KNOWLEDGE SHARING ON SOCIAL MEDIA: STATE OF THE ART IN 2018

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Abstract. In the past decade, the importance of social media has increased, especially in knowledge sharing practices. Current massive evolution of computer-mediated communication platforms influenced the ways of how knowledge is managed and shared by individuals. This literature review of published papers in the past decade explores the potential of using social media in knowledge sharing by individuals and, through the mapping of the existing studies, identifies research opportunities for future studies. Primary, tacit and explicit knowledge sharing have been investigated. The findings suggest that there are different ways in which knowledge is shared across social media, but the systematic approach and synthesis is challenging to define. Therefore, there are some open courses of future research that may form the basis for a theoretical framework. The results of the present literature review should increase methodological rigor, and provide the guidelines to academics by identifying research opportunities. They can also serve as a comprehensive collection of findings for knowledge management decision makers.

Keywords: social media, knowledge sharing, knowledge management, systematic literature review, explicit knowledge, tacit knowledge, social networking sites, IT.

JEL Classification: D80, D83.

Introduction

We witness a massive evolution of computer-mediated communication platforms, commonly recognized as social media. The literature provides a vast number of definitions on social media (Kaplan & Haenlein, 2010; Rode, 2016; Amidi, Jusoh, & Abdullah, 2017). The most used one defines it as a group of Internet-based technologies allowing users to easily create, edit, evaluate and link to content or to other creators of content (Kaplan & Haenlein, 2010). The content captures different knowledge on a topic observed and presented on social media. Social media has become a significant, affordable and reliable communication channel with

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strong potential for sharing explicit and tacit knowledge online (Cevik, Akoglu, Eroglu, Dogan, & Altunci, 2016). Generally, social media provides immense capabilities for knowledge dislocation in a virtual environment and is suitable for both individuals and knowledge workers to facilitate knowledge flows (Rode, 2016). The rise of social media has revolutionized how employees interact and convey knowledge on different platforms. Rode (2016) claims that social media became so incepted in our daily routine that employees fully rely on it whilst acquiring knowledge. Dispersion of knowledge on social media makes it challenging to look at the wider picture within knowledge management and understand the mutual patterns of knowledge sharing. To the best of our knowledge, there is no summary of the research done so far to tackle these new ways of sharing via social media.

The purpose of this review paper is to explore the potential of using social media in knowledge sharing among employees and to identify research opportunities through a conducted literature review on the research questions. The degree of knowledge sharing in this study only concerns the sharing of knowledge within the organization on an individual level. Furthermore, types of social media available only to employees within organization are incorporated.

Based on the literature screening and growing importance of social media in knowledge management, the descriptive goals for the present review are: (1) to systematically map the relevant literature on employees' use of social media in knowledge sharing, and (2) to identify the future research opportunities based on the conducted literature review. Thus, two main review questions have been drawn, aligned with the goals and existing knowledge:

1. How is explicit and tacit knowledge shared by employees on social media?
2. What are the research opportunities to expand the potential of social media usage in knowledge sharing?

The first review question refers to observing different criteria, such as methodological setup, authors' nationality, social media channel, type of knowledge investigated, or research method. Within the second review question, the unexploited opportunities of social media usage in knowledge sharing by employees have been looked for.

The paper is structured as follows. The next section presents the theoretical background for the present study. In the following section methodology is presented. The third section comprises of most important findings and follow-up discussions. The final section summarizes the study, offering concluding remarks, future research directions and limitations.

1. Theoretical background

Knowledge management is a significant component for companies to survive and maintain their competitive market positions (Park & Gabbard, 2018; Sedighehm & Ainin, 2018). Academics argued that specialized knowledge is a valuable and scarce resource (Kumi & Sabherwal, 2018; Hitchen, Ferràs, & Mussons, 2017; Hajli & Hajli, 2013). Clearly, knowledge should be conveyed to those with the greatest recorded deficiency. It is estimated that $31.5 billion are lost annually only by Fortune-500 companies due to poor knowledge management (Babcock, 2004) which contradicts that this process-based function takes place within organizations regardless whether a formal charter has been set in place or not (Shen & Guangyan,

2017). In that context, Nonaka, Chester, and Naboru (1994) defined knowledge management as management process of creating, dispersing, utilizing and administering the knowledge. On this note, it implies a multidisciplinary approach in reaching business objectives by utilization of knowledge (Okazaki & Campo, 2017).

