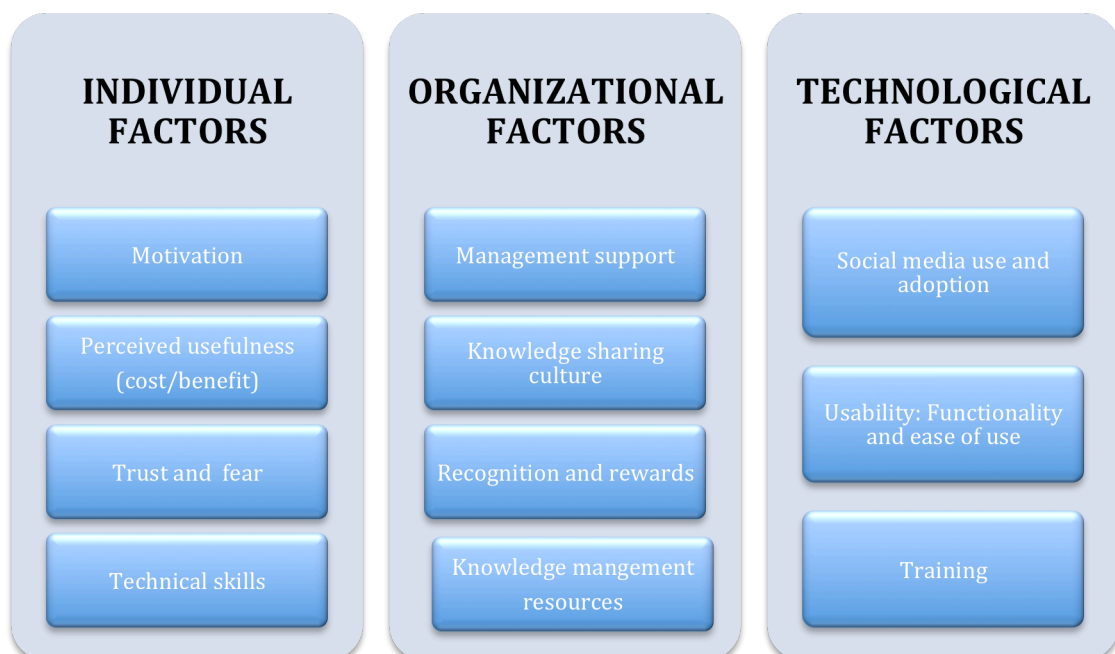


Figure 4: Factors that affect employees' knowledge sharing behavior.

7.4.1 Knowledge sharing drivers

The survey results show that employees are motivated to contribute and to share knowledge by a number of different factors. The top five knowledge sharing drivers are illustrated in figure 7 below. More survey results can be found in appendix 2, table 4.



Figure 7. Top five knowledge sharing drivers.

The survey shows, that the majority of the employees are motivated to contribute and share knowledge by intrinsic motivation (Deci & Ryan, 2000), which means they do it out of altruistic reasons, because they enjoy helping colleagues (Lin, 2007b), (Wasko & Faraj, 2005), (figure 4). 89% of the employees are motivated to share knowledge, because they see their contribution as valuable to the organization, and 65% of the employees share knowledge, simply, because they enjoy helping colleagues with work related problems (figure 7 and appendix 2, table 4). This is also the general opinion among the four employees, who were interviewed for this study. Andre Dethlefsen, who is a Business Analyst, from Nykredit, believes it is important to share his knowledge, since it provides value to the organization: “It is important that I share valuable knowledge. It’s a part of my job. Besides, knowledge sharing can be a fun break away from my work routines, where I can spend five minutes on sharing knowledge, which I find interesting and relevant for my colleagues” (A. Dethlefsen, personal interview, February 7, 2013). Pernille Rosenquist, who is a Key Account Manager, from Berlingske Media, agrees: “Knowledge sharing is a part of my job description, but I believe that it is important to share knowledge in order to optimize and update the business data in

the organization whenever possible. It does not make sense not to share knowledge, which can be helpful to your colleagues” (P. Rosenquist, personal interview, February 15, 2013). As the interviewees’ statements show, knowledge sharing seems to be an integral part of their job, and they find it important to share knowledge in order to provide value to the organization and their colleagues. Deci and Ryan (2000) argue that, in general, people, who are intrinsically motivated, are more likely to engage in the task willingly as well as work to improve their skills, which will increase their capabilities as well as the organization’s productivity. The employees’ perceived usefulness and the benefits of using the platforms, simply, outweigh the costs of spending time and effort on sharing knowledge, because it provides value to the organization and their colleagues. This finding is consistent with the study, referred to earlier, conducted by Paroutis & Al Saleh (2009), which identified perceived usefulness as one of the key factors, which affect employees’ knowledge sharing (figure 4).

Employees seem to be motivated less by factors, which they, personally, benefit from. This conclusion can be drawn from the survey results, which drop almost 50% from the two key intrinsic motivating factors, ‘I see my contribution as valuable to the organization (89%), and ‘I enjoy helping others with work related problems (65%)’, to the factors on the third and fourth place, where 34% of the employees feel motivated because they gain status and recognition from colleagues and managers and 26% (figure 4) feel they increase their social network, which are factors they, personally, benefit from (figure 7 and appendix 2, table 4). Previous studies conducted by Paroutis & Al Saleh (2009), Ardichvili et al. (2003), Hsu et al. (2007) and Wasko & Faraj (2005) have also shown that recognition is a key motivating factor, since it is a way to establish the employee’s credibility and expert status.

Recognition and status is manifested through the employees’ profile on the social media platform. The employee’s skills and expertise are displayed as well as the content the employee contributes with, which both managers and employees can see and follow on the platform. According to Christian Bech Hoengaard, from Damco, there is an aspect of gamification¹² on the platform, which may motivate some employees to contribute more than others. He explains that the more employees contribute, the more points the person will get, which is displayed on the profile. The more points, the more recognized the person will get in terms of rank and how much the person is influencing the group. He points out that there is no reward system for sharing knowledge in Damco, at this point (C. B. Hoengaard, telephone interview, January 30, 2013).

A noteworthy comment from Allan Lorentzen from Berlingske Media is how a cultural influence (Ardichvili et al., 2006) like the Danish ‘Jantelov’ (the Law of Jante) may influence knowledge sharing

¹² Gamification techniques leverage people’s natural desires for competition, achievement and status as well as self-expression.

negatively, on the contrary from the gamification aspect. The Danish concept is also known as the who-do-you-think-you-are attitude, which criticizes individual success and achievement as unworthy and inappropriate. "Some employees may hoard knowledge, since they do not want to come off as sucking up to management and managers by sharing knowledge too frequently on the platform". He points out that this tendency is not that prevalent on external platforms, such as Facebook and Twitter, but more likely in a business environment (A. Lorentzen, personal interview, January 24, 2013). A previous study conducted by Ardichvili et al. (2006), also found that cultural factors influence the individual employee's knowledge sharing significantly, but that they have different levels of importance among employees depending on the country they are from, why this tendency may be unique to knowledge sharing in Danish companies.

The management participates on the social media platforms in Damco and Wao, but in Berlingske Media, only managers on the operational level participate. However, neither Valdemar Stilling from Wao nor Pernille Rosenquist from Berlingske Media, feel particularly motivated to use the platform, because the management and managers are present on the platform, since knowledge sharing is a part of their job description. Pernille Rosenquist explains: "Knowledge sharing is a part of my job description, so I don't feel more motivated because the management and managers participate on the platform." She adds: "But I do think that employees could use more motivation to use the platform (P. Rosenquist, personal interview, February 15, 2013). It seems like the gamification aspect on social media platforms may be a motivating factor to share knowledge for some employees, but that a cultural influence such as the Danish 'Jantelov' (the Law of Jante) may get some employees to hoard knowledge. However, the presence of the management and managers does not seem to be a motivating factor to some employees. This may, however, be due to the fact that knowledge sharing is a part of their job description. It is important to note that this finding needs to be considered in a cultural context, why this may be unique to knowledge sharing in Danish companies. Due to lack of generalizability of this case study, the finding suggests that further research should be done on cultural influences, which can affect employees' knowledge sharing through social media.

This survey results also show that only 11% of the employees are motivated by extrinsic motivation (Deci & Ryan, 2000), which focuses on goal-driven reasons and monetary rewards, such as higher salary or bonus (figure 4). It is noteworthy that so few employees are motivated by monetary rewards (figure 7 and appendix 2, table 4). A study, conducted by Lin (2007) shows, that a reason for this could be, that extrinsic motivation (e.g. monetary compensation) only promotes temporary compliance. Related to motivational factors only 11% of the employees do not think that knowledge sharing is important to them or their work responsibilities (figure 7 and appendix 2, table 4).

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The survey results show that employees are motivated to contribute and share knowledge by a number of different factors. In general employees feel that knowledge sharing is an integral part of their work and it is important to share knowledge with colleagues and provide value to the organization. The top five knowledge sharing drivers identified in this survey are presented below.

KNOWLEDGE SHARING DRIVERS

- I see my contribution as valuable to the organization (89%)
- I enjoy helping others with work related problems (65%)
- I am gaining social reward, such as status and recognition from colleagues and managers (34%)
- I am increasing my social network (26%)
- I increase the chance of getting monetary reward, such as a higher salary or a bonus (11%)

The survey shows that the majority of the employees are motivated by so called intrinsic motivation. This means that employees think less about what they, personally, gain from knowledge sharing and are motivated to share knowledge out of altruistic and unselfish reasons, simply, because they like to help colleagues and provide value to the organization. This is consistent with previous studies conducted by Lin (2007b) and Wasko & Faraj (2005), which also identified that recognition from colleagues and managers is a key motivating factor.

The gamification aspect of social media platforms may motivate some employees to share knowledge more than others. However, on the contrary, some employees may hoard knowledge due to a cultural influence (Ardichvili et al., 2006), such as the Danish 'Jantelov' (the Law of Jante), because they do not want to come off as sucking up to the management and managers by sharing knowledge too frequently on the platform. It is important to note that this finding needs to be considered in a cultural context, why this may be unique to knowledge sharing in Danish companies. The presence of the management and managers on the social media platforms, however, does not seem to be a particular motivating factor to some employees. This may, however, be due to the fact that knowledge sharing is a part of their job description. Only few employees are motivated by extrinsic motivation and monetary rewards, such as a higher salary or bonus.

7.4.2 Knowledge sharing barriers

The survey shows that a number of factors affect employees' knowledge sharing and participation negatively. The top five barriers employees experience with the use of social media for knowledge sharing are presented in figure 8 below. More barriers can be found in appendix 2, table 11.



Figure 8. The top five barriers employees experience with the use of social media platforms for knowledge sharing.

This study identifies lack of employees' participation (38%) as the number one individual barrier to affect employees' knowledge sharing and lack of management commitment and motivation (34%) as the second highest scoring barrier and organizational factor, which affect employees' willingness to share knowledge. The individual factors lack of content quality (26%) and information overload (26%) are also among the top barriers employees experience with the use of social media platforms for knowledge sharing. Employees also find that the individual barriers, lack of time (24%) and lack of understanding of social media and the benefits it provides (19%) are among the factors, which prevent them from sharing knowledge (figure 8 and appendix 2, table 11).

