Association for Information Systems
AIS Electronic Library (AISeL)

PACIS 2015 Proceedings

Pacific Asia Conference on Information Systems (PACIS)

2015

Evaluating Social CRM Performance: An Organizational Perspective

Torben Küpper
University of St. Gallen, torben.kuepper@unisg.ch

Alexander Wieneke
University of St. Gallen, alexander.wieneke@unisg.ch

Tobias Lehmkuhl
University of St.Gallen, tobias.lehmkuhl@unisg.ch

Reinhard Jung
University of St.Gallen, reinhard.jung@unisg.ch

Follow this and additional works at: http://aisel.aisnet.org/pacis2015

EVALUATING SOCIAL CRM PERFORMANCE:
AN ORGANIZATIONAL PERSPECTIVE

Torben Küpper, Institute of Information Management, University of St.Gallen, St.Gallen, Switzerland, torben.kuepper@unisg.ch

Alexander Wieneke, Institute of Information Management, University of St.Gallen, St.Gallen, Switzerland, alexander.wieneke@unisg.ch

Tobias Lehmkuhl, Institute of Information Management, University of St.Gallen, St.Gallen, Switzerland, tobias.lehmkuhl@unisg.ch

Reinhard Jung, Institute of Information Management, University of St.Gallen, St.Gallen, Switzerland, reinhard.jung@unisg.ch

Abstract

This paper presents a formative measurement model for Social CRM performance in order to achieve and assess company objectives. The current literature for measuring Social CRM performance does not provide a holistic approach and is operationalized with reflective indicators. To address this gap, the article follows the procedure of Moore and Benbasat (1991), including the creation and assessment of new constructs with new developed and evaluated formative indicators. To evaluate the impact of single indicators on their corresponding constructs, the data is analyzed through confirmatory factor analysis using SmartPLS with a surveying sample of 126 marketing, communication and IT decision makers. The results show that the constructs of infrastructure performance, process performance, customer performance and organizational performance measure Social CRM performance. Especially the first-order constructs of indirect customer performance and department-specific processes are important aspects in this context. Generally, the developed formative indicators and new evaluated first- and second-order constructs generate deeper insights through a control system for Social CRM activities, in order to achieve organizational objectives and track them over time.

Keywords: Social CRM performance measures, Social CRM performance measurement, Social CRM measurement.

1 INTRODUCTION

Social Customer Relationship Management (Social CRM) deals with the integration of Web 2.0 and Social Media into CRM (Lehmkuhl & Jung 2013). Social CRM is a rising phenomenon, leading to a new scientific paradigm (Askool & Nakata 2011). It is defined by Greenberg (2010) as "[…] 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." Gartner has identified Social CRM as one of the top innovation-triggered themes in the next five to seven years (Alvarez 2013).

Given that Social CRM is defined as a business strategy, its implementation requires holistic "transformational efforts among all organizational parts" (Lehmkuhl & Jung 2013). Particularly, the implementation of Social CRM has the potential to provide mutually beneficial value for a company and its customers. Today, companies transform their business by applying new strategies, conducting organizational change, and purchasing new Social CRM technologies to achieve competitive business benefits (Trainor et al. 2014). Yet, companies implement Social CRM cautiously, due to the lack of Social CRM performance measurement model (Küpper et al. 2015).

A literature review focuses on the current state of knowledge for Social CRM performance measures, and reveals the lack of clearly defined and robust constructs and corresponding formative indicators (Küpper, Jung, et al. 2014). Previous work covers CRM measurement models (Kim et al. 2003; Kim & Kim 2009; Sedera & Wang 2009; Wang et al. 2009; Jain et al. 2003), conceptualize Social CRM performance (Trainor 2012; Küpper et al. 2015) or evaluate individual Social CRM performance measures, i.e. measuring with reflective indicators (Trainor et al. 2014). Given the novelty of the topic and the lack of empirical research, no article so far measures the performance of Social CRM holistically, i.e. including different dimensions (e.g., infrastructure, processes), and develops formative indicators[1]. Therefore, the objective of the article is to develop and evaluate formative indicators and corresponding constructs for a Social CRM performance measurement model. This first academic evaluation in this context yields more detailed insights into the performance measurement of an organization. The corresponding research question (RQ) is as follows:

RQ: What are the formative indicators and corresponding constructs for evaluating a formative measurement model for Social CRM performance?

To achieve the stated objective, the article follows the process of designing a measurement model proposed by Moore and Benbasat (1991). Accordingly, data from a survey sample of 126 marketing, communication and IT decision makers are analyzed through a confirmatory factor analysis, as in Diamantopoulos and Winklhofer (2001), so as to answer the RQ. The result shows that four constructs measure Social CRM performance (*infrastructure performance, process performance, customer performance and organizational performance*). The measurement of Social CRM performance constitutes a scientific as well as a practical challenge. The practical implications are given through the utilization of a control system for Social CRM activities, in order to achieve organizational objectives and track them over time. The rigorous methodology enables researchers to adopt and apply the measurement model for their own research, which constitutes a significant contribution.