Wee and Chua (2013), emphasize three major knowledge management phases: knowledge creation, knowledge sharing, and knowledge reuse. According to Edwards, Wong, Zhang, and Wu (2017), knowledge sharing is the dominant way in which individuals contribute to knowledge creation, reuse and competitive positioning of the organization. This means that more systematic dissemination of knowledge is needed. Fundamentally, knowledge sharing implies individuals communicating knowledge (Ho, Bau, & Wei, 2011) whereby Ma and Chan (2014) included the necessity of practical reuse in their definition. It is important to distinguish between knowledge sharing, transfer and knowledge leakage. Knowledge transfer refers to a systematic movement of knowledge between departments or organizations, neglecting employees (Szulanski, Cappetta, & Jensen, 2004). Contrary, leakage is the loss of knowledge intended to stay in the organization (Shen & Guangyan, 2017). This may negatively affect organizations. There are other factors that have a negative influence. For instance, employees' motivation and interest to share their expertise vary. Okazaki and Campo (2017) claim that not everyone is ready to share knowledge if that does not serve long term goals, which is somewhat legit. On the other end, Kwahk and Park (2016) believe that it happens that some are not aware of the knowledge they possess – further preventing dissemination. Furthermore, some individuals experience difficulties while expressing tacit knowledge or formulating the explicit one (Hood, 2018). All these limiting factors might be overcome by proactive practices (Okazaki & Campo, 2017) and by utilization of proper communication channels.

There are many options in the process of sharing knowledge between employees, but literature recognizes two types of knowledge. Tacit knowledge is diffused in face-to-face approach. Shen and Guangyan (2017) define tacit knowledge as personal, hard to formalize, difficult to communicate and manage. This is subjective and informal knowledge. Consequently, tacit knowledge tends to be localized since it cannot be retrieved from manuals, books, or databases, and is personalized in the case when expertise is used to provide analytically rigorous advice (Smith, 2001). Tacit knowledge can be technical or cognitive in structure and it incorporates mental models, values, perceptions, or insights. This implicates that it is mainly conveyed through personal contacts which are characterized with strong social ties (Sternberg, 1997). Sharing knowledge in written form generates explicit knowledge. Therefore, Panda and Deepa (2017) define explicit knowledge as formal, systematic and easier to share. This systematized knowledge is technical and implies a certain level of academic or practical knowledge previously acquired to be properly understood. Explicit knowledge is systematically codified, stored and is accessed with previously developed retrieval systems. That could be a potential limitation since the systems require significant investments and time to be developed. Once acquired, explicit knowledge can be retrieved on numerous occasions indefinitely. As per Smith (2001), gathering, storing and reusing explicit knowledge need a stable and structured environment. Generally, unless the management does not unequivocally state expectations in terms of knowledge sharing, employees will most likely

tend to share explicit knowledge. This happens due to the relatively simple processes of codification, documentation, and transfer. However, employees should be encouraged to share both types of knowledge and their commitment represents the crucial element in knowledge management.

Nowadays, knowledge sharing occurs in a digital environment too, especially via social media (Majchrzak, Kane, & Azad, 2013; Okazaki & Campo, 2017). So far, the common finding within related research initiatives is that social media is a suitable and fertile environment for sharing both tacit and explicit knowledge (Majchrzak et al., 2013; Razmerita & Nielsen, 2016, etc.). There has been a growing interest in social media platforms (Okazaki & Campo, 2017) and their influence on a firm's decisions in terms of knowledge sharing practices (Hood, 2018). Besides the definition provided by Kaplan and Haenlein (2010), there are numerous attempts to define social media in this knowledge sharing context. Papadopoulos, Stamati, and Nopparuch (2013) refer to online activities through which employees dislocate knowledge. Similarly, Chang and Chuang (2011) refer to social media as the internet-based medium that allows people to share knowledge. Both definitions are rather broad with blurry frontiers. Zeng and Gerritsen (2014) provided a more concrete definition of social media as a virtual communication channel between employees in which they create, share and exchange knowledge. In general, authors agree that existence of such powerful interactive platforms empowers individuals to join online communities and freely and effortlessly share knowledge, expertise, and perceptions (Papadopoulos et al. 2013; Chang & Chuang, 2011; Zeng & Gerritsen, 2014, Kaplan & Haenlein, 2010).