The survey results show that a number of different factors affect employees' willingness to share knowledge. Allan Lorentzen, from Berlingske Media, is familiar with limited employee participation. He explains that a reason for the limited adoption of Chatter may be because people are creatures of habit and they are more comfortable with their current work routines (A. Lorentzen, personal interview, January 24, 2013). A previous study conducted by Paroutis & Al Saleh (2009) found that one of the key barriers to adopt social media for knowledge sharing is the effectiveness and convenience of using existing tools. The study also found that lack of technical skills played a

significant role in the limited adoption of the platforms (figure 4), because it discouraged the employees, which made them go back to old work routines. Allan Lorentzen, however, adds that the limited adoption of the platform, very likely, has nothing to do with the technical aspect of using Chatter. The platform is very simple and easy to use, since it has recognizable features from Facebook and Twitter (A. Lorentzen, personal interview, January 24, 2013). This is in line with the survey results, which show that only 18% of the employees mention, the technological factor, lack of training (figure 4) as a factor that would keep them from sharing knowledge. And only 15% of the employees think that the platform is too complicated use (figure 4) (appendix 2, table 11). The general opinion among the four interviewed employees is that training has been limited and that it was only provided in the implementation phase of the platform, but they emphasize that there has been no need for further training. Valdemar Stilling, from Wao, does not see the limited training as an issue: "We only had little training in the beginning, but Podio is very intuitive to use, so it's not difficult to communicate on the platform. You just kind of figure it out as you go along". He adds: It's the lack of time to get familiar with the platform, which is an issue" (V. Stilling, telephone interview, February 22, 2013). In general, the technical aspect of using the social media platforms is not an issue among employees, but 24% of the employees find that lack of time is a key barrier, which keeps them from sharing knowledge (figure 4) (appendix 2, table 11).

In this study, there is an indication that the limited adoption of the social media is caused by the fact that people are creatures of habit and they prefer their current work routines. However, contrary to previous research, conducted by Paroutis & Al Saleh (2009), this study identifies that lack of technical skills (15%) and lack of training (18%) not are among the main barriers, which keep employees from sharing knowledge. Even though training only was provided during the implementation phase of the platform, employees do not express the need for further training due to the user-friendliness of the platforms, which Kirchner, Razmerita & Sudzina (2008) argue is a prerequisite for employees to adopt social media (figure 4). The employees are willing to use the platforms, but it is lack of time, which prevents them from getting familiar with the platforms. The positive development is noteworthy, but the result may be unique to this specific case study due to the majority of the employees (63%), who participated in this survey, are relatively young (between 20-39 years) and only few senior respondents have participated. The younger generation may very likely be more technically skilled than the older generation due to more frequent use of social media in their private lives.

This study identifies lack of management commitment (34%) as the second highest scoring barrier, which affect employees' knowledge sharing (figure 8 and appendix 2, table 11). The finding emphasizes that the active involvement of management and managers to motivation and encouragement employees to adopt social media and share knowledge is closely related. Many

previous studies also emphasize the need for management and managers to get actively involved, since the implementation of social media alone does not promote adoption of the platform and knowledge sharing (figure 4), (McAfee, 2009), (Paroutis & Al Saleh, 2009), (Stenmark, 2008). A key finding in this study is that the level of lack of management commitment is perceived differently in two of the case study companies. The survey shows that employees seem to be motivated by the same knowledge sharing drivers in both Berlingske Media and Waoo, but that barriers are different (appendix 8, table 15)¹³. In the overall survey lack of management commitment is on a second place among the barriers, which affect employees' knowledge sharing negatively. In the individual survey conducted in Berlingske Media it seems to be perceived worse, since employees' rate lack of management commitment as the number one barrier to knowledge sharing, while in Waoo it is only on a fifth place.

Allan Lorentzen, from Berlingske Media, believes that lack of management involvement may have affected employee participation in Berlingske Media negatively: "It is a wish to get more employees to adopt the platform in order to share knowledge more effectively. But the management needs to get involved in order to change the business culture, which has not been a priority due to lack of time (A. Lorentzen, personal interview, January 24, 2013). Pernille Rosenquist, from Berlingske Media agrees and urges management to get involved and explain the benefits of social media in order to motivate employees to share knowledge and adopt the platforms in their work routine (P. Rosenquist, personal interview, February 15, 2013).

The limited employee participation is recognized in Waoo, but lack of management commitment does not seem to be a challenge. According to Sara Kyed L. Jensen, from Waoo, the implementation and use of Podio was never meant to be a burden or to demand a lot of time from either management or the employees. The management was never meant to become really involved due to the fact that the platform, mainly, is intended for HR related matters and general information (S. Jensen, telephone interview, February 28, 2013).

Contrary to Berlingske Media and Waoo, Damco has a strategic approach to knowledge management due to the global reach of the organization. So far, employee participation has not been a challenge in Damco, and there are approximately 5000 employees on the platform globally. Christian Bech Hoengaard emphasizes that the adoption of the platform among the many employees is due to the strategic approach as well as the active involvement of top management and the motivation from managers on the operational level (C. B. Hoengaard, telephone interview, January 30, 2013).

The three different approaches to knowledge management, at Berlingske Media, Waoo and Damco, emphasize that each organization has a unique culture (Al Alawi et al., 2007), and that a number of

¹³ This finding was possible to obtain, since the survey results from these two specific companies were collected separately.

factors affect employees knowledge sharing as well as the level of commitment from the management and managers.

Allan Lorentzen points out another reason why the employee participation is limited in Berlingske Media. He explains that Chatter is a part of a larger customer relationship management system called 'Salesforce', which the employees use during their daily work routines. Chatter is an easier way to share knowledge, but it is not supposed to replace the CRM-system. Chatter simply does not match all the needs and requirements of the employees (A. Lorentzen, personal interview, January 24, 2013). Andre Dethlefsen, from Nykredit, explains how he lacks the need for using Podio during work: "I only find relevant content a couple of times a week on Podio. The majority of the data I need for my work I find in other databases" (A. Dethlefsen, personal interview, February 7, 2013). Sandra Heerwagen, from Damco, also explains how her needs for using the social network are limited due to her position: "I only use the social network sparingly. I work at management level, which means I often have confidential knowledge, which I only share face-to-face with management and managers (S. Heerwagen, personal interview, February 8, 2013). Sara Kyed L. Jensen, from Wao, agrees that lack of need can be the cause for the limited adoption of Podio: "Some of the employees, especially employees with specialist positions do not bother to share knowledge on Podio. They are willing to share knowledge. They just do it on other platforms they need to use during their daily work routines, which accommodates their needs better than Podio". She emphasizes it is important to consider the employees' needs in their daily work routines: "The top management never had the wish to invest the time to make a cultural change in the company, and it was important that we didn't take away the employees' current way of working. Implementing Podio was a wish from our employees to have a platform, where more informal and social knowledge could be shared" (S. Jensen, telephone interview, February 28, 2013). Sara suggests that a solution to get more employees to adopt the platform is to determine the employees' needs and customize the platform to match them in order to foster continued adoption and encourage knowledge sharing (S. Jensen, telephone interview, February 28, 2013). According to the interviewees it seems like the limited adoption of social media is caused by employees' lack of need for using the platforms during work. It is a noteworthy finding, since the survey shows that almost 50% of the participants are hired as specialists (table 2, page 45). This indicates that there is a correlation between the limited adoption of social media and the type of position employees have. As previously mentioned, employees are willing to share knowledge and do not hoard it as much as previously due to they, to a higher degree, are hired for their specific knowledge possession. Some employees, simply, may not use the platform due to lack of relevant content and because the platform does not meet their needs.

The survey also identifies lack of content quality (26%) and information overload (26%) as key barriers to knowledge sharing. The factors are on a shared third place, among the key factors, which

prevent employees from sharing knowledge (figure 8 and appendix 2, table 11). Sara Kyed L. Jensen agrees that information overload (26%) may be an issue to some of the employees at Wao, since Podio is an additional platform, which demands extra time to share knowledge and find information on (S. Jensen, telephone interview, February 28, 2013). A survey respondent, (specialist/20-29 years old), expresses her concern about lack of content quality and about providing wrong or faulty information, which 14% of the employees think is a factors, which would prevent them from knowledge sharing (appendix 2, table 5). She explains how she wants to contribute, but that it is hard to know which kind of content that is relevant for her colleagues. Jonathan Wichmann, from Maersk, comments on the importance of sharing relevant content on social media platforms: "The essence of social media is to share relevant knowledge with your colleagues. If it's not relevant people will consider it as useless information, and you don't want to waste your colleagues' time. You want to provide value". He emphasizes that social media guidelines is needed in order to help employees to share the most relevant and valuable content with their colleagues: "Every company needs a set of social media guidelines in order to optimize their communication. And by that I don't mean rules about not cursing and so on, but rules that describe which content is relevant, when to create a group, how many characters a post maximum should contain and so on" (J. Wichmann, telephone interview, January 29, 2013).

Christian Bech Hoengaard, from Damco, believe it is a matter of time before more employees adopt the platforms: "Information overload may be an issue for some employees, but when they discover that all important content is on the platform, they will start using it. They do not want to miss out, because they need to stay updated on their projects and what is happening in the organization". Christian Bech Hoengaard recognizes that information overload may be an issue to some employees, but that the benefits by using the platform, by far, outweigh the costs of not gaining relevant knowledge, which eventually will get the employees to adopt the platform.

The management participates on the social media platforms in Damco and Wao, but in Berlingske Media, only managers on the operational level participate. However, neither Valdemar Stilling from Wao nor Pernille Rosenquist from Berlingske Media, feel particularly motivated, because the management and managers participate on the platform, since knowledge sharing is a part of their job description. Pernille Rosenquist, however, urges management to put time into motivating employees to use the platforms more. "Knowledge sharing is a part of my job description, so I don't feel more motivated because the management and managers participate on the platform." She adds: "But I do think that employees could use more motivation to use the platform. Managers don't need to explain the technical aspect of using the platform, but they should explain how the platform can provide value to the employees as well as the company" (P. Rosenquist, personal interview, February 15, 2013). This is in line with the survey results, which show that 19% of the employees' find that lack

of understanding of social media and its benefits (19%) is among the top five individual factors, which prevent them from sharing knowledge (figure 8 and appendix 2, table 11). The active participation of management and managers on the social media platform does not seem to be a particular a motivating factor to some employees, but this may be correlated to the fact that knowledge sharing is a part of their job description, why this may not be the case for other employees.



This survey identifies a number of different factors, which affect employees' knowledge sharing through social media platforms negatively. The five key knowledge sharing barriers identified in this study are presented below.

KNOWLEDGE SHARING BARRIERS

1. Lack of other employees' participation (38%)
2. Lack of management commitment and motivation (34%)
3. Lack of content quality (26%)
Information overload (26%)
4. Lack of time to share knowledge (24%)
5. Lack of understanding of social media and the benefits it provides (19%)

This study identifies lack of employees' participation (38%) as the number one individual barrier to knowledge sharing and lack of management commitment and motivation (34%) as the second highest scoring barrier and organizational factor, which affect employees' willingness to share knowledge negatively. The finding emphasizes that the active involvement of management and managers to motivation and encouragement employees to adopt the platforms and share knowledge is closely related, and why the adoption of the social media platforms is limited, at this point.

A key finding in this study is, however, is that the level of lack of management commitment is perceived differently in the two case study companies, Berlingske Media and Wao. The employees seem to be motivated by the same knowledge sharing drivers, but the barriers are different. In the overall survey lack of management commitment is on a second place among the barriers, which affect employees' knowledge sharing negatively. In the individual survey conducted in Berlingske Media, lack of management commitment seems to be perceived worse, since employees' rate it as

the number one barrier to knowledge sharing, while in Wao, lack of management commitment is only on a fifth place. In general, employees urge management and managers to explain the value and benefits of social media platforms, which 19% of the employees see as a barrier to knowledge sharing, as well as to get more involved to motivate and encourage knowledge sharing. To some employees the active participation of management and managers on the social media platform does not seem to be a particularly motivating factor. This, however, seem to be correlated to the fact that knowledge sharing is a part of some of the employee's job description, why this may not be the case for other employees.

