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## SOCIAL CRM FOR CUSTOMER KNOWLEDGE MANAGEMENT

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#### **Abstract**

The recent development and expansion of Web 2.0 technologies have created remarkable opportunities for Customer Knowledge Management (CKM). The goals of this paper are to analyze how organizations can apply Social CRM (social technologies integrated with traditional CRM systems) systems for CKM and to investigate what benefits they may derive from the use of social technologies. To achieve these objectives, the article shows the concept of Social CRM, differences between CRM and SCRM, and a review of CKM models presented in the literature. Then, there are indicated the possibilities of using SCRM solutions in the processes of customer knowledge management, and there are presented examples of the use of different types of social media in the management of different types of customer knowledge.

**Key words**: social CRM, CRM 2.0, SCRM, social technology, customer knowledge management

#### Introduction

Due to the rapid development of Web 2.0 technologies in the past few years, new opportunities for information and knowledge management have emerged, namely knowledge management 2.0 (KM 2.0). Knowledge Management 2.0 is the new generation of KM allowing incorporated and pervasive KM for social and virtual organizations<sup>1</sup>. According to Shimazu and Koike, KM 2.0 is "a model that places collective intelligence at its core and promotes its use by accelerating the distribution of information"<sup>2</sup>. Collective intelligence (CI), considered by some authors as a synonym of crowdsourcing<sup>3</sup>, refers to knowledge created from human interactions

I. Boughzala, Collaboration 2.0 through the New Organization (2.0) Transformation [in:] Knowledge Management 2.0: Organizational Models and Enterprise Strategies, ed. I. Boughzala, A. Dudezert, IGI Global, Hershey, 2012, p. 4

H.Shimazu, S. Koike, *KM2.0: Business Knowledge Sharing in the Web 2.0 Age*, [in:] Nec Technical Journal, Vol.2 No.2/2007, http://www.nec.com/en/global/techrep/journal/g07/n02/pdf/t070213.pdf

E. Estellés-Arolas, F. González-Ladrón-de-Guevara, *Towards an integrated crowdsourcing definition*, [in:] Journal of Information Science, April 2012, vol. 38, no. 2, pp.189-200.

and interpersonal networking<sup>4</sup>. CI "describes the presumption that a large collective (of users) can develop more than a small number of experts"<sup>5</sup>. The use of web 2.0 technologies results in an increase in the collective intelligence of the participants<sup>6</sup>.

Companies that use Web 2.0, emergent social software platforms within organizations, or between organization and their partners or customers are referred to as Enterprise 2.0<sup>7</sup> or wider Organization 2.0<sup>8</sup> and Business 2.0<sup>9</sup>. Web 2.0 technologies are also called social software, these concepts are equated with such as: Social Enterprise, Social Organization and Social Business.

One of the most important areas of use of web 2.0 technologies in the enterprise is a customer relationship management (CRM)<sup>10</sup>. The idea of bringing together CRM and social technologies is known as social CRM (also CRM 2.0 and SCRM). SCRM is an extension of traditional CRM, not a replacement. SCRM adds the dimension of connecting and collaborating with current and potential clients<sup>11</sup>. This makes cooperation with customers more comprehensive. Further, what is rarely mentioned in the literature, using social technologies for Customer Knowledge Management (CKM) can be an opportunity, but also a challenge for the company.

Therefore, the goals of this paper are to analyse how organizations can apply SCRM systems for Customer Knowledge Management and to investigate what benefits they may derive from the use of social technologies. These objectives have been carried out in three steps. Firstly, an overview of the literature allowed defining the notion of social CRM and differences were pointed out between SCRM and classic CRM. Secondly, the functionalities of different types of social media and social applications as well as their use by enterprises were analysed. This allowed defining the possibilities of application in customer relationship management. Further, an in-depth analysis was made of the functionality of these solutions, combined with an analysis of particular instances of use with regard to customer knowledge management. This served to indicate which CKM processes, and to what extent, may be supported by the social media. As the extent, to which this is possible largely depends on the type of customer knowledge, different examples of the use of various social media were presented.

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<sup>&</sup>lt;sup>4</sup> T. W. Malone, R. Laubacher, C. N. Dellarocas, *Harnessing Crowds: Mapping the Genome of Collective Intelligence*, [in:] MIT Sloan Research Paper, No. 4732-09, 2009.

T. Bebensee, R. Helms, M. Spruit, Exploring the Impact of Web 2.0 on Knowledge Management, [in:] Knowledge Management 2.0: Organizational Models and Enterprise Strategies, ed. I. Boughzala A. Dudezert, IGI Global, Hershey, 2012.

<sup>&</sup>lt;sup>6</sup> O'Reilly, What *Is Web 2.0 Design Patterns and Business Models for the Next Generation of Software*, http://www.im.ethz.ch/education/HS08/OReilly What is Web2 0.pdf

A. P. McAfee, Enterprise 2.0, *The dawn of emergent collaboration* [in:] MIT Sloan Management Review, 47(3), 2006, pp. 21–28.