The remainder of the paper is structured as follows. Section 2 presents the conceptual background of the performance measurement model. Afterwards, the research design is described. The measurement model with formative indicators is described in section 4 (results) within six sub-sections (4.1 – 4.6). Section 5 discusses the findings from the evaluation, highlights the resulting constructs and presents a

---

[1] The unique characteristic of formative indicators (in contrast to reflective indicators) is investigated, because it provides information on specific resources and "is desired as potential leverage points for managerial change" (Mathieson et al. 2001).

detailed summary of the research and practical implications. Finally, the paper concludes, covers the limitations, and outlines further research approaches.

2 CONCEPTUAL BACKGROUND

To the best of our knowledge, this article contributes the first performance measurement model for Social CRM. Concerning this aspect, the focus is on adopting topic-related performance measurement models. Given the definition of Social CRM, the obvious related context is CRM. An overview of performance measurement models in the literature is presented in Table 1.

Authors	Typ		Scope		Relationships		Background	
	Con.	Emp.	Part.	Holist.	N.-cas. Rel.	Cas. Rel.	CRM	SCRM
Kim and Kim (2009)		x		x		x	x	
Kim et al. (2003)		x	x		x		x	
Öztayşi, Sezgin et al. (2011)		x	x		x		x	
Öztayşi, Kaya et al. (2011)		x		x	x		x	
Kimiloglu and Zarali (2009)	x			x	x		x	
Llamas-Alonso et al. (2009)	x			x	x		x	
Zinnbauer and Eberl (2005)	x		x		x		x	
Shafia et al. (2011)		x		x	x		x	
Lin et al. (2006))	x			x	x		x	
Grabner-Kraeuter et al. (2007)	x			x	x		x	
Jain et al. (2003)	x		x		x		x	
Wang et al. (2009)	x			x	x		x_1	
Sedera and Wang (2009)	x			x	x		x	
Sum	8	5	4	9	12	1	13	0
This article		x		x	x			x
Con. = Conceptual; Emp. = Empirical; Part. = Partial approach; Holist. = Holistic approach; N.-cas. Rel. = Non-causal Relationships; Cas. Rel. = Causal Relationship; SCRM = Social CRM; x_1 = CRM and Supply Chain Management related								

Table 1.   Overview of performance measurement models in literature.

Kim and Kim's (2009) performance measurement model is adopted for five reasons, relating to scientific and practical aspects. First, the model was selected after a rigorous and systematic literature review of different performance measurement models, as well as performance measures for Social CRM (Küpper, Jung, et al. 2014). All results were assigned to the constructs of the revised performance measurement model. Second, it is exclusively CRM related (e.g., the developed model by Wang et al. (2009), additionally, focuses on Supply Chain Management) and covers different constructs (e.g., different dimensions of performance), which is important for developing and evaluating a holistic approach. Third, the model was published in a highly ranked journal and is widely used[2], which provides a high degree of external validity. Fourth, after two focus groups with practitioners[3], in which representatives from the companies classified Social CRM specific objectives into the different constructs of the performance measurement model, the model is very comprehensive, easy to communicate and a useful management tool. Finally, an in-depth discussion revealed metrics for each performance measure which are subsequently applied within the corresponding department so as to assess the Social CRM objectives. The corresponding performance measurement model adopts a

---

[2] It is the most cited article for the abovementioned CRM performance measurement models, according to Google Scholar in October 2014.

[3] At least two decision makers of four companies from different departments and various positions (e.g., senior social media manager, community manager) are in a focus group. Two researchers in the discipline of Social CRM guide the two-hour focus groups and encouraged to in-depth discussions.

company perspective and includes four dimensions, namely (1) infrastructure performance[4] (e.g., IS implementation and integration, as well as employee aspects), (2) process performance (e.g., market and customer segmentation), (3) customer performance (e.g., customer convenience, customer-relationship performance), and (4) organizational performance (e.g., brand awareness, financial benefits).

3 RESEARCH DESIGN

A formative measurement model is designed in a three stage approach (I. item creation, II. scale development and III. indicator testing), including six sub-stages in total, as proposed by Moore and Benbasat (1991), which is depicted in Figure 1 (cf. Walther et al., 2013). The first sub-stage "Conceptualization Content Specification" focuses on a literature review, in order to identify context-specific constructs (dimensions) and corresponding sub-dimensions. Second, based on the results, items (i.e., indicators) are deduced to operationalize the previous constructs. Third, a Q-sorting procedure assesses the "Access Content Validity" with the calculation of an inter-rater reliability index (or related indexes, e.g., Cronbach's Alpha). Within the next two sub-stages ("Pretest and Refinement" and "Field Test"), the questionnaire is tested in order to obtain some initial feedback, for instance on problematic areas (definitions, wording), length of the questionnaire etc. Especially for the unique characteristics of formative indicators and the corresponding constructs, the final sub-stage "Evaluation of Formative Measurement Model and Re-Specification" is based on the process of formative measurements from Cenfetelli and Bassellier (2009). The applied confirmatory factor analysis is designed according to Diamantopoulos and Winklhofer (2001), and focuses on a statistical evaluation of formative indicators and corresponding constructs.
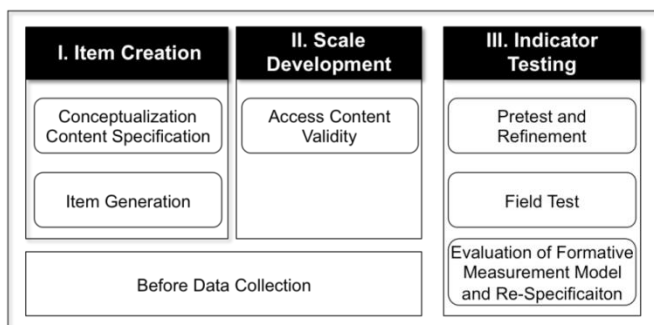