The limited adoption of the platforms can also be caused by the fact that they can be considered to be in the initial stages of the adoption process. They have been used for 6 months and up to around two years in the participating organizations, why the employees, primarily, use traditional communication channels, such as email and face-to-face meetings, when they communicate. Like previous research have shown (Paroutis & Al Saleh, 2009) employees are creatures of habit and prefer their current work routines due to convenience, why it takes time to adopt a new platform. The study conducted by (Paroutis & Al Saleh (2009) also found that lack of technical skills played a significant role in the limited adoption of the platforms, because it discouraged employees, which made them go back to old work routines. On the contrary, this study shows that lack of technical skills (15%) and training (18%) are among the lowest scoring barriers, which do not seem to affect knowledge sharing negatively. The employees are willing to use the platforms, but lack of time (24%) is a key factor, which prevents them from getting familiar with the platform.

Lack of need also seem to be a factor, which keeps employees from adopting the platforms. The survey shows that almost 50% of the respondents are hired as specialists, who, primarily, use other systems, where they find the majority of the content they need for work. The social media platforms, simply, do not match their needs and requirements due to lack of relevant content. The finding indicates that there is a correlation between the limited adoption of the social media platforms and the type of position and the specific knowledge employees have. Furthermore, there is an indication that the younger generation, very likely, is more technically skilled than the older generation, since the majority of the employees (63%), who participated in this survey, are relatively young (between 20-39 years) and only few senior respondents have participated, why lack of technical skills and training does not seem to be factors, which affect knowledge sharing in this specific case study. This could, very likely, be linked to the younger generation's more frequent use of social media in their private lives.

Information overload (26%) is also identified among the key factors, which keep some employees from sharing knowledge, since it will take time away from work that needs to be done. It is argued, however, that if important content only can be found on the platform, and the employees' perceived

usefulness (Paroutis & Al Saleh, 2009) and the benefits of using the platform outweigh the costs then employees, eventually, will start using it. Lack of content quality (26%) is also among the key factors, which concern employees, since the essence of using social media is to share relevant content with colleagues and provide value to the organization. Some employees find it hard to determine which kind of content they should share and whether it is relevant for their colleagues. It is suggested that a set of social media guidelines can help employees share valuable content by defining what is relevant and how it should be shared.

7.5 Knowledge management 2.0: The management's role

The survey results show there is a division in the employees' opinion whether they feel management and managers are encouraging knowledge sharing, however, the overall opinion is positive. 41% of the employees feel motivated and encouraged, 32% is neutral and 27% of the employees do not feel motivated and encouraged by management and managers, which is illustrated in table 6 below (appendix 2, table 6).

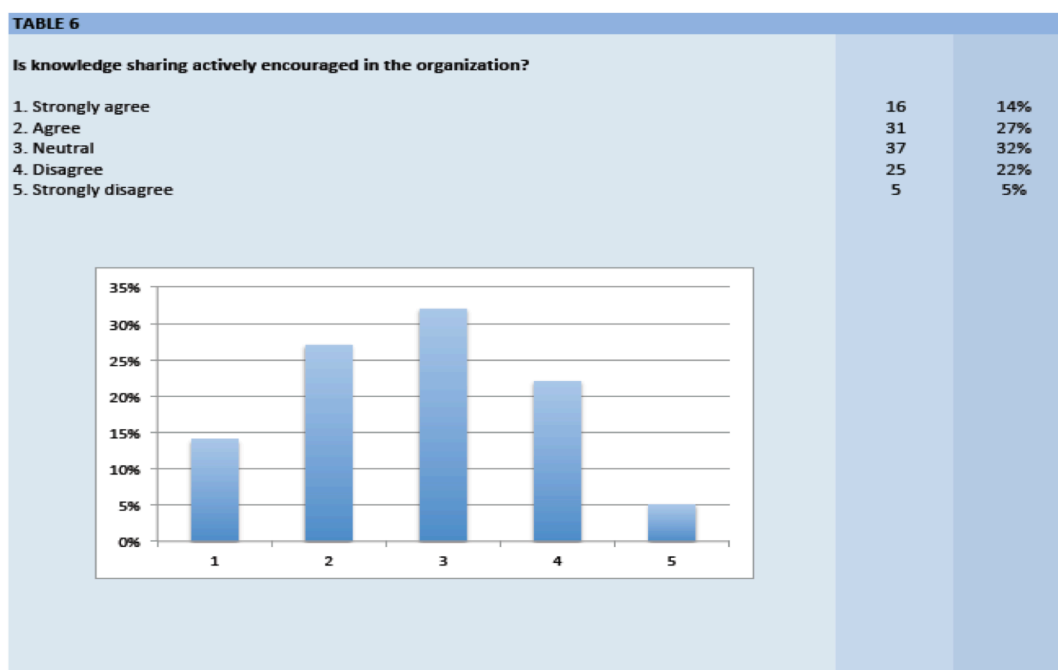


Table 6. Employee sentiment on encouragement from management and managers (appendix 2).

A few of the participants commented in the survey questionnaire why they do not feel motivated. An employee (office worker/20-29 years old) states: “Management tries to create a culture for knowledge sharing, but it is difficult. People are stuck in old habits and there is a lack of knowledge sharing culture in the organization”. Another employee (manager/20-29 years old) comments: “Management claims to encourage knowledge sharing, and at times knowledge sharing seems to be the solution to all problems. Yet, very few managers are truly capable of empowering and prioritizing knowledge sharing” (appendix 2, table 6). Even though the employees overall feel that knowledge sharing is encouraged by management and managers, it seems like not all of the employees agree, because the management and managers are not doing a good enough job and because they feel that the organization does not have a knowledge sharing culture.

The majority of the employees (44%) feel that knowledge sharing is encouraged, because it is a part of the organization’s culture, which is illustrated in table 7 below (appendix 2, table 7). This can very likely be correlated to the finding that more and more employees are hired for their knowledge and knowledge sharing is a part of their job description. 34% of the employees feel motivated and encouraged to share knowledge by management and managers. Only 6% of the employees feel extrinsically motivated (Deci & Ryan, 2000) and encouraged to share knowledge by monetary reward, such as higher salary and bonus or a promotion (appendix 2, table 7). This finding is in line with a previous study conducted by Lin (2007b), which showed that extrinsic motivation (e.g. monetary rewards) only promotes temporary compliance.

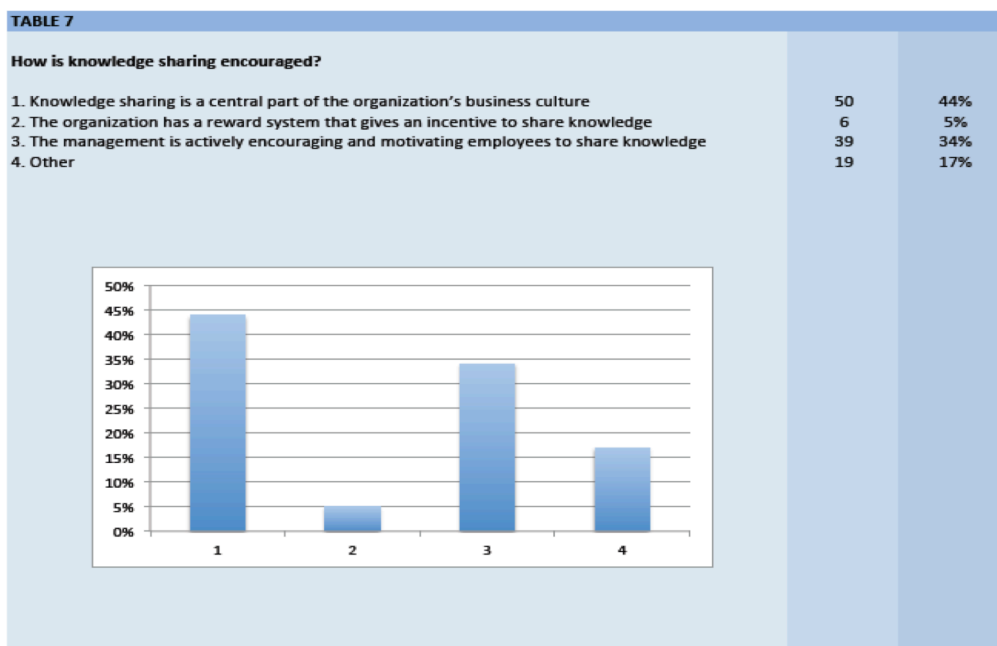


Table 7. Reasons to why employees are encouraged and motivated to share knowledge (appendix 2)

The survey shows that employees' overall feel motivated and encouraged to share knowledge by management and managers. The dispersion in the results, however, is noteworthy due to the limited adoption of the social media platforms. The finding emphasizes that each organization has a unique business culture (De Long & Fahey, 2000), (Al Alawi et al., 2007) and that every organization is different in structure, culture, number of employees, industry sector and so on. Furthermore, factors such as the employees' age and position may also affect the individual employee's opinion, why some of the employees feel that knowledge sharing is encouraged and others do not, which may explain the employees' divided opinions.

According to Stenmark (2008) management can take on different attitudes, when adopting social media for internal communication in the organization as introduced in the theory section. The management can be either supportive or obstructive to implementing social media in the organization. In addition, their support or opposition can be either active or passive, which is illustrated in figure 3 below. In addition to management taking on the right attitude when implementing social media, it is crucial that management create the right circumstances in order to facilitate successful knowledge sharing (Newell, 2009). The level of involvement of management and managers will have an influence on how successful the adoption of a social media platform will be and how social the organization can be categorized as. The different approaches to knowledge management in Berlingske Media, Wao and Damco can be categorized through Stenmark's (2008) framework of management attitudes, which is illustrated in figure 3 below.

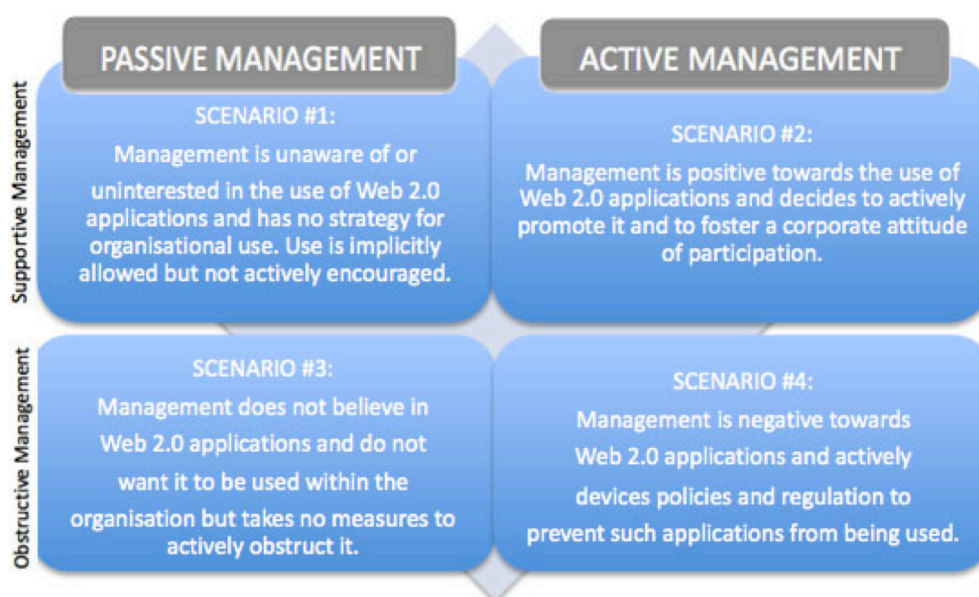


Figure 3: Stenmark's four management attitudes (Stenmark, 2008).