<sup>8</sup> I. Boughzala, Collaboration 2.0 through the New Organization (2.0) Transformation [in:] Knowledge Management 2.0: Organizational Models and Enterprise Strategies, ed. I. Boughzala, A. Dudezert, IGI Global, Hershey, 2012.

<sup>&</sup>lt;sup>9</sup> J. W. Cortada, E. Lesser, P. J. Korsten, *The business of social business. What works and how it's done*, Executive Report. IBM Institute for Business Value, 2012.

D. Buchnowska, Social business – a conceptual framework, [in:] Business Informatics, no 4 (30), Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2013.

P. Greenberg, *The impact of CRM 2.0 on customer insight*, [in:] Journal of Business & Industrial Marketing, Vol. 25 Iss: 6. 2010, pp.410 – 419; S. Askool, K. Nakata, *A conceptual model for acceptance of social CRM systems based on a scoping study*, [in:] AI & Society, Vol. 26 (3), 2011, pp. 205-220; K. J. Trainor, *Relating Social Media Technologies to Performance: A Capabilities-Based Perspective*, [in:] Journal of Personal Selling & Sales Management, vol. XXXII, no. 3, 2012, pp. 317–331.

## 1. Social CRM – theoretical background

## 1.1. Defining Social CRM

Social (web 2.0) technologies are becoming a significant customer relationship management market trend. The use of social media channels (e.g. Facebook, Twitter, YouTube, Pinterest, Instagram, blog, wiki) and enterprise social software (software that can be used by businesses to collaborate and share information<sup>12</sup> to support companies to build relationship with its customers is known as Social CRM<sup>13</sup>.

According to Gartner, Social CRM is expected to grow by 28.4% annually until 2015<sup>14</sup>. This is unsurprising, because social media usage is growing at a very fast pace. As it is apparent from an annual survey conducted by the Social Media Examiner on a sample of more than 3,000 marketers, the overwhelming majority, 97% (94% in 2012) of marketers indicated they are participating in social media marketing. A significant 86% (83% in 2012) of marketers indicate that social media is important for their business. The market of social enterprise software also is growing very fast. According to a Forrester Research report, the industry of social enterprise technology is projected to expand from US\$900 million in 2011 to US\$6.4 billion in 2016. That is a compound growth rate of 42%<sup>15</sup>. Growing interest in social media and social enterprise software stems from the potential benefits that can be achieved through them. However, before they are presented, the concept of CRM should be defined and the differences between traditional CRM and Social CRM pointed out.

CRM 2.0 is defined in many ways by a variety of different sources. The most frequently cited definition of Social CRM is a very general one, presented by S. Mohan et al.<sup>16</sup>. This definition says that SCRM system combines the "Web 2.0 features and social networking with current CRM system"<sup>17</sup>. It applies a system-view approach. However, SCRM is not just a set of technologies, but a CRM strategy that uses Web 2.0 technologies to boost customer engagement and building strong relationships between client and company, leading to a mutually beneficial value<sup>18</sup>. Table 1 shows the definitions of CRM and SCRM that are used by experts in this field.

<sup>&</sup>lt;sup>12</sup> Deloitte Digital, *The Social Enterprise What it means to be a Social Enterprise*, 2013, http://www.deloitte.com/assets/Dcom-SouthAfrica/Local%20Assets/Documents/Deloitte-Enterprise-POV-Proof-7.pdf.

<sup>&</sup>lt;sup>13</sup> R. Faase, R. Helms, M. Spruit M., *Web 2.0 in the CRM domain: defining social CRM*, [in:] Int. J. Electronic Customer Relationship Management, Vol. 5, No. 1, 2011.

<sup>&</sup>lt;sup>14</sup> Maximizer CRM, *Top 5 CRM trends in 2014*, http://www.max.co.uk/media/images/client-files/pdfs/white-papers/5\_Top\_CRM\_trends\_in\_2014.pdf.

<sup>15</sup> R. Faase, R. Helms, M. Spruit M., op.cit.

<sup>&</sup>lt;sup>16</sup> S. Mohan, E. Choi, D. Min, Conceptual Modelling of Enterprise Application System Using Social Networking and Web 2.0 "Social CRM System", ICHIT '08 Proceedings of the 2008 International Conference on Convergence and Hybrid Information Technology.

<sup>17</sup> C.V. Nitu, C. Tileaga, A. Ionescu, Evolution Of CRM in SCRM, [in:] Economics, Management, and Financial Markets, Vol. 9(1), 2014, pp. 303–310; K. J. Trainor, Relating Social Media Technologies to Performance: A Capabilities-Based Perspective, [in:] Journal of Personal Selling & Sales Management, vol. XXXII, no. 3, 2012, pp. 317–331; X.Wang, R.Dugan, J. Sojka, CRM Systems with Social Networking Capabilities: The Value of Incorporating a CRM 2.0 System in Sales/Marketing Education, [in:] Marketing Education Review, vol. 23, no. 3, 2013, pp. 241–250.

<sup>&</sup>lt;sup>18</sup> C.V.Nitu, C. Tileaga, A. Ionescu, op.cit.

