

The Limited Usefulness Of Social Media In Sharing Nutrition Knowledge - An Empirical Study

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Abstract

Social networking sites enable collective knowledge creation as well as sharing it with other users. Due to its reach and a specific function, networking sites such as Facebook and YouTube are used not only as a source of entertainment but also as a mine of information on products for consumers. The aim of this paper is to determine whether it is possible to exploit social networking sites as a platform for sharing knowledge on healthy eating. This article features results obtained from authors' own research conducted in 2019 utilizing data exploration and content analysis. The research material consisted of data collected from two popular social networking websites: Facebook and YouTube.

Keywords: online knowledge sharing, knowledge management, social media

Introduction

Knowledge sharing has been a part of human nature for centuries. Nowadays the form and character of knowledge sharing has changed as a result of the development of the World Wide Web and Web 2.0 technology. This paper is focused on the issues concerning social networking sites, that is social media, which – due to its specific nature – provide ideal space for sharing knowledge among contemporary internet users. In particular, the analysis covers common knowledge on healthy eating shared in social media by e-consumers.

This article contains the review of literature on social media covering its characteristics and selected activity of its users. In the latter part of this paper the authors provided an overview of literature concerning knowledge sharing and made an attempt at classifying it. An empirical section of the paper includes a report on research conducted by the authors using online exploration and content analysis. As the healthy lifestyle trend continues to spread and the consumers have higher awareness of the impact the diet exerts on health and wellbeing, the authors decided to evaluate whether healthy eating is a popular topic among social media users and whether their interest translates into increased activity on social media platforms. The research material was collected from two social networking sites. The research covered the following issues: (1) user activity level – the number of likes and comments, (2) the frequency of subject-related comments, (3) authenticity of the information provided – reference to the scientific publications.

Literature review

Social Media

Social networking sites operate mostly based on creating virtual communities that utilize communication mechanisms to establish relations among its users in the cyberspace.

According to Castells (2003) virtual communities represent “networks of interpersonal ties that provide sociability, support, information, a sense of belonging and social identity”. Taking into account corporate point of view, operation of such communities can be inspired and actively shaped by the company. The literature on that subject provides numerous definitions of social media. For example, Philip Kotler defined social media as services co-created by its users that allow individuals to express themselves and collaborate with others (Kotler, 2010).

The purpose of being a social network member is to establish or maintain ties with other users – that we know from real life or who have similar interest, hobbies or problems. Each social networking site fulfills the following basic functions (Sanak-Kosmowska, 2018):

- providing an opportunity for initiating and maintaining contact with other community members;
- self-presentation through information provided in the user’s profile;
- presenting content prepared by the user within a given group or the whole community;
- monitoring other users’ activity and rating them.

The above-mentioned functions can be performed by individual users as well as corporations and institutions, that decide to employ social media in their online marketing communications strategy.

According to the authors of the report titled “Digital in 2019” (We are social, 2019), 75% of the population in Poland used Internet in 2019 (global average amounted to 57%). When it comes to social media, it is used by 47%, as compared to 45% globally. In our country, there are 7,3 accounts on the social networking sites per one average social media user. Similarly to a world-wide trend, a majority of social media users in Poland are aged between 25 and 34. As far as popularity is concerned, Facebook is the most popular social media platform – every second individual over 13 has an account on that platform. The statistics show that Polish users provide 3 comments monthly on average – global average amounts to 4 posts. Instagram is the second leading social media platform – is it used by 21% of Polish individuals. Twitter – favored mostly among businessmen, journalists and politicians – is visited by as few as 3% of Polish internet users. It is worth pointing out that using YouTube – one of the most visited website – does not require signing in and the number of active accounts does not fully reflect its popularity. In 2019, 70% of all internet users in Poland visited YouTube. The largest users group is represented by individuals aged 18-34. YouTube outpaces Facebook when it comes to reach (17,41m users against 16,88m for the competitor) but it has twice fewer page views (665m against 1,28b). The most popular YouTube channels in Poland are associated with lifestyle and gaming (Apynews 2019).

