The Evolution of Customer Relationship Management System

Dorota Jelonek

Abstract – Paper presents the evolution of Customer Relationship Management Systems from the classical solutions, through e-CRM systems, to social CRM. The aim of this article is to demonstrate that social CRM systems are an effective support in managing the relationships with customers, especially in the areas of customer information management and customer communication.

The following paragraphs present the essence of CRM systems, e-CRM and s-CRM models as well as the role of s-CRM in customer information management and customer communication.

II. THE ESSENCE AND FUNCTIONS OF CRM SYSTEM

Customer Relationship Management in the literature of the subject is considered as a strategy [10], process [11], philosophy [12], skill [13] or system [14]. Thus, the essence of CRM was well-defined by Greenberg [15]: „CRM (…) is not only technology. It is a strategy and/or a set of business processes. A methodology. It is all of the above or whichever you choose”.

CRM may be defined as the cross-functional integration of processes, people, operations, and marketing capabilities that is enabled through information, technology and applications [16].

Due to the CRM functions it can be divided into three basic types [17]:
- operational CRM,
- analytical CRM,
- collaborative CRM.

Figure 1 shows the model of CRM system that includes operational, analytical and collaborative modules.

Operational CRM, often referred to as front-office CRM, covers most areas of customer - company contact. CRM applications collect, process and store data about customers, so that later this data can be used in analytical CRM [18].

Fig. 1. The model of CRM

Analytical CRM, also known as back-office CRM, uses data from operational CRM and any other sources of data such as transaction systems or enterprise environment. Most of today’s CRM vendors develop their own analytical CRM...
modules or collaborates with producers of specialized information processing systems of the Business Intelligence type.

Collaborative CRM, also called the interactive CRM, are applications, that support various forms of contact with customers, especially by using modern technologies of electronic communication. The usage of ICT supports the work of employees who contact directly with customers, allowing for partial automation of these contacts.

The usage of internet in business and changes in the virtual environment made it necessary to modify CRM system. Network CRM, referred to as e-CRM, uses internet technologies, and like traditional CRM it implements processes of acquiring, storing and processing information about e-customers as well as sharing them with managers.

The possibilities of e-CRM, in terms of broadly understood customer service, may include [19]: building lasting relationships with e-customers, increasing the level of e-customer satisfaction, boosting sales, identification of those e-customers who generate highest or lowest revenues, minimizing costs of e-customer services, benefits from retail, decreasing costs of customer management, acquiring new e-customers, more efficient customer service resulting from personalization of service, providing e-customers with full information, creation of possibilities to choose, understanding e-customer needs, effective marketing communication with e-customers and quicker access to new markets.

III. MODEL OF S-CRM SYSTEM

The evolution of Web 2.0 and social media have significantly changed the customer relationship management model towards social CRM.

Social Media can be 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 [20]. They are the technical enabler for an online-based exchange of digital contents and operationalize the principles and practices of Web 2.0. As the front-end to the user they represent something tangible compared to the intangible concept of Web 2.0. [21]. Customers want to talk about their consumption experience, new ideas, however they have various preferences on where, what and how to communicate. s-CRM system should allow for a full dialogue with customers using the communication channels of their preference. Moreover, web-user integration and participation becomes critical to establish trust and commitment in buyer-seller relationships.

Social CRM system may be defined from various perspectives. Social CRM is a philosophy and a business strategy, supported by a technology platform, business rules, processes and social characteristics, designed to engage the customer in a collaborative conversation in order to provide mutually beneficial value in a reliable and transparent business. It’s the company response to the customer’s property on the conversation [22].

According to Mohan [23], a social CRM system combines the “Web 2.0 features and social networking with current CRM system.” However, Social CRM is not just a set of technologies, but rather a company strategy, specific to boost customer engagement and building strong relationships with them. Askool and Nakata [24] describe SCRM to be even a new paradigm for creating high value relationships.

s-CRM definitions point out that s-CRM is more than an extension of traditional CRM by means of new communication channels and about a new mode of managing relationships in a public environment that builds on and integrating the principles and practices of Web 2.