Social media enables rapid knowledge sharing between employees located across different geographical areas. Another advantage is the immense quantities of knowledge that can be shared (Kwahk & Park, 2016). Surely, quantity argument represents a significant scale-up compared to the traditional knowledge sharing tools (e.g. databases). There are some disadvantages too. The reliability of the sources that are sharing knowledge online is questionable (Shen & Guangyan, 2017). Due to virtual nature, it is not always possible to assess the source credibility (Eschenbrenner & Telaprolu, 2015), which might lead to distorted or false knowledge communicated. A large quantity and forms of knowledge available (Papadopoulos et al., 2013) puts pressure on employees to filter the knowledge and expertise they are looking for to avoid irrelevancy (Ma & Chan, 2014). Nevertheless, the importance of social media for knowledge sharing has been addressed in numerous papers (Amidi et al., 2017; Edwards et al., 2017; Eschenbrenner & Telaprolu, 2015; Hajli & Hajli, 2013; Ho et al., 2011; Shen & Guangyan, 2017; Sirous & Watson-Patridge, 2016) and it is a relevant topic in the knowledge management practices. The popularity of the concept in the past decade indicates the potential for further research directed at a holistic understanding of knowledge sharing behavior by employees, especially via social media.

2. Methodology

Saunders, Lewis, and Thornhill (2009) suggest that systematic literature review can be both deductive and inductive, depending on the project. The inductive approach is applied, by exploring the data and development of conclusions. Although clearly defined purpose with

review questions and objectives exist, according to Saunders et al. (2009) inductive approach does not start with any predetermined theories or conceptual frameworks. The goal of the literature review, however, is suggested by literature review methodology and focuses on highlighting overlooked research possibilities to date and discovering explicit recommendations for further research. Tranfield, Denyer, and Smart (2003) highlight the importance of adopting reviews to management studies. Any management review protocol may contain a conceptual discussion of the research problem and a statement of the problem's significance, but remain flexible at the same time, considering the management reviews are often regarded as a process of exploration, discovery, and development (Tranfield et al., 2003).

The systematic literature review approach was adopted (Ferenhof, 2016a) by defining a specific research plan which navigated authors through the review process. To address review questions, browsing of papers based on the selected keywords in the following string has been performed:

1. ("social media" OR "knowledge management")
2. AND (online OR utilisation OR internet)
3. AND ("organizational level" OR "personal level")

To structure the selection process, papers are filtered on several levels. Throughout the process itself, exclusion and inclusion criteria are applied. Exclusion criteria included literature type (white papers, reports, and non-academic research excluded), language (English language papers only), and duplicated content. Keywords search was filtered down by literature type and language which resulted in 143 papers, out of which 22 were duplicates. At this level, 121 empirical research papers were included, peer-reviewed, English language, indexed in EBSCO, Scopus, and Web of Science, and published until the end of July 2019. In the next step, the inclusion criteria are applied to titles, keyword section, and abstracts. The inclusion criteria at this level included the topic relevant to research goals. This resulted in excluding 27 papers that did not fit into the scope of interest. The next inclusion criteria on 94 papers was availability (full text available), resulting in final 45 papers available and suitable for analysis. After this step, qualitative assessment of papers was applied, following Ahmed, M. N. Ahmad, N. Ahmad, and Zakaria (2018) concept and looking at the clarity of research, clarity of data collection and methodology and accurate results, to get the final number of papers for review.

The knowledge matrix has been comprised in form of data sheet consisting of relevant criteria for understanding of knowledge sharing on social media. The portfolio which is used for the further analysis consisted of data exported from the reference manager software, such as the author, year, title, etc. The further step implied going through each data entry and editing the content, coding it according to the criteria and descriptions as per Table 1.

The proposed criteria by McNulty et al. (2013) can be used for a descriptive and analytical overview of the study field in question. Even though McNulty et al.'s study considered corporate governance, their list of criteria can be transferred to other fields, as it enables to obtain quantitative and qualitative insights into the subject under investigation. Upon defining these criteria, the knowledge matrix was adapted by adding additional columns that are paper-specific, such as findings, definition, gaps, and citation. Furthermore, authors read the final number of 45 articles, to limit subjectivity and discuss ideas that emerged. Some criteria

suggested by the McNulty et al. (2013) that were not fitting in research scope were excluded. All the individual data upon this review were synthesized accordingly. This final revision enabled categorization of the findings under themes and include back 4 papers upon authors' consensus. Consequently, themes were identified for each individual entry.

