Motivation and Knowledge Sharing through Social Media within Danish Organizations

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Abstract. Based on an empirical quantitative study, this article investigates employee motivation in Danish companies and aims at determining which factors affect employees' knowledge sharing through social media in a working environment. Our findings pinpoint towards the potential social media have for enhancing internal communication, knowledge sharing and collaboration in organizations, but the adoption is low, at this point, due to mainly organizational and individual factors. Technological factors do not seem to affect employees' motivation for knowledge sharing as much as previous research has found, but it is the influence from the combination of individual and organizational factors, which affect the adoption of the platforms. A key finding in the study is that knowledge sharing is not a 'social dilemma' as previous studies have found. The study shows a positive development in employees' willingness to share knowledge, because knowledge sharing is considered more beneficial than to hoard it.

Keywords: Knowledge sharing; Motivation; Social Media; Social Business; Internal Communication; Enterprise Social Networks; Enterprise 2.0.

1   Introduction

In a digitalized world, organizations face increasingly competitive environments and many companies are forced to downsize in order to cut costs and adapt to a changing marketplace. This can lead to loss of valuable knowledge unless it has been captured and stored in the organization. Knowledge is a key source of competitive advantage, and knowledge has become the most important resource and strategic asset for organizations [1,2,3]. Managing knowledge and knowledge sharing have, consequently, gained increased attention in organizations.

Social media is slowly reshaping the concept of knowledge management in organizations and more and more companies adopt 'social business' [4,5] communication strategies in order to enhance the internal communication and collaboration to become more productive and competitive.

Social media provide new opportunities for knowledge sharing through collaborative platforms [6] such as social networks, blogs and wikis, which allow employees to share knowledge easier across departmental and geographic boundaries [7]. The plat-

forms Chatter, Yammer and Podio are examples of social media, which are used in an organizational context for internal communication and collaboration. Salesforce Chatter is an enterprise social network as well as a collaborative application based on cloud-computing apps. Podio is also an enterprise social network and an online work platform. Podio users can create workspaces to collaborate with specific groups of people, and use an employee network for company-wide communication across departments and get their work done using apps. Yammer is a secure, private social network, which enables employees to collaborate easily. These platforms are also referred to as 'Enterprise 2.0' [8] or enterprise social networks, because they are deployed in a business environment for internal communication. 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.

According to studies conducted by the consultancy firm McKinsey & Company, 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 [9,10]. A more recent study conducted by McKinsey & Company from 2012, shows that social technologies within an enterprise can raise the productivity of the employees by 20-25 percent [11]. According to this study, the average employee spends an estimated 28 percent of the workweek managing e-mails and nearly 20 percent looking for internal information or tracking down colleagues, who can help with specific tasks. But when companies use social media internally, messages become content; a searchable record of knowledge, which can reduce, by as much as 35 percent, the time employees spend searching for company information

Social media provide new opportunities to manage knowledge at both personal and organizational levels through social-collaboration and networking opportunities provided by such platforms [12,13]. Personal knowledge could be synergized into collective knowledge through social collaborative processes that may facilitate externalization of knowledge, fostering creativity and innovation [14,15]. All these processes may have the potential to increase companies' competitiveness. However engaging employees to adopt and use these platforms on regular basis seems to be the main challenge organizations are facing nowadays owing to both organizational and individual factors [13]. According to a recent report conducted by Gartner, the vast majority of social collaboration initiatives fail due to lack of purpose and a 'provide and pray' approach, which only leads to a 10 percent success rate [16].

Despite the potential social media have for enhancing organizations' internal communication [6], [3], [17,18] only few studies exist related to which factors affect employees' knowledge sharing through social media, and how organizations can deploy social media in order to increase their competitive advantage. 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 article is to contribute to a better understanding of how knowledge workers can be motivated to share knowledge using social media [19, 20]. The article draws on human psychology motivation theory [21]. The following research question: Which factors affect employees' knowledge sharing behavior through social media? was investigated using empirical data collected using a questionnaire distributed to several Danish organizations.

The article is structured as follows: Section 2 provides a literature review. In section 3, we introduce our research methodology. The findings from our study are presented in section 4. The main findings are discussed in section 5. Our conclusions are outlined in section 6.