**Table 1.** Definitions of CRM versus SCRM

Author	CRM is	SCRM is
Paul Greenberg	a set of philosophies, strategies, systems and technologies that would effectively and efficiently manage the transactions of customers with companies and the subsequent relationships with those customers	is a philosophy & a business strategy, supported by a technology platform, business rules, workflow, processes & social characteristics, designed to engage the customer in a collaborative conversation in order to provide mutually beneficial value in a trusted & transparent business environment. It's the company's response to the customer's ownership of the conversation
Bob Thompson	a business strategy to select and manage valuable customer relationships. CRM requires a customer-centric business philosophy and culture to support effective marketing, sales and service processes. CRM applications can enable effective customer relationship management, provided that an enterprise has the right leadership, strategy and culture.	the integration of social media and CRM. Literally: Social + CRM. If you don't have both, you don't have Social CRM.
Gartner Group	a business strategy with outcomes that optimizes profitability, revenue and customers satisfaction by organizing around customers segments, fostering customer-satisfying behaviors and implementing customer-centric processes. CRM technologies should enable greater customer insight, increased customer access, more-effective interactions, and integration throughout all customers channels and back-office enterprise functions.	a business strategy that mutually benefits cloud-based communities and businesses by fostering engagements, while generating opportunities for sales, marketing and customer service.

Source: Own elaboration based on: Gartner, *CRM Success Handbook. Four research notes from Gartner focusing on CRM best practices*, http://www.customerthink.com/files2/Gartner-CRM-Handbook.pdf; Gartner, *Top Use Cases and Benefits for Successful Social CRM*, http://img2.insight.com/graphics/fr/adobe/ insight\_article13.pdf, P. Greenberg, *CRM at the speed of light: social CRM strategies, tools, and techniques for engaging your customers*, 4th edn. McGraw-Hill Osborne Media, USA 2009, p.34; P. Greenberg, *The impact of CRM 2.0 on customer insight*, [in:] Journal of Business & Industrial Marketing, Vol. 25 Iss: 6, 2010, pp.410 – 419; B. Thompson B., *What is CRM? The Customer Relationship Primer*. Third Edition, http://www.crmodyssey.com/Documentation/Documentation\_PDF/The\_CRM\_Primer.pdf; B. Thompson, *Social CRM: Strategy, Technology or Passing Fad?*, http://customerthink.com/social\_crm\_strategy\_technology\_or\_passing\_fad/

On the basis of the statement presented in the table 1, several conclusions can be drawn. Both, CRM and Social CRM, are customer-centric business strategies to build effective and mutually beneficial business relationships between organization and its customers, but also competitors, suppliers or distributors. These strategies require the use of information technology to support sales, marketing and customer service processes. Efficiency and effectiveness of CRM and SCRM strategies to a large extent depend on the involvement of employees in the implementation of this strategy. The basis for building relationships with customers is the customer knowledge. While information technology enables the sharing of knowledge, technology alone is not enough to ensure that people will want to share and use knowledge.

## 1.2. CRM versus Social CRM strategy

Despite some similarities between CRM and SCRM, between both approaches there are distinct differences (table 2) between CRM and Social CRM. They arise mainly from the characteristics of Web 2.0 technologies and opportunities offered by them. Social technologies allow people to communicate, create and share content, as well as to search and connect with people of similar opinions and interests. It means that customers can influence public opinion, share their satisfaction with products and services purchased. They can also participate in the planning and design of products and services and have some impact on sales strategies<sup>19</sup>. Therefore, the key difference between traditional CRM and SCRM is that Social CRM is based on a strategy for customer engagement, not managing customer data<sup>20</sup>. While traditional CRM focuses on implementing and automating processes, the heart of the SCRM strategy are conversations between customer and business<sup>21</sup>.

**Table 2.** Differences between CRM and Social CRM

	Traditional CRM	Social CRM
Context	<ul> <li>focus on individual relationships</li> <li>messages are the value generators</li> </ul>	<ul> <li>focus on collaborative relationships.</li> <li>conversations are the value generators.</li> </ul>
Chamieis	<ul> <li>Single Customer View, based on the history of operations, stored in the internal informa- tion systems</li> </ul>	<ul> <li>this single view is harder to achieve, since it includes the need to complement the information residing in internal systems with profile information and behavior in social networks</li> </ul>
Processes	<ul> <li>customer service processes developed from the institution's standpoint.</li> <li>process-focused: To adapt and optimize processes to support interactions and transactions with the customers</li> </ul>	<ul> <li>customer service processes developed from the customer's standpoint.</li> <li>conversation-focused: To include the "conversation" factor in order to establish an institution community, capture the new ideas and improve segmentation.</li> <li>it requires the generation of dynamic processes that provide the institution with capability of reaction towards Organization what has been identified in social networks.</li> </ul>
Organiza- tion	<ul> <li>innovation comes from one specialized source within the entity (innovation team).</li> <li>frontline employees communicate the targeted messages for transactional operations</li> </ul>	<ul> <li>innovation is gathered from all the employees that are closely connected with the end customer and among them via Web 2.0 tools.</li> <li>new skills and roles are required oriented at behavioral and Sentiment Analysis.</li> <li>these roles require the analysis of information and feedback to the sectors involved or immersed in the conversations in social networks.</li> <li>customers are in the center of the innovation cycle</li> </ul>
Techno- logy	- CRM Solutions focused on automating and supporting in-	- capture of network information in order to know the

<sup>&</sup>lt;sup>19</sup> T. Bartuś, C. Olszak, *Multi-Agent Framework for Social Customer Relationship Management Systems*, [in:] Issues in Informing Science & Information Technology, Vol. 10, 2013.