Table 1. Criteria utilized (source: adapted from McNulty, Zattoni, and Douglas, 2013)

No.	Criteria	Description
1.	Year	Year the article has been published
2.	Methodological setup	Quantitative, Qualitative or Conceptual
3.	Author's nationality	Country where the first author's institution is located
4.	Journal of publication	Full title of the journal
5.	Themes/disciplines	Main topics examined
6.	Type of knowledge	Tacit, explicit, hybrid and not specified
7.	Level of analysis	Individual, group, company, national, relational or multiple
8.	Theoretical aim	Exploratory, development, testing, other
9.	Research method	Interview, observation, archival, survey, experiment, focus groups, other
10.	Social Media platform	Social Networking Sites, Blogs, Microblogs, Content communities, Forums

The final stage was the write-up. Themes, disciplines, types of knowledge, process of knowledge sharing have been observed altogether. The level of analysis and social media platforms used for sharing are also summarized. As for the second review question, analysis of researched methods, current contributions and the country where the research was undertaken to explore the future research opportunities was considered.

3. Findings and discussion

The very first article examining knowledge sharing on social media appeared in 2011 (Zappa, 2011). The publication trend has grown steadily since, reaching a maximum of twelve publications in 2018. Among 45 articles, the recent ones are from 2017 (Amidi et al., 2017; Edwards et al., 2017; Hitchen et al., 2017; Okazaki et al., 2017; Panda & Deepa, 2017; Shen & Guangyan, 2017; Soto-Acosta & Palacios-Marques, 2017; Świgoń, 2017), 2018 (Chang, 2018; Das & Mahapatra, 2018; Esin, 2018; Hood, 2018; Kumi & Sabherwal, 2018; Lu, Zhou, & Chen, 2018; Park & Gabbard, 2018; Sedighehm & Ainin, 2018; Septiani & Ave, 2018; Zhang, Liu, Deng, & Chen, 2018) and 2019 (Nisar, Prabhakar, & Strakova, 2019; Tayebi, Manesh, Khalili, & Sadi-Nezhad, 2019; Kim, Gibbs, & Scott, 2019 etc.)

The rising trend indicates a growing interest in the field of knowledge sharing on social media, but also its infancy. Academia and individuals tend to address more advance problematic within the topics under review (Zhang et al., 2018; Esin, 2018; Okazaki & Campo, 2017; Shen & Guangyan, 2017). These numbers should escalate as the topic matures over time and body of knowledge consolidates.
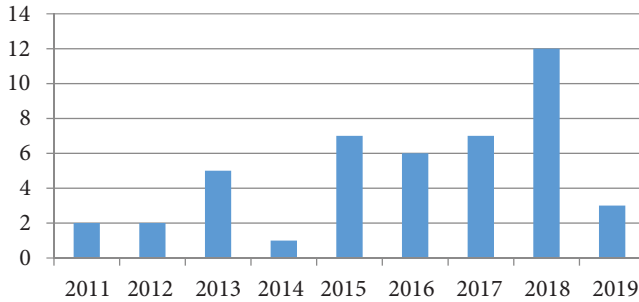
Figure 1. Number of articles per year (source: authors, 2019)

Table 2 shows that researchers mostly apply qualitative methods when assessing knowledge sharing on social media. This may indicate the need for a deeper understanding of the topic since qualitative research is often exploratory and gives the researcher an opportunity to go beyond hypothetical thinking and reach unpredictable conclusions. The preference for quantitative and conceptual studies might happen in the future only because of advancement in analytical techniques and a higher level of awareness among investigators in context of topics maturity, research gaps, and current knowledge. So far, there were no conceptual contributions recorded for 2019, which could indicate that this level of awareness has not been fully established yet.

Table 2. Methodological overview of studies (source: authors, 2019)

	Total	
Qualitative	26	57.7%
Quantitative	15	33.3%
Conceptual	4	8%
Total	45	100%

3.1. "What" and "how" behind knowledge sharing

To assess the first review question, authors summarized what type of knowledge is shared and how. Many authors devoted significant efforts to investigate knowledge type in terms of social media (Cevik et al., 2016; Constantinides & Fountain, 2008; Das & Mahapatra, 2018; Eschenbrenner & Telaprolu, 2015; Grant, 2016; Hitchen et al., 2017; Kumi & Sabherwal, 2018; Lee & Hyun, 2016; Mangold & Faulds, 2009; Oostervink & Huysman, 2016; Septiani & Ave, 2018; Shin-Yuan & Yu-Che, 2015). Considering tacit and explicit knowledge, different research methodology has been employed on individual cases. Table 3 indicates the different knowledge types investigated. Category hybrid (general) has been introduced aiming to include all papers investigating both tacit and explicit knowledge. The substantial number of studies investigated explicit and tacit knowledge sharing combined, while the tacit knowledge received the least attention. Observed negligence toward tacit knowledge presents an outstanding research opportunity, despite some papers emphasizing the importance of tacit

knowledge sharing for practicing, socializing, networking or storytelling (Sirous & Watson-Patridge, 2016).