I. Item Creation	II. Scale Development	III. Indicator Testing
Conceptualization Content Specification	Access Content Validity	Pretest and Refinement
Item Generation		Field Test
Before Data Collection		Evaluation of Formative Measurement Model and Re-Specificaiton

Figure 1. *Process of designing a formative measurement model.*

4 RESULTS

4.1 Conceptualization and Content Specification

Diamantopoulos and Winklhofer (2001) explicitly mentioned the importance of appropriate content specification for the development and evaluation of formative measurement models. Content conceptualization refers to the formative constructs and is the first issue in the development process, "Because under formative measurement the latent variable is determined by its indicators rather than vice versa, content specification is inextricably linked with indicator specification" (Diamantopoulos & Winklhofer 2001). The second issue refers to the assignment of descriptions for the appropriate constructs, as an important aspect of generating and developing formative constructs. A misinterpretation of the descriptions would neglect sub-dimensions of the constructs. This leads to the

---

[4] Concerning the fact that Social CRM is supported by information technologies (e.g., Social CRM tools like Radian6, Engagor) (Küpper, Lehmkuhl, et al. 2014), the infrastructure performance dimension is indispensable for a holistic Social CRM performance measurement model.

last issue in the conceptual specification, because neglecting sub-dimensions will bias the statistical evaluation in the ongoing process of designing a measurement models (MacKenzie et al. 2005).

To deal with these three issues, a rigorous and systematic literature review was conducted according to vom Brocke et al. (2009), to (1) adopt construct (dimensions - see Section 2), (2) define corresponding descriptions in a Social CRM context, and (3) identify relevant sub-dimensions (performance measures), classifying them into the respective constructs. An analysis of the literature identifies 16 Social CRM performance measures from 37 relevant articles (Küpper, Jung, et al. 2014). Additionally, 15 semi-structured interviews validated and completed the previous findings (Küpper et al. 2015), including nine explorative new Social CRM performance measures. A subsequent classification of the Social CRM performance measures into the corresponding constructs was operationalized with PhD students and practitioners, by calculating an inter-rater reliability ratio, which ensures a high degree of external validity. To sum up, Table 2 presents the four adopted and defined constructs, as well as the completed 25 performance measures in the context of Social CRM (a detailed list with all corresponding references and examples of metrics is presented in the appendix).

Constructs (dimensions)	Descriptions	Performance Measures (sub-dimensions)	ID
Infrastructure Performance	The category describes the resources and cultural aspects of a business that are necessary to implement Social CRM.	Social Media Monitoring	IN1
		Online Brand Communities	IN2
		Cultural Readiness	IN3
		IT-Infrastructure	IN4
Process Performance	The category describes companywide and department-specific processes (i.e. activities, which uses resources, that are developed to achieving a business goal, in order to create value) of Social CRM.	Customer Insights	PR1
		Customer Orientation	PR2
		Customer Interaction	PR3
		Market and Customer Segmentation	PR4
		Customer Co-Creation	PR5
		Sensitivity	PR6
		Target-Oriented Customer Events	PR7
		Multi-Channel and Ubiquitous Interaction	PR8
		Social Selling	PR9
Customer Performance	The category describes the effects of Social CRM on customers (customer perception) and the aspects which are perceived by customers.	Customer-Based Relationship Performance	CU1
		Customer Loyalty	CU2
		Peer-to-Peer-Communication	CU3
		Customer Convenience	CU4
		Customer Competence	CU5
		Personalized Product and Services	CU6
Organizational Performance	This category describes the effects of Social CRM (i.e. infrastructure, process and customer activities) on company success and business results.	Customer Lifetime Value	OR1
		Financial Benefits	OR2
		Brand Awareness	OR3
		Business Optimization	OR4
		Competitive Advantage	OR5
		New Product Performance	OR6

Table 2.   Dimensions for the Social CRM performance measurement model (Küpper et al. 2015).

4.2   Item Generation

After conceptualizing the constructs, items (or indicators) are generated. For each identified sub-dimension, one indicator is created. The formative indicators "must cover the entire scope of the latent variable as described under the content specification" (Diamantopoulos & Winklhofer 2001). Due to the fact that this is a new research topic, all indicators are newly created to fit into the Social CRM context. In particular, the construct of infrastructure performance captured four formative indicators,

process performance nine, customer performances six, and organizational performance six. For each construct, two additional reflective indicators are generated for the ongoing process. This yields a total of 33 indicators (25 formative and 8 reflective indicators).