The global reach and strategic approach to knowledge management distinguishes Damco from Berlingske Media and Wao. According to Stenmark's (2008) framework, Damco can be categorized as a scenario #2 – active/supportive management. The management is positive towards the use of social media platforms and actively promotes it to foster a corporate attitude of participation. Berlingske Media and Wao do not have a strategic approach to knowledge management and can be categorized as a combination of scenario #1 – passive/supportive and #2 – active/supportive management. The management is positive about using social media for knowledge sharing, but there is no strategy and management is not actively promoting it, but has given the responsibility to managers on an operational level.

Damco distinguishes itself from Berlingske Media and Wao, because of its global reach and the strategic approach to knowledge management. The strategic approach means that a survey was carried out prior to the implementation to address and determine the employees' needs and to decide, which social media platform was ideal for the organization. A key finding in the employee engagement survey carried out by Damco, was that employees found that there was a lack of trust across the different groups and departments due to the global reach of the company. This issue is now addressed by the internal social network, 'Damco People Network', which provides a platform where employees can connect and communicate globally. The social network has many benefits according to Christian Bech Hoengaard. He emphasizes that the social platform is like a virtual coffee machine, where employees can get to know each other: "The social network creates an excellent way for employees to get to know each other in an informal way, which in the long run fosters trust and improved collaboration and knowledge sharing". He continues: "At this point, the platform has not replaced the intranet, but it is an attempt and we, currently, have approximately 5000 employees on the platform globally". He emphasizes that the adoption of the platform among this many employees is due to the strategic approach to knowledge management as well as the active involvement of management and the motivation from managers on the operational level (C. B. Hoengaard, telephone interview, January 30, 2013). Even though Damco has not experienced problems with employee participation and the implementation of 'Damco People Network' is a success, Christian Bech Hoengaard points out that one of the biggest challenges for organizations is to promote continued adoption among employees: "It is crucial that continued adoption is promoted among the employees. The managers need to motivate and encourage them continuously, otherwise the adoption will flat line (C. Hoengaard, telephone interview, January 30, 2013).

Andre Dethlefsen, from Nykredit, agrees with Hoengaard, that trust and knowledge sharing are closely related: "Sharing knowledge is about trust. You are more likely to share knowledge if you know your colleague on a personal level. If there is a team spirit between the employees then knowledge, more likely, will be shared. That is, if you like your colleague" He adds that social

activities in companies are very underrated and that managers, to a higher extent, should use social activities in their management practices to foster trust and thereby knowledge sharing in the long run (A. Dethlefsen, personal interview, February 7, 2013).

Previous studies conducted by Paroutis & Al Saleh (2009), (Al Alawi et al., 2007) and IBM (2012) have also found that trust is a key factor, which affects employees' knowledge sharing (figure 4). However, despite the findings of Paroutis & Al Saleh (2009) and IBM (2012) and the internal survey at Damco showed that lack of trust is one of the key barriers to share knowledge, the results from this survey differ. The survey results show that only 6% of the employees find that lack of trust is a factor, which prevents them from sharing knowledge (appendix 2, table 5). The fact that the survey results differ significantly from previous research emphasize the fact that many different, individual, organizational and technological factors affect employees' knowledge sharing. The finding indicates that the employees in the participating companies, simply, know and trust each other relatively well, why trust, in this specific case study, is not a factor, which affect knowledge sharing negatively.

Berlingske Media do not have a strategic approach to knowledge management. The decision to implement Chatter was a management decision, but the management is not taking on an active role in promoting knowledge sharing. The responsibility lies with managers on the operational level, which means the use of the platform, so far, is a trial and error process. Allan Lorentzen, from Berlingske Media, mentions lack of time to be the cause of the lack of involvement from the management. "It takes three months to create change among employees and to get them to adopt a new way of sharing knowledge, and the management do not have the time to invest to do so at this point" (A. Lorentzen, personal interview, January 24, 2013). Allan Lorentzen is one of the advocates of using social media for knowledge sharing and he does what can to explain the benefits of the platforms to his colleagues, but far from all employees are using the network, since they do not feel they have the need or time to do so. As he says: "At this point, we are just using the platform in the advertisement department, but we have the means to implement this platform in all of Berlingske Media. The management just needs to see the benefits and the value and invest the time".

The lack of management commitment seems to be a challenge in Berlingske Media mainly due to lack of time. However, the implementation of the platform is still a relative success, because it has enhanced the communication and collaboration among the limited group of employees in the advertising department. The finding, however, shows that management and managers need to invest the time to get involved in order to promote continued adoption of the platform and knowledge sharing.

Waoos does not have a strategic approach to knowledge management either. The management is not taking on an active role in promoting knowledge sharing and the responsibility lies with managers on the operational level. However, the limited employee participation does not seem to be a challenge

contrary to in Berlingske Media. According to Sara Kyed L. Jensen, the management had a clear idea of their expectations and the criteria for implementing the platform from the beginning. The implementation of the platform could not demand a lot of time or be a burden to employees. "The top management had no wish to invest the time to make a cultural change in the company. But it was important that we didn't take away the employees' current way of working. Implementing Podio was a wish from our employees to have a platform where more informal and social knowledge could be shared" (S. Jensen, telephone interview, February 28, 2013). The implementation of Podio is a success in Waoo even though only a limited amount of employees use the platform. Podio was never intended to replace the company intranet, but it provides a platform where employees can share more informal knowledge and find information easier, and the implementation has led to a close down of a second intranet, which no longer was needed (S. Jensen, telephone interview, February 28, 2013).

Berlingske Media, Waoo and Damco are examples of how differently organizations can approach knowledge management. Damco is a good example of how a strategic approach to knowledge management leads to success with the active involvement of the management and managers, which in the long run will promote continued adoption and knowledge sharing among employees. On the contrary, Waoo and Berlingske Media do not have a strategic approach to knowledge management, which have led to challenges with employee participation and adoption and use of the platforms due to the limited involvement of management and managers. It is important to note that the level of lack of management commitment is, as previously, mentioned, perceived worse in Berlingske Media than in Waoo, which means that a non-strategic approach still can lead to success, because management had a clear idea of the criteria and expectations to the implementation of the platform from the beginning. However, all three companies are reaping benefits from the implementation of social media, since it has enhanced the internal communication, collaboration and knowledge sharing among the group of employees, who have adopted the platforms. The finding emphasizes that each organization has a unique business culture (De Long & Fahey, 2000), (Al Alawi et al., 2007) and that there are a number of factors, which determine the approach to knowledge management as well as the level of involvement of the management in organizations, which, ultimately, will have an influence on whether the adoption of a social media platform will be a success or not, and how social an organization can be categorized as.

The biggest challenge for organizations is to promote continued adoption of the platforms in order to become a social business and reap more benefits from the employees' knowledge sharing. So far, none of the three case companies can be considered to be social businesses, which means integrating social media into all of the organization's business practices and processes in order to build stronger relationships among employees, customers and business partners (Rennie, 2011),

(IBM, 2012a). Becoming a social business is not simply deploying a social media platform and hoping for the best. It is a process and long-term strategic approach to reshaping a business culture, which is highly dependent on management involvement and corporate strategy (IBM, 2012a).

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The survey shows that employees overall feel motivated and encouraged to share knowledge by management and managers, despite the limited adoption of the platforms. There is, however, a dispersion in the results. 41% of the employees feel that knowledge sharing is encouraged, 32% is neutral and 27% of the employees do not feel motivated and encouraged by management and managers to share knowledge. The dispersion is noteworthy due to the limited adoption, which emphasize the need for management and managers to get more involved to motivate and encourage employees. The majority of the employees feel that knowledge sharing is encouraged, because it is a part of the organization's culture, which seem correlated to the fact that more and more employees are hired as specialists and knowledge sharing is a part of their job. Other employees, simply, feel motivated and encouraged by management and managers to share knowledge. Only few employees feel extrinsically motivated by monetary rewards, such as a higher salary and bonus or a promotion. Employees, who do not feel motivated, mention factors such as: lack of a knowledge sharing culture and lack of encouragement and motivation from management and managers due to very few managers are capable of empowering employees and prioritizing knowledge sharing, to keep them from sharing knowledge.

A key finding in this study is that lack of trust does not seem to be a factor, which affects employees' knowledge sharing negatively. Even though many previous studies have identified lack of trust as a key barrier to knowledge sharing, only 6% of the employees find that lack of trust is a barrier. The finding indicates that the employees in the participating companies, simply, know and trust each other relatively well, why trust is not a barrier associated with knowledge sharing in this specific case study.

Berlingske Media, Wao and Damco are examples of how differently organizations can approach knowledge management. Damco is a good example of an organization with a global reach and a strategic approach to knowledge management, which leads to success with the active involvement of the management and managers, which in the long run will help promote continued adoption and knowledge sharing among employees. On the contrary, Wao and Berlingske Media do not have a strategic approach to knowledge management, which means that management is not taking on an active role to promote knowledge sharing and the responsibility lies with managers on the operational level, which means that the use of the platforms, so far, is a trial and error process. It is

important to note that the level of lack of management commitment is, as previously, mentioned, perceived worse in Berlingske Media than in Wao, which means that a non-strategic approach still can lead to success, because management had a clear idea of the criteria and expectations to the implementation of the platform from the beginning.

Lack of time seem to be the main issue, which prevent management and managers from taking on the right management attitude and to get more involved to promote continued adoption of the social media platform and encourage knowledge sharing. Despite the different approaches to knowledge management, the implementation of the social media platforms is a relative success in all three companies, since it has enhanced the internal communication and collaboration among the limited group of employees, who are using the platforms.

8.0 Results: Factors that affect employees' knowledge sharing

The research results can, now, be summarized based on the discussion and analysis of the individual, organizational and technological factors, which are presented in the research model developed for this study, which is illustrated in figure 4 below. The findings identified in this study are presented in a modified research model, which is illustrated in figure 9 below.

The original research model, illustrated in figure 4, is based on the findings of previous studies, which identified a number of individual, organizational and technological factors, which affect employees' knowledge sharing through social media. The results of this survey have identified a number of key findings, which differ from previous studies, which means that some of the factors no longer are considered to affect employees' knowledge sharing as much as previously.

The original research model (figure 4) includes 11 factors, which are, almost equally, divided among the individual, organizational and technological factors. The updated research model is slightly modified from the original version and only consist of 7 factors, however, the results and the factors still overlap with the initial research model. The original research model highlights that individual, organizational and technological factors, almost equally, affect employees' knowledge sharing through social media. Based on the findings in this study, fewer factors seem to affect employees' knowledge sharing. Organizational factors have the strongest influence on employees' knowledge sharing followed by individual factors. The technological factors do not seem to affect employees' knowledge sharing as much as previously, but it is the influence from a combination of the individual and organizational factors, which determine whether an employee decides to adopt social media platforms for knowledge sharing.