<sup>&</sup>lt;sup>20</sup> Chess Media Group, *The guide to understanding social CRM*, http://www.chessmediagroup.com/resources/white-papers/guide-to-understanding-social-crm/.

<sup>&</sup>lt;sup>21</sup> S. Askool, K. Nakata K., A conceptual model for acceptance of social CRM systems based on a scoping study, [in:] AI & Society, Vol. 26 (3), 2011, pp. 205-220.

	Traditional CRM	Social CRM
	ternal business processes.	<ul> <li>customer in his social milieu.</li> <li>need to include Social Networks tools, both created and managed by third parties, which interact with CRM solutions and meet with existing security standards and regulations in each country.</li> <li>use of fast and specific monitoring tools that can support internal business processes.</li> </ul>
Communication image and brand reputation	<ul> <li>massive face-to-face client communications depending on Business needs.</li> <li>segmented direct communications from the analysis of structured information.</li> <li>simage and reputation analysis from traditional market research.</li> </ul>	<ul> <li>communication designed and supervised on the basis of the analysis of structured information involving the "social" traits of the Client.</li> <li>Image and Reputation analysis from metrics accounting for number of followers, type of comment or impressions and influence on the Networks.</li> <li>need to establish communication in times of crisis or unexpected circumstances requiring timely and wise reactions.</li> </ul>

Source: Deloitte, CRM 2.0 or Social CRM for Financial Industry, http://www.deloitte.com/assets/Dcom-Croatia/Local%20Assets/Documents/2012/FSINews03.02-Social\_CRM.pdf, T. Bartuś, C. Olszak, Multi-Agent Framework for Social Customer Relationship Management Systems, [in:] Issues in Informing Science & Information Technology, Vol. 10, 2013.

Finally, at least one significant difference should be emphasized between the CRM and SCRM. CRM strategy can be successfully implemented using a single CRM system. Solutions available on the market (like salesforce.com, ZohoCRM, SugarCRM or Microsoft Dynamics CRM) provide comprehensive support for marketing, sales and customer service processes. Unfortunately, there is no single comprehensive SCRM system available. Social CRM strategy requires a combination of many ICT solutions: Web 2.0 services, social media monitoring and analysis tools and traditional CRM systems.

## 2. Social technologies for customer relationship management

#### 2.1 Social media for CRM

As has been noted, the SCRM strategy requires the use of many different technologies. These technologies can be divided into three main groups: social media, social applications and "traditional" CRM systems.

Social media are defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content" There are several types of social media: such as wikis (e.g. Wikipedia), social sharing website (e.g. YouTube, Flickr, Digg), blogs (e.g. company newsrooms), microblogs (e.g. Twitter), intermediaries (e.g. InnoCentive), mash-ups, social networking sites (e.g. LinkedIn, Facebook), prediction markets, social workspaces (e.g. SharePoint) and virtual social worlds (e.g. Second Life)<sup>23</sup>. In business, the following are primarily used: blogs, microblogs, social networking sites and social sharing website (especially

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<sup>&</sup>lt;sup>22</sup> A.M. Kaplan, M. Haenlein, *Users of the world, unite! The challenges and opportunities of Social Media*, [in:] Business Horizons, 53, 2010, pp.159–68

<sup>&</sup>lt;sup>23</sup> H. Kärkkäinen, J. Jussila, J. Janhonen, *Managing Customer Information and Knowledge with Social Media in Business-to-Business Companies*, [in]: S. Lindstaedt, M. Granitzer (ed.); .i-KNOW '11 Proceedings of the 11th International Conference on Knowledge Management and Knowledge Technologies, 2011.

video sharing), most frequently in the area of customer relationship management. Table 3 presents examples of the use of social media in the marketing, sales and customer service.

**Table 3.** The use of social channels in the area of customer relationship management

Social channel	Marketing	Sales	Customer Service
Blog	<ul><li>blog focused on building reputation, written by a senior executive.</li><li>focus on leadership</li></ul>	<ul> <li>deals with members of a community, for the acquisi- tion of products and servi- ces.</li> </ul>	- capture of comments in the executive blog regarding claims or requests by customers, and to act accordingly.
Internal Wiki	<ul> <li>platform to share market knowledge that has been collected from conversations with customers.</li> </ul>	<ul> <li>shared presentations on sales and common knowledge about new sales leads.</li> </ul>	creation of a knowledge base of customer service procedures.
Video sharing websites (e.g., YouTube)	<ul> <li>viral advertising propa- gated only online, enco- uraging word-of-mouth reference.</li> </ul>	<ul> <li>point of contact to create sales opportunity in another channel.</li> </ul>	<ul> <li>publication of educational videos on how to use certa- in product, extending the user manual online.</li> </ul>
Micro Blogging (e.g., Twit- ter)	<ul> <li>messages to announce special offers and discounts.</li> <li>spreading of viral marketing campaigns, integration with channels like YouTube.</li> </ul>	<ul> <li>launching of exclusive product offers for Twitter followers, as a way of looking for new sales opportunities.</li> <li>focus on the current follower base.</li> </ul>	<ul> <li>response to support inquiries and product complaints, monitored by an exclusive team.</li> <li>focus on all digital customers.</li> </ul>
Social Network- ing Sites (e.g., Face- book)	spreading of advertising campaigns within the communities of clients.	<ul> <li>launch of new product and benefit campaigns for community members only.</li> <li>focus on the current follower base.</li> </ul>	<ul> <li>resolution of enquiries among community mem- bers.</li> <li>opinion gathering regar- ding services and products.</li> </ul>