New dimension of social CRM add to the traditional aspects of customer relationship management was presented in Figure 2.

![Figure 2. CRM v. s-CRM approach [25]](image)

There were showed three important processes:
- Converting content into conversation.
- Extending conversation into collaborative experience.
- Transforming experience into meaningful relationship.

The main social media are clearly Facebook, Twitter, YouTube, LinkedIn and now Instagram and Pinterest [26]. However, the nature of the Internet through Web 2.0, is that almost all websites are becoming “social”; that is that they allow interaction [27]. Customers can post comments, ratings, reviews, and share all these across their own social networks. Thus, sites like Amazon, TripAdvisor, Urbanspoon, Yelp, the entire Google network and many other peer-to-peer websites such as blogs, micro blogs, wikis, podcasts, photo sharing, video sharing and social bookmarking can be viewed as social media technologies and thus as potential CRM tools [27], [28].

How an organization can use social channels to support s-CRM processes was presented on table 1.
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Table 1. How an organization can use social channels to support s-CRM processes

<table>
<thead>
<tr>
<th>Social channels</th>
<th>CRM and entity process</th>
<th>s-CRM and entity process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blog</td>
<td>-blog focused on building reputation written by a senior executive -focus on leadership</td>
<td>deals with members of a community, for acquisition of products and services -capture of comments in the executive blog regarding claims or requests by customers, and to act accordingly</td>
</tr>
<tr>
<td>Internal Wiki</td>
<td>platform to share market knowledge that has been collected from conversations with customers</td>
<td>shared presentations on sales and common knowledge about new sales leads creation of a knowledge base of customer service procedures</td>
</tr>
<tr>
<td>Video Sites/YouTube</td>
<td>viral advertising propagated only on-line encouraging word-of-mouth references</td>
<td>point of contact to create sales opportunity in another channel publication of educational videos on how to use certain product, extending the user manual online</td>
</tr>
<tr>
<td>Micro Blogging/Twitter</td>
<td>-messages to announce special offers and discounts -spreading of viral marketing campaigns, integration with channels like YouTube</td>
<td>-launching of exclusive product offers for Twitter followers, as a way of looking for new sales opportunities -focus on the current follower base -response to support inquires and product complaints, monitored by an exclusive team -focus on all digital customers</td>
</tr>
<tr>
<td>Personal Social Networks/Facebook</td>
<td>-spreading of advertising campaigns within the communities of clients</td>
<td>-launch of new product and benefit campaigns for community members only -focus on the current follower base -resolution of enquiries among community members -opinion gathering regarding products and services</td>
</tr>
</tbody>
</table>

Source: [29]

The comparison of key differences between CRM and s-CRM in terms of their functions and features was presented in the Table 2.