Knowledge Sharing

In the literature on the subject the term knowledge sharing is often equated with “knowledge transfer”, “knowledge exchange”, “knowledge dissemination” and “knowledge diffusion”. According to T.H. Davenport and L. Prusak (2000) knowledge transfer refers to the process of knowledge exchange, dissemination as well as sharing. W.R. King (2006) suggests that the knowledge transfer should be differentiated from sharing. He claims that knowledge transfer represents a purposeful and unidirectional process, while knowledge sharing is characterized by multidirectional activity that does not always have a specific purpose. G. von Krogh (2011) holds an opinion that knowledge transfer results in the change in the level of knowledge and conduct with regard to the subjects sharing the knowledge (re-creation) as well as using it, that is recipients. In the literature the problem of knowledge sharing is

focused mostly on internal relationships within organizations. An overview of selected definitions of knowledge sharing has been presented in Table 1.

Table 1: Selected definitions of knowledge sharing

Author	Definition of knowledge sharing
J. N. Cummings (2004)	“The provision or receipt of task information, know-how, and feedback regarding a product or procedure”.
M. Ipe (2003)	“Knowledge sharing between individuals is the process by which knowledge held by an individual is converted into a form that can be understood, absorbed, and used by other individuals. The use of the term sharing implies that this process of presenting individual knowledge in form that can be used by others involves some conscious action on the part of the individual who possesses the knowledge. Sharing also implies that the sender does not relinquish ownership of the knowledge; instead, it results in joint ownership of the knowledge between the sender and the recipient”.
G. von Krogh (2005)	“Knowledge sharing is a sequential, collective action that constitutes knowledge re-creation leading to collective change in the cognition of the two parties.”
P. H. Christensen (2007)	“The process intended at exploiting existing knowledge”.
S. Wang, R. A. Noe (2010)	“Knowledge sharing refers to the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures”.

Source: own work

It must be highlighted that initially knowledge sharing referred to the phenomenon of sharing knowledge within the organization. Tapscott and A. D. Williamn (2008) were the forerunners of the concept of including consumers in the process of knowledge sharing. This phenomenon is associated with prosumption, that is active involvement of consumers in business tasks resulting in sharing knowledge and ideas with the enterprise and other consumers. Some authors (Yuan, Lin and Zhuo, 2016; Ziemba and Eisenhardt, 2014; Brabham, 2012) place particular emphasis on individual, bottom-up prosumer activity focused on sharing knowledge and ideas on one’s own initiative – with a view to obtaining personal gain or providing assistance to other product or service users. Others (Tsai et al., 2012; Tapscott and Williams, 2008; Xie, Bagozzi and Troye, 2008) focus on the business aspect consisting in including prosumers in the business tasks and processes undertaken by the enterprise. It is worth highlighting that prosumers share their knowledge and experience either consciously – deliberately supporting a given product or service by e.g. providing reports from consumer tests – or unconsciously – e.g. on internet forums, when the enterprise has no notion of that.

Contemporary consumers-internet users share their knowledge and learn from the experiences of other prosumers. They can do that using various portals and sites, among others (Cisek, 2009):

1. Collaborative writing sites, e.g. Wikipedia, multi-author blogs.
2. How-to sites, e.g. Wiki answers.
3. Open innovation sites, e.g. crowdsourcing sites, ideagora.
4. Social bookmarking sites, e.g. delicious.com.
5. Knowledge sharing sites. Site users upload, among others, their videos (video sharing), podcasts (podcast sharing), notes from lectures (note sharing), multimedia presentations (presentation sharing), various types of texts (articles, newsletters, journals, business documents, papers, books, sheet music – document sharing), statistical data sets and its visualization (data sharing), photos (photo sharing), e.g. SlideShare, Podomatic, Youtube.
6. Social networking sites that enable users to publish their posts, reviews, comments and opinions or ask other internet users to provide it, e.g. Facebook, Instagram.