2   Literature review

Previous studies emphasize that many companies already reap benefits from the collaborative nature of social media, which improve collaboration and knowledge sharing within and between organizations due to faster and more efficient communication [11], [22]. And Von Krogh [23] argues that drawing increasingly on social software, knowledge management is "becoming less costly, more cloud-based, ubiquitous, standardized, and mobile, but also more personalized and more effective in meeting individual needs". 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 [24], [22].

Central to this study is the potential social media have for enhancing internal communication, knowledge sharing and collaboration in organizations. For many companies the organization's employees are an unused source of knowledge, which could improve the organization's competitive advantage, if their knowledge is shared and distributed in more effective ways through social media platforms [22].

According to recent work conducted by Von Krogh [25] social practices do not only evolve and refine employees' tacit and explicit knowledge. Under certain conditions, such as a history of interaction, their members also pursue higher collective standards of excellence related to their work. The platforms Chatter, Yammer and Podio, are examples of social media that are used in an organizational context for internal communication, collaboration and knowledge sharing.

Recent studies and literature from the beginning of the 2000s till now, have identified several factors, which affect employees' knowledge sharing behavior through social media, as well as, identified three main categories they fit into. These categories are: individual, organizational and technological factors. The following literature and studies have identified a number of factors, which affect employees' knowledge sharing through social media: [3], [6], [26], [27] virtual communities [8], [29], knowledge sharing in multinational corporations with focus on managerial support [30]. Furthermore, factors such as: organizational culture [31], [32], cultural influences on knowledge sharing [33], and critical barriers to effective knowledge management [26], have also been identified as significant factors to affect employees' knowledge sharing.

Companies need to get an understanding of their employees, their needs and their motivation to share knowledge if they want to stay competitive. The reason for this is that the traditional approach to doing business is a top-down approach, but social media bring power back to people and employees. This reality challenges the existing business model in many companies, because the implementation of social platforms is all about the employees, which demands a more employee centric and bottom-up approach. This means that it is crucial to focus on the employees and understand their

needs in order for management and managers to facilitate the right kind of motivation to promote use and adoption of the social platforms.

As mentioned earlier, previous research has identified several factors that affect the individual employees' willingness to share knowledge using different theories. In particular understanding knowledge sharing in virtual communities has been investigated using social capital and social cognitive theories [34], social exchange theory [35, 36] or theory of planned behavior [37]. In the this study, in order to understand which factors affect employees' knowledge sharing, we attempt to understand the human psychology behind employees' motivation to share knowledge.

The concept of motivation has been discussed frequently by using Deci and Ryan's framework [21] and original separation of intrinsic and extrinsic motivation, which is applied to explain some of the factors that drive people to action. This motivational theory framework was chosen for this study to explain why employees share or do not share knowledge due to the simplistic and employee centric nature of the theory of only two determinants; the two basic human needs: intrinsic and extrinsic motivation.

Deci and Ryan's framework of motivation [21] 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 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 [21].

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 [21]. 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.

Furthermore, the concept of 'social dilemma' is also relevant to consider, since some scholars [38, 39] argue that knowledge sharing can be considered a social dilemma, because organizational interests conflict with employees' individual interests. Taking a social dilemma perspective, 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 for organization and reduce the risk of getting fired [38, 39, 40,41].

3   Research method

Based on the above presented literature review, the studies conducted by Paroutis and Al Saleh [3], Kirchner, Razmerita and Sudzina [6] and Lin [27] were selected for this study, because they provide the most systematic framework of analysis of individual,

organizational and technological factors, which affect employees' knowledge sharing through social media.