Source: Deloitte, CRM 2.0 or Social CRM for Financial Industry, http://www.deloitte.com/assets/Dcom-Croatia/Local%20Assets/Documents/2012/FSINews03.02-Social\_CRM.pdf; D. Buchnowska, Social business – a conceptual framework, [in:] Business Informatics, no 4 (30), Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2013; J. Palonka, T. Porębska-Miąc, From Social media to Social CRM (SCRM), [in:] Creativity support systems, methods and applications, SE 117, Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach, Katowice 2012.

Through the use of social media, organizations and customers can gain many benefits, such as<sup>24</sup>:

- an organization can focus on community and building long-term relationships with them,
- customers are the authors (owners) of content (posted on social networking sites) and keep control of their content,
- communication is not only business-to-customer type, but also the customer-to-customer and customer-to-prospectus,
- customers cooperate with the organization directly or indirectly in the development and improvement of products, services and customer support itself,

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<sup>&</sup>lt;sup>24</sup> T. Bartuś, C. Olszak, op.cit.

 dialogue is less formal and more "real", it changes its character from the conversation about the brand to talking about/to the community.

## 2.2. Social applications for CRM

In addition to the advantages, the use of social media by companies is associated with the risk of the spread of the negative reviews of the company. Therefore, it is important to constantly monitor social networks. This is possible by using various social applications. They allow you to track and analyze customer behaviour, and thus they are a source of valuable knowledge about customers - their interests, preferences, level of satisfaction. They can therefore be used to optimize the marketing, sales or customer service processes. Table 4 presents examples of using social applications in different areas of customer relationship management.

Table 4. Use cases of social applications in the area of customer relationship management

	Use cases	Type of applications (example)
Social CRM for Marketing	<ul> <li>Idea management</li> <li>New product or service proposition and market research</li> <li>New product or service launch to market</li> <li>Social campaigns</li> <li>Social event networking</li> <li>Public Relations, brand/reputation promotion and defense</li> </ul>	<ul> <li>Social media monitoring (Nielsen BuzzMetrics, TNS Cymfony)</li> <li>Hosted community platforms (e.g. Communispace, LiveWorld)</li> </ul>
Social CRM for Sales	<ul> <li>Social sales prospecting and research</li> <li>Sales social collaboration</li> </ul>	<ul> <li>Social contact management with data derived from communities (InsideView, salesforce.com Jigsaw and ZoomInfo)</li> <li>Lead Management (CDC Pivotal Social CRM, IsideView, salesforce.com Jigsaw)</li> <li>Call planning (Artesian Solution and Oracle Social Prospector)</li> <li>Sales content management with social software providing a collaborative environment (iCentera, Oracle Social CRM Sales Library, salesforce.com Chatter)</li> <li>Social media monitoring (Radian6, Visible Technologies)</li> <li>Proposal management with social software providing a collaborative environment (Brightidea Switchboard)</li> <li>Social network analysis (7 Degrees, Saba and Trampoline Systems)</li> </ul>
Social CRM for Customer Service	<ul> <li>Community peer-to-peer support</li> <li>Service customer feedback</li> <li>Service listen and respond</li> <li>Service process analysis</li> </ul>	<ul> <li>Enterprise feedback management (Globalpark, MarketTools)</li> <li>Hosted communities with search, integration tools, workflow and rule engines (Jive, Live-World, RightNow)</li> <li>Social media monitoring (Cisco SocialMiner, Radian6, RightNow)</li> <li>Text mining (Attensity, Clarabridge)</li> </ul>

Source: based on: Gartner, *Top Use Cases and Benefits for Successful Social CRM*, http://img2.insight.com/graphics/fr/adobe/insight\_article13.pdf.

Using social applications can bring a number of benefits to the company, such as<sup>25</sup>: increasing speed to access knowledge, reducing communication costs, reducing unnecessary communication, increased collaboration (across geographies and offices), increasing effectiveness of marketing, increasing customer satisfaction and reducing marketing costs.

Beyond the internal benefits for organization using social applications, there are also crucial benefits for its customers<sup>26</sup>: access to more trusted and independent information on products, services and organizations through many-to-many participation, personalization of interaction with an organization and products or services offer (greater control over their own level of engagement with organization through controlled online personas and reputations; greater control over the information they want; a buying process that aligns with a buyer's needs assessments, information gathering, evaluation, transaction and post-purchase activities) and fulfilling emotional needs, such as self-esteem, respect, belonging and friendship.