4.3 Assessing Content Validity

"Content validity assesses whether the researcher has chosen measures that appropriately capture the full domain of the construct" (Petter et al. 2007). This present study therefore follows Petter et al. (2007), who stated that content validity for reflective indicators does not have strong validatory power, but is essential for using formative indicators and corresponding constructs. Therefore, the Q-sorting procedure, which is "one of the best methods to assess content validity" (Petter et al. 2007), focuses only on the 25 considered formative indicators. In sequentially independent rounds, a master student, two PhD students in the discipline of IS and one practitioner from the corresponding operative departments classified the indicators according to the constructs. Participants are encouraged to carefully read the definitions of the constructs, and then classify the formative indicators within the appropriate construct. After each round, inter-rater reliability, following Perreault and Leigh's formula (1989), raw agreement and a placement ratio are calculated in order to identify problem areas (e.g., in the definitions, wording). Compared to other inter-rater reliability indexes (e.g., Cohen's kappa), Perreault and Leigh have established that their index "… will usually be a more appropriate measure of reliability" (Perreault & Leigh 1989). The content validation stops when all ratios fall within the generally accepted range of 0.8 – 1.0. After each round, the problems are eradicated, and the indicators are re-written or even totally re-defined to improve understandability. Discrepancies are always reviewed, discussed and clarified with an independent focus group of researchers and one professor. In the first round, the participants reached an average inter-rater reliability of 0.66, and a raw agreement average of 0.56 and the three of four placement ratios were below 0.8. After re-writing some indicators, the second round was conducted with four new participants in the same manner. The calculated average inter-rater reliability was 0.72, the raw agreement average was calculated at 0.74 and two of four placement ratios were below 0.8. After additional enhancements in wordings, the four new participants achieved an average inter-rater reliability 0.85, the raw agreement average was 0.88 and all placement ratios were clearly above the threshold of 0.8. Table 3 provides an overview of the Q-sorting results.

Inter-rater Reliability				Raw Agreement				Placement Ratio			
Judges	R. 1	R. 2	R. 3	Judges	R. 1	R. 2	R. 3	Constructs	R. 1	R. 2	R. 3
A+B	0.60	0.69	0.89	A+B	0.52	0.76	0.88	Infrastructure Performance	0.38	0.69	0.81
A+C	0.64	0.60	0.89	A+C	0.54	0.72	0.86				
A+D	0.68	0.76	0.82	A+D	0.58	0.72	0.86	Process Performance	0.33	0.58	0.81
B+C	0.72	0.76	0.89	B+C	0.54	0.76	0.90				
B+D	0.68	0.72	0.82	B+D	0.58	0.76	0.90	Customer Performance	0.67	0.88	0.96
C+D	0.64	0.76	0.79	C+D	0.60	0.72	0.88				
Average	**0.66**	**0.72**	**0.85**	**Average**	**0.56**	**0.74**	**0.88**	Org. Performance	0.92	0.88	0.96

Table 3.   Results of the Q-sorting procedure.

4.4 Pre-test, Refinement and Field Test

The pre-test is the initial step in launching the final survey. The questionnaire was distributed online to PhD students and four selected practitioners in the appropriate Social CRM context. After some cuts to the introduction, the practitioners stated that screen-out questions are required. There are questions which ensure that only suitable people complete the questionnaire. Therefore, two initial questions were generated. First, "Does your company use Social Media?" and second, "Do you work in a related department or have a decision function enabling you to answer questions about Social CRM performance?" If participants answered one of these questions with "no", they were excluded from the

online survey. Despite the subsequently lower number of participants, the screen-out questions ensured a high degree of validity and increased the quality of the data.

Subsequently, a field test, with n=10 completes, was conducted in order to check technical aspects and calculate the time that practitioners need to fill out the questionnaire. No technical complaints or issues with the length of the questionnaire arise, so that the final survey was launched. The indicators were measured using a 7-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7). The final questionnaire was only available online and distributed over several Social Media channels (e.g., Xing, LinkedIn, Twitter), focusing on marketing, communication and IT decision makers. After three months, a total of n=126 responds was captured and served as the basis for further analysis. Due to the distribution via Social Media channels, no response rate could be calculated. Table 4 presents an overview of the sample characteristics for the industry sector, position and number of employees within the company.

Industry	Percent	# of Employees	Percent	Position in Company	Percent
Manufacturing & Utility	30%	< 10	15%	Executives	30%
Others	18%	10 – 49	17%	Team Manager	20%
Information & Communication	16%	50 – 499	28%	Specialized Manager	18%
Finance & Insurance	15 %	500 – 999	10%	Department Manager	15%
Public Administration & Logistics	11%	1000 – 5000	17%	Division Manager	14%
Health Industry	10%	> 5000	13%	Others	3%

Table 4.   Overview of the sample characteristics.

4.5   Evaluation of Formative Measurement Model

Reflective indicators		AVE	Com. R.	Load.	p-val.
Infrastructure performance		0.896	0.945		
IN5**	In general, sufficient resources are available and cultural aspects within the company are established.			0.943	< 0.01
IN6**	All in all, resources are available and cultural aspects disseminated throughout the company.			0.950	< 0.01
Process performance		0.916	0.956		
PR10**	In general, the processes and activities in the company are improved through Social CRM.			0.957	< 0.01
PR11**	All in all, the improvement of business processes and activities is substantial.			0.957	< 0.01
Customer performance		0.923	0.960		
CU7**	Generally, Social CRM activities influence customer perceptions.			0.960	< 0.01
CU8**	All in all, customer perceptions are influenced substantially due to Social CRM activities.			0.961	< 0.01
Organizational performance		0.922	0.959		
OR7**	Generally, Social CRM activities increase business results.			0.958	< 0.01
OR8**	All in all, the profitability of the Social CRM activities enhancing results is high.			0.962	< 0.01
AVE = Average Variance Extracted; Com. R. = Composite Reliability; Load. = Loadings; p-val. = p-value; ** p-value < 0.05; * p-value < 0.10					

Table 5.   Test statistics for the reflective measurement model.