Table 3. Types of knowledge studied (source: authors, 2018)

	Total	
Hybrid (general)	20	44.4%
Explicit	17	37.8%
Tacit	8	17.8%
Total	45	100%

Going from a broader category down to content, the nature of the tacit and explicit knowledge in the papers was captured. This brought in total 9 disciplines. Management and Information Technologies (IT) are the most contributing disciplines to the body of knowledge, so far. This is no surprise, considering the influence of social media in these disciplines, especially focused on knowledge sharing. Table 4 indicates the dispersion of disciplines' interest in knowledge sharing on social media.

Table 4. Major study disciplines (source: authors, 2019)

	Total	
IT	15	33.3%
Management	14	31.1%
Psychology	4	8.9%
Marketing	3	6.7%
Tourism	3	6.7%
Pedagogy	3	6.7%
Physics	1	2.2%
Medicine	1	2.2%
Neuroscience	1	2.2%
Total	45	100%

Knowledge sharing appeared to be important in tourism. Understanding the knowledge to share structure and co-production of trip-related knowledge through online forums was one of the research aims (Edwards et al., 2017). Applicable knowledge gets shared by residents who camouflage themselves as experts and serve as ambassadors of a destination, further implying that locals connect and form a knowledge constellation with solid knowledge-based covering various domains. In addition, based on social capital theory, Okazaki and Campo (2017) investigated tourists' behavior in terms of online knowledge sharing. Very prominent is the trend of peer pressure and social interaction can play a crucial role in motivating a person to pursue some act. The analysis concluded that neither trust nor shared vision drives specific knowledge sharing behavior on Tripadvisor – whilst shared vision impacts knowledge sharing on Facebook (Okazaki & Campo, 2017). The second aspect is trust

and loyalty. Studies on those aspects prooved the importance of trusts among individuals in content communities (Sedighehm & Ainin, 2018), especially online ones (Lee & Hyun, 2016) where the knowledge sharing is significant for making tourist decisions.

The tourist decisions are a type of pre-purchase decisions. Sloan and Gyrd-Jones (2015) were studying the role knowledge sharing plays in firm-sponsored and user-generated communities on Facebook and concluded that knowledge sharing has a substantial influence on pre-purchase decisions. It has been proven as a mechanism for a trust-building online. A group of authors around Xu, Chen, and Mukherjee (2015) investigated if Twitter hashtags are enhancing knowledge sharing within a health-related conversation. Authors proved that knowledge sharing mostly takes place between employees of the same healthcare roles. Cevik and colleagues (2016) looked at the usage of social media during congresses and what type of knowledge has been shared. This study stressed out the need for more tangible assessment tools to understand the effects of social media on knowledge sharing. Shin-Yuan and Yu-Che (2015) in their quantitative study, investigated practices of knowledge sharing in professional communities. They intended to provide the public with individuals' knowledge sharing intention in online habitat. The case study from 2013 focused on the ways to develop and enhance knowledge sharing in online brand communities (Hajli & Hajli, 2013). These scholars theorize around the concept of value co-creation for customers. However, this is possible only with gained customers' trust, just like in the aforementioned case of travel and destination knowledge. For example, a recent study by Panda and Deepa (2017) investigated relationships between consumers' knowledge sharing and innovation in small and medium companies through the integration of social media. The study, consequently, proved the increasing significance of loyalty related to the knowledge sharing on social media.

Going beyond the consumer companies, some papers looked at the knowledge sharing on social media of public accounting firms (Eschenbrenner & Telaprolu, 2015) or NGOs (Rathi & Forcier, 2014). These studies enhanced the importance of social media in disseminating generic knowledge, employees onboarding (Eschenbrenner & Telaprolu, 2015), or utilizing the channel according to directionality and formality (Rathi & Forcier, 2014). This proves the variety of social media purpose and possibility to use it in both formal and informal communication and knowledge sharing. It can also be used to support proactivity and collaboration (Chang, 2018).

Different players engage in knowledge sharing on social media. A handful of papers highlight its positive influence on the overall knowledge management. Shah and Amjad (2013) developed a model to highlight the role of social media in developing effective knowledge management processes for service firms. Others validated the positive influence of online sharing. For instance, Bjursell (2015) performed a cross-generational investigation so to investigate processes of knowledge sharing on social media and effectively introduced and compared knowledge sharing online and offline. The case study based investigation covered the use of enterprise social media (Wikis) to disperse knowledge (Oostervink & Huysman, 2016). It revealed that professionals manage ambiguities they face by engaging the affordances of social media in such a fashion to develop practices in relation to connection, reputation and knowledge management. Moreover, it should serve as a good media to provoke and promote innovation. Thus, Hitchen and colleagues (2017) conceptualized the ways

that social media empowers innovations from the perspective of knowledge sharing in small enterprises. Authors came up with concepts of trust, reliance, size and respective industry into the equation.