In order to provide a systematic understanding of the possible factors, which affect employees' knowledge sharing, the identified individual, organizational and technological factors are proposed as a framework, which is illustrated in Fig. 1.
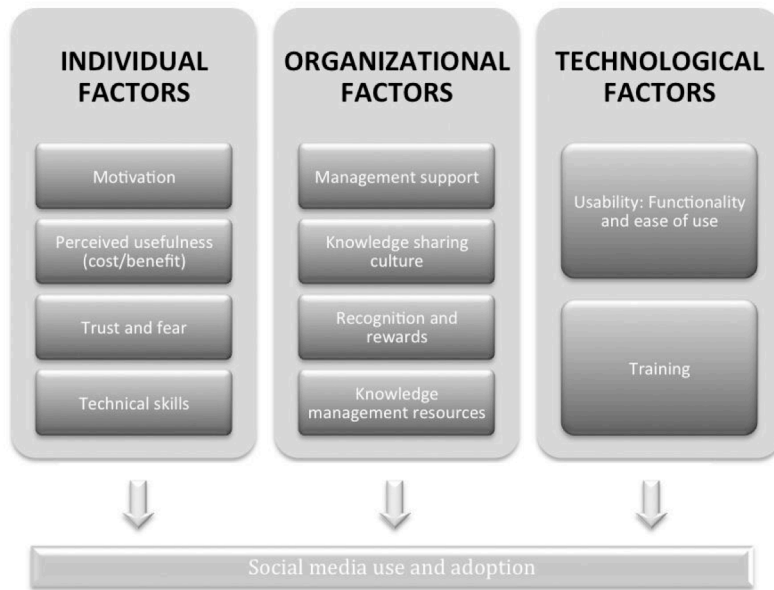
Fig. 1: Factors that affect employees' knowledge sharing behavior.

Each category has several sub-categories of the identified factors, which are further described in Table 1. 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 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.

Table 1. Knowledge sharing barriers

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 collegaues 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	
Managment 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	
Usability: Functionality and ease of use	Low level of usability and ease of use, which makes the tools too complicated to use
Functionality	To what extent do the tools fit to the user's needs and tasks that they need to fulfill
Training	Lack of training and sharing of best practices of how to use and work with the social media platforms as part of the current work routines

Based on the framework illustrated in Fig. 1 an online questionnaire was developed for data collection. The questionnaire was distributed to a number of Danish companies from different industry sectors, which are using one of the social media platforms

Chatter, Yammer or Podio for internal communication and knowledge sharing. The majority of the companies are from different industry sectors such as telecommunications, media and marketing, banking and financial services and shipping and logistics.

The survey questionnaire consists of 15 questions. The questions are constructed in a restricted manner in order to get answers, which are specific and related to our research question: Which factors affect employees' knowledge sharing behavior through social media?

The questions relate to employees knowledge sharing behavior and their use and adoption level 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 focus 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.

4 Survey results

4.1 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. The use and adoption of Chatter, Yammer and Podio was investigated in a number of Danish companies from different industry sectors based on an online questionnaire. In total 114 responses were collected. The majority of the employees, who participated in the survey (63%), are relatively young (between 20-39 years) and only few senior respondents have participated. A profile of the respondents is illustrated in Fig. 2.
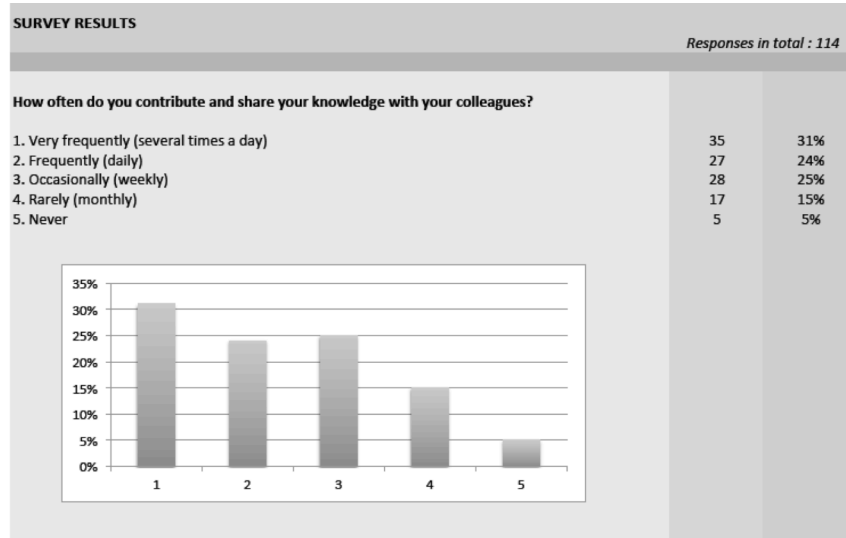
The participation of female and male respondents is almost 50/50, with only 8% more male respondents. The majority of the respondents (69%) have worked from 1-5 years in their organization, which, most likely, correlates to the majority of the respondents' relatively younger age. All levels of positions are represented in the survey, but it is noteworthy that almost 50% of the respondents are specialists. 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

RESPONDENT PROFILE		
		In total: 114
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%

Fig. 2. Respondent profile

share knowledge frequently: 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 2.

