Measuring the Success of Social CRM
First Approach and Future Research

Torben Küpper
Institute of Information Management, University of St. Gallen, St. Gallen, Switzerland

Keywords: Social CRM Measurement Model, Social CRM Measurement, Social CRM, Social CRM Measures.

Abstract: Web 2.0 and Social Media provide new opportunities for collaboration and value co-creation. Social Customer Relationship Management (CRM) addresses the opportunities and deals with the integration of Web 2.0 and Social Media within CRM. Social CRM has the potential to enable the, e.g., customer-to-customer support, which results in reducing companies’ service costs. In order to measure the success (e.g., cost-savings) of Social CRM activities (e.g., customer-to-customer support) a Social CRM measurement model is indispensable and a prerequisite step for future research. At present, scholars conduct research on Social CRM measures and attempt to develop a Social CRM measurement model. This paper presents a systematic and rigorous literature review for the research topic – Social CRM measurement model. The major result reveals the lack of extant literature regarding the research topic. The findings disclose the need for a Social CRM measurement model on an evaluation based foundation.

1 INTRODUCTION

Social Media is a group of internet-based applications and technology foundations of Web 2.0, which change the approach of online communication towards a dialog among web users (Cheung, Chiu, and Lee 2011; Lehmkuhl and Jung, 2013). In this context, Social Media enables collaboration between companies and their customers. The customers content on the companies’ Social Media platforms (e.g., Facebook, Twitter, Blogs, etc.) provide a two-sided value co-creation (Vargo, Maglio, and Akaka, 2008). The value co-creation becomes apparent, for example, when customers articulate requirements (value for the company) or authentic feedbacks on products (value for other customers). Social Customer Relationship Management (CRM) addresses, among others, this opportunity and deals with the integration of Web 2.0 and Social Media within CRM (Lehmkuhl and Jung, 2013).

The challenge for companies to implement a Social CRM approach documents the following facts: first, service demand on Social Media platforms increased by 26 % over the past 4 years (MCKensey, Chui, and Westergren, 2012). Second, an increasing number of companies apply a service oriented Social CRM approach (Band and Petouhoff 2010; Bernet PR, 2013). Social CRM fosters customer engagement which in turn enables customer-to-customer support, thus reducing companies’ service costs. When customers share positive user experiences, customer engagement can also lead to additional sales because indecisive potential customers may be encouraged to purchase.

Measuring Social CRM is essential to assess and monitor the success of Social CRM activities (Sarner and Sussin 2012; Sarner et al., 2011) and the first step to implement a Social CRM management cockpit. In practice, measuring Social CRM is perceived as one of the biggest challenges in the upcoming years (Bernet PR, 2013). This view can be confirmed from a scholarly perspective: Reinhold et al. (2012) argue that Social CRM activities have to be analyzed and measured in order to capture the Social CRM success (Reinhold et al., 2012). This demands innovative approaches and measurement models.

According to Moore and Benbasat (1991), a prerequisite for measurement models are well-defined constructs (i.e. measures) with high degrees of validity and reliability. Therefore, the contribution of this article is to discover extant Social CRM measures and based on them to identify current Social CRM measurement models.

Despite this necessity Social CRM measurement models are sparsely addressed in extant literature.
Authors focus on CRM measurement models (e.g., Chen et al. 2009; Reinartz et al. 2004; Wang and Sedera 2009; Sedera et al. 2009) and illustrate single Social CRM performance measures (Behravan and Sabbirrahman 2012; Farb 2011; Li et al. 2012; Vulic et al. 2012) without proving their applicability (i.e., without an evaluation based foundation). Literature reviews aim “to uncover the sources relevant to a topic under study,” (vom Brocke et al. 2009) and make a contribution to the relevance and rigor of research (vom Brocke et al. 2009). This article provides a literature review regarding the research topic - Social CRM measurement model. Therefore, the research question (RQ) is stated as:

RQ: “What is the current state of knowledge on a Social CRM measurement model?”

To answer the question, the article is structured as follows: first, a rigorous and systematic literature review (section 2) is described. Second, a literature analysis and synthesis (section 3) is done in order to identify the research gap. Third, a research agenda (section 4) is derived. Finally, a short conclusion (section 5) is given.

2 LITERATURE REVIEW

A thorough and rigorous literature review is a prerequisite step for a research project and provides a solid theoretical foundation (Levy and Ellis, 2006). This literature review is based on vom Brocke’s framework for reviewing scholarly literature (vom Brocke et al., 2009). It comprises five steps being definition of review scope (section 2.1), conceptualization of topic (section 2.2), literature search, literature analysis and synthesis (section 3), and the derivation of a research agenda (section 4).