Other, however, believe that social media limits knowledge sharing practices. The arguments are that employees navigate sharing tensions in visibility-invisibility, engagement-disengagement, and sharing-control manner and manage these tensions to preserve both openness and ambiguity (Gibbs & Eisenberg, 2013).

There has been a running debate on the motivation behind knowledge sharing on social media. Group of authors performed a literature review to find out and classify inputs which revealed drivers to knowledge sharing: altruism, rewards, management support, and management motivation (Bjursell, 2015). On the contrary, the main barriers are the change in behavior, lack of trust, and time constraints. Moreover, Vuori (2012) investigated the motives triggering knowledge sharing in intra-organizational social media platforms. Findings showed that the primary motive is altruistic in respect of organization and peers. Financial rewards and career advances have been the least motivating factors. Grant (2016) aimed to research a case of early adoption of the use of social media for the purposes of knowledge sharing within the supply chain. She discovered a set of practices and procedures which support knowledge sharing. Those are influenced by factors such as buyers' and suppliers' bargaining capabilities (Grant, 2016). Hood (2018) investigated intrinsic motives for online knowledge sharing in case of online learning. Group of authors around Septiani studied motives for knowledge sharing observed through lenses of social exchange theory and construct of trust (Septiani & Ave, 2018). Yet another study on motives researched knowledge sharing in online health content communities (Zhang et al., 2018). Finally, some recent study researched community influence on knowledge sharing on the sample of undergraduate students (Esin, 2018). One could conclude that the knowledge sharing on social media is fostered not only internally, but can also be encouraged from the outside, whether by the community influence or the influence of managerial structures.

When looking at the contexts where knowledge is shared, the research focus was on the levels and the concrete social media platforms. Knowledge sharing may take place on various levels – individual, group, company, national and relational (Durst, Constantin, Aggestam, & Ferenhof, 2015). By capturing these details (Table 5) one could understand at what level and how broad contexts were investigated. However, not all articles included in this review have clearly indicated the level of analysis. Academics mainly focused on group and organizational levels, neglecting other levels. This is a troubling fact since the backbone of knowledge sharing is an individual acting on various levels. Therefore, the complexity of the relationship is harder to understand. The future research may tackle this area further to increase understanding and generalizability of the results.

Several groups of authors categorized Social Media platforms in a consistent fashion: Social Networking Sites (SNS), Blogs, Microblogs, Content Communities, Forums (Constantinides & Fountain, 2008; Kaplan & Haenlein, 2010; Mangold & Faulds, 2009). The only distinction lies in terminology. Kaplan and Haenlein, as well as Constantinides and Fountain, use the term "Content Communities" while, Mangold and Fauld refer to "video sharing platforms".

Table 5. Various levels of analysis (source: authors, 2019)

	Total	
Group	15	33.3%
Company	12	26.7%
Relational	9	20%
Individual	8	17.8%
National	1	2.2%
Total	45	100%

Social Networking Sites and Content Communities prevail among social platforms explored (Table 6). More than 70% of all studies, were devoted to those two platforms, completely neglecting forums, microblogs, and blogs. The body of knowledge suffers from studies based on an unbalanced focus on different platforms. Future studies must pay profound attention to address a variety of social media platforms' and contexts.

Table 6. Social media platforms investigated (source: authors, 2019)

	Total	
Social Networking Sites	18	40%
Content Communities	14	31.1%
Forums	3	6.7%
Blogs	2	4.4%
Microblogs	1	2.2%
N/A	7	15.5%
Total	45	100%

Besides, the country of the authors' institution provides information on where research has been carried out and trends in various parts of the world (Table 7). The most frequent countries of papers' origin are USA, China, the UK, Spain, and Malaysia. Finland, India, and Australia contribute with two articles respectively. Review breezed many individual studies that dispersed among various states – starting with Sweden, UAE, Austria, Netherlands, etc. The results imply that global interest exists, non-dependable on various national, cultural or religious settings. However, academia lacks more insights coming from developing countries. This may serve as a motivation for extending the research scope on those areas and contributing to comparison studies.