Table 2. Knowledge sharing frequency

SURVEY RESULTS		
		Responses in total : 114
How often do you contribute and share your knowledge with your colleagues?		
1. Very frequently (several times a day)	35	31%
2. Frequently (daily)	27	24%
3. Occasionally (weekly)	28	25%
4. Rarely (monthly)	17	15%
5. Never	5	5%

The survey results show that the adoption of social media platforms is limited, at this point. The fact that 95% of the employees actively share knowledge is very positive, but the employees, primarily, share knowledge through email (91%) and face-to-face meetings (79%), as illustrated in Table 2. Chat (41%), intranet (27%) and Google Docs (24%) are other frequently used ways to share knowledge in organizations.

The social media platforms: Yammer (14%), Podio (13%) and Chatter (14%), still score low compared to traditional communication channels. The usage of wikis also scores 14% and blogs scores as low as 4%, which is illustrated in Table 3.[1]

Table 3. Use of traditional communication channels and social media

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

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[1] The percentages in Table 3 do not sum up to 100% due to a multiple choice question in the questionnaire.

4.2   Social media: The Benefits

The survey shows that the social media platforms are providing benefits and business value, and in particular improve the internal communication (41%), increase knowledge sharing (37%) decrease the amount of emails (35%). Other identified benefits are it is easier: reaching colleagues in other departments (34%), employees get faster response to work related problems (34%) and it is easier to collaborate on projects (30%). The key benefits are presented in Fig. 3.[2]

These findings are similar to previous research [27] that found that technological tools positively affect employees to share knowledge, because it enables faster communication and knowledge sharing.
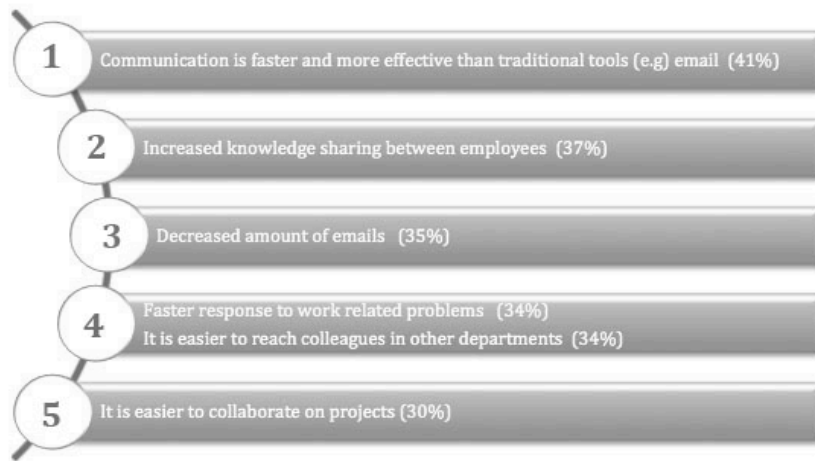

Fig. 3. Key benefits from the adoption of social media platforms

4.3   Knowledge sharing drivers and barriers

The analysis and discussion of the factors, which affect employees' knowledge sharing is based on the framework developed for this study, which was introduced earlier in Figure 1.

The survey shows that the majority of the employees are motivated by intrinsic motivation [21], 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 [27], [42], which identified similar findings. Only few employees are motivated by extrinsic

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[2]   The percentages in Fig. 3 do not sum up to 100% due to a multiple choice question in the questionnaire.

motivation and monetary rewards, such as a higher salary, a bonus or a promotion. The key knowledge sharing drivers identified in this survey are presented in Fig. 4.[3]

1 I see my contribution as valuable to the organization (89%)

2 I simply enjoy helping others with work related problems (65%)

3 I'm gaining social reward, such as status and recognition from colleagues and managers (34%)

4 I am increasing my social network (26%)

5 I increase the chance of getting monetary reward (higher salary/bonus) (11%)

Fig. 4. Knowledge sharing drivers

A key finding in this study shows that knowledge sharing may not be a 'social dilemma', as previous studies have found [38, 39]. 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. The finding indicates a positive attitude 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 than to hoard it and thereby defy the rationality of 'social dilemma' theory. The key knowledge sharing barriers identified in this study are presented in Fig. 5. [4]

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[3] The percentages in Fig. 4 do not sum up to 100% due to a multiple choice question in the questionnaire.
[4] The percentages in Fig. 5 do not sum up to 100% due to a multiple choice question in the questionnaire.