Table 2. CRM v. social CRM. Features and Functions

<table>
<thead>
<tr>
<th>CRM Features/Functions</th>
<th>s-CRM Features/Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition: CRM is a philosophy &amp; a business strategy, supported by a system and a technology, designed to improve human interactions in a business environment</td>
<td>Definition: s-CRM (CRM 2.0) is a philosophy &amp; a business strategy, supported by a system and a technology, designed to engage the customer in a collaborative interaction that provides mutually beneficial value in a trusted &amp; transparent business environment</td>
</tr>
<tr>
<td>Tactical and operational: Customer strategy is part of corporate strategy</td>
<td>Strategic: Customer strategy IS corporate strategy</td>
</tr>
<tr>
<td>Relationship between the company and the customer was seen as enterprise managing</td>
<td>Relationship between the company and the customer are seen as a collaborative effort. And yet, the customer - parent to child to a large extent</td>
</tr>
<tr>
<td>Focus on Company Customer Relationship</td>
<td>Focus on all iterations of the relationships (among company, business partners, customers) and specifically focus on identifying, engaging and enabling the &quot;influential&quot; nodes</td>
</tr>
<tr>
<td>The company seeks to lead and shape customer opinions about products, services, and the company-customer relationship.</td>
<td>The customer is seen as a partner from the beginning in the development and improvement of products, services, and the company-customer relationship</td>
</tr>
<tr>
<td>Business focus on products and services that satisfy customers</td>
<td>Business focus on environments &amp; experiences that engage customer</td>
</tr>
<tr>
<td>Customer facing features - sales, marketing &amp; support.</td>
<td>Customer facing both features and the people who's in charge of developing and delivering those features</td>
</tr>
<tr>
<td>Marketing focused on processes that sent improved, targeted, highly specific corporate messages to customer</td>
<td>Marketing focused on building relationship with customer - engaging customer in activity and discussion, observing and redirecting conversations and activities among customers</td>
</tr>
<tr>
<td>Intellectual Property protected with all legal might available</td>
<td>Intellectual property created and owned together with the customer, partner, supplier, problem solver</td>
</tr>
<tr>
<td>Insights and effectiveness were optimally achieved by the single view of the customer (data) across all channels by those who needed to know. Based on &quot;complete&quot; customer record and data integration</td>
<td>Insights are a considerably more dynamic issue and are based on 1) customer data 2) customer personal profiles on the web and the social characteristics associated with them 3) customer participation in the activity acquisition of those insights</td>
</tr>
<tr>
<td>Resides in a customer-focused business ecosystem</td>
<td>Resides in a customer ecosystem</td>
</tr>
<tr>
<td>Technology focused around operational aspects of sales, marketing, support</td>
<td>Technology focused on both the operational and social aspects of the interaction</td>
</tr>
<tr>
<td>Tools are associated with automating functions</td>
<td>Integrates social media tools into apps/services: blogs, wikis, podcasts, social networking tools, content sharing tools, user communities, tools are associated with communicating</td>
</tr>
<tr>
<td>Utilitarian, functional, operational</td>
<td>Style and design also matter</td>
</tr>
<tr>
<td>Mostly uni-directional</td>
<td>Always bi-directional</td>
</tr>
<tr>
<td>Based on a toolset (software)</td>
<td>Based on a strategy (corporate culture)</td>
</tr>
</tbody>
</table>

Source: [30]

IV. THE ROLE OF S-CRM IN CUSTOMER INFORMATION MANAGEMENT

In order to meet the needs of customers effectively companies must maintain a level of engagement with customers, but they must also be able to acquire and manage information on their customers [31]. Information management includes the following activities: information capture; information integration; information access, and information use. Social media and virtual communities collect a lot of data,
that can be captured. Data can indicate market trends, customer preferences, customer satisfaction, customer influence and value, and competitor information [28], [26].

Information integration requires the assimilation of customer information from all touch points, from different data sources, not just social media, to create a coherent picture of the customers, develop a single view of the customer and collect information about their interaction with the organization.

s-CRM system supports decision-making process only when delivered analysis are based on information resources of all data-collecting systems that are used in enterprise. The format and way of sharing information is also very important. It should be adjusted, so that a company can use information as quickly as possible.

CRM relies on the historical data based on previous buying cycles and experiences of clients. In traditional CRM approach data is logged by third party, usually with some time gap after the event has occurred. Whereas, s-CRM approach incorporates real-time data for real time information (ability to capture unforeseen sales opportunities) and data is generated directly by customers (better reliability of information). With every engagement with customers on social media, more data is created [32].

In general, Social Media offers five different resources for s-CRM [33]:
1. The content of a posting (Posting Body) can be analysed for key words, opinions, topics, etc.
2. The meta data of postings (Posting Envelope) can provide details about authors, topics, sources, etc.
3. Provided data in profiles (Profile Body) contains information about emails, phone numbers, hobbies, interests, etc.
4. Meta data of profiles (Profile Envelope) contains information about friends, activities, other profiles, etc.
5. Interconnections between postings and profiles (Links) can provide insight into a person role, influence or relations.