Looking at individuals, motivational factors behind sharing play a major role and influence the process (Razmerita & Nielsen, 2016; Sirous & Watson-Patridge, 2016). The explicit and tacit knowledge is shared and managed across social media in various frameworks: real-time dispersion of knowledge (Cevik et al., 2016), co-production and sharing of knowledge on trip content communities (Edwards et al., 2017), knowledge sharing in online communities (M. Hajli & M. Hajli, 2013), dispersion of knowledge on Twitter (Xu et al., 2015), or enterprise social media and knowledge sharing practices (Rode, 2016). Some authors

are skeptical and believe that social media limits knowledge sharing (Gibbs & Eisenberg, 2013). On the contrary, positive approaches emphasize how social sites empower innovation through knowledge sharing (Hitchen et al., 2017) or present this channel as the future of the knowledge sharing practices (Majchrzak et al., 2013). Following the positive point of view, Sirous and Watson-Patridge (2016) concluded that social media presents a venue with ever-growing significance, for both individuals and organizations, as it greatly enhances sharing of tacit knowledge. One of the biggest beneficiaries are knowledge workers and companies with a strong online presence that try to feel the sentiment around their products. In this respect, especially important is consumer commitment to share knowledge (Panda & Deepa, 2017), which is the current growing practice.

Table 7. Countries of author's institution (source: authors, 2019)

	Total	
USA	8	17.8%
China	6	13.3%
UK	3	6.7%
Spain	3	6.7%
Malaysia	3	6.7%
Australia	2	4.4%
Finland	2	4.4%
India	2	4.4%
Sweden	1	2.2%
UAE	1	2.2%
Austria	1	2.2%
Netherland	1	2.2%
Canada	1	2.2%
Denmark	1	2.2%
Pakistan	1	2.2%
Poland	1	2.2%
Turkey	1	2.2%
Taiwan	1	2.2%
Italy	1	2.2%
Iran	1	2.2%
New Zealand	1	2.2%
South Korea	1	2.2%
Indonesia	1	2.2%
Singapore	1	2.2%
Total	45	100

3.2. Future possibilities and research opportunities

Essentially, following areas have been recognized as a perspective to expand studies further: spreading the research internationally, working towards a theoretical framework and the novel research methods.

Generally, the theoretical goal of an article can be to explore, to develop or to test/validate concepts (Ferenhof, 2016b). Most of the studies were explorative in its nature (Table 8), whereby only five studies developed new concepts. This major gap in the context of a number of respective studies advocates the need for more conceptual studies to better define theories of the knowledge sharing on social media. As the topic of knowledge sharing on social media is in its infancy there is no defined theoretical framework, which implies that researchers' interests to study knowledge sharing in social media context are fragmented and primarily influenced by personal affinities, rather than a systematic approach.

Table 8. Research goals (source: authors, 2019)

	Total	
Explore	33	73.3%
Develop	7	15.6%
Validate	3	6.7%
N/A	2	4.4%
Total	45	100%

Research method, as a criterion utilized to analyze the papers, reveals the prevailing instruments utilized for collecting and analyzing data (Hadengue, de Marcellis-Warin, & Warin, 2017). Survey as a data collection method was mostly used, closely followed by archival based articles (Table 9). These two instruments were used in almost two-thirds of the cases, pointing to the unified method over the observed period. Considering these selected methods, creative research designs may increase not only generalizability, but also the attractiveness of the topic and possibility to increase wider understanding of the phenomenon.

Table 9. Research methods employed (source: authors, 2019)

	Total	
Survey	17	37.8%
Archival	12	26.7%
Interview	5	11.1%
Experiment	5	11.1%
Observation	2	4.8%
N/A	4	8.8%
Total	45	100%

Consequently, several research prospects and opportunities for academics and practitioners interested are proposed. Firstly, most of studies have been based on social networking sites and content communities (Table 6). By addressing other social media platforms (e.g. forums, microblogs) their specifics should be captured. Based on Okazaki and Campo (2017) paper and our research, further studies should address tacit knowledge sharing on social media, as it is not easily observable and communicated. Literature suggests that this is currently under-researched topic (Table 3). Results might be beneficial for a wide array of stakeholders, in particular, knowledge workers, significantly expanding their knowledge pool. These two gaps combined may be a significant future prospect. Secondly, the body of knowledge suffers from a lack of conceptual studies, which would increase the strength of the field (Table 3). Third, studies on certain levels of knowledge sharing (organizational and group) dominate over the other levels (Table 5). Scholars could focus on exploring and conceptualizing on knowledge sharing online in the context of an individual person. Moreover, insights on how different groups practice knowledge sharing on various social media platforms may be a remarkable contribution.