Considering factors that encourage e-consumers to share knowledge online, it is worth taking into account the social exchange theory (Blau, 1964). The theory suggests that individuals will contribute and exchange their knowledge with others, with an expectation to benefit from what is received in return. The feedback they receive may be associated with obtaining desired information, advice, recommendation or positive reinforcement – as evidenced by posting positive comments and giving likes within social media environment. It must be pointed out that the scope and means of using social media in knowledge sharing is predominantly associated with the organization (e.g. Gaal, Szabo, Obermeyer-Kovacs, Csepregi, 2015) and relationships among consumers (e.g. Bilighan A., Barreda A., Okumus F., Nusair K., 2016). The authors hold an opinion that a special case of knowledge sharing is represented by undertaking educational activities by specialist, who are experts in a given field and share their knowledge with consumers online. Subscription to specialist channels is free of charge and educational publications are often associated with persuasive messages. Using social networking sites for that purpose enables establishing direct interaction with an expert in the virtual environment – asking a question and sharing knowledge with others as well as acquiring knowledge that can be applied by other users following a given site.

Research methodology

Exploration of data available on two social networking sites – Facebook and YouTube – was conducted with a view to examining whether social media can be used as a platform for sharing knowledge. The analysis was conducted for two Facebook pages and two YouTube channels that are focused on healthy eating and are run by experts. The selection of these sites was based on popularity: the number of likes in the case of Facebook (at least 30K) or the number of subscriptions to YouTube (at least 100K). Characteristics of selected websites is presented in Table 2.

Table 2: Characteristics of selected sites

Website	Topics addressed on the website	Education of a person running the website	The number of likes /subscriptions
Facebook Page A (FB A)	Blog aimed at combating the spread of false information on dietetics in the public space. Each text has a reference to the research.	Master's Degree in Dietetics Ph.D. in Health Sciences	43 730

Facebook Page B (FB B)	Website dedicated to health run by a sport dietician. It contains information about proper nutrition, advice on how to strengthen and regenerate your body to obtain better results.	Master's Degree in Dietetics	35 744
You Tube channel C (YT C)	Website devoted to healthy and conscious eating. It provides numerous guidelines and recipes for healthy dishes.	Master's Degree in Dietetics	ca. 107 000
You Tube channel D (YT D)	Educational channel. It contains mainly analysis of particular ingredients and their impact on the body.	Master's Degree in Medical Analytics	ca. 112 000

Source: own study

The analysis referred to the most popular posts (with the highest number of likes/subscriptions) in the following months: August, September, October 2019. The first stage of the research involved determining users' activity on the particular websites – the number of likes and comments to selected posts. Next, database with the comment content was created. The research material consisted of comments to selected posts that were subjected to content analysis using QDA Miner. The total number of comments analyzed with respect to the incidence of knowledge sharing amounted to 1800. The data were collected in October 2019.

Results

Figure 1 shows the average user activity regarding posts selected for analysis. Persons watching YT C channel were the most active. The second position when it comes to the number of comments was taken by FB A. As far as the average number of likes is concerned, FB A and YT D achieved comparable results, despite the fact that YT D has considerably greater reach (112K subscriptions, as compared with as few as 44K FB A followers). What is more, greater reach does not translate into the number of comments. Materials uploaded to YT B were the least frequently commented. FB B received the lowest number of likes among all analyzed channels.