In order to develop and evaluate the formative Social CRM performance measurement model, the process from Cenfetelli and Bassellier (2009) is applied, which contains a confirmatory factor analysis, according to Diamantopoulos and Winklhofer (2001), as mentioned above. Using the PLS (partial least square) method to analyze the data, SmartPLS (Ringle et al. 2005) and SPSS 21 are the appropriate tools (Hair et al. 2013). For assessing the quality of a newly introduced formative

measurement model, the development process of formatively measured indicators and corresponding constructs follows the five steps recommended by Cenfetelli and Bassellier (2009), namely (1) multicollinearity testing, (2) the effect of the number of indicators and non-significant weights, (3) co-occurrence of negative and positive indicator weights, (4) absolute versus relative indicator contributions and (5) nomological network effects (Cenfetelli & Bassellier 2009). Particularly in order to rigorously follow the five-step process, each of the four constructs is modeled as an exogenous latent variable with formative indicators, and as an endogenous latent variable with reflective indicators. According to Söllner et al. (2012), "the reflective measurement serves as a benchmark for assessing the quality of the formative measurement model."

Concerning the benchmark measures, the quality assessment of the reflective measurement model is the initial approach for the ongoing process. The average variance extracted (AVE), composite reliability value and indicator loading with the respective p-values constitute the quality criteria (Chin 1998). Due to the four separated reflective constructs, no cross-loadings or co-linearity test have to be considered. Table 5 presents an overview of the calculated values. All recommended thresholds from Söllner et al. (2012) are exceeded. The evaluation of the AVEs (0.896, 0.916, 0.923, and 0.922) are higher than 0.5, composite reliability values are above the threshold of 0.6, and all indicator loadings yield results above 0.7 and are highly significant with a p-value lower than 0.01. To conclude, the reflective measurement model is appropriate as a benchmark for evaluating the formative measurement model.

After the fulfillment of quality criteria for the reflective measurement model, the focus is on evaluating the formative measurement model, concerning the abovementioned five-step process. Table 6 provides an overview of the test statistics. For the first step (multicollinearity testing), the variance inflation factors (VIFs) are calculated using SPSS 21. All VIFs are below the maximum threshold of 5.0, recommended by Hair et al. (2011) and Walther et al. (2013). The results reveal that multicollinearity is not an issue in this study. Steps two to five are based on calculated values and test statistics using SmartPLS with parameter settings of 120 cases and 1000 samples. The second step (the effect of the number of indicators and non-significant weights) deals with the problem that a large number of indicators cause non-significant weights, which is the case for all performance constructs. Therefore, the weights of all formative indicators and corresponding p-values are reported. The results show that 11 out of 25 indicators weights are non-significant. Cenfetelli and Bassellier (2009) also state that this should not be misinterpreted concerning irrelevance of the indicators. The only interpretation of this issue is that indicators have a lower influence than others. In order to gain a deeper understanding, this study continues with step three (co-occurrence of negative and positive indicators weights). Four formative indicators have negative weights. This occurs when a single indicator correlates more with another indicator than with the corresponding construct. Before a decision is made to drop indicators or re-specify constructs, step four (absolute versus relative indicator contributions) needs to be conducted by reporting the respective loadings. The loadings indicate that an "indicator could have only a small formative impact on the construct (shown by a low weight), but it still could be an important part of the construct (shown by a high loading)" (Söllner et al. 2012). Concerning the information from steps two to four, the issue of non-significant weights and low loadings can be resolved by dropping indicators or re-specifying constructs, i.e. grouping indicators into more constructs (first-order constructs) and conceptualizing the theoretically-based construct as a second-order construct (see Section 4.6). To complete the process, the final step (nomological network effects) can be proceed by conducting a redundancy analysis (Mathieson et al. 2001; Chin 1998). This redundancy analysis compares the formative construct with the reflective constructs, explaining by the corresponding path coefficient, in order to assess the validity of the formative construct. Due to the fact of having four constructs, four redundancy analyses have to be considered, resulting in values of 0.828 for infrastructure performance, 0.896 for process performance, 0.987 for customer performance, and 0.884 for organizational performance. All results are above the recommended threshold of 0.8 (Chin 1998) and are highly significant with a p-value lower than 0.01 (the results of the redundancy analysis are not presented in Table 6). To conclude, all formative constructs have some issues with step two (non-significant weights), step three (negative weights) and

step four (low loadings). In order to finalize the formative measurement model for Social CRM performance, a re-specification is needed and is presented in the subsequent paragraph.