# 3. Customer Knowledge Management models

Customer knowledge (CK) is "a kind of knowledge in the area of customer relationship, which has direct or indirect effect on our organizational performance". CK is a strategic resource each organization and its importance continues to grow. That is emphasized by numerous publications and is also confirmed by the empirical research.

The relevant literature distinguishes between three kinds of customer knowledge:

- knowledge about customers is accumulated in order to know customers better, to understand their expectation, needs and motivations and to address them in a personalized way<sup>28</sup>; this includes: customer histories, connections, requirements, purchasing activity, buying habits and payment behavior<sup>29</sup>;
- knowledge from customers is the knowledge that organizations receive from its customers; this category includes: customer's knowledge of products, suppliers and markets, their ideas and recommendations concerning the improvement of the product<sup>30</sup>, ideas, thoughts and information regarding the preferences, creativity or experience with products, services, processes or expectations<sup>31</sup>. Knowledge from customers is valuable as it leads to measures which improve products and services;

Deloitte Digital, The Social Enterprise What it means to be a Social Enterprise, http://www.deloitte.com/assets/Dcom-SouthAfrica/Local%20Assets/Documents/Deloitte-Enterprise-POV-Proof-7 pdf

Gartner, Top Use Cases and Benefits for Successful Social CRM, http://img2.insight.com/graphics/fr/adobe/insight\_article13.pdf

<sup>&</sup>lt;sup>27</sup> M. S. Zanjani, R. Rouzbehani, H. Dabbagh, *Proposing a Conceptual Model of Customer Knowledge Management: A Study of CKM Tools in British Dotcoms*, [in:] World Academy of Science, Engineering and Technology No. 38, 2008.

<sup>&</sup>lt;sup>28</sup> H. Gebert, M. Geib, L. Kolbe, W. Brenner, *Knowledge-enabled customer relationship management integrating customer relationship management and knowledge management concepts*, [in:] Journal of Organizational Knowledge Management, vol. 7 no.5, 2003, pp 107-123.

<sup>&</sup>lt;sup>29</sup> H.Gebert, M. Geib, L. Kolbe, G.Riempp, Towards Customer Knowledge Management: Integrating Customer Relationship Management and Knowledge Management Concepts, [In:] Proceedings of ICEB Conference, Taiwan, 2002.

A. Trik, F. Zouaoui F., Customer Knowledge Management Competencies Role in the CRM Implementation Project, [in:] Journal of Organizational Knowledge Management, Vol. 2011.

<sup>&</sup>lt;sup>31</sup> J. Peng, A. Lawrence, R. Lihua, *Customer Knowledge Management in International Project: A Case Study*, http://motsc.org/Customer\_Knowledge\_Management\_in\_International\_Projectwithquestions.pdf

knowledge for customers- is required to satisfy the knowledge needs of customers; this includes: knowledge about products, markets and suppliers<sup>32</sup>; customers should be supported with "knowledge for the customer" during the entire buying cycle.

Efficient utilization of customer knowledge determines the development of a company, therefore it is important to properly manage this valuable resource. Customer Knowledge Management (CKM) is defined as an ongoing process of generating, disseminating and using customer knowledge within an organization, and between an organization and its customers<sup>33</sup>. CKM refers to the management and exploitation of all types of customer knowledge: knowledge about customers, knowledge from customers and knowledge for customers.

In recent years, a growing interest in customer knowledge management has been observed. As a result of this, there can be found several theoretical CKM models in the literature. Some of them deserve attention and they have been presented in table 5.

Table 5. A review of Customer Knowledge Management models

Au- thor(s)	Type of CKM model	Short description of model
Zanjani, Rouzbeha ni, Dab- bagh [2008]	Conceptual model	Authors distinguish three types of customer knowledge: knowledge for customer, knowledge from customer and knowledge about customer (the first layer of the model) and they break each type of customer knowledge down into more detailed knowledge-based parts (the second and third layers of the model presented). The presented model systematizes the knowledge of customer types but does not show the relationships between different types of knowledge.
Gebert, Geib, Kolbe, Riempp, [2002]	A customer oriented knowledge management model	The model offers a process perspective to illustrate which KM tools can be applied to the CRM sub-processes to achieve effective CKM. The model identifies six business processes: campaign management, lead management, offer management, contract management, complaint management and service management. It introduces the four KM aspects of content, competence, collaboration and composition.
Sedighi, Mokfi, Gol- rizgashti [2012]	Customer knowledge management model for cus- tomer value augmentation	Authors propose a CKM process model which integrates CRM and KM with the aim of customer value augmentation. In this regard, a unified classification of CRM forms is selected and then KM is integrated in all CRM forms (Operational, Analytical and Strategic CRM). In this CKM model, Analytical CRM is employed to support customer knowledge creation; KDD regarded as an overall process encompassing data mining acts as the core of Analytical CRM in this study. Taking advantage of various types of information repositories and communication channels, Operational CRM strengthens the process of customer knowledge retention and transfer. Finally, the Strategic form of CRM helps businesses to practice all the gained customer knowledge to become a pure customer-centric business.
Buch- nowska [2011]	CKM process model	Model helps in understanding the relationship between processes associated with the creation and exploitation of customer knowledge and which shows the relationship between three types of customer knowledge: knowledge from customer, knowledge about customer and knowledge for customer.