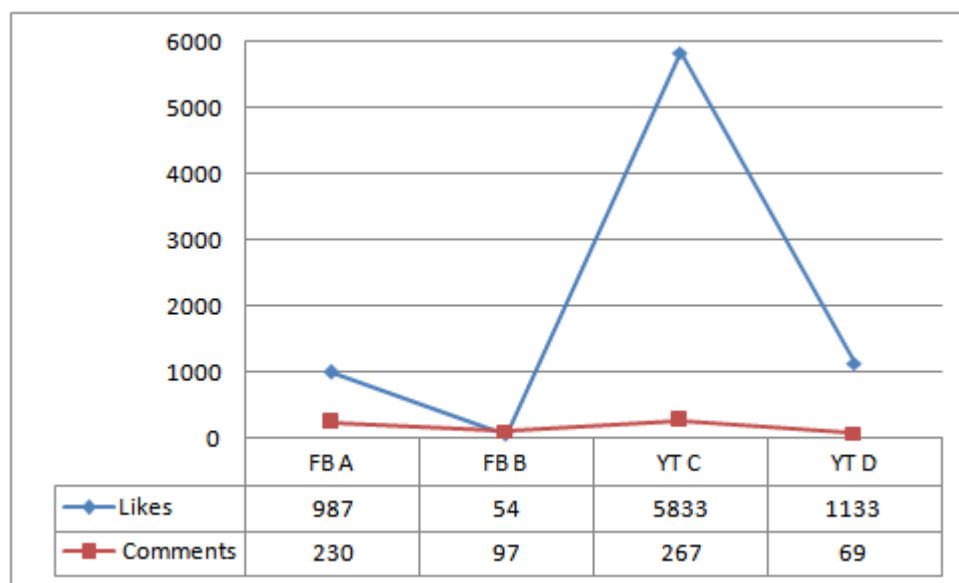


Figure 1: User’s’ activity (mean values for each website for 3 selected posts)

Source: own study

The results concerning the occurrence of knowledge sharing among internet users taking into account the total number of comments are presented in Table 3. Due to the fact that a lot of false information is disseminated through the internet, the analysis of the comments included differentiation into objective and subjective knowledge adopting the following criteria:

- subjective knowledge – information provided by the internet user that does not include reference to the source of knowledge,
- objective knowledge – information based on research resources or provided by experts in nutrition.

Category “knowledge” represents the sum of all comments that represent sharing knowledge on nutrition. The discussions were prompted by the post authors who responded to different questions, explained the content – their responses were also included in the analysis. Data presented below do not take account of anecdotal evidence, descriptions provided by individuals, single behaviors and commentators’ experiences.

Table 3: Knowledge sharing among social media users (mean values for each website for three selected posts)

Category	% of cases			
	FB A	FB B	YT C	YT D
Knowledge	17,8%	7,2%	2,5%	6,5%
Subjective knowledge	11,0%	3,6%	2,4%	5,9%
Objective knowledge	6,8%	3,6%	0,1%	0,6%

Source: own study

Among all comments provided to posts selected for analysis only a tiny percentage represented knowledge sharing. FB A clearly stands out among other sites in that aspect,

where almost every fifth statement provided new information connected with nutrition. It might be associated with the specific nature of this website, as its mission is to fight with myths about dietetics and the person running the site enters into discussions correcting false information. 6,8% of all comments on FB A constitute objective knowledge, remaining 11% represent information that the reader should verify using more reliable sources. Knowledge sharing on other websites was insignificant and ranged between 2,5% and 7,2%.

Conclusions

Topics connected with healthy eating inspire great interest among consumers and encourage them to visit social networking sites devoted to that issues. This activity of social media users is reflected in considerable number of likes and comments posted to content they pay attention to. The research was aimed at evaluating the extent of knowledge sharing in social media. The results of content analysis indicate that comments to posts represent a low degree of information transfer on healthy eating. The users usually limit their activity to giving likes and their comments fail to provide new knowledge that could be applied by other site followers. The scale of knowledge sharing was not associated with the channel reach. However, involvement of a person running the site in discussions with commentators played an important role, as it inspired social media users to express their opinions and develop arguments based on reliable resources.

Despite the fact that knowledge sharing is not a widespread phenomenon among social media users visiting sites devoted to healthy eating, these channels play an important role in popularizing knowledge on health issues. Thanks to a large number of followers these platforms may contribute to delivering educational content. The users get the opportunity to expand their knowledge on a given subject without the need to conduct time-consuming research, which often ends up with finding papers written using incomprehensible jargon. As an alternative they choose intelligible posts on Facebook or watch podcasts prepared by an expert on healthy eating what ensures credibility of the information obtained.

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