Original research model

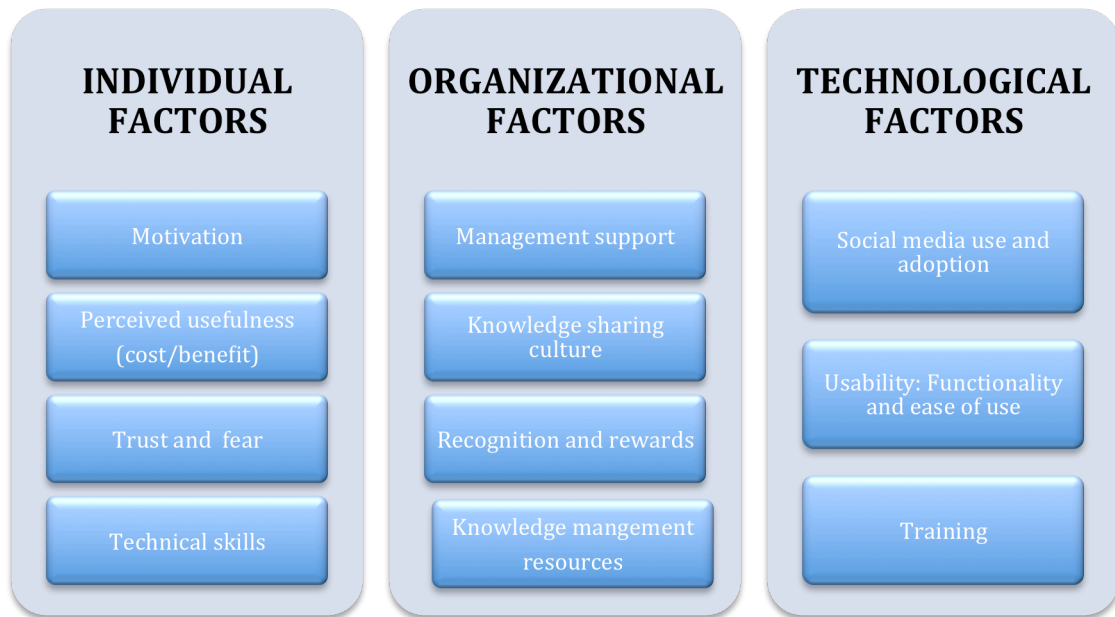


Figure 4: Original research model: Factors that affect employees' knowledge sharing behavior.

Modified research model

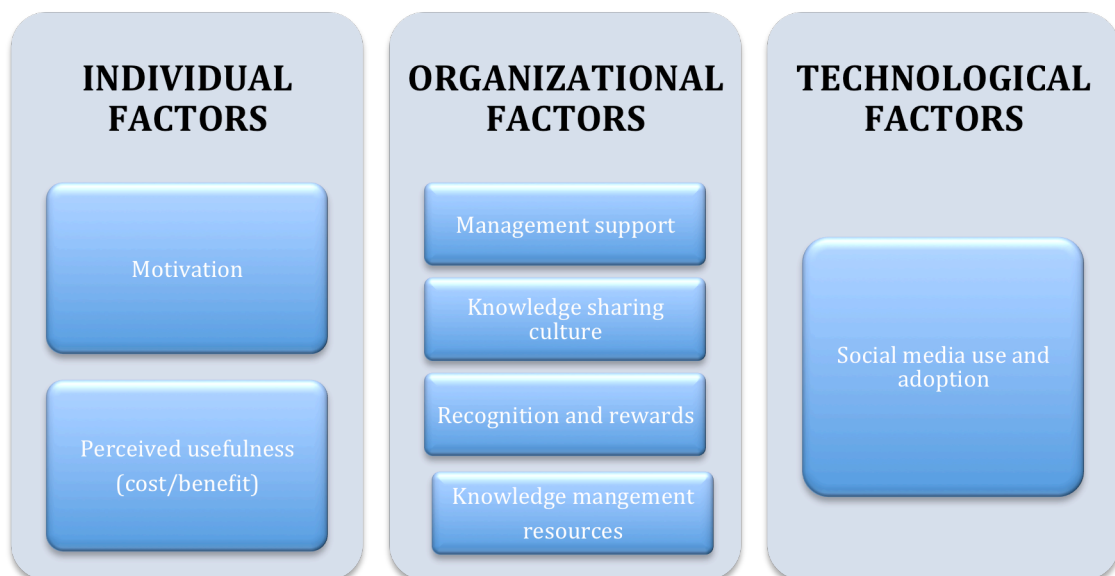


Figure 9. Results: Factors that affect employees' knowledge sharina behavior.

9.0 Conclusion

The purpose of this study is to contribute to existing research and the understanding of the human psychology behind employees' motivation (Deci & Ryan, 2000) to share knowledge through social media platforms within Danish organizations and to determine, which factors affect it. Due to lack of generalizability of this case study, the findings may be taken as indicative results and suggestions for further research.

Based on previous studies it was assumed that a number of individual, organizational and technological factors, almost equally, affect employees knowledge sharing. The survey has identified a number of key findings, which differ from the previous studies, which means that some of the factors no longer are considered to affect employees' knowledge sharing as much as previously, however, the results and the factors still overlap with the initial identified factors. Initially 11 individual, organizational and technological factors were identified, which, almost equally, affected employees' knowledge sharing through social media. The study shows that there is a positive development in employees' willingness to share knowledge and only 7 factors seem to affect employees' knowledge sharing. Organizational factors have the strongest influence on employees' knowledge sharing followed by individual factors. The technological factors do not seem to affect employees' knowledge sharing as much as previously, but it is the influence from a combination of the individual and organizational factors, which determine whether an employee decides to adopt social media platforms for knowledge sharing.

The survey shows that the adoption of the social media platforms, Chatter, Yammer and Podio for knowledge sharing internally in organizations is limited, at this point. Employees actively share knowledge, but the survey shows that employees by far share knowledge through traditional channels, such as email and face-to-face meetings. So far, the adoption of the platforms can be considered to be in the initial stages of the adoption process, why the employees, primarily, use traditional communication channels, such as email and face-to-face meetings, when they communicate. Like previous research have shown (Paroutis & Al Saleh, 2009), this study also indicates that employees are creatures of habit and prefer their current work routines due to convenience, why it takes time to adopt a new platform. The organizations are, however, still gaining benefits and business value, even though the adoption of the social media platforms is limited. Overall, the social media platforms enhance the communication and improve knowledge sharing and collaboration among the group of employees, who have adopted the platforms. The key benefits and business drivers from the use of social media, which have been identified in this study, are presented below.

KEY BENEFITS & BUSINESS DRIVERS

- Communication is faster and more effective than through traditional tools (e.g. email)
- Knowledge sharing is increased
- Irrelevant emails are decreased
- Reaching colleagues in other departments is easier
- Work related problems get solved faster
- Collaborating on projects is easier
- Workload is reduced when documents need to be updated
- Employees can easier stay updated on what happens in the organization

The survey shows that the majority of the employees are motivated by so called intrinsic motivation, which means they are motivated to share knowledge out of altruistic and unselfish reasons, simply, because they feel it is important to help colleagues and provide value to the organization. This is consistent with previous studies conducted by Lin (2007b) and Wasko & Faraj (2005), which identified similar findings. Only few employees are motivated by extrinsic motivation and monetary rewards, such as a higher salary and bonus or a promotion. The top five knowledge sharing drivers identified in this survey are presented below.

KNOWLEDGE SHARING DRIVERS

- I see my contribution as valuable to the organization (89%)
- I enjoy helping others with work related problems (65%)
- I am gaining social reward, such as status and recognition from colleagues and managers (34%)
- I am increasing my social network (26%)
- I increase the chance of getting monetary reward, such as a higher salary or a bonus (11%)

A key finding in this study shows that knowledge sharing may not be such a 'social dilemma' after all, as previous studies (Cabrera & Cabrera, 2002), (Kimmerle et al., 2008) have found. Organizational interests and the individual employees' interests do not seem to conflict. Not even in times, where many companies are forced to downsize. The survey results show that fear of giving up power and

authority (4%) and fear of becoming replaceable (5%) are among the lowest scoring factors, which affect employees' knowledge sharing. The finding indicates a positive development in employees' willingness to share knowledge in organizations and that knowledge sharing is becoming a more integral part of employee's work life. Employees find that it is more beneficial to share knowledge and do not hoard it as much as previously because they find that the benefits of using the platforms outweigh the costs. This study shows that employees are more concerned with providing wrong and faulty information (14%), since the essence of sharing knowledge on social media platforms is to provide relevant content to colleagues and provide value to the organization.

This survey also identifies a number of factors, which affect employees' knowledge sharing through social media platforms negatively. The five key knowledge sharing barriers identified in this study are presented below.

KNOWLEDGE SHARING BARRIERS

1. Lack of other employees' participation (38%)
2. Lack of management commitment and motivation (34%)
3. Lack of content quality (26%)
Information overload (26%)
4. Lack of time to share knowledge (24%)
5. Lack of understanding of social media and the benefits it provides (19%)

The study identifies lack of employees' participation (38%) and lack of management commitment and motivation (34%) as the top two key factors, which affect employees' willingness to share knowledge negatively. The finding emphasizes that motivation and encouragement from management and managers to get employees to adopt social media and share knowledge is closely related. The survey results show that the employees overall feel motivated and encouraged to share knowledge by management and managers. There is, however, a dispersion in the results. 41% of the employees feel that knowledge sharing is encouraged, 32% is neutral and 27% of the employees do not feel motivated and encouraged by management and managers to share knowledge. The dispersion is noteworthy due to the limited adoption. In general, employees urge management and managers to explain the value and benefits of the social media platforms and to get more involved to motivate and encourage knowledge sharing and adoption of the platforms. A key finding in this study shows that the level of lack of management commitment is perceived differently in the two case

study companies, Berlingske Media and Wao. The employees seem to be motivated by the same knowledge sharing drivers, but that the barriers are different. The finding emphasizes that each organization has a unique business culture (De Long & Fahey, 2000), (Al Alawi et al., 2007) and a different approach to knowledge management, which, consequently, means that a number of different factors affect employees' knowledge sharing as well as the level of involvement of management and managers. Despite the different approaches to knowledge management, the implementation of the social media platforms is a relative success in all three companies, since it has enhanced the internal communication and collaboration among the limited group of employees, who have adopted the platforms.

A noteworthy finding in the study is that the gamification aspect of social media platforms may motivate some employees to share knowledge more than others. However, on the contrary, some employees may hoard knowledge due to a cultural influence (Ardichvili et al., 2006) like the Danish 'Jantelov' (the Law of Jante), because they do not want to come off as sucking up to the management and managers by sharing knowledge too frequently on the platform. It is important to note that this finding needs to be considered in a cultural context, why this may be unique to this specific case study and knowledge sharing in Danish companies. Due to lack of generalizability of this case study, the finding suggests that further research should be done on cultural influences, which seem to affect employees' knowledge sharing through social media.

Lack of need also seem to be a factor, which keep employees from adopting the social media platforms due to lack of relevant content. The survey shows that almost 50% of the respondents are hired as specialists, who primarily, use other systems, where they find the majority of the content they need during work. This indicates that there is a correlation between the limited adoption of the social media platforms and the type of position and the specific knowledge employees have.

Contrary to the findings in a study conducted by (Paroutis & Al Saleh (2009), this study identifies lack of technical skills (15%) and training (18%) among the lowest scoring barriers to knowledge sharing. Lack of time (24%), however, is a key factor that prevents employees from getting familiar with the platforms. Lack of time seems to be a key factor, which affects participation from management, managers as well as employees negatively. These findings seem to be correlated to the fact that majority of the employees (63%), who participated in this survey, are relatively young (between 20-39 years) and only few senior respondents have participated, why lack of technical skills and training does not seem to be factors, which affect knowledge sharing in this specific case study. This could, very likely, be linked to the younger generation is more technically skilled due to more frequent use of social media in their private lives.