Formative Indicators		VIF	Weights	p-val.	Load.
Within the context of Social CRM, the company …					
Infrastructure performance					
IN1	monitors Social Media data through IT-Systems.	1.10	0.03	0.36	0.39
IN2**	provides an online brand community to interact with customers e.g., about service or product-related content.	1.29	0.20	0.027	0.61
IN3**	integrates Social CRM into the company culture.	1.38	0.53	< 0.01	0.85
IN4**	has established a good infrastructure (e.g., IT resources).	1.58	0.48	< 0.01	0.86
Process performance					
PR1	improves the level of knowledge about a customer through new customer insights.	4.01	-0.04	0.36	0.80
PR2	improves organizational processes and activities so that they are more customer oriented.	4.93	0.13	0.19	0.85
PR3	enhances the effectiveness of company-initiated interactions with customers.	4.58	-0.07	0.31	0.84
PR4**	enables a more efficient segmentation (e.g., market and customer segmentation).	3.25	0.23	0.04	0.86
PR5**	improves the involvement of customers as co-creators (e.g., in the innovation process).	2.98	0.19	0.04	0.82
PR6	deliberates on and acts cautiously with the use of customer data (e.g., to respect customer privacy).	1.86	0.07	0.19	0.67
PR7	improves the efficient and effective arrangement of target-oriented customer events.	3.17	0.13	0.14	0.79
PR8**	improves ubiquitous communication between the customers and the company.	2.65	0.27	0.03	0.86
PR9**	supports sales activities by other users.	2.98	0.28	< 0.01	0.90
Customer performances					
CU1**	enhances the perceived relationship quality of customers with the company.	3.12	0.28	0.02	0.90
CU2**	increases customer interest in company products, services and/or company activities.	3.18	0.36	0.01	0.91
CU3**	enhances and simplifies the exchange of information between consumers.	2.27	0.23	0.03	0.80
CU4*	improves customer access to a variety of support options for interacting with the company.	3.05	0.27	0.05	0.89
CU5	increases the potential to influence company activities.	1.84	0.02	0.42	0.68
CU6	improves personalized and customer-oriented products and services.	2.30	-0.02	0.42	0.73
Organizational performance					
OR1	increases customer value over the relationship lifespan.	3.41	0.11	0.17	0.86
OR2**	increases the company's profit and/or decreases costs.	3.11	0.32	0.01	0.90
OR3	increases brand awareness and brand recognition, e.g., by means of customer recommendations.	2.29	-0.03	0.36	0.71
OR4**	increases the efficiency and effectiveness of business activities (e.g. increases the efficiency of supply chain management).	2.36	0.38	< 0.01	0.89
OR5**	secures a competitive advantage.	3.06	0.27	0.01	0.86
OR6	increases the success of newly introduced or developed products and services.	2.21	0.06	0.31	0.81
VIF = variance inflation factor; Load. = Loadings; p-val. = p-value; **p-value < 0.05; *p-value < 0.10					