Fig. 5. Knowledge sharing barriers

This 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. Previous studies have also emphasized the need for management and managers to get actively involved, since the deployment of social media alone does not promote adoption of the platforms and knowledge sharing [3], [6], [43], [44].

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. This emphasizes the lack of a strategic approach to knowledge management, and the deployment of a 'provide and pray' approach, which according to a recent study conducted by Gartner, is the reason why the majority of social collaboration initiatives fail and only leads to a 10% success rate [16].

5 Discussion

Social media platforms can be a facilitator for more effective knowledge sharing and collaboration within organizations and thereby make organizations more productive and competitive. Due to the recognition of knowledge as a source of competitive advantage, the purpose of this study is to identify which factors affects employees' knowledge sharing on social media platforms within organizations.

A key finding in the study is that knowledge sharing is not a 'social dilemma' as previous studies [38, 39] 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, which defies the rationality of 'social dilemma' theory. 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.

5.1   Factors affecting knowledge sharing

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 survey shows that the majority of the employees are motivated by so-called 'intrinsic motivation' [21], which means they are motivated to share knowledge out of altruistic and selfless reasons, because they believe it is important to help colleagues and create value to the organization. This is consistent with previous studies [27], [42], which also identified that recognition from colleagues and managers is a key motivating factor. Only few employees are motivated by so-called 'extrinsic motivation' [21], which entails monetary rewards, such as a higher salary, bonus or promotion.

This study also identifies a number of factors, which affect employees' knowledge sharing negatively. Lack of other employees' participation (38%) and lack of management commitment and motivation (34%) 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. 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.

Recent reports by Gartner emphasize that lack of a strategy is not the road to become a social business. The vast majority of social collaboration initiatives fail due to lack of purpose and a 'provide and pray' approach, which only leads to a 10 percent success rate [16]. It is crucial that the individual organization get an understanding of their employees and how they work and what their needs are in order for them to opt into a technological and cultural change. In order to become a social business, organizations need to focus on the employees, make a cultural change within the company and make sure management and managers are actively involved [45].

Among the key factors to affect knowledge sharing negatively, the study identified the following factors: lack of content quality and relevance (26%), information overload (26%), lack of time (24%) and lack of understanding of social media and the benefits it provides (19%) (Fig. 5). It is noteworthy, that lack of content quality and information overload are factors that have been rated as barriers to knowledge sharing on the same level as lack of time.

Lack of content quality (26%) is 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. On the other hand it prevents some employees from using the platform, due to the irrelevant content. Lack of need, simply, keeps some employees from using the platform, which could be part of the reason for the limited adoption of the social media platforms. This could be correlated to the fact that almost 50% of the respondents are hired as specialists (Fig. 2), 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. This sort of issue could be addressed by a set of social media guidelines, which could help employees by defining what is relevant, which would ensure a higher level of relevance and content quality.

Information overload (26%) is also identified among the key factors, which prevent employees from sharing knowledge. However, Paroutis and Al Saleh [3] argue if, for instance, all relevant content is on the platform, and the 'perceived usefulness' and the benefits of using the platform outweigh the costs, then employees, eventually, will start using it.

Contrary to the findings in a study conducted by Paroutis and Al Saleh [3], 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 do not seem to be factors, which affect knowledge sharing in this specific case study (Fig. 2). 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 study.

5.2 Towards a research model

Our research results can be summarized based on the discussion and analysis of the individual, organizational and technological factors, which are presented in the framework we have proposed in Fig. 1 in this study. The findings identified in this study are presented in a modified framework, which is illustrated in Fig. 6 below.