Another noteworthy finding in this study is that lack of trust does not seem to be a factor, which affects employees' knowledge sharing negatively. Even though many previous studies have identified

lack of trust as a key barrier to knowledge sharing, only 6% of the employees find that lack of trust is a barrier. The finding indicates that the employees in the participating companies, simply, know and trust each other relatively well why trust is not a barrier associated with knowledge sharing in this specific case study. Information overload (26%) is also identified among the key factors, which prevent employees from sharing knowledge. However, it is argued if all relevant content is on the platform, and the perceived usefulness (Paroutis & Al Saleh, 2009) and the benefits of using the platform outweigh the costs then employees, eventually, will start using it. Lack of content quality (26%) is also among the key factors, which concern employees when they share knowledge, since the essence of social media is to share relevant content with colleagues and provide value to the organization. Some employees find it hard to determine which kind of content they should share and whether it is relevant for their colleagues, which may prevent them from sharing knowledge. It is suggested that a set of social media guidelines can help employees share relevant and valuable content by defining what is relevant and how it should be shared.

The survey shows that the social media platforms have improved the companies' internal communication, collaboration and knowledge sharing among the limited group of employees, who have adopted the platforms. Now the biggest challenge for the organizations is to promote and foster continued adoption of the platforms in order to become a social business and reap more benefits from social media. So far, none of the three case companies can be considered to be social businesses, which means integrating social media into all of the organization's business practices and processes in order to build stronger relationships among employees, customers and business partners (Rennie, 2011), (IBM, 2012a). The findings in the study emphasize that a number of factors determine an organization's success. Each organization is unique (Al Alawi et al., 2007) and has a different structure, culture, number of employees, industry sector and so on. The combination of these factors affects the organization's approach to knowledge management, which will have an influence on whether the adoption of a social media platform will be a success among employees or not. Becoming a social business is a process and happens in stages and over time. The companies are in the initial stages of the process and only time will tell when and if they become a social business.

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11.0 Appendices

Appendix 1: Survey questionnaire

Knowledge Sharing Survey

You have been invited to share your valuable knowledge. It will only take you 5 minutes to complete the questionnaire!

The purpose of this questionnaire is to examine knowledge sharing in an organizational context, and more precisely to determine the motivational drivers and barriers, that affect employees' knowledge sharing behavior.

The information obtained from this survey will be kept anonymous.

Thank you in advance for your participation. Your input is much appreciated.

How often do you contribute and share your knowledge with your colleagues?

1 2 3 4 5

Very frequently ☐ ☐ ☐ ☐ ☐ Never

How do you generally share knowledge internally in the organization?
Please tick more

☐ Email

☐ Google Docs

☐ Intranet

☐ Face-to-face meetings

☐ Chat

☐ Discussion forum

☐ Social networks (e.g. Yammer)

☐ Wikis

☐ Blogs

☐ Podio

☐ Chatter

☐ Other:

What type of knowledge do you share most frequently?
Please tick more

☐ Know-how and tips to do a certain work routine easier

☐ Input to solve a work related problem

☐ Internal reports and other official documents

☐ Knowledge about customers, products, suppliers and competitors

☐ Creative input

☐ Other:

What motivates you to contribute and share your knowledge?

Please tick more

- ☐ I see my contribution as valuable for the organization
- ☐ I'm gaining social reward, such as status and recognition
- ☐ I simply enjoy helping others with work related problems
- ☐ I'm increasing my social network
- ☐ I increase the chance of getting a promotion
- ☐ I increase the chance of getting monetary reward such as higher salary/bonus
- ☐ I don't think knowledge sharing is important for me and my work responsibilities
- ☐ Other:

Which of the following factors would prevent you from sharing your knowledge?

Please tick more

- ☐ Lack of contribution and participation from colleagues
- ☐ Lack of recognition from colleagues
- ☐ Lack of managerial encouragement and motivation
- ☐ Lack of recognition from the management
- ☐ It's too time consuming and would mean extra work
- ☐ It's not a part of my job
- ☐ I'm concerned with providing wrong or faulty information
- ☐ Fear of giving up power and authority by sharing knowledge
- ☐ Fear of becoming replaceable
- ☐ Lack of trust in colleagues and fear of the shared knowledge will be misused
- ☐ Lack of time
- ☐ Knowledge sharing does not create enough business value to spend time on
- ☐ Lack of training for using Web 2.0 tools
- ☐ I don't think about these factors during work
- ☐ Other:

Is knowledge sharing actively encouraged in the organization?

1 2 3 4 5

Strongly agree ☐ ☐ ☐ ☐ ☐ Strongly disagree

How is knowledge sharing encouraged?

Please tick more

- ☐ Knowledge sharing is a central part of the organization's business culture
- ☐ The organization has a reward system that gives an incentive to share knowledge
- ☐ The management is actively encouraging and motivating employees to share knowledge
- ☐ Other:

Is knowledge sharing recognized in the organization?

1 2 3 4 5

Very much ☐ ☐ ☐ ☐ ☐ Not at all

For which purposes do you use social media internally in your organization?

Please tick more

- ☐ To communicate
- ☐ To collaborate
- ☐ To share knowledge
- ☐ To learn and find answers to work related problems
- ☐ To keep updated on what colleagues are working on
- ☐ To keep updated on news in the organization
- ☐ To be recognized as an expert
- ☐ Other:

How does knowledge sharing, specifically through the use of social media, provide business value?

Please tick more

- ☐ Communication is faster and more effective than traditional tools (e.g. email)
- ☐ Faster response to work related problems
- ☐ It is easier to collaborate on projects
- ☐ Shorter timescales on collaborative projects
- ☐ Increased knowledge sharing between employees
- ☐ Improved innovation from ideas and comments
- ☐ Decreased amount of emails
- ☐ Improved accuracy of collaborative documents
- ☐ Less travel time and cost
- ☐ Improved external communication
- ☐ Improved team-building
- ☐ It's easier to reach colleagues in other departments
- ☐ Other:

What are the biggest issues you have experienced using social media for knowledge sharing?

Please tick more

- ☐ Lack of other employees' participation
- ☐ Lack of management commitment
- ☐ Changing one's behavior from knowledge hoarding to knowledge sharing
- ☐ Lack of time for knowledge sharing
- ☐ Lack of content quality
- ☐ Lack of training
- ☐ The platform is too complicated to use (not user-friendly)
- ☐ Information overload
- ☐ Lack of understanding of social media and its benefits
- ☐ Other:

ABOUT YOU

What is your position?

- ☐ Manager
- ☐ Specialist
- ☐ Office worker
- ☐ Trainee
- ☐ Other:

How many years have you worked in the organization?

- ☐ 1-5 years
- ☐ 5-10 years
- ☐ 10-15 years
- ☐ Other:

What is your age?

- ☐ 20-29 years
- ☐ 30-39 years
- ☐ 40-49 years
- ☐ 50-59 years
- ☐ 60+ years
- ☐ Other:

What is your gender?

- ☐ Female
☐ Male

Thank you again for your participation!

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Appendix 2: Survey results

**It is important to note that in some of the questions, the respondents may have selected more than one checkbox, so percentages may add up to more than 100%.*

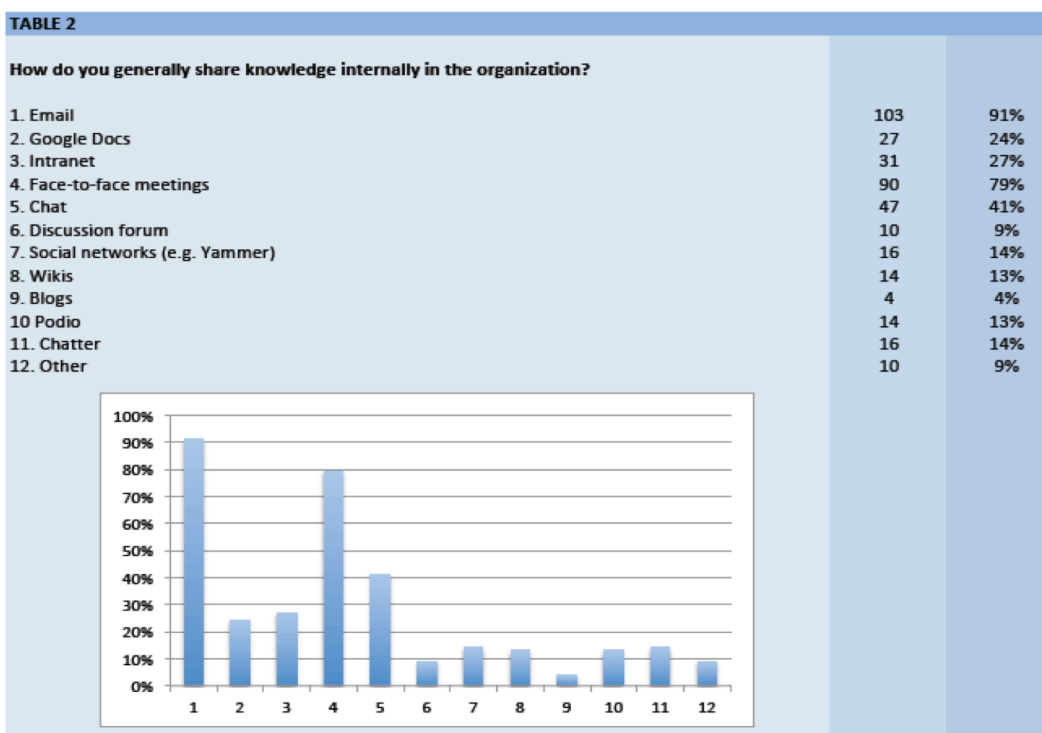
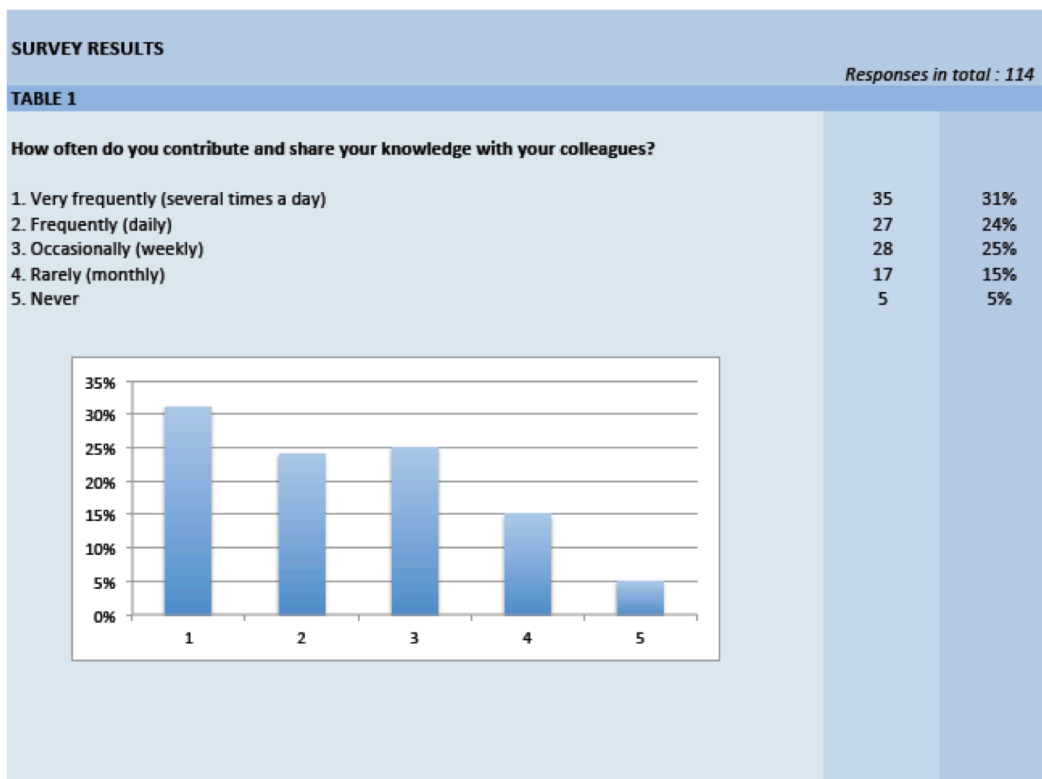


TABLE 3

What type of knowledge do you share most frequently?