Source: own.

<sup>&</sup>lt;sup>32</sup> H. Gebert, M. Geib, L. Kolbe, W. Brenner, op.cit.

M. Rollins, A. Halinen, *Customer Knowledge Management Competence: Towards a Theoretical Framework*, [in:] Proceedings of the 38th Hawaii International Conference on System Sciences, http://www.computer.org/comp/proceedings/hicss/2005/2268/08/22680240a.pdf

The considerations presented later in this article are based on a CKM process model proposed D. Buchnowska<sup>34</sup>. This model helps in understanding the relationship between processes associated with the creation and exploitation of customer knowledge and shows the relationship between three types of customer knowledge: knowledge from customer, knowledge about customer and knowledge for customer.

With respect to the use of information technology, especially social technologies, it is important to isolate different types of customer knowledge (knowledge from, about and for customer). Different social solutions provide support the processes of management of various categories of customer knowledge to varying degrees.

## 4. Social technologies for CKM processes

The most important tools to support the implementation of customer knowledge management processes are CRM systems. However, traditional CRM applications do not provide comprehensive support for CKM processes for organizations operating in the knowledge economy. It is necessary to apply solutions complementary to the CRM, the use of which improves the efficiency of the processes of acquiring and using customer knowledge. These are: data warehouse and data analysis tools (Business Intelligence systems), document management systems (DMS), content management systems (CMS), workflow and groupware systems, e –learning systems and Web 2.0 technologies.

The use of social technologies enables more complete realization of CRM strategy by treating the customer as a true partner who is actively involved in adapting products and services to their needs. This is possible because Web 2.0 technologies not only support the management of knowledge about customer (like most "traditional" CRM systems), but also the knowledge for customer and from customer. This applies especially to social media sites such as: blogs, micro-blogging services, social networking services and location-aware mobile services (table 6).

		Type of our	Processes of CKM
i able 6.	Social m	edia used in the pr	ocess of customer knowledge management

	Type of cus-	Processes of CKM				
Social channel	tomer knowledge	identification & acquisition	storage	development	sharing	utilization
	for customer	+	+	+	++	+
Blogs	from customer	++	+	+	+	+
	about customer	+		+	+	+
Micro-blogging	for customer	+	+	+	++	+
services (e.g., Twit-	from customer	++		+	++	+
ter)	about customer	++		+	+	++
Social networking	for customer	+	+	+	++	+
services (e.g, Face-	from customer	++		+	++	+
book)	about customer	++		+	+	++
Location-aware	for customer	+	+	+	++	+
mobile services	from customer	++	+	+	++	+
(e.g., Foursquare)	about customer	++	+	++	+	++

<sup>+ -</sup> support , ++ - strong support

Source: own elaboration.

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<sup>&</sup>lt;sup>34</sup> D. Buchnowska, Customer knowledge management models. Assessment and proposal, [in:] Research in Systems Analysis and Design: Models and Methods, S. Wrycza (ed.), Lecture Notes in Business Information Processing, Springer, 2011

Social media primarily improve the processes of acquisition of knowledge from customers and sharing knowledge for customers. This allows you to change customers from a passive audience into a firm's active players<sup>35</sup>. The organization can learn from customers because they are given more freedom in their interactions with the company and other customers. Companies can also search their brand or products (e.g., by using Twitter search) and learn from customers by listening to what they are saying about the company and its products<sup>36</sup>. Table 7 presents examples of the use of social media in the management of different types of customer knowledge.