The original framework, illustrated in Fig. 1, 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 the previous studies, which means that some of the factors no longer are considered to affect employees' knowledge sharing as much as previously.

The initial framework in Fig. 1 includes 11 factors, which are, almost equally, divided among the individual, organizational and technological factors. The updated framework is slightly modified from the original version and consists only of 7 key factors that impact the adoption and use of social media. The original framework 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. The organizational factors: management support, knowledge sharing culture, recognition and rewards, and knowledge management resources have the strongest influence on employees' knowledge sharing followed by the individual factors: Motivation and perceived usefulness (cost/benefit). The technological factors do not seem to affect employees' knowledge sharing as much as previous research has found, but it is the influence from a combination of the individual and organizational factors, which determine whether an employee adopts social media for knowledge sharing.

The fact that technological factors do not seem to affect the employees' knowledge sharing in this particular study is most likely very case specific. These findings are very likely correlated to the fact that the majority of the employees (63%), who participated in this survey, are relatively young
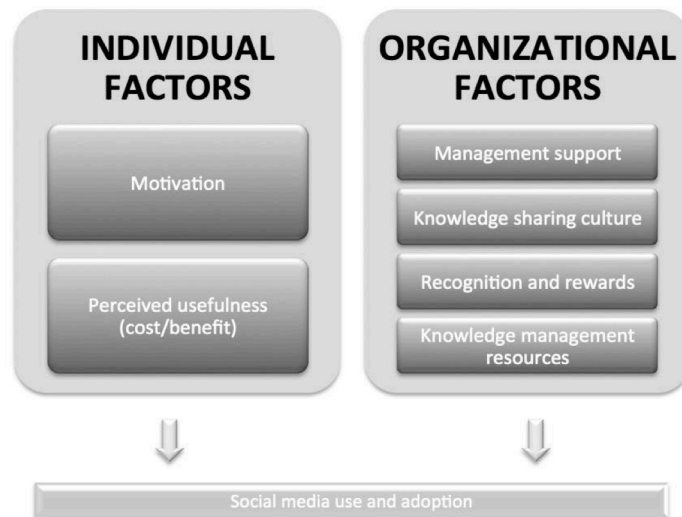

Fig. 6. Results: Factors that affect employees' knowledge sharing behavior.

(between 20-39 years) and only few senior respondents have participated as illustrated in Fig. 2. Why lack of technical skills and training, consequently, do not seem to be factors, which affect knowledge sharing in this specific case. 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.

6 Conclusion

This study investigates employee's motivation and has attempted to determine which factors affect employees' knowledge sharing through social media in their working environment. The study identifies a number of factors that differ from previous studies, which shows a positive development in employees' knowledge sharing through social media within organizations.

The study shows that organizational factors such as: management support, knowledge sharing culture, recognition and rewards, and knowledge management resources have the strongest influence on employees' knowledge sharing. Furthermore, individual factors and in particular motivation and perceived usefulness (cost/benefit) seem to play an important role. Technological factors including usability (ease of use) functionality and training do not seem to affect employees' knowledge sharing as previous research has found, but it is the influence from the combination of the individual and organizational factors, which determine whether an employee adopts social media platforms for knowledge sharing.

A key finding of this study is that knowledge sharing is not a 'social dilemma' and that employees do not hoard knowledge as much as previously found due to the fact that it is more beneficial to share knowledge than to hoard it. The majority of the employees are motivated by 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. Only few employees are motivated by extrinsic motivation and monetary rewards, such as a higher salary, a bonus or a promotion. Employees are more concerned with providing valuable content, since the essence of knowledge sharing trough social media is to provide value to colleagues and the organization.

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. The biggest challenge for the organizations seems to be 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 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.

The findings of this study emphasize that a number of factors determine an organization's success of social media adoption. Each organization is unique 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 man-

agement, which will have an influence on whether the adoption of a social media platform will be a success among employees or not.

7 References

1. Nonaka, I.: The Knowledge Creating Company. Harvard Business Review. July-August. 162-171 (2007)
2. Davenport, Thomas H.: Thinking for a Living: How to Get Better Performance and Results from Knowledge Workers. Harvard Business School Publishing, Boston (2005
3. Paroutis, S., Al Saleh, A.: Determinants of Knowledge Sharing Using Web 2.0 Technologies. Journal of Knowledge Management. 13 (4), 52-63 (2009)
4. Kiron, D., Palmer D., Phillips A.N., Berkman, R.: Social Business: Shifting Out of First Gear. MIT Sloan Management Review research report. (2013). Retrieved from http://sloanreview.mit.edu/reports/shifting-social-business/
5. Rennie, A.: More Than Facebook: The Time Is Right For Social Business. Forbes (2011) Retrieved from www.forbes.com/sites/ciocentral/2011/10/31/more-than-facebook-the-time-is-right-for-social-business/
6. Kirchner, K., Razmerita, L., Sudzina, F.: New Forms of Interaction and Knowledge Sharing on Web 2.0. In: Lytras, M. D., Damiani, E., & Patricia, O. D. P. (red.), Web 2.0: The Business Model. 21-36. Springer Science and Business Media, New York (2008)
7. Andriole Stephen J.: Business Impact of Web 2.0 Technologies. Communications of the ACM, 53 (12), 67–79 (2010)
8. McAfee, A. P.: Enterprise 2.0: The Dawn of Emergent Collaboration. MITSloan Management Review, 47 (3), 21-28 (2006)
9. McKinsey & Company: How Companies Are Benefiting from Web 2.0: McKinsey Global Survey Results. McKinsey Quarterly. (2009).
10. Bughin, J., Chui, M.: The Rise of the Networked Enterprise: Web 2.0 Finds Its Payday. McKinsey & Company. McKinsey Quarterly (2010)
11. Chui, M., Manyika, J., Bughin, J., Dobbs, R., Roxburgh, C., Sarrazin, H., Sands, G., Westergren, M.: The Social Economy: Unlocking Value and Productivity through Social Technologies. McKinsey Global Institute research report (2012)
12. Razmerita, L., Kirchner, K., Sudzina, F: Personal Knowledge Management: The Role of Web 2.0 tools for Managing Knowledge at Individual and Organisational levels. Online Information Review. *33*(6), 1021-1039 (2009)

13. Razmerita, L., Kirchner, K., Nabeth, T.: Social Media in Organizations: Leveraging Personal And Collective Knowledge Processes. Journal of Organizational Computing and Electronic Commerce (forthcoming) (2014)

14. Razmerita, L.: Collaboration using Social Media: The Case of Podio in a Voluntary Organization. In the19th International Conference on Collaboration and Technology, CRIWG'13, edited by et al. Antunes P.. 1-9. Springer, Wellington, New Zealand (2013)

15. Popadiuk, S., Choo, C.W.: Innovation and knowledge creation: How are these concepts related? International Journal of Information Management. 26 (4), 302-312 (2006)

16. Gartner: Gartner Says the Vast Majority of Social Collaboration Initiatives Fail Due to Lack of Purpose. (2013) http://www.gartner.com/newsroom/id/2402115

17. Harvard Business Review: The New Conversation: Taking Social Media from Talk to Action. Harvard Business Review Analytic Services (2010)

18. Social Semantic: Social Media Factbook. Denmark (2011) Retrieved from http://blog.socialsemantic.eu/factbook/

19. Denyer D., Parry E., Flowers P.: Social, Open and Participative? Exploring Personal Experiences and Organizational Effects of Enterprise 2.0 Use. Long Range Planning. 44, 375-396 (2011)

20. Danis C., Singer, D.: A Wiki Instance In the Enterprise: Opportunities, Concerns and Reality. Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work. ACM, New York (2008)

21. Deci, E., Ryan, R.: Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. Contemporary Educational Psychology. 25, 54-67 (2000)

22. O'Dell, C., Hubert, C.: The New Edge In Knowledge: How Knowledge Management is Changing the Way We Do Business. John Wiley & Sons Inc., New York (2011)

23. Von Krogh, G.: How does social software change knowledge management? Toward a strategic research agenda. The Journal of Strategic Information Systems.154-164 (2012)

24. Bernal, J.: Web 2.0 and Social Networking for the Enterprise: Guidelines and Examples for Implementation and Management within Your Organization. IBM Press, USA (2010)

25. Von Krogh, G, Haefliger, S.,Spaeth, S.,Wallin, M.W.: Carrots and Rainbows: Motivation and Social practice in Open Source Software Development. MIS Quarterly. 36 (2), 649-676 (2012)

26. Sajeva, S.: An Investigation of Critical Barriers to Effective Knowledge Management. Social Sciences/Socialiniai Mokslai. 58 (4), 20-27 (2007)

27. Lin, Hsiu-Fen: Knowledge Sharing and Firm Innovation Capability: An Empirical Study. International Journal of Manpower. 28 (3/4), 315-332 (2007)

28. Hsu, M.H., Ju, T.L., Yen, C.H., Chang, C.M.: Knowledge Sharing Behavior In Virtual Communities: The Relationship Between Trust, Self-efficacy and Outcome Expectations. International Journal of Human-Computer Studies. 65 (2), 153-69 (2007)

29. Ardichvili, A., Page, V., Wentling T.: Motivation and Barriers to Participate in Virtual Knowledge-sharing Communities of Practice. Journal of Knowledge Management. 7 (1), 64-77 (2003)

30. Riege A.: Actions to Overcome Knowledge Transfer Barriers in MNCs. Journal of Knowledge Management. 11 (1), 48-67 (2007)

31. De Long, D. W., Fahey, L.: Diagnosing Cultural Barriers to Knowledge Management. The Academy of Management Executive. 14 (4), 113-27 (2000)

32. Alawi, A. I., Al Marzooqi, N. Y., Mohammed, Y. F.: Organizational Culture and Knowledge Sharing: Critical Success Factors. Journal of Knowledge Management. 11 (2), 22-42 (2007)

33. Ardichvili, A., Maurer, M., Li, W., Wentling, T., Stuedemann, R.: Cultural influences on Knowledge Sharing through Online Communities of Practice. Journal of Knowledge Management. 10 (1), 94-107 (2006)

34. Chiu, C.M., Hsu, M.H., Wang, E. TG.: Understanding Knowledge Sharing in Virtual Communities: An Integration of Social Capital and Social Cognitive Theories. Decision Support Systems. Elsevier. 42, 1872-1888 (2006)

35. Zhang, X., Ordóñez de Pablosc, P., Zhoud, Z.: Effect of Knowledge Sharing Visibility on Incentive-based Relationship in Electronic Knowledge Management Systems: An empirical investigation. Computers in Human behavior. Elsevier. 29, 307-313 (2013)

36. Chen, C.J., Hung; S.W.: To give or to receive? Factors Influencing Members' Knowledge Sharing and Community Promotion in Professional Virtual Communities. Information and Management. Elsevier. 47, 226-236 (2010)

37. Tohidinia, Z., Mosakhani, M.,: Knowledge Sharing Behaviour and Its Predictors. Industrial Management & Data Systems. 110 (4), 611-631 (2010)

38. Cabrera, A., Cabrera, E.F. : Knowledge-sharing Dilemmas. Organisation Studies. 23 (5), 687-710 (2002)

39. Kimmerle, J., Wodzicki, K., Cress, U.: The Social Psychology of Knowledge Management. In Team Performance Management. 14 (7), 381-401 (2008)

40. Casimir, G., Lee, K., Loon, M.: Knowledge Sharing: Influences of Trust, Commitment and Cost. Journal of Knowledge Management. 16 (5), 740-753 (2012)

41. Gammelgaard, J.: Why Are We So Hostile to Sharing Knowledge?. European Business Forum. 18, 80-81 (2004)

42. Wasko, M., Faraj, S.: Why Should I Share? Examining Social Capital and Knowledge Contribution In Electronic Networks of Practice. MIS Quarterly. 29 (1), 35-57 (2005)

43. McAfee, A. P.: Enterprise 2.0: New Collaborative Tools For Your Organization's Toughest Challenges. Harvard Business School Publishing, Boston (2009)
44. Stenmark D.: Web 2.0 in the Business Environment: The New Intranet or a Passing Hype? In proceedings of the 16th European Conference on Information Systems. Ireland. (2008)
45. Gartner: Gartner Says 80 Percent of Social Business Efforts Will Not Achieve Intended Benefits Through 2015 (2013) Retrieved from http://www.gartner.com/newsroom/id/2319215