2.1 Definition of the Review Scope

The scope of a literature review can be characterized by a taxonomy (vom Brocke et al. 2009). Table 1 describes the scope of the literature review at hand using the taxonomy of Cooper (1988) which differentiates six categories, each having a different number of characteristics. The grey shades indicate the literature review’s characteristics. The focus is on the identification of the research outcomes and the different research methods. The goals are integration and central issues. The organization of this literature review is related to the same abstract ideas (conceptual) and employing similar methods (methodological). The perspective can be categorized by the characteristic neutral representation. Due to the specific research topic, the audience is specialized scholars. Finally, the representative coverage is applied in the literature search (cf. Table 3) reducing the number of articles (hits) to a smaller number of net hits.

Table 1: Taxonomy of literature reviews based on Cooper (1988).

<table>
<thead>
<tr>
<th>Categories</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>research outcomes</td>
</tr>
<tr>
<td>Goal</td>
<td>integration</td>
</tr>
<tr>
<td>Organization</td>
<td>historical</td>
</tr>
<tr>
<td>Perspective</td>
<td>neutral representation</td>
</tr>
<tr>
<td>Audience</td>
<td>specialized scholars</td>
</tr>
<tr>
<td>Coverage</td>
<td>exhaustive and selective</td>
</tr>
</tbody>
</table>

2.2 Conceptualization of the Topic

A literature review has to “provide a working definition of key variable” (Webster and Watson 2002). Table 2 presents an overview of the research topic’s key variables and their definitions: Web 2.0, Social Media, CRM, Social CRM and Measurement. Web 2.0 has to be considered, because it is frequently used as a synonym for Social Media (Lehmkuhl and Jung 2013). To conclude, a Social CRM measurement model is defined as follows: a model that measures Social CRM activities in order to assess and monitor the Social CRM success (e.g., sales, cost-savings, etc.) (Faase, Helms, and Spruit 2011; Greenberg 2010; Soeini, Jafari, and Abdollahzadeh, 2011).

2.3 Literature Search

A systematic literature search was conducted in order to identify articles relevant to the research topic. Hence, this section follows the search sub-process proposed by vom Brocke et al. (2009) (cf. Figure 1) including (1) a journal search, followed by (2) a database search, and (3) a keyword search, and finally (4) a forward and backward search. The application of the search sub-process assures a rigorous, comprehensive and traceable literature search (vom Brocke et al., 2009).
Table 2: Overview of Social CRM measurement model definitions.

<table>
<thead>
<tr>
<th>Key Variables</th>
<th>Definition</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web 2.0</td>
<td>“Web 2.0 is a set of economic, social, and technology trends that collectively form the basis for the next generation of the Internet - a more mature, distinctive medium characterized by user participation, openness, and network effects.”</td>
<td>Musser and O’Reilly, 2006</td>
</tr>
<tr>
<td></td>
<td>[…] Web 2.0 is a set of dynamic principles and practices such as participation and engagement, collaboration and cooperation or transparency and openness.”</td>
<td>Lehmkuhl and Jung, 2013</td>
</tr>
<tr>
<td>Social Media</td>
<td>“…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.”</td>
<td>Kaplan and Haenlein, 2010</td>
</tr>
<tr>
<td>CRM</td>
<td>It is supported by both technology and process that is directed by strategy and is designed to improve business performance in an area of customer management.</td>
<td>Richards and Jones, 2008</td>
</tr>
<tr>
<td>Social CRM</td>
<td>“[…] 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 trusted and transparent business environment.”</td>
<td>Greenberg, 2010</td>
</tr>
<tr>
<td>Measurement</td>
<td>A CRM measurement is “[…] a subset of strategic research, following a research performed on categorizing researchers […] and therefore a mechanism that is supposed to measure CRM performance should notice to various perspective towards effective factors on CRM performance.”</td>
<td>Soeini et al., 2011</td>
</tr>
</tbody>
</table>

The (1) journal search is the first step in the literature search and it may include conference articles. “The major contributions are likely to be in the leading journals,” (Webster and Watson, 2002) as well as in high ranked, renowned conference proceedings (Rowley and Slack, 2004).

Consequently, the scholarly databases, which allow a search of the leading journals and conference proceedings, are primarily queried and investigated (Webster and Watson, 2002). According to vom Brocke et al. (2009) and the research topic at hand the relevant journals for the (1) journal search are derived from the disciplines Information Systems (IS) and Marketing. Within IS the top-tier journals are: Information Systems Research, MISQ and Journal of Information Technology. High quality Marketing journals are: Journal of Marketing, Journal of Marketing Research, Journal of the Academy of Marketing Science, as well as the Journal of Interactive Marketing. The selection of relevant IS conferences includes the International Conference on Information Systems (ICIS), the European Conference on Information Systems (ECIS), the Pacific Asia Conference on Information Systems (PACIS), as well as the American Conference on Information Systems (AMCIS). The selected high quality Marketing conferences are the American Marketing Association (AMA) and the European Marketing Academy (EMAC).

The (2) database search has to make sure that the previously identified journals (journal search) are covered. Therefore, the following databases have been queried: EBSCOhost, ProQuest, Emerald, ScienceDirect, Web of Science and the AIS World database (AISel).

The third sub-process step, the (3) keyword search, is the core of the literature search. The applied keywords are precisely documented and sufficiently traceable for a repeatable investigation (vom Brocke et al. 2009). The keywords are derived from the key variables in Table 2 and, consequently, all abbreviations and similar terms are included. The
databases have been queried using the following search phrases: (a) ("CRM" or "Customer Relationship Management") and ("Web 2.0" or "Social Media") and ("Measure" or "Measurement" or "Measuring"); (b) ("Social CRM" or "Social Customer Relationship Management") and ("Measure" or "Measurement" or "Measuring"); (c) ("CRM" or "Customer Relationship Management") and ("Measure" or "Measurement" or "Measuring"). An overview of the results for the (3) keyword search is given in Table 3 which illustrates the mentioned databases, the corresponding, completed search phrases, and presents the number of hits for the period 2003-2013.

<table>
<thead>
<tr>
<th>Database</th>
<th>Search phrases</th>
<th>Net hits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a)</td>
<td>(b)</td>
</tr>
<tr>
<td>EBSCOhost</td>
<td>0 (7)</td>
<td>0 (2)</td>
</tr>
<tr>
<td>Emerald</td>
<td>0 (2)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>ProQuest</td>
<td>1 (23)</td>
<td>0 (18)</td>
</tr>
<tr>
<td>ScienceDirect</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Web of Science</td>
<td>1 (4)</td>
<td>1 (2)</td>
</tr>
<tr>
<td>AISeL</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>

The number in brackets (hits) represents the number of articles found in the respective database using the specific search phrase. The queried attributes have been title, keywords, and abstract. The search has been extended to all fields if the first query produced no hits (e.g., the database Emerald produced no hits for the attributes title, keywords and abstract for the (a) search phrase; consequently the search was extended to all fields and two hits were found). Furthermore, the initial search for search phrase (c) in EBSCOHost produced 974 hits. In order to reduce this result to a manageable number of articles we restricted the search to title and keywords, thus reducing the number to 46 hits. The inherent risk of omitting articles is later on mitigated by applying a backward reference search. The articles have been further evaluated by manually analyzing (reading) title, abstract and introduction and eliminating duplets. The number in bold represents the number of articles considered relevant in the latter step. The total net hits have been calculated as the sum of articles considering all search phrases. The (3) keyword search yields 23 articles in total.

The last sub-process step is the (4) forward and backward search and aligns on the approach by Levy and Ellis (2006) backward references search and forward references search. A first-level backward references search focuses solely on the references of the net hit’s articles from the keyword search (Levy and Ellis, 2006). In sum, this search yields 2 additional articles. This small number is due to the fact that the most identified articles were already found in (3) keyword search. The forward references search focuses on the articles that have been referenced in the net hit’s articles. Therefore, each of the 23 net hits was analyzed using Google Scholar and the six databases from sub-process step (2) database search (X. Chen, 2010). The forward references search yielded 14 additional articles (cf. Table 4). This leads to a total of 39 relevant articles that are used for further analysis.

<table>
<thead>
<tr>
<th>Database</th>
<th>Net hits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Scholar</td>
<td>3 (1376)</td>
</tr>
<tr>
<td>EBSCOhost</td>
<td>0 (11)</td>
</tr>
<tr>
<td>Emerald</td>
<td>0 (4)</td>
</tr>
<tr>
<td>ProQuest</td>
<td>0 (5)</td>
</tr>
<tr>
<td>ScienceDirect</td>
<td>4 (66)</td>
</tr>
<tr>
<td>Web of Science</td>
<td>7 (289)</td>
</tr>
<tr>
<td>AISeL</td>
<td>0 (10)</td>
</tr>
<tr>
<td>Total Net hits</td>
<td>14</td>
</tr>
</tbody>
</table>

3 LITERATURE ANALYSIS AND SYNTHESIS

The core of a literature review is to analyze and synthesize the relevant articles based on selected informative characteristics and to categorize them within a framework (Webster and Watson, 2002).

3.1 General Findings

A first content analysis of the 39 relevant articles reveals five different categories of Social CRM measurement models, which partly cover the research question (RQ: “What is the current state of knowledge on a Social CRM measurement model?”). Table 5 depicts the categories found and presents the corresponding characteristics. The number in brackets represents the number of articles that use the respective characteristic as a descriptive means. All of the mentioned characteristics are mutually exclusive.
**Table 5: Categories of Social CRM measurement models.**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement perspective</td>
<td>company-perspective (25) customer-facing (14)</td>
</tr>
<tr>
<td>Measurement object</td>
<td>company (27) customer (6) company &amp; customer (2) none (4)</td>
</tr>
<tr>
<td>Measurement type</td>
<td>indirect (9) direct (30)</td>
</tr>
<tr>
<td>Measurement scope</td>
<td>holistic (13) partial (26)</td>
</tr>
<tr>
<td>Measurement framework</td>
<td>business-to-business (1) business-to-customer (34) business-to-business &amp; business-to-customer (4)</td>
</tr>
</tbody>
</table>

Measurement perspective comprises two characteristics. The customer-facing perspective includes the building of a single view of a customer across all contact channels and the distribution of customer intelligence to all customer-facing across all contact channels. According to Öztaysi et al. (2011b), the "characteristics (J. Chen et al., 2009)." The measurement type is mentioned in the context of analysis. The holistic models cover CRM process to some degree (Öztaysi et al., 2011b). While the holistic approach covers a wide range of CRM process dimensions, wherein each of the 38 articles (the 39 relevant articles include Payne and Frow (2005)) can be exclusively assigned. Finally, five out of seven A and A+ journal articles as well as 66% of the investigated 39 articles refer to this framework.

### 3.2 Findings on a Framework

A second content analysis focuses on categorization within a framework in order to identify a research gap. Therefore, a primarily holistic framework was sought, which had a sufficient and diverse quantity of process dimensions to categorize all of the 39 relevant articles. Regarding these restrictions, the Payne and Frow (2005) framework which was identified during the backward reference search, was chosen for four reasons. First, the existing Social CRM literature mainly bases on a partial approach (cf. Table 5) and misses a quantitatively evaluated foundation (Lehmkuhl and Jung, 2013). Second, the framework from Payne and Frow (2005) is a widely used success framework (e.g., on 20th April, 2013, a total amount of more than 700 citations were archived on Google Scholar) and therefore provides a high degree of external validity. Third, the holistic approach covers a wide range of CRM process dimensions, wherein each of the 38 articles (the 39 relevant articles include Payne and Frow (2005)) can be exclusively assigned. Finally, five out of seven A and A+ journal articles as well as 66% of the investigated 39 articles refer to this framework.

The corresponding framework includes five process dimensions: (1) strategy development process, (2) value creation process, (3) multichannel integration process, (4) information management process, and (5) performance assessment process. The (1) strategy development process has two different focus areas. On the one hand it describes an organization’s business strategy and on the other hand a customer strategy. The (2) value creation process “transforms the outputs of the strategy development process into programs that both extract and deliver value” (Payne and Frow, 2005). Furthermore, it involves a process of co-creation and segments the customers to maximize the lifetime value. The (3) multichannel integration process describes the most common appropriate combinations of channels, which has a highly

---

577
positive interaction with customers. The (4) information management process “is concerned with the collection, collation, and the use of customer data the collection, collation, and the use of customer […] to generate customer insight […]” (Payne and Frow, 2005). The (5) performance assessment process ensures that the organization’s strategic aims are effected in an acceptable standard and that future improvements are derived from this process.

In order to answer the research question completely Table 6 reveals an overview of the
investigated literature. The 38 relevant articles are described in the rows and the five process dimensions are shown in the columns, which are separated in a new Social CRM approach (N. Ap.) and a traditional CRM approach (Tr. Ap.). The x marks the articles’ classification within the process dimensions of Payne and Frow (2005). According to the classification, no article was categorized in the (1) strategy development process, (3) multichannel integration process and (4) information management process for the N. Ap. Regarding these results only a few articles classify the N. Ap. for the (2) value creation process and (5) performance assessment process. The appropriate articles (Behravan and Sabbirrahman, 2012; Farb, 2011; Li et al., 2012; Vulic et al., 2012) use conceptual, as well as illustrative research methods (Alavi and Carlson 1992) without an evaluation based foundation. Furthermore, three out of the four N. Ap. articles, which are categorized to (5) performance assessment process focus especially on a partial measurement scope and measure through a company-perspective (Farb, 2011; Li et al., 2012; Vulic et al., 2012). The remaining fourth paper (Behravan and Sabbirrahman 2012) provides a customer-facing measurement scope and describes an indirect measurement type.

All articles related to N. Ap. (4 articles) lack a direct holistic measurement approach with an evaluation based foundation. Regarding this finding a Social CRM measurement model is sparsely addressed in extant literature and thus a research gap is identified.

4 RESEARCH AGENDA

The results from the current literature review and the identified research gap confirm the need for extensive research regarding the research topic. The research agenda describes the process steps, according to (Peffers et al. 2007) for a Social CRM measurement model in order to develop and implement a Social CRM management cockpit. Figure 2 depicts the research agenda over time (axis of abscissae) and shows the six design science research process phases (marked in grey boxes), namely (1) identify problem & motivate, (2) define objectives of a solution, (3) design & development, (4) demonstration, (5) evaluation and (6) communication. The first process phase (identify problem & motivate) was done in 2013. Practitioners’ needs were recorded, processed and analysed, which were summarized in working
reports. The current and future cooperation with Swiss and German companies (listed in “Deutscher Aktien Index” (DAX) and “Swiss Market Index” (SMI)) confirms the motivation and practical need for further research. This article is part of the second process phase (define objectives of a solution) and sheds light the scientific research gap. A practical solution was detained in a working package, which results from a focus group with the cooperative companies. The resulting Social CRM measurement model is determined by the end of 2015. Within the third phase (design & development) an explorative case study identifies new Social CRM measures. The new measures will be analyzed, categorized and results in a new Social CRM approach. Their measurement follows the three step approach (as mentioned in the introduction) according to Moore and Benbasat (1991): (1) item creation, (2) scale development, and (3) instrument testing. It is an iterative process with the phases four (demonstration) and five (evaluation). In the first step (item creation), new items will be developed for the new Social CRM measures. Secondly (scale development), a content validation confirms the reliability of the items. For example, the demonstration of the scale development will be conducted through a Q-Sorting approach with practitioners and PhD-students (Petter, Straub, and Rai, 2007). In the final step (instrument testing) the designed scale development will be demonstrated with different practitioner pilots and evaluated with a company and customer survey. The survey data will be analyzed with SmartPLS (a software program for structured equation models) according to Hair et al. (2013). The overall result of the third process phases will be a Social CRM measurement model, which is demonstrated on a prototype web application (a Social CRM management cockpit). The results will also be evaluated with additional explanatory case studies to falsify the practical need. The last process phase (communication) includes several working reports, conference papers, a journal article, and the implementation of a management cockpit with one of the cooperative companies.

5 CONCLUSIONS

The goal of this paper is to analyze the current literature for the research topic Social CRM measurement model. A systematic and rigorous literature review, according to vom Brocke et al. (2009), is conducted to derive a research gap and depicts further research project steps. Consequently, 39 relevant articles were analyzed, structured in five different categories (cf. Table 5) and synthesized within the framework of Payne and Frow (2005). The major finding reveals the lack of extant literature regarding the research topic and discloses the need for a Social CRM measurement model based on a direct holistic measurement approach.

Three apparent limitations restrict the results of the paper. First, the journals and conferences proceedings as well as the search phrases from the literature search process provide no sufficient guarantee that all relevant articles were taken into account. Secondly, the key variables are certainly not all-encompassing, even though they are derived from extant literature. Other and additional key variables lead to different articles and could influence the result. Finally, the mentioned framework (Payne and Frow, 2005) is based on CRM literature and constitutes a possibly inappropriate framework for the research topic. The development of a new Social CRM framework covers the limitations for a thoroughly rigorous literature analysis and synthesis.

REFERENCES


Öztayşi, Başar, Tolga Kaya, and Cengiz Kahraman.