Furthermore, current knowledge is under the dominant influence of IT and management philosophy (Table 4). A narrow disciplinary approach has been established, with a limited impact of other disciplines. Finally, a polarized situation could be observed from Table 9, which demonstrates that future studies should utilize different research methods as it will widen scope and nature of data and results (e.g. focus groups or experiments). So far, no study has been performed regarding behavior while sharing knowledge on social media (e.g. covert of helpful behavior). Figure 2 suggests potential research opportunities as an intersection of social media platforms, level of analysis, research methods and type of knowledge.
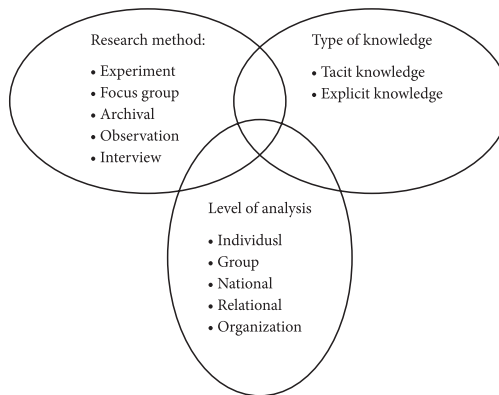

Figure 2. Research matrix suggested (source: authors, 2019)

Conclusions

The aim of the present paper was to explore the potential of using social media in knowledge sharing by individuals and identify research opportunities for future studies. Authors aimed to tackle how is explicit and tacit knowledge shared and managed by individuals on social

media; and what are the research opportunities to expand the potential of social media usage in knowledge sharing.

Explicit and tacit knowledge is shared and managed across social media in various forms. Firstly, the knowledge dispersion happens in the real-time and online communities on different platforms. The accuracy and the broad reach within online communities and platforms are one of the greatest benefits of social media reported. Besides the individual initiatives, knowledge sharing is supported by enterprise social media as well, which fosters the employees' activities that jointly contribute to organizational knowledge management. One of the biggest beneficiaries are knowledge workers and companies with a strong online presence that try to feel the sentiment around their activities. Individually, motivational factors behind sharing and managing knowledge play a major role and influence the process. This is especially reflected and evaluated through the dedicated commitment, which serves as a good starting point in nurturing the hostile environment for developing a knowledge management strategy. Some authors are rather skeptical and claim that social media limits knowledge sharing. On the contrary, positive approaches emphasize how social sites empower innovation through knowledge sharing or present this channel as the future of the knowledge sharing practices. Following the positivistic point of view, social media presents a perspective venue with ever-growing significance, for both individuals and organizations, as it greatly enhances sharing of tacit knowledge.

There are several ways to expand studies of social media in knowledge sharing. Firstly, there is the potential for intercultural comparisons, especially with less developed countries. The employees' behavior across cultures differ and it may be beneficial to look at their practices and management when it comes to knowledge on social media to contribute to the holistic theoretical building. Moreover, the potential contribution to the theoretical framework may come out from looking at whether employees in different economic environments behave differently when it comes to commitment to share knowledge on social media and where does skepticism come from. Looking at the knowledge sharing on social media in a different context is novel and may contribute not only to knowledge sharing but other fields such as culture, social environment, etc. There is a high potential in spillover to other disciplines by expanding to interdisciplinary research. Secondly, the variety of methods to share and the type of knowledge contributes to the broadness of research questions, hypotheses, and problems. The dispersion is observable in personal interest prevailing when choosing the research niche rather than a systematic long-term approach to research initiatives, approach, social platforms as well as a methodological approach. The scatterness in these aspects and most of empirical papers support the need for the organized theoretical framework that will reflect previously published papers. According to the results in Figure 1, the field of knowledge sharing on social media is in its infancy and there is a space for further theoretical strengthening.

The main limitation reflects in short publication time frame and limited availability of full texts. However, authors applied a rigid quality assessment to selected papers and suggested further research courses. Despite the limitations in time and full-text number, it is to assume that this review presents a solid frame of findings that might enable and enhance future awareness of the different practices in knowledge sharing on social media.

Theoretical implications of the review are defined as a contribution to a more holistic study of knowledge sharing on social media and discovering future research venues (applicable to various study fields). This review can serve as a purposeful step in the overall development of theories and practices around the concept of knowledge sharing in general, but mostly on social media. Thus, it can also be interesting for decision makers involved in this matter and serve as a comprehensive collection of findings.

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Disclosure statement

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