1. Know-how and tips to do a certain work routine easier
2. Input to solve a work related problem
3. Internal reports and other official documents
4. Knowledge about customers, products, suppliers and competitors
5. Creative input
6. Other

75	66%
78	69%
59	52%
72	63%
50	44%
3	3%

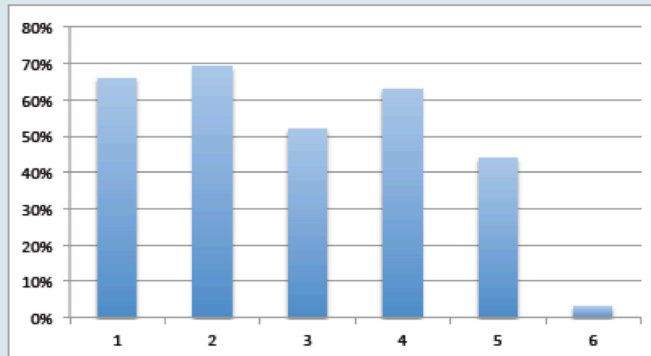


TABLE 4

What motivates you to contribute and share your knowledge?

1. I see my contribution as valuable to the organization (increase productivity and innovation)
2. I am gaining social reward, such as status and recognition from colleagues and managers
3. I simply enjoy helping others with work related problems
4. I am increasing my social network
5. I increase the chance of getting a promotion
6. I increase the chance of getting monetary reward such as higher salary/bonus
7. I don't think knowledge sharing is important for me and my work responsibilities
8. Other

101	89%
39	34%
74	65%
29	26%
11	10%
12	11%
12	11%
11	10%

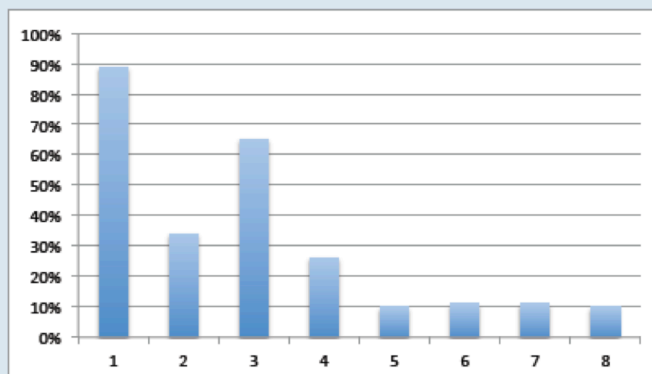


TABLE 5

Which of the following factors would prevent you from sharing your knowledge?

1. Lack of contribution and participation from colleagues	33	29%
2. Lack of recognition from colleagues	40	35%
3. Lack of managerial encouragement and motivation	35	31%
4. Lack of recognition from the management	34	30%
5. It is too time consuming and would mean extra work	18	16%
6. It is not a part of my job	6	5%
7. I am concerned with providing wrong or faulty information	16	14%
8. Fear of giving up power and authority by sharing knowledge	4	4%
9. Fear of becoming replaceable	5	5%
10. Lack of trust in colleagues and fear of the shared knowledge will be misused	7	6%
11. Lack of time	54	47%
12. Knowledge sharing does not create enough business value to spend time on	2	2%
13. Lack of training for using Web 2.0 tools	5	5%
14. I do not think about these factors during work	13	12%
15. Other	2	2%

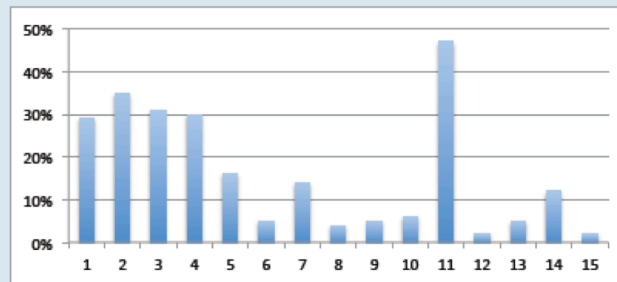


TABLE 6

Is knowledge sharing actively encouraged in the organization?

1. Strongly agree	16	14%
2. Agree	31	27%
3. Neutral	37	32%
4. Disagree	25	22%
5. Strongly disagree	5	5%

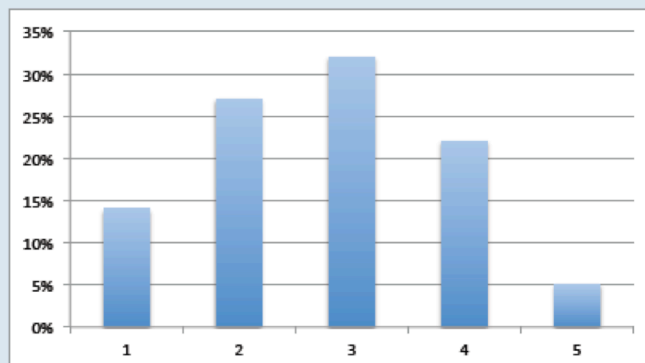


TABLE 7

How is knowledge sharing encouraged?

1. Knowledge sharing is a central part of the organization's business culture	50	44%
2. The organization has a reward system that gives an incentive to share knowledge	6	5%
3. The management is actively encouraging and motivating employees to share knowledge	39	34%
4. Other	19	17%

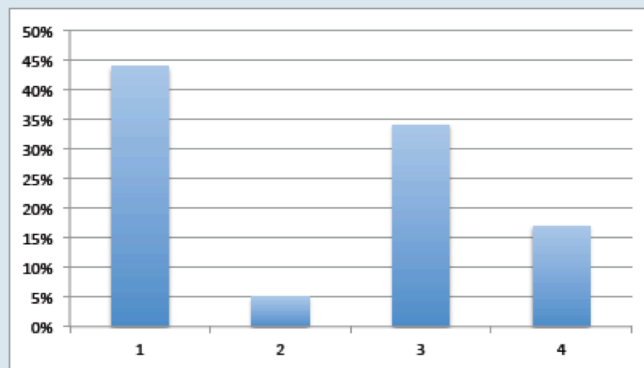


TABLE 8

Is knowledge sharing recognized in the organization?

1. Very much	12	11%
2. To a great extent	21	19%
3. Somewhat	46	41%
4. Very little	27	24%
5. Not at all	6	5%

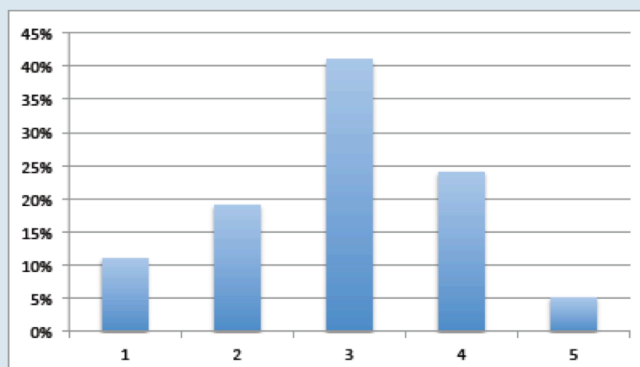


TABLE 9

For which purposes do you use social media in your organization?

1. To communicate	58	51%
2. To collaborate	34	30%
3. To share knowledge	57	50%
4. To learn and find answers to work related problems	43	38%
5. To keep updated on what colleagues are working on	25	22%
6. To keep updated on news in the organization	54	48%
7. To be recognized as an expert	7	6%
8. Other	9	8%

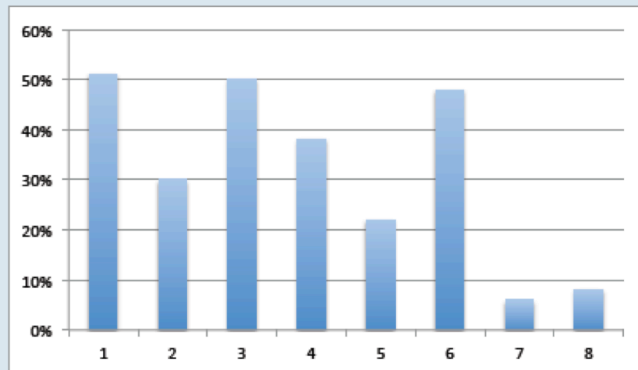


TABLE 10

How does knowledge sharing, specifically through the use of social media, provide business value?

1. Communication is faster and more effective than traditional tools (e.g. email)	46	41%
2. Faster response to work related problems	38	34%
3. It is easier to collaborate on projects	34	30%
4. Shorter timescales on collaborative projects	9	8%
5. Increased knowledge sharing between employees	42	37%
6. Improved innovation from ideas and comments	23	20%
7. Decreased amount of emails	40	35%
8. Improved accuracy of collaborative documents	7	6%
9. Less travel time and cost	18	16%
10. Improved external communication	13	12%
11. Improved team-building	14	12%
12. It is easier to reach colleagues in other departments	38	34%
13. Other	13	12%

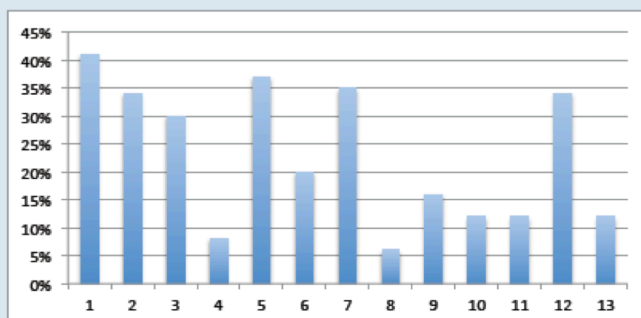


TABLE 11

What are the biggest issues you have experienced using social media for knowledge sharing?

1. Lack of other employees' participation	43	38%
2. Lack of management commitment	38	34%
3. Changing one's behavior from knowledge hoarding to knowledge sharing	13	12%
4. Lack of time for knowledge sharing	27	24%
5. Lack of content quality	30	26%
6. Lack of training	20	18%
7. The platform is too complicated to use (not user-friendly)	17	15%
8. Information overload	30	26%
9. Lack of understanding of social media and its benefits	22	19%
10. other	7	6%

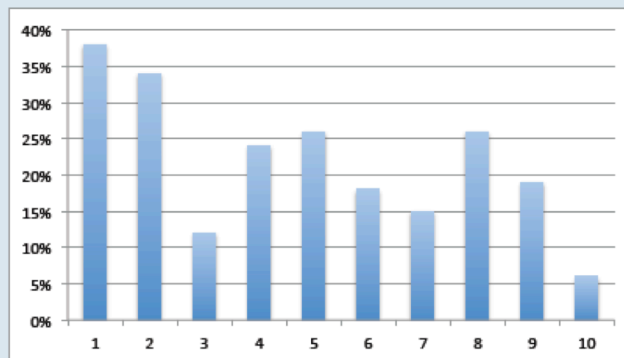
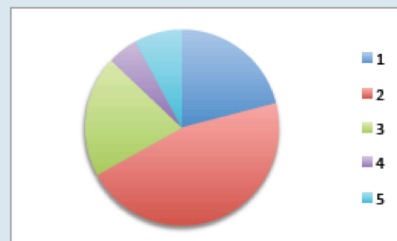


TABLE 12 DEMOGRAPHICS

What is your position?