Profile body and envelope, Posting envelope and Links are often available as structured data that may be integrated with CRM data by existing functionalities of CRM systems. Posting bodies and implicit links are unstructured data that needs to be transformed by data or text-mining (TM) before they can be integrated with CRM systems [33]. Data listed above is being used by the analytical module of s-CRM.

s-CRM support process of information management ensuring high quality customer information. Various customer information sources are well integrated and the customer information provided by system is useful. Moreover, the customer scoring and segmentation information are supported by CRM system.

V. THE ROLE OF S-CRM IN CUSTOMER COMMUNICATION PROCESS

Companies strengthen customer relationships by adjusting the communication system to clients expectations. Customer are increasingly using communication possibilities of Web 2.0 and Social Media, therefore they expect companies to do the same. Instead of pursuing a traditional one-way push communication, organizations are expected to foster a two-way interaction. At present, consumer expectations are likely not to be fulfilled and there is a perception gap on intentions to use Social Media [21].

CRM has traditionally consisted of one-way communication between company and the customer. s-CRM system assumes continuous exchange of experiences, not only between company and client, but also between individual clients.

Changes in the communication model were presented on the Figure 3. Instead of one-way communication companies should conduct dialog with clients and collaborate with them.

![Fig. 3. Web 2.0 communication matrix](image)

Communication “to” the target groups is characterized by pushing persuasive messages of promotion, selling propositions towards a mass market (e.g. online ads).

Communication “for” is a target group approach planned persuasive messages with augmented offerings (e.g. a discount due to a membership anniversary).

Communication “with” rests on bi-directional interactions between an organization and its target groups and emphasizes an exchange of planned and spontaneous messages which is product and service focused [21].

Communication “between” emphasizes dialogue including an organization and multiple consumers.

s-CRM enables businesses to interact with customers in real time using variety of social media platforms in a cost effective way. Companies can use blogs, internal Wiki, video sites, micro blogging, personal social networks and effectively conduct their activities connected with sales, marketing, and customer services.

Social media as a platform for communication offers customers the role of promoters, commentators or co-creators. In other words, customers can become the primary actors in the process of creating the proposals.

VI. CONCLUSION

As more and more consumers are active on social media, marketers’ use of these tools is also increasing. 21 % of marketers say that social media has become more important to their company over the past six months [35]. Marketers have
found a customers via Facebook (52%), LinkedIn (43%), Twitter (36%) [35]. Social media technologies as the element of CRM have the capability to bring company and customers closer together through two-way interactions and dialog.

It was showed that s-CRM systems may effectively support customer relations and usage of its potential. It is important to perceive s-CRM system from the perspective of: supporting customer information management and improving dialogue with customers by using new channels of communication. Newly acquired customers can become in the future: the ambassadors of the brand, reviewers, innovators or consultants. Social media creates new behaviors of community members, such as sharing of experiences and emotions. Companies can later use those behaviors in order to build and strengthen relationships with customers.

REFERENCES


Dorota Jelenek is a professor of Management and currently the Vice Dean of Science at the Faculty of Management at the Czestochowa University of Technology. She started to work at the Faculty of Management in 1994 as an assistant. In 2000 she received a PhD degree. PhD research topic was “Modeling of Information Resources for Enterprise Environment Monitoring System”. Dorota Jelenek holds her habilitation in Economic Theory at the Faculty of Management, Institute of Information Science and Finances, Wroclaw University of Economics in 2011 year. Habilitation study focused on the “Strategic Alignment Between Environment Monitoring and Information Technology in a Company. A Methodological and Empirical Study”. She has been the chair of the team responsible for e-learning implementation in Czestochowa University of Technology since 2012 year.

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