**Table 7.** Examples of management of different types of customer knowledge through social technologies

Social channel	Management of knowledge for customer	Management of knowledge from customer	Management of knowledge about customer	
Micro- blogging services	<ul> <li>transferring knowledge for customers about products, markets, offers and also provide customer service</li> <li>transferring knowledge about campaigns and events</li> </ul>	<ul> <li>acquiring knowledge from customers by actively seeking out customer-driven innovation in their design and production</li> <li>acquiring relevant knowledge from customers via their tweets, through which they express their expectations, likes and dislikes</li> </ul>	<ul> <li>acquisition of knowledge about customers and better manage the potential areas of concerns among them</li> <li>acquisition of information about competitors' actions</li> </ul>	
Social network- ing ser- vices	<ul> <li>transferring knowledge for customers by keeping them abreast of changes in their products and services</li> <li>providing knowledge for customers about its locations and organizational cultures to keep them abreast of changes</li> </ul>	<ul> <li>acquiring knowledge from customers by comprehending how they react to changes</li> <li>acquiring knowledge from customers through poll questions by directly asking them about their personal opinions, preferences and feedbacks</li> </ul>	<ul> <li>acquiring of knowledge about customers' behaviors, preferences, expectations, satisfaction levels and their reactions to new products</li> <li>utilization of knowledge about customers to build customer loyalty</li> </ul>	
Location- aware mobile services	<ul> <li>transferring of knowledge for customers on day-to- day events specific for a location, such as offers and new product launches, en- couraging them to check- in at that location</li> </ul>	<ul> <li>acquiring information from customers in the form of tips and com- ments, which can be a use- ful source of knowledge about their satisfaction with products and services</li> </ul>	<ul> <li>connect geographically separated customers and help organizations acquire knowledge about the varia- tions in customers' prefe- rences based on different locations</li> </ul>	
Blogs/Co rporate discus- sion- forum services	<ul> <li>transferring of knowledge for customers to publishing content related to their existing products and services, as well as ideas that are currently under experimentation</li> <li>transferring of knowledge concerning the possibility</li> </ul>	<ul> <li>encourage customers to express their needs, doubts, purchase intentions</li> <li>encourage knowledge flow from customers in the form of suggestions and novel ideas to implement, thereby promoting the concept of "design with</li> </ul>	<ul> <li>promoting exchange of customer-to-customer know-how, which may be monitored to unearth knowledge about customers in the form of opinions, preferences and electronic word-of-mouth</li> <li>treating customers as eva-</li> </ul>	

<sup>&</sup>lt;sup>35</sup> D. Buchnowska, Customer ..., op.cit.

<sup>&</sup>lt;sup>36</sup> R. Faase, R. Helms, M. Spruit M., op.cit.

Social channel	Management of knowledge for customer	Management of knowledge from customer	Management of knowledge about customer
	of using the company's products, educating customers	customers''	luators of submitted ideas, thereby drawing out valu- able knowledge about cu- stomers via their com- ments to submitted ideas

Source: elaboration based on: D.Buchnowska, *Technologie informacyjne wykorzystywane w zarządzaniu wiedzą o klientach*, [in:] Prace Naukowe Wyższej Szkoły Bankowej W Gdańsku, Nr 16, 2012; A.Y.K., Chua S .Banerjee, *Customer knowledge management via social media: the case of Starbucks*, [in:] Journal of Knowledge Management, Vol. 17, No. 2, 2013.

Examples of using social technologies, presented in this paper, show that they can significantly improve the management of customers knowledge. Social technologies integrated with traditional CRM systems (that is Social CRM systems) provide not only the management of knowledge about the customer, but also the knowledge for the customer and from customer. This allows the company to change customers from a passive audience to active players and true partners who are involved in adapting products and services to their needs. The company and the customers can co-create the knowledge. The value derived from knowledge co-creation with customers around developing innovative products is becoming increasingly important<sup>37</sup>. That is why more and more companies are using social technologies in costumer knowledge management. However, to achieve truly significant and permanent benefit, it is necessary to integrate social media with CRM systems. CRM solutions that have built-in integration with social media are called by the producers as CRM 2.0. The effect will be even more apparent if the company additionally applies social media monitoring tools. Only the combined use of all these solutions as comprehensive support for CRM strategy can be called social CRM.

#### Conclusion

The article presents numerous examples which show different ways, in which companies may use SCRUM solutions (defined as a combination of social technologies and Customer Relationship Management systems) in order to support Customer Knowledge Management processes. The results of analyses were presented, showing the influence of the social media on the particular CKM processes. It was also pointed out that social technologies enable organizations to build a competitive edge based not only on their knowledge about the customer but also on knowledge from and for the customer.

Considering the large number and variety of social technologies, the article failed to address all the possibilities. However, research will be continued. First of all, it is planned to examine how the use of different kinds of social media influences CKM processes, depending on the company's size and field of activity.

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<sup>&</sup>lt;sup>37</sup> C. Lawer, *On customer knowledge co-creation and dynamic capabilities*, http://www.customerthink.com/blog/on\_dynamic\_capabilities\_and\_customer\_knowledge\_co\_creation; D. Buchnowska, *Customer*..., op.cit.

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# SOCIAL CRM JAKO WSPARCIE ZARZĄDZANIA WIEDZĄ O KLIENTACH

#### Streszczenie

Rozwój i ekspansja technologii Web 2.0 stworzyły nowe możliwości w zakresie zarządzania wiedzą o klientach (Customer Knowledge Management - CKM). Celem niniejszego artykułu jest analiza, w jaki sposób organizacje mogą zastosować rozwiązanie, jakim jest social CRM (technologie web 2.0 zintegrowane z tradycyjnym systemem CRM) w obszarze CKM i zbadać, jakie korzyści mogą z tego wynikać. Aby zrealizować te cele, w artykule przedstawiono koncepcję social CRM (SCRM), różnicę pomiędzy CRM i SCRM oraz przegląd modeli CKM prezentowanych w literaturze. Następnie wskazano możliwości wykorzystania rozwiązań SCRM w procesach zarządzania wiedzą o klientach oraz prezentowano przykłady zastosowania różnych rodzajów mediów społecznych w zarządzaniu różnymi typami wiedzy o klientach.

**Słowa kluczowe:** social CRM, CRM 2.0, SCRM, technologie społecznościowe, customer knowledge management

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