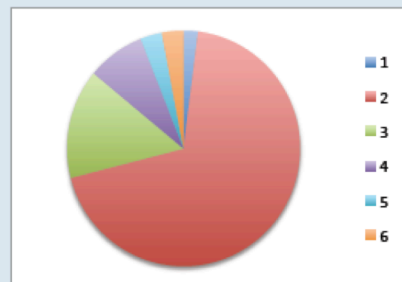
1. Manager
2. Specialist
3. Office worker
4. Trainee
5. Other



24	21%
53	46%
23	20%
5	5%
9	8%

How many years have you worked in the organization?

1. < 1 year
2. 1-5 years
3. 5-10 years
4. 10-15 years
5. 20-30 years
6. 30+ years

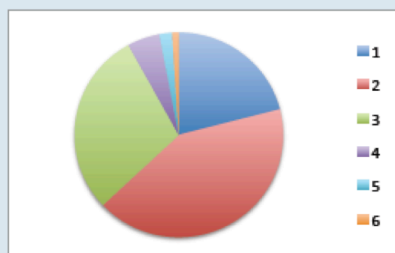


2	2%
79	69%
18	15%
9	8%
3	3%
3	3%

TABLE 13 **DEMOGRAPHICS**

What is your age?

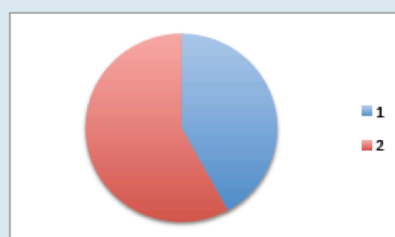
1. 20-29 years
2. 30-39 years
3. 40-49 years
4. 50-59 years
5. 60+ years
6. Other



24	21%
48	42%
33	29%
6	5%
2	2%
1	1%

What is your gender?

1. Female
2. Male



48	42%
66	58%

Appendix 3: Manager interview guide

Manager interview

DATE:

PARTICIPANT:

TITLE:

INDUSTRY SECTOR:

COMPANY NAME:

SOCIAL MEDIA PLATFORM:

1. Does the organization have a clearly stated knowledge sharing strategy? Please explain.

2. a. What was the idea and goal behind implementing social media for internal knowledge sharing? Please explain.

b. Has the project been successful? Please explain.

3. Do managers actively motivate employees to share knowledge, in order to prevent people from hoarding valuable knowledge? Please explain.

4. Have employee participation been a challenge? Please explain.

5. What are the main benefits you have found from knowledge sharing through social media? Please explain.

6. What are the biggest challenges you have seen related to knowledge sharing? Please explain.

7. What are the main lessons learned from the use of social media for knowledge sharing internally in the organization? Please explain.

8. How do you track and measure the impact of knowledge sharing? Please explain.

9. Experts argue that employees no longer hoard knowledge, as much as previously, in order to stay valuable and decrease the risk of losing their job. What is your take on this?

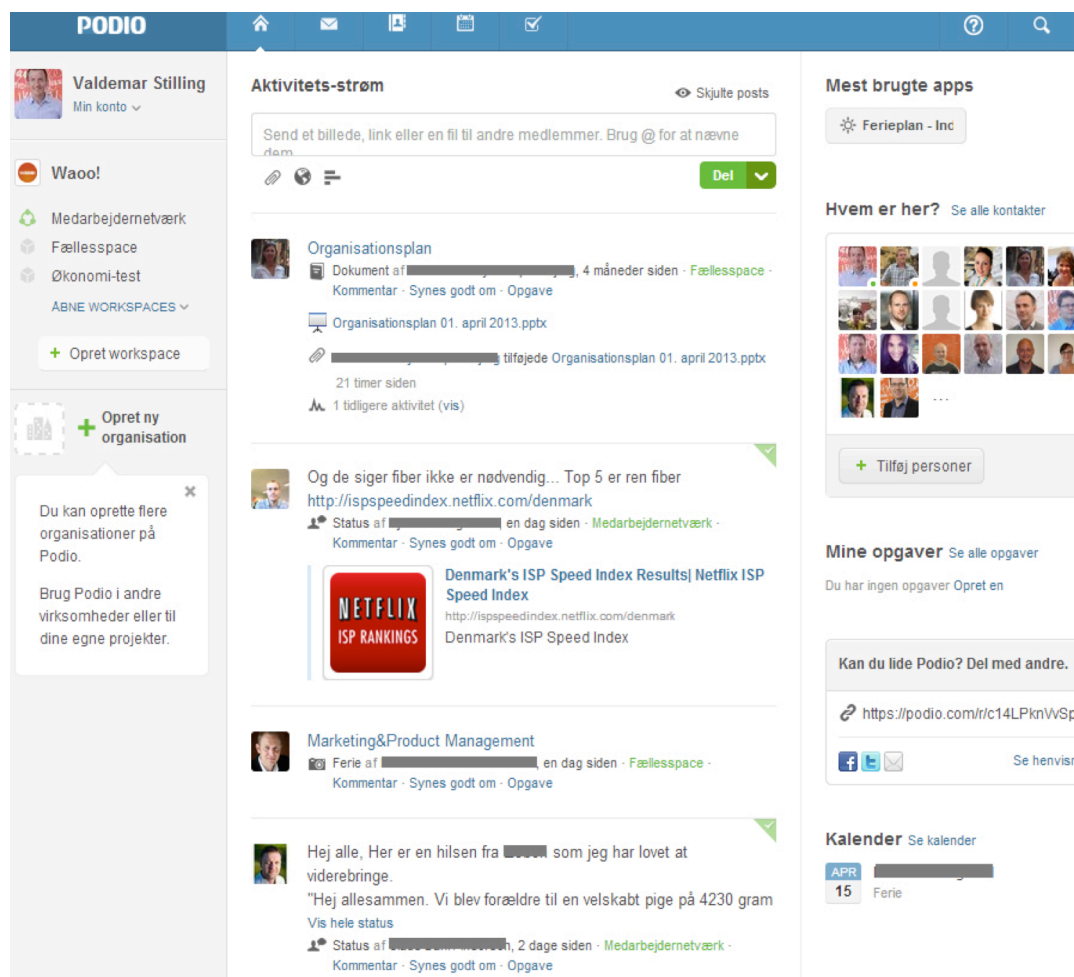
Appendix 4: Berlingske Media: Chatter

The screenshot shows the Salesforce Chatter interface for the user Allan Lorentzen. The header bar is blue with the Salesforce Chatter logo, a search bar, and the user's name 'Pia Nielsen' and a 'Help' link. The main content area is divided into several sections:

- Profile Header:** Includes a profile picture of Allan Lorentzen, a 'Moderator' badge, and a 'Following' status.
- Activity Feed:** A list of posts and files. The first post is a text post by Allan Lorentzen: 'hej kan du hjælpe https://eu1.salesforce.com/006D000000Q4yXM'. The second post is a link post by Allan Lorentzen: 'Linket er en slettet record?'. The third post is a text post by Allan Lorentzen: 'Det var en test til uddannelse - beklager hvis den er kommet forkert'. The fourth post is a file post by Allan Lorentzen: 'Tjek' (Download jpg (1,7 MB)).
- Followers:** A list of users following Allan Lorentzen, including 'Medieinfo_Ticket-to-Copenhagen' and 'Medieinfo - e paper (1)'. There are 26 followers in total.
- Following:** A list of users that Allan Lorentzen is following, including 'Medieinfo_Ticket-to-Copenhagen' and 'Medieinfo - e paper (1)'. There are 71 users in total.
- Groups:** A list of groups Allan Lorentzen is a member of, including 'Nationalt Salg - ledelse (Pr...', 'test af dashboard (Private)', and 'Big data (Private)'. There are 14 groups in total.
- Files Owned:** A list of files owned by Allan Lorentzen, including 'Tjek', 'Prisguide ver. 1,0 pr. 30...', 'Quickguide - Vedligeho...', 'Resultat NGD_3.7.2012', and 'Medieinfo_Ticket-to-Co...'. There are 5 files in total.
- Left Sidebar:** Contains a 'Start Chat' button, a 'Send a message' button, statistics (53 posts & comments, 25 comments received, 37 likes received), 'Topics I Use Most' (#Uddannelse), 'Contact' information (Pilestræde 34, 1147 København Danmark), and 'About Me' (Fokus på system og proces. Har været med til at sætte systemet op).

Berlingske Media: Chatter profile of Allan Lorentzen

Appendix 5: Waoo: Podio



PODIO

Valdemar Stilling
Min konto

Wao!

- Medarbejdernetværk
- Fællesspace
- Økonomi-test
- ABNE WORKSPACES
- Opret workspace

Opret ny organisation

Du kan oprette flere organisationer på Podio.

Brug Podio i andre virksomheder eller til dine egne projekter.

Aktivitets-strøm

Send et billede, link eller en fil til andre medlemmer. Brug @ for at nævne dem.

Organisationsplan
Dokument af [redacted], 4 måneder siden · Fællesspace ·
Kommentar · Synes godt om · Opgave
Organisationsplan 01. april 2013.pptx
[redacted] tilføjede Organisationsplan 01. april 2013.pptx
21 timer siden
1 tidligere aktivitet (vis)

Og de siger fiber ikke er nødvendig... Top 5 er ren fiber
<http://ispspeedindex.netflix.com/denmark>
Status af [redacted] en dag siden · Medarbejdernetværk ·
Kommentar · Synes godt om · Opgave

NETFLIX ISP RANKINGS
Denmark's ISP Speed Index Results| Netflix ISP Speed Index
<http://ispspeedindex.netflix.com/denmark>
Denmark's ISP Speed Index

Marketing&Product Management
Ferie af [redacted] en dag siden · Fællesspace ·
Kommentar · Synes godt om · Opgave

Hej alle, Her er en hilsen fra [redacted] som jeg har lovet at viderebringe.
"Hej allesammen. Vi blev forældre til en velskabt pige på 4230 gram
Vis hele status
Status af [redacted] 2 dage siden · Medarbejdernetværk ·
Kommentar · Synes godt om · Opgave

Mest brugte apps
Ferieplan - Inc

Hvem er her? Se alle kontakter

+ Tilføj personer

Mine opgaver Se alle opgaver
Du har ingen opgaver Opret en

Kan du lide Podio? Del med andre.
<https://podio.com/r/c14LPknVvSp>
Se henvisn

Kalender Se kalender
APR 15 Ferie

Waoo: The Podio profile of Valdemar Stilling

101

Appendix 7: Case studies survey results comparison - drivers

TABLE 4	Knowledge sharing drivers	SURVEY	Wao	Berlingske Media
	1. I see my contribution as valuable to the organization	89%	91%	92%
	2. I simply enjoy helping others with work related problems	65%	60%	69%
	3. I am gaining social reward, such as status and recognition from colleagues and managers	34%	23%	35%
	4. I am increasing my social network	26%	23%	27%
	5. I increase the chance of getting monetary reward (higher salary/bonus)	11%	14%	8%
	5. I increase the chance of getting a promotion		14%	8%

Table 14. Survey results comparison - drivers

Appendix 8: Case studies survey results comparison - barriers

TABLE 11 Knowledge sharing barriers	SURVEY
1. Lack of other employees' participation	38%
2. Lack of management commitment	34%
3. Lack of content quality	26%
Information overload	26%
4. Lack of time for knowledge sharing	24%
5. Lack of understanding of social media and its benefits	19%

Knowledge sharing barriers	WAOO
1. Lack of content quality	58%
2. Information overload	36%
3. Lack of other employees' participation	33%
4. Lack of time for knowledge sharing	30%
5. Lack of management commitment	27%

Knowledge sharing barriers	BERLINGSKE MEDIA
1. Lack of management commitment	47%
2. Lack of other employees' participation	37%
3. Information overload	29%
4. Lack of understanding of social media and its benefits	21%
5. Lack of training	13%

Table 15. Survey results comparison - barriers