Table 6.   *Test statistics for the formative measurement model.*

4.6   Re-Specification and Final Measurement Model
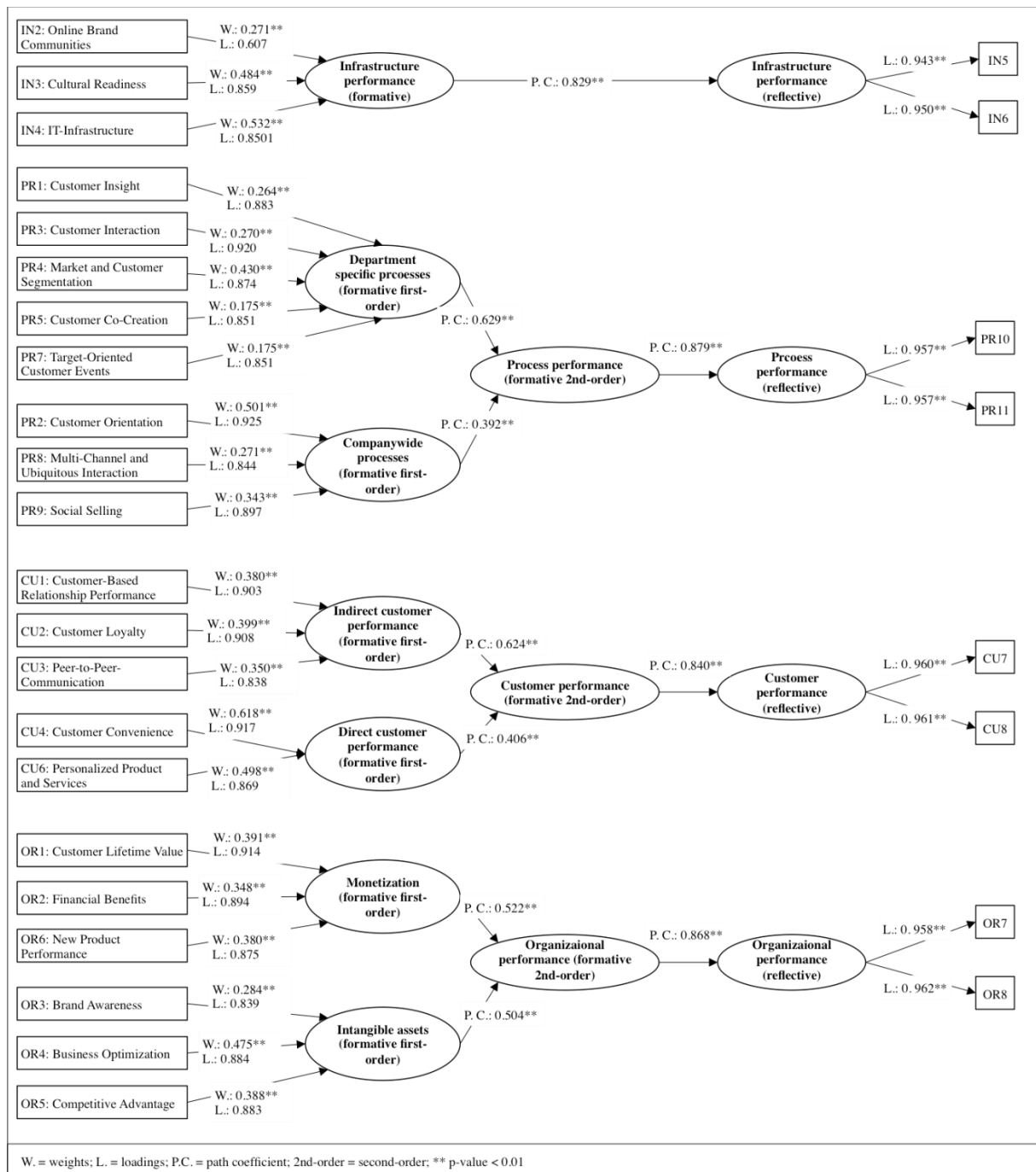

Figure 2.   Formative Social CRM performance measurement model.

For a final evaluation, all formative indicators and the corresponding constructs are re-specified and the test statistics newly calculated. The study follows an additional two-step approach, (1) dropping uncertain indicators and (2) generating new first-order constructs (Hair et al. 2013; Hair et al. 2011; Cenfetelli & Bassellier 2009). First, indicators are dropped if the loadings are lower than 0.7 and the weights are non-significant. In total, three indicators are dropped instantly before a new measurement model is calculated, named, IN1, PR6 and CU5. Indicators with negative weights and/or non-significant weights, but loadings greater than 0.7, are retained. Second, for process performance, customer performance and organizational process, new and more meaningful first-order constructs are

generated. The remaining indicators for infrastructure performance reveal significant weights and high loadings, so that no new constructs are created. Process performance is split into two categories (first-order constructs), *department-specific processes* and *companywide processes*. *Department-specific processes* capture performance measures, which are related to different departments (e.g., market and customer segmentation is related to the marketing department; customer co-creation is related to the business or product innovation department etc.) (Ernst et al. 2011). *Companywide processes* represent performance measures, which support processes across departments of a company (Peltier et al. 2013). Customer performance is re-modeled with *indirect customer performance* and *direct customer performance*. A company can capture benefits from customers without being actively involved (*indirect customer performance*) (Rapp et al. 2010; Chuang & Lin 2013). In contrast, for direct customer performance, a company needs, for instance, to offer a product to a customer (e.g., personalized product and services) (Dutu & Hălmăjan 2011). Finally, organizational performance is also split into two categorize. The *monetization* first-order constructs represent performance measure that indicates a metric, in order to enhance profitability (e.g., return on investment for financial benefits) (Keramati et al. 2010; Reinartz et al. 2004). The *intangible assets* capture performance measures, which increase company value (e.g., brand awareness) (Mumuni & O'Reilly 2014). SmartPLS is applied using the same parameter settings as in the previous sub-section. The final formative Social CRM performance measurement model is presented in Figure 2.

5 DISCUSSION

The study makes several important contributions by presenting an empirically validated performance measurement model for Social CRM. The four adopted formative constructs (infrastructure performance, process performance, customer performance and organizational performance) are well-suited to the Social CRM context. According to Keramati et al. 2010, infrastructure performance is a robust construct, i.e. no additional first-order constructs are generated (only one indicator is dropped), with the completeness of cultural readiness having the highest impact. *Department-specific processes* have a higher impact on process performance than *companywide processes*. Due to the maturity of implementation within the company, this result is not surprising. As the interviews with practitioners show, companies are starting to implement Social CRM in a testable and manageable setting, i.e. by creating a Social CRM campaign, with a single department (e.g., marketing, service/support department). An implementation across departments, which completes the *companywide aspect*, needs other supporting factors, e.g., c-level management support (Becker et al. 2009). It is evident that in this cross-section analysis, the companies are in both early adopting as well as growth phases in terms of implementing Social CRM within the company. The same reasons highlight the greater impact for *indirect customer performance* (Chuang & Lin 2013) than *direct customer performance*. For *direct customer performance*, a company, for example, has to involve the business innovation department (for personalized products and services) as well as implement a number of customer touch points (for customer convenience). In consequences of the derived company phases of implementing Social CRM, *indirect customer performance* requires less money and resources (e.g., full time equivalents, which analyze and then offer personalized products and services). For organizational performance, *monetization* and *intangible assets* have almost the same impact values. This result confirms previous discussion in the academic literature, which argues that *intangible assets* are as important as tangible assets (here: monetization) (Kim et al. 2003; Kim & Kim 2009; Kaplan & Norton 1996).

The highly significant path coefficients indicate a very robust informative value of the evaluated formative indicators and corresponding constructs, which suggests well-suited performance measurement model for Social CRM. Generating the formative indicators and corresponding constructs yields some initial empirical insights into the predefined conceptual research topic and confirms the originality of this study.

The study has various implications for the scientific community. Firstly, the resulting measurement model facilitates the use of new indicators and corresponding constructs for measuring Social CRM performance. Secondly, the rigorous nature of the study enables researchers to adopt and apply the

measurement model for their own research. Finally, the holistic approach, including different dimensions of performance, generates deeper insights into Social CRM performance within a company and guides future research activities (e.g., empirical evaluation of relationships between the constructs).

Several practical implications emerge from the argumentations in previously discussed performance measurement models in the literature (e.g., Kim and Kim, 2009; Sedera et al., 2009; Wang et al., 2009) as well as from the semi-structured interviews with four stock listed companies. Accordingly, four practical implications, in particular, can be stated. First, the model facilitates a control system for Social CRM activities, e.g., an appraisal of social campaigns, considering various aspects of effective or ineffective campaigns. Second, it enables the justification of current and future Social CRM engagements in a company, e.g., spending money on new investments, like Social CRM tools across departments or sponsoring expert bloggers. Third, the operational measurement enables new benchmark systems to compare their Social CRM efforts with competitors, e.g., in a consortium of different industry organizations, companies can identify the leader and learn from best practice. Finally, companies can detect clearly defined objectives, e.g., 10 percent more customer interaction on social media. Therefore, a Social CRM performance measurement model does help indeed to achieve organizational objectives and track them over time.

6 CONCLUSION, LIMITATIONS AND FURTHER RESEARCH

The study develops and evaluates formative indicators and corresponding constructs for a Social CRM performance measurement model. The research approach is quantitative in nature, and rigorously follows the research procedure of Moore and Benbasat (1991) and particularly the process from Cenfetelli and Bassellier (2009). Accordingly, a sample of n=126 responses is investigated and analyzed, surveying marketing, communication and IT decision makers. In order to answer the research question, the study highlights three major contributions. First, the formative constructs of infrastructure performance, process performance, customer performance and organizational performance measure the holistic approach of Social CRM performance. Second, the evaluated formative indicators fit the corresponding constructs and especially the newly created first-order constructs of *indirect customer performance* and *department specific processes* are the most important aspects in this context. Finally, the first-order constructs generate deeper insights into the performance measurement of an organization, i.e., the investigated companies are both early adopters as well as growth phase implementers of Social CRM.

Three potential limitations constrain the results of this research. Firstly, despite the highly significant values of the re-specified results (i.e., the statistical test values), there may be missing formative indicators which should be included in the model. Secondly, due to the fact that the study is the first evaluated performance measurement model for Social CRM, conducting a transferability test is not possible (Cenfetelli & Bassellier 2009). "Future research should embed the model in different structural models to test for construct portability and generalizability" (Söllner et al. 2012). Finally, the study does not control the maturity level of the companies, which could influence the results.

One promising approach for further research is an extension of the Social CRM performance measurement model based on the derived results. An empirical cross-case analysis for different maturity levels could be investigated, e.g., a performance measurement model in an early adoption phase, compared with the same model in a growth or final implementation phase. Second, hypotheses on the interrelationship between the four constructs derived from the literature, can be tested with statistical methods. In particular, the coefficients of the corresponding influence constructs could be estimated by conducting a structural equation model with a PLS method (Hair et al. 2013), in order to support or reject the hypotheses. Finally, beyond the focus of performance measurement, the impact of Social CRM implementations on performance can be tested statistically. For example, the impact of Social CRM capabilities on performance (e.g., in the CRM context see Rapp et al., 2010), or the impact of Social CRM technology use on performance (e.g., in the CRM context, see Zablah et al.,

2012). Therefore, the rigorous and systematically derived results presented in the article form a sound basis for further research projects.

Appendix

Constructs	Performance Measures	Examples of references	Examples of metrics
Infrastructure Performance	Social Media Monitoring	Woodcock, Broomfield, et al. 2011; Alt & Reinhold 2012	# of Social CRM supporting tools (customer opinions, trend and sentiment analysis etc.)
	Online Brand Communities	Greenberg 2010; Reinhold & Alt 2013	Quality of engagement level within the online brand community (# of super user etc.)
	Cultural Readiness	Findings from interviews*	Skills assessment (Social Media proficiency), # of employees trained in Web 2.0 principles
	IT-Infrastructure	Findings from interviews*	% of IT sufficiency, information-level ratio
Process Performance	Customer Insights	Chen et al. 2009; Woodcock, Broomfield, et al. 2011	# of social customer information per customer, social customer knowledge creation
	Customer Orientation	Trainor 2012; Rapp et al. 2010	# of customer-centric processes, # of customer oriented activities (e.g., customers campaigns)
	Customer Interaction	Palmatier et al. 2006; Ernst et al. 2011	# of solved problems per announced problem, time-to-solution ratio, time-to-response ratio
	Market and Cust. Segmentation	Becker et al. 2009; Dutu & Hălmăjan 2011	# of new identified customer 's and market's segments through social media
	Customer Co-Creation	Nguyen & Mutum 2012; Nadeem 2012; Trainor 2012	# of received product or service ideas, # of ideas to gain the efficiency of the co-creation process
	Sensitivity	Findings from interviews*	# of posts with data policy compliance
	Target-Oriented Customer Events	Findings from interviews*	# of events triggered by social media data, positives posts per event/all posts about the event
	Multi-Channel and Ubiquit. Int.	Findings from interviews*	Distribution of interaction across social media, interaction through social media/call interaction
	Social Selling	Findings from interviews*	# of sales activities triggered by campaigns
Customer Performance	Customer-Based Rel. Performance	Zablah