Exploring the Role of Social Media in Knowledge Sharing

Zoltán Gaál, Lajos Szabó, Nóra Obermayer-Kovács and Anikó Csepregi
University of Pannonia, Department of Management, Veszprém, Hungary
gaal@gtk.uni-pannon.hu
szabola@gtk.uni-pannon.hu
obermayerkovacs@gtk.uni-pannon.hu
csepregia@gtk.uni-pannon.hu

Abstract: Social media is no longer a negligible phenomenon; tools like Facebook, LinkedIn or YouTube have taken the world in a storm. Social media has become a mainstream, modified personal relationships, allowed individuals to contribute to number of issues and generated new possibilities and challenges to facilitate collaboration. Organizations have urgent need of not only focusing on innovation of new products and services, but also paying specific attention to effective knowledge sharing, which is of vital importance for their success. The potential advantage of embracing and implementing social media is enormous. Although the interest in social media is increasing, on the one hand knowledge workers and managers are waiting to get involved in this collaborative world, because they may not feel motivated or may not be aware of the advantages of using these tools for work purposes. On the other hand, organizations do not tend to allow their employees to use social media technologies because they may be concerned about the risks and consequences of a potential misuse. Our exploratory survey investigates how internal or external social media technologies are being used for knowledge sharing during work or for professional development. The study was accomplished with the help of enterprises and institutions operating in Hungary from profit and non-profit sectors, applying quantitative research methods. In total 299 individuals participated by completing the online, web-based questionnaire. The results have shown that Hungarian organizations prefer not to allow the usage of external social media; but where the employees are supported to reach these tools, high proportion of the people utilize them. The paper provides recommendations to the organizations how to foster motivating employees for using social media technologies for work purposes in knowledge sharing. In the discussion, a short summary of our study, managerial implications and new research direction are presented.

Keywords: Knowledge sharing; social media technologies; Hungarian research; exploratory survey, business

1. Introduction

Knowledge has always seen as one of the key strategic resources that can produce sustained long-term competitive advantage. Knowledge is the ability of people and organizations to understand and act effectively. Having knowledge supports to cope with daily routine works and it can also set up everyone to deal with new situations and utilize when needed.

Organizations that need to thrive, compete, and operate in an ever evolving environment, cannot leave the development of knowledge within the organization to chance. The exchange of information and knowledge among employees is a vital part of knowledge management. Actually, the organizations are faced with the challenge how to get people to share their knowledge.

For several decades, the world's best-known forecasters of social change have predicted the emergence of a new economy where brainpower and knowledge, not traditional sources of energy and machine power is the critical resource. However, this future is already here and the knowledge economy has arrived. This evolving era is characterized by rapid change and uncertainty, the increasing importance of knowledge and knowledge management and the popularity of new information technologies that have the potential to radically change the way organization do business.

The single most significant technological development in the last 20 years has been the Internet. The Internet makes it possible for individuals to connect, collaborate and share knowledge, information, document, photo, video, etc. continuously with anyone in the world. Furthermore, people are able to make use of social media tools in order to increase range and richness of their networks, gather information and nowadays, increasingly organizations are finding ways of integrating social media into their business processes (Gaál et al, 2014).

This paper is organized as follows. First, in the theoretical background knowledge management, knowledge sharing is defined followed by a discussion on social media technologies and research review from all over the world. The third section explains the research framework and the fourth section discusses the research results regarding the role of social media tools in knowledge sharing. Conclusion and direction for future work is in the final part of this paper.

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2. Theoretical background

This section starts with a general introduction into the theory of knowledge management, knowledge sharing and the next paragraph is about social media technologies.

2.1 Knowledge management

As we have noted above knowledge is becoming a strategically important resource and a very significant driver of organizational performance (Yesil and Dereli, 2013). Either located in the minds of the individuals (tacit knowledge) (Polányi, 1966), embedded in organizational routines and norms, codified in technological devices (explicit knowledge) (Nonaka and Takeuchi, 1995), knowledge enables the development of new competences (Choo, 1998). Successful companies are those that consistently create new knowledge, disseminate this knowledge throughout the organization, and embody it in technologies, products and services (Gottschalk, 2007; Gaál et al, 2009). Knowledge management describes the processes of acquiring, developing, sharing, exploiting and protecting organizational knowledge to improve organizations' competitiveness. Negroponte (1995) conceived the concept of "knowledge" as the most recent input factor for business organizations and a key to their future competitiveness.

A review of the research literature in Knowledge Management provides many definitions of knowledge and knowledge management distributed among numerous important journals, studies and books. Our research group adopted the definition of knowledge management utilized by KPMG (2003:4) namely: "knowledge management is a systematic and organised approach to improve the organisation's ability to mobilise knowledge to enhance performance".

Many organizations and institutions have recognized the importance of knowledge and knowledge management to the future performance of both businesses and society. For example, the report Europe 2020 sets out a new vision of Europe's social market economy for the 21st century. One of the priorities it puts forward is the promotion of smart growth, which is, developing an economy based on knowledge and innovation. Such smart growth requires among others things the promoting of innovation and knowledge transfer, making full use of information and communication technologies and ensuring that innovative ideas can be turned into new products and services (European Commission, 2010).

The emergence of the knowledge economy and the recognition of knowledge as a key factor in the achievement of competitive advantage are making it critical to understand and develop effective approaches to knowledge management.
Organizations around the world have focused on knowledge management and have already developed knowledge management programs in order to improve their performance with varying degrees of success. Clearly one important set of activities involves the defining knowledge and constructing the metrics to assess how effectively an organization is managing (sharing) its knowledge (intellectual capital). The development of this definition and the creation of metrics is clearly challenging but is a necessary first step towards improving knowledge management practices since it has been cogently argued that one cannot improve what one cannot somehow measure (Gaál et al, 2008).

Although a standard global approach to knowledge management does not exist three general activities involved in knowledge management have been identified. These activities are integrated together into the overall knowledge management process. The three major activities are (Figure 1):

1. Knowledge capture and/or creation,
2. Knowledge sharing and dissemination,
3. Knowledge acquisition and application (Dalkir, 2005).

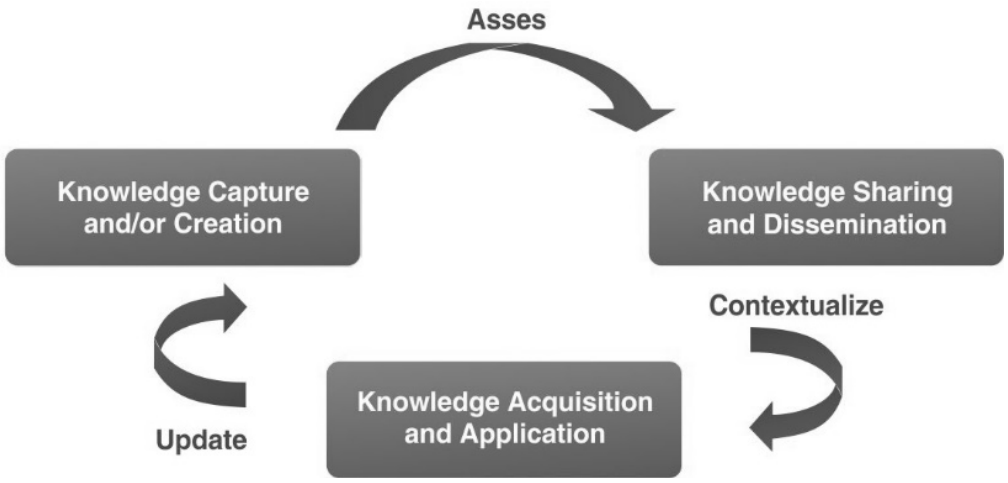

Figure 1: Integrated knowledge management cycle (Dalkir, 2005:43)

2.2 Knowledge sharing

Sharing is a common activity for everyone, but knowledge sharing within an organization is a complex and complicated issue. Knowledge sharing is the process by which knowledge of individuals is converted into a form that can be understood and used by other individuals (Ipe, 2003). Knowledge sharing refers to the task to help others with knowledge, and to collaborate with others to solve problems, develop new ideas, or implement processes (Cummings, 2004).

There are four factors that influence knowledge sharing (Ipe, 2003):

1. Nature of knowledge
2. Tacit form: located in the individual's mind (Polányi, 1966)
3. Explicit form: embedded in organizational routines and norms, codified in technological devices (Nonaka and Takeuchi, 1995).
4. Motivation
5. Internal factors: perceived power (Gray, 2001) and reciprocity (Davenport and Prusak, 1998)
6. External factors: relationship with the recipient and rewards for sharing (Hall, 2001)
7. Opportunities
8. Formal: training programs, team works, technology-based systems
9. Informal: personal relationships and social networks
10. Culture of the work environment
11. Organizational culture determines values, beliefs, and work systems that could encourage knowledge sharing (Janz and Prasarnphanich, 2003)

There are three generations of knowledge sharing (Bellefroid, 2012):

1. ***First generation:*** the traditional way of knowledge sharing is the concept of codification (Hansen et al, 1999) and storage. This way can easily be supported by information technologies.
2. ***Second generation:*** focuses on the social component, personalization (Hansen et al, 1999), and the way people co-operate and communicate. Formal and informal opportunities can be used like mentoring, coaching or face-to-face meetings. Codification is mostly used as a starting point, were new employees can find out what employees know and what knowledge is available. Personalization is used to see the application of the available knowledge.
3. ***Third generation:*** social networks are the new ways to get in touch with experts and to search for knowledge outside the organization. Using social media tools enable less physical contact between employees.

Organizations have urgent need to pay specific attention to effective knowledge sharing, which is vital importance for their success and to achieve competitive advantage. Knowledge sharing can be materialized in written form through IT systems or via face-to-face communications. It is important for the next generation managers to provide opportunities for people to share their knowledge. Organizations have to stimulate a need to share knowledge among a group of people. When this need appears, physical or electronic spaces are likely to be used for knowledge sharing purposes (Huysman and Wit, 2004). About physical knowledge sharing several research has been done (Bock et al, 2005; Hansen et al, 2005, Quigley et al, 2007; Wang and Noe, 2010).

2.3 Social media technologies

Social media has a variety of broad definitions, such as "collaborative online applications and technologies which enable and encourage participation, conversation, openness, creation and socialization amongst a community of users" (Bowley, 2009:15), web-based tools and practices enabling participation and collaboration based on individuals' activities (Storey et al, 2010). Surowiecki (2005) defined that social media is to make use of the "wisdom of the crowd". Group of people are better at problem solving, fostering decision making than the individuals alone. New ways of inspiring and exploiting knowledge sharing are forcing organizations to expand their knowledge sharing technologies and practices (Mentzas et al, 2007).

The term "Web 2.0" was generated by O'Reilly Media in 2004 (O'Reilly, 2005). It refers to technologies that allow individuals to interactively participate with information and with other individuals, and to build networks based on mutual personal or professional interest. Web 2.0 facilitates social networking therefore is also referred to as the social media. These technologies - blogs (like Blogger), video sharing (like YouTube), presentation sharing (like SlideShare), social networking service (like Facebook, LinkedIn), instant messaging service (like Skype) and groupware (like Google Docs) - foster a more socially connected platform (Anderson, 2007).

Vuori (2011) characterises social media by considering the extent to which they support communication, collaboration, connecting, completing and combining (5C) (Jalonen, 2014):

1. ***Communication:*** social media provides new tools to share, store and publish contents, discuss and express opinions and influence:
2. Blogs (e.g. Blogger) and microblogs (e.g. Twitter),
3. Video sharing (e.g. YouTube),
4. Presentation sharing (e.g. SlideShare),
5. Instant messaging service (e.g. Skype).
6. ***Collaboration:*** social media enables collective content creation and edition without location and time constraints:
7. Wikis (e.g. Wikipedia)
8. Groupware/shared workspaces (e.g. GoogleDocs).
9. ***Connecting:*** social media offers new ways of networking with other people, socialising oneself into the community:
10. Social networking services (e.g. Facebook, LinkedIn).
11. ***Completing:*** social media tools are used to complete content by describing, adding or filtering information, tagging contents, and showing a connection between contents:
12. Visual bookmarking tool (e.g. Pinterest),
13. News aggregator (e.g. Digg).
14. ***Combining:*** social media tools are developed for mixing and matching contents. Combination of pre-existing web services that allow a certain user within a platform to use another application, in a specific window, without the need to get out of the initial website (Bonson and Flores, 2011).
15. Mash-ups (e.g. Google Maps).

Six characteristics have been identified that provide value to social media (Postman, 2009):

1. ***Authenticity:*** possibility to let the real voices of real people come through.
2. ***Transparency:*** ability for shareholders to see the financial performance; through blogs, communities and others information can also be made visible to the public.

3. ***Immediacy:*** ability of companies, members of the public to communicate, and to engage in online conversations.
4. ***Participation:*** possibility for anyone to participate in corporate conversation, on the company's blog, independent forums, personal blogs, etc. online.
5. ***Connectedness:*** ability to connect and share in thousands of places.
6. ***Accountability:*** ability to detect users (leave a trail of IP addresses and other clues).

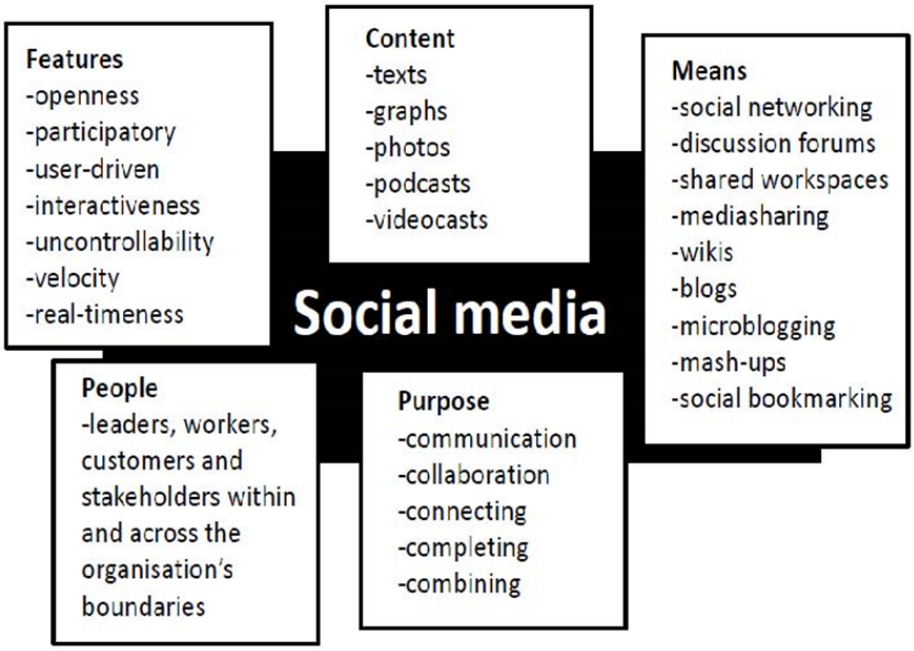

Figure 2: Social media – features, content, means, people and purpose (Jalonen, 2014:1372)

In other research user-friendliness, interactiveness, openness and uncontrollability, velocity, and real-timeness have been mentioned to be the main characteristics of social media (Kaplan and Haenlain, 2010; Denyer et al, 2011; Kietzmann et al, 2011; Fournier and Avery, 2011).

2.4 Research on knowledge sharing and social media tools

Several research has been conducted about using social media and Web 2.0 in the workplace for sharing knowledge. Paroutis and Saleh (2009) investigated the key determinants of knowledge sharing and collaboration using Web 2.0 technologies by exploring the reasons for and barriers to employees' active participation in its various platforms within a large multinational firm. Their study identifies the key determinants of knowledge sharing and collaboration using Web 2.0 technologies by exploring the reasons for and barriers to employees' active participation in its various platforms within a large multinational firm. Using insights from both users and non-users of Web 2.0, the following four key determinants were identified: history, outcome expectations, perceived organizational support and trust.

Dumbrell and Steele (2014) presented an informal knowledge management framework based on the system capabilities present in social media technologies as well as the requirements of older adult users. The system capabilities distinctive to social media technologies are: public peer-to-peer sharing, content evaluation amongst peers, and the "push" nature of these systems.

Behringer and Sassenberg (2015) studied the relation between importance of knowledge exchange, deficits in knowledge exchange, perceived usefulness of social media for knowledge exchange, as well as social media experience on the one hand and the intention to use knowledge exchange technology on the other hand. The results showed that the interplay between the importance and deficits concerning knowledge exchange, perceived usefulness of social media for knowledge exchange, and experience in social media use jointly affected the intention to apply social media for knowledge exchange after their implementation.

Another study (Sigalaa and Chalkiti, 2015) investigates the relation between social media use and employee creativity by adopting a knowledge management approach in order to consider the influence of social networks and interactions

on individuals' creativity. Their findings highlight the need to shift focus from identifying and managing creative individuals (micro level) and/or organisational contexts (macro level) to creating and managing creative social networks (meso level). The use of social media for externalising, disseminating and discussing information with others within various social networks as well as for combining and generating shared (new) knowledge can further trigger, enrich and expand the employees' individual cognitive abilities and provide them with stimuli for generating and (co)-creating more and newer ideas/knowledge.

3. Research framework

The methodology undertaken in this study was an exploratory research examining the peculiarities of knowledge sharing activities among Hungarian organizations. The authors at the University of Pannonia, Veszprém were involved in the development and implementation of the "Organizational knowledge sharing in Hungary 2013/2014" questionnaire survey (KPMG Academy, 2014), which was executed with the collaboration of the KPMG Academy, Budapest. The main objective of our research is to determine the characteristics of using social media technologies as knowledge sharing tools.

3.1 Data collection

Based on the literature and our previous survey (KPMG-BME Academy, 2006) an online survey was carried out in LimeSurvey, which is a web application. In the short description, it was stressed that the answers would be anonymous, and only used for this study. Respondents could leave their e-mail address in order to be informed about the results later.

More than 1500 individuals received an e-mail requesting 15 minutes of their time to fill in a questionnaire about internal and external knowledge sharing tools and practices. The message contained a link to the LimeSurvey. The survey instrument consisting of four demographic questions and forty-three questions related to knowledge management, divided into three main areas: knowledge management, knowledge sharing and leadership practice (this paper does not discuss this topic). The participation of this study was voluntary. In the course of the survey, answers from 299 organizations were included in the database. The completed questionnaires were exported from LimeSurvey to Excel and SPSS files.

3.1.1 Participants

The participating organizations are all operated in Hungary; they are private-owned Hungarian companies, subsidiaries of multinational companies, and other organizations in the field of public administration, but the exact statistical composition is unknown, as the questionnaire did not have questions about industry sectors' classification. Based on the number of employees, 55% large companies, 24% medium-sized enterprises, 10% small businesses and 11% micro businesses. A little bit more than half of the organizations (54%) is a domestic subsidiary of a foreign company, and 46% is Hungarian-owned company. 27% of the respondents are top managers, 42% middle level managers and 31% white collar workers. The participants belong to three generations; 22% from Baby Boomers, 60% from Generation X and 18% from Generation Y (KPMG Academy, 2014).

3.2 Statements of the empirical survey

In general, we can state that knowledge is still considered as a strategic asset characterized by the increasing proportion of, however, we cannot see that a wider range of organizations create formal knowledge management strategy. At the same time we realized the growing number of projects and initiatives for knowledge sharing that the organizations try to support (KPMG Academy, 2014).

3.2.1 Knowledge management strategy and initiatives

The respondents' answers show that organizations in Hungary has just started to implement knowledge management strategies. Still only 37% of participated organizations have developed a formal strategy (the same percentage like in survey 2006); however, 81% states that knowledge is a strategic asset (KPMG-BME Academy, 2006; KPMG Academy, 2014).

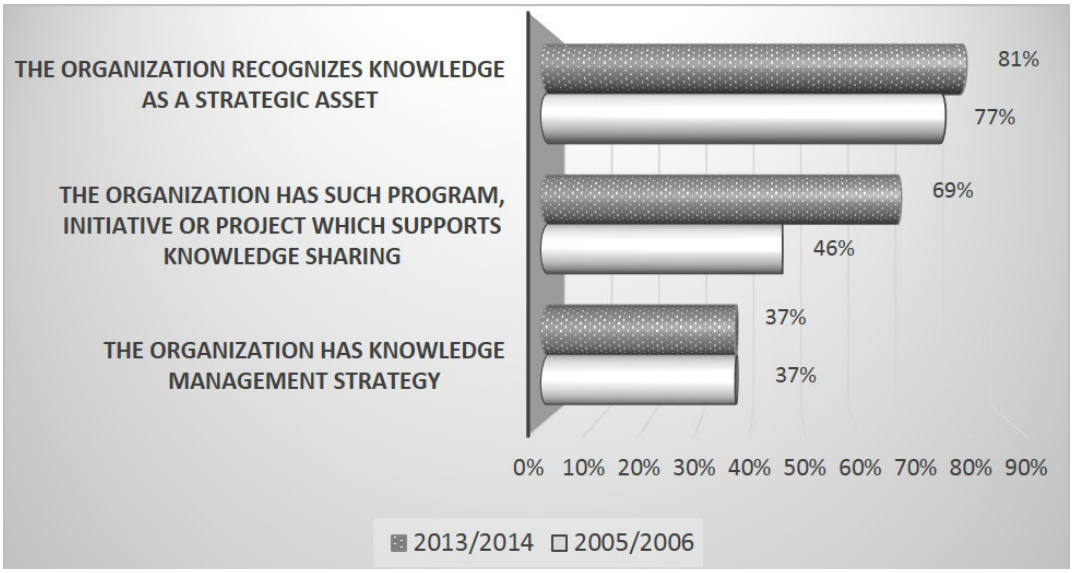

Figure 3: Knowledge management strategies and initiatives (KPMG Academy, 2014: 8)

There is still a huge gap between the theory and the reality. A remarkable growth can be detected to be related to knowledge sharing programs, initiatives or projects exists in the respondents' organizations (from 46% to 69%). Elaborating knowledge management strategy is still not a typical activity, but it does not mean that organizations do not try to support the dissemination of knowledge somehow. In our study, it is concluded that almost half of the participated large companies (45%) have formal strategy development while this rate is only 29% for the micro, small and medium-sized enterprises. We could determine the same rate for foreign-owned organizations (47%) compared with the Hungarians (27%) (Gaál et al, 2014).

4. Research results

Following section provides the results of the survey focusing on the existence and the usage of internal and seven external (available through official internal network) technologies and practices.

4.1 Internal knowledge sharing technologies and practices

Results of the survey indicate (Table 1) which internal knowledge sharing tools are allowed to use or enable the access inside the organizations and which social media tool are selected by the employees from the available ones for knowledge sharing purposes during work (KPMG Academy, 2014).

Table 1: Existence and usage of internal knowledge sharing technologies/practices

Tool	Meaning	Existence	Usage*
Internal training	A method of preparing an employee to perform a task.	89%	94%
Document management system and knowledge repository	Providing a comprehensive solution for managing capture, index, storage, retrieve of any information.	76%	89%
Participation in the life of a communities of practices	Groups of people who are formed to share and create skills, knowledge, and expertise among employees.	70%	79%
Internal instant messaging service	Facilitating near real-time text based communication between two or more participants.	56%	83%

Presentation sharing	Offering the ability to publish any kind of organizational presentations to a specific audience or the entire world.	46%	80%
Groupware	Enabling group collaboration over a network, providing flexible communication structures.	44%	59%
Internal social networking services	Providing the network's members access to information and knowledge.	35%	78%
Internal blogs	Offering individuals/groups to capture and publish information about specific topics.	33%	63%
Knowledge map	Presenting what knowledge resides where (people) and for demonstrating the patterns of knowledge flow (distribution).	31%	68%
Competence centre/ centre of excellence	Consultants with specific areas of knowledge and experience.	30%	68%
Internal video sharing	Offering the ability to publish video content to a specific audience or the entire world.	19%	71%

*At this question those organizations constituted the population where these technologies exist, therefore the usage is possible.

The most popular practice for knowledge sharing is internal training, and three-quarters of the participated organizations have a document management system and knowledge repository and have the possibility to take part in the life of communities of practices. Every second organization tend to support instant messaging service, but concerning the other technologies, less than half of organizations enable the accessibility. However, where the employees are allowed to use any of these tools, high proportion (in every case more than 50%) of the people utilize them for knowledge sharing during work or for professional development.

4.1.1 Relationships

We explored the relationship between individual characteristics and willingness to use the internal social media technologies (Gaál et al, 2014). We have found connection regarding presentation sharing technologies, the elder the generation the higher percentage applies (60% of Baby Boomers, 39% of Generation X, and only 35% of Generation Y). What could be the reason? How many people make presentations nowadays at all? For example, the TED talks are typically held without any presentation, some photos may be used as an illustration. Or just think about using Prezi, which is an auto-sharing application.

Regarding internal social networking service we found relationship with both individual characteristics. With rise of age, the willingness to use this tool for knowledge sharing during work increases: 25% of Generation Y, 41% of Generation X, 55% of Baby Boomers. Regarding the position, only 26% of white collar workers, while nearly half (47%) of managers (middle level and top management) utilize the internal social networking service. The higher one position is the greater the need for such a tool, which facilitates to establish collaboration with colleagues working in other departments or in other countries at an international organization. Younger people choose open systems and they use such applications which has a free access anytime and anywhere and they do not use the term Intranet at all.

The survey stated that the usage of internal instant messaging service is typical rather for top management (58%) and less, only for a little bit more than one third of the middle level managers and white collar workers (38%). It is assumed that for international organizations, at top management level there are numerous negotiations take place across national borders, and these tools mean a more cost-effective solution.

4.2 External knowledge sharing technologies and practices

As regards the external technologies' existence (Figure 4) it can be stated that the participated organizations prefer not to allow the usage of these tools.

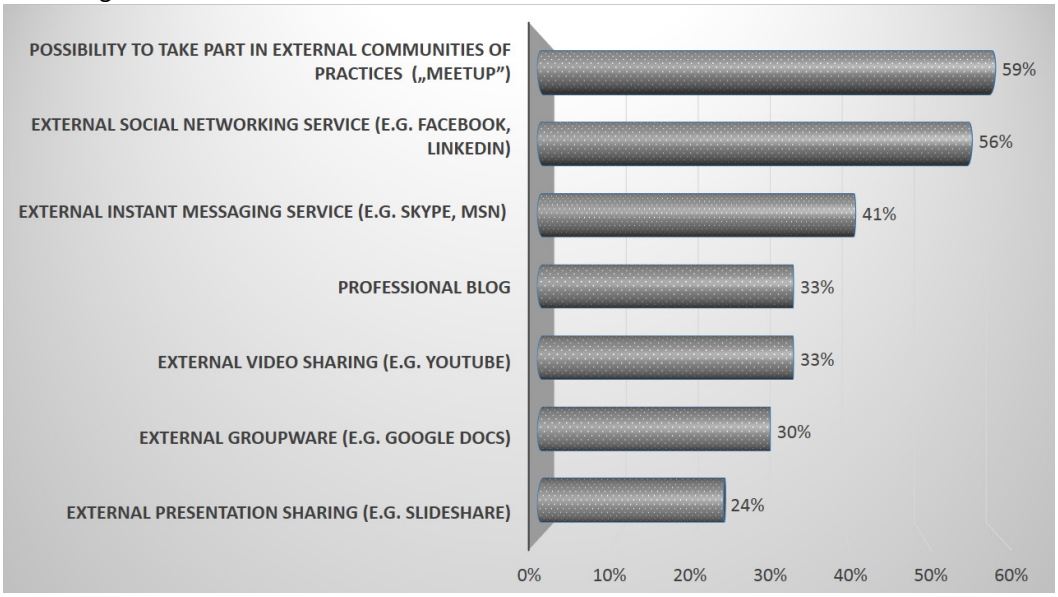

Figure 4: Existence of external knowledge sharing technologies/practices (KPMG Academy, 2014:10)

In reference to external technologies, the situation of accessibility is much worse. There are only two knowledge sharing tools, which can be found more than half of the organizations, the participation in communities of practices and social networking service, but only third (or less) of the organizations allow the usage of instant messaging service, blog, video sharing, groupware or presentation sharing.

We were interested in which technologies are used for knowledge sharing during work or for professional development at the participated organizations (Figure 5). Those organizations constituted the population where the usage of these technologies is possible.

It was an interesting result that the organizations where the employees are allowed to use these tools, high proportion (concerning six tools out of seven, more than 70%) of the people utilize them.

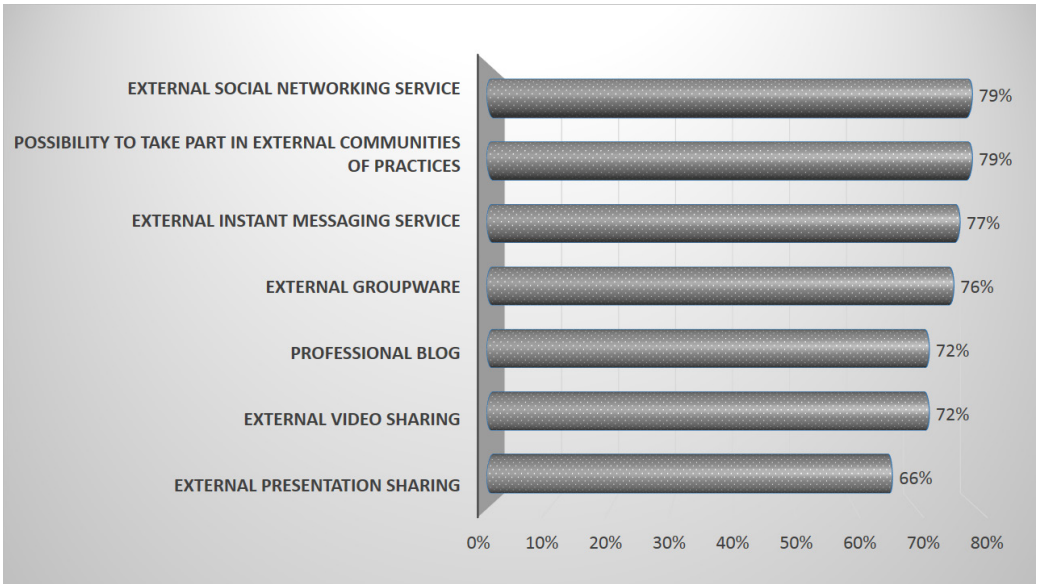

Figure 5: Usage of external knowledge sharing technologies (KPMG Academy, 2014:10)

Although interest in social media is increasing, organizations do not tend to allow their employees to use social media technologies because they may be concerned about the risks and consequences of a potential misuse, but on the

other hand knowledge workers and managers are still waiting to get involved in this collaborative world, because they may not feel motivated or may not be aware of the advantages of using these tools for work purposes.

4.2.1 Relationships

We also investigated the correlation between individual characteristics and willingness to use the external social media technologies. From the external social media tools only one relationship was encountered. Regarding the external social networking service (e.g. Facebook, LinkedIn), the higher the position, the more frequent the work-related application is. 68% of top management, 59% of middle level managers and only almost the half (49%) of white collar workers use this tool for knowledge sharing during work. It is important to make a distinction between Facebook and LinkedIn. On Facebook less members from top managers but more from lower positions can be assumed, but on LinkedIn more and more top managers and experts appear because it is known that the executive head hunting companies often gather information from that site. The surprising result can be explained by the fact that the lower the position, the external social networking is typically not for professional usage rather than for maintaining friendship. Consequently, there is no reason to use this tool for work or for the purpose of knowledge sharing (Gaál et al, 2014).

4.3 Practical implications

Table 2 presents the possible social media tools that can be used by the communities with the aim to share knowledge with the wider audience and within the organization.

Table 2: Usage possibilities of external social media tools for knowledge sharing

Social media tool	Description
Facebook	Facebook, as an external social networking service enables for a community to create a profile (and topic groups) with the aim to share information/knowledge to the followers (partners, potential customers) of their community page. Specific information should be shared only with the members; for a wider audience, commercials, news, etc. can be published.
LinkedIn	LinkedIn, as an external social networking service can be used for professional way, could be a perfect tool for finding information and experts.
MeetUp	Meetup, as an external communities of practice has online portals that facilitate group meetings in various localities around the world. People are contacting with others generally with the professional aim.
Skype	Skype, as an external instant messaging service is also an online conference tool, which can promote the instant communication and knowledge sharing between the community members. There can be numerous negotiations take place across national borders, and this tool means a more cost-effective solution.
GoogleDocs	GoogleDocs, as an external groupware supports collaborative creation of knowledge. It can be used for sharing the documents without sending them via e-mails, but only sharing the link of the document. Other community members who have access to the GoogleDocs have a chance to modify the materials.
Weblog	Weblog, as a professional blog is an informational site published on the web and consists of posts typically displayed in reverse chronological order. Weblogs of the communities are focusing on partners, employees or everyone with the aim to share information or knowledge.
YouTube	YouTube as an external video sharing site allows users to upload, view, and share videos, and it makes use of Adobe Flash Video to display a variety of individual or corporate

Social media tool	Description
Facebook	Facebook, as an external social networking service enables for a community to create a profile (and topic groups) with the aim to share information/knowledge to the followers (partners, potential customers) of their community page. Specific information should be shared only with the members; for a wider audience, commercials, news, etc. can be published.
LinkedIn	LinkedIn, as an external social networking service can be used for professional way, could be a perfect tool for finding information and experts.
	media video.
SlideShare	SlideShare as an external presentation sharing is a web-based slide hosting service. Users can upload presentations privately or publicly. The website can be used for businesses to share slides among employees more easily. SlideShare also provides users the ability to rate, comment on, and share the uploaded content.

5. Conclusion

This research was defined to find out more about the relation between social media tools and knowledge sharing within organizations. We can state that all generations (Bellefroid, 2012) of knowledge sharing can be found in the Hungarian organizations, but third one is rather at the initial step as most of the organizations do not allow their employees to utilize the benefits of the social media tools and not support to develop social networks through these technologies. Amazingly rapid expansion of the content sharing technologies has led to many of social media technologies becoming an integral part of many people's daily routine. We can easily collaborate and work with our colleagues at the opposite side of the world with the help of professional, fast instant messaging services in an effective way. Communities of practices' "Meetup" video can be accessed almost immediately after the event on a video sharing site. Companies have to clearly identify what information and knowledge is to be kept confidential and what is to be shared and made available to others. Such practices as crowd-sourcing and open innovation practices have demonstrated the value of sharing information and knowledge that has previously been considered to be confidential.

In future, we expect that both the internal and external usage of the social media tools will increase. In our study, social media emerges a new perspective. Enormous information and knowledge can be shared using powerful tools to a world in which the social factors play an essential role. In our new accelerated world, numerous technologies have been developed to support social capital connections (social networking services like Facebook, LinkedIn) and to communicate in a more effective way (instant messaging services like Skype, Viber).

For organizations that ensure value to knowledge sharing, integrating social media tools into their daily business life is essential to enable for the employees an easy access; and offer trainings to inexperienced users. For example developing document- or knowledge management systems while ignoring the power of social media that everyone uses daily would be wasteland. A numerous opportunities exist using social media tools in action:

- Communication between employees can be encouraged to support problem solving: if organization needs an expert for a specific task, a post can be placed on a blog and likely receive a response from another employee or search on LinkedIn to find the a person, who can help.
- Convert personal knowledge to organisational knowledge: if the senior employees record videos about their work and share it with the new employees, the organization can use these videos instead of expensive training programs to explain the details.
- Discuss professional problems: with a group of people who are active practitioners in a particular area, professional communities (communities of practices – CoP) can be useful because they are neutral and can provide a way to share best practices, ask questions of and provide support for each other outside the organization.

- Reduce time and money through integrated system: using a "new" technology, the calendar, but not because of the calendar function, but organizing and sharing events, meetings, making appointment in a shorter time (instead of phone calls or sending lots of e-mails).

Several managerial implications can also be utilised. It is recommended for management to support introducing social media technologies, establish the terms and conditions of usage, communicate the benefits and provide the necessary trainings. Moreover, organizations should develop a reward system to encourage employees' willingness to use social media tools for knowledge sharing.

We have hypothesized that younger generations have a greater willingness touse social media technologies. After our investigations we can state however that the members of Generation Y (younger generation) or employees with lower level position are less likely social media technologies in the workplace. We would postulate that this is because social media tools are more common among young people but they use them for private purposes, while using these tools for work (mainly for knowledge sharing or professional development) is more typical for
Generation X and Baby Boomers (elder generations).

In 1993 Drucker predicted how Knowledge Economy will need to progress in order to obtain competitive advantage. He stated that "the productivity of knowledge is going to be the determining factor in the competitive position in a company, an industry, an entire country. No country, industry or company has any 'natural' advantage or disadvantage. The only advantage it can possess is the ability to exploit universally available knowledge. The only thing that increasingly will matter in national as in international economics is management's performance in making knowledge productive" (Drucker, 1993:193).

It seems that he predicted the rise of the online, open source, social media tools that can become widely available and prevalent in our modern business life. The willingness to use these technologies by Generation Y (and later for Generation Z) will not be enough. These new generations must be encouraged to make use of these technologies for work as well as for non-work related activities.

Our research could be expanded, as it would be interesting to make a comparison between knowledge sharing practices and usage of social media tools in other countries. The authors have already got in touch with other researchers to find out the way how we can conduct a mutual survey.

References

Anderson, P. (2007) *What is Web 2.0? Ideas, technologies and implications for education*, JISC reports, [Online], Available: http://www.jisc.ac.uk/media/documents/techwatch/tsw0701b.pdf

Behringer, N. and Sassenberg, K. (2015) Introducing social media for knowledge management: Determinants of employees' intentions to adopt new tools, *Computers in Human Behavior,* vol. 48, pp. 290-296.

Bellefroid, B. (2012) The new way of knowledge sharing a thesis research about the effects of NWOW on knowledge sharing, [Online], Available: http://www.cs.uu.nl/education/scripties/pdf.php?SID=INF/SCR-2012-009

Bock, G. W., Zmund, R. W., Kim, Y. G. and Lee, J. N. (2005) Behavioral Intention Formation in Knowledge Sharing: Examining the Roles of Extrinsic Motivators, Social-Psychological Forces, and Organizational Climate, *MIS Quarterly*, vol. 29, no. 1, pp. 87-111.

Bonson, E. and Flores, F. (2011) Social media and corporate dialogue: the response of the global financial institutions, *Online Information Review*, vol. 35, no. 1, pp. 34-49.

Bowley, R. C. (2009) 'A comparative case study: Examining the organizational use of social networking sites', *Thesis*, The University of Waikato, Hamilton, [Online], Available: http://researchcommons.waikato.ac.nz/bitstream/handle/10289/3590/thesis.pdf?sequence=1&isAllowed=y

Choo, C. (1998) *The Knowing Organization: How Organizations Use Information for Construct Meaning, Create Knowledge and Make Decisions*, Oxford Press, New York

Cummings, J. N. (2004) Work groups, structural diversity, and knowledge sharing in a global organization, *Management Science*, vol. 50, no. 3, pp 352−364.

Dalkir, K. (2005) Knowledge Management in Theory and Practice. MA: Elsevier, Boston

Davenport, T. H. and Prusak, L. (1998) *Working Knowledge: How Organizations Manage What They Know*, Harvard Business School Press, Boston

Denyer, D., Parry, E. and Flowers, P. (2011) 'Social', 'Open' and 'Participative'? Exploring Personal Experiences and Organizational Effects of Enterprise 2.0 Use, *Long Range Planning*, vol. 44, pp. 375–396.

Drucker, P. (1993) *Post-capitalist Society*, Butterworth-Heinemann, Oxford

Dumbrell, D. and Steele, R. (2014) Social Media Technologies for Achieving Knowledge Management Amongst Older Adult Communities, *Procedia - Social and Behavioral Sciences,* vol. 147, pp. 229-236.

European Commission (2010) Communication from the Commission Europe 2020: A strategy for smart, sustainable and inclusive growth, [Online], Available: http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf

Fournier, S. and Avery, J. (2011) The uninvited brand, *Business Horizons*, vol. 54, no. 2, pp. 193–207.

Gaál Z., Szabó, L. and Obermayer-Kovács, N. (2014) 'Personal knowledge sharing: Web 2.0 role through the lens of Generations', ECKM 2014 – *Conference Proceedings,* 15th European Conference on Knowledge Management, Santarem, pp. 362-370.

Gaál Z., Szabó, L., Kovács, Z., Obermayer-Kovács, N. and Csepregi A. (2008) 'Knowledge Management Profile Maturity Model', ECKM 2008 - Conference Proceedings, 9th European Conference on Knowledge Management, Southampton, pp. 209-216.

Gottschalk, P. (2007) *CIO and corporate strategic management: changing role of CIO to CEO*, Idea Group Publication, Hershey PA

Gray, P. H. (2001) The Impact of Knowledge Repositories on Power and Control in the Workplace, *Information Technology and People*, vol. 14, no. 4, pp 368-384.

Hall, H. (2001) Social Exchange for Knowledge Exchange, Managing Knowledge: Conversations and Critiques, University of Leicester Management Centre, [Online], Available: http://researchrepository.napier.ac.uk/3276/1/hall.pdf

Hansen, M. T., Mors, M. L. and Løvås, B. (2005) Knowledge sharing in organizations: Multiple networks, multiple phases, *Academy of Management Journal*, vol. 48, no. 5, pp. 776-793.

Hansen, M. T., Nohria, N. and Tierney, T. (1999) What is your strategy for managing knowledge, *Harvard Business Review*, March/ Apr, pp. 106-116.

Huysman, M. H. and Wit, D. (2004) *Knowledge Sharing in Practice,* Dordrecht: Kluwer Academics.

Ipe, M. (2003) Knowledge Sharing in Organizations: A Conceptual Framework, *Human Resource Development Review*, vol. 2, no. 4, pp. 337-359.

Jalonen, H. (2014) Social Media And Emotions In Organisational Knowledge Creation, *Conference Proceedings*, Federated Conference on Computer Science and Information Systems, Warsaw, pp. 1371–1379.

Janz, B.D. and Prasarnphanich, P. (2003) Understanding the antecedents of effective knowledge management: The importance of a knowledge-centered culture, *Decision Sciences*, vol. 34, no. 2, pp. 351-384.

Kaplan, A. M. and Haenlain, M. (2010) Users of the world, unite! The challenges and opportunities of social media, *Business Horizons*, vol. 53, pp. 59-68.

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., Silvestere, B. C. (2011) Social media? Get serious! Understanding the functional blocks of social media, *Business Horizons*, vol. 54, no. 3, pp. 241-251.

KPMG (2003) Insights from KPMG's European Knowledge Management Survey2002/2003. KPMG Consulting Report, [Online], Available: ep2010.salzburgresearch.at/ knowledge_base/kpmg_2003.pdf

KPMG Academy (2014) "Organizational Knowledge Sharing in Hungary 2013/2014", KPMG Academy – University of Pannonia *Research Report*, [Online], Available: http://www.kpmgakademia.hu/_files/KPMG_Akademia_Szervezeti_tudasmegosztas_Magyarorszagon_2013_2014.PDF

KPMG-BME Academy (2006) "Knowledge Management in Hungary 2005/2006", KPMG-BME Academy – University of Pannonia *Research Report*, KBA Oktatási Kft, Budapest

Mentzas, G., Kafentzis, K. and Georgolios, P. (2007) Knowledge services on the Semantic Web, *Communications of the ACM*, vol. 50, pp. 53-58.

Negroponte, N. (1995) *Being digital*, Alfred A. Knopf, New York

Nonaka, I. and Takeuchi, H. (1995) *The Knowledge-creating Company*, Oxford University Press, New York

O'Reilly, T. (2005) What is Web 2.0? Design patterns and business models for the next generation of software, [Online], Available: http://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html

Paroutis and Saleh (2009) Determinants of knowledge sharing using Web 2.0 technologies, *Journal of Knowledge Management*, vol. 13, no. 4, pp. 52-63.

Polányi, M. (1966) *The Tacit Dimension*, Routledge & Kegan Paul, London

Postman, J. (2009) *SocialCorp: social media goes corporate*, Berkeley, CA: New Riders

Quigley, N. R., Tersluk, P. E., Locke, E. A. and Bartol, K. M. (2007) A multilevel investigation of the motivational mechanisms underlying knowledge sharing and performance, *Organization Science*, vol. 18, no. 1, pp. 71-88.

Sigalaa, M. and Chalkiti, K. (2015) Knowledge management, social media and employee creativity, *International Journal of Hospitality Management*, vol. 45, pp. 44–58.

Storey, M. A., Treude, C., Deursen, A. and Cheng, L.T. (2010) The Impact of Social Media on Software Engineering Practices and Tools, *FoSER '10 Proceedings of the FSE/SDP workshop on Future of software engineering research* New York: ACM, pp 359-364.

Surowiecki, J. (Ed.) (2005) *The Wisdom of the Crowds*, Anchor Books, New York

Vuori, V. (2011) Social Media Changing the Competitive Intelligence Process: Elicitation of Employees' Competitive Knowledge. Academic Dissertation, [Online], Available: http://dspace.cc.tut.fi/dpub/bitstream/handle/123456789/20724/vuori.pdf

Wang, S. and Noe, R. A. (2010) Knowledge sharing: A review and directions for future research, *Human Resource Management Review*, vol. 20, pp. 115–131.

Yesil, S. and Dereli, S. F. (2013) An empirical investigation of organisational justice, knowledge sharing and innovation capability, *SciVerse Science Direct*, vol. 75, pp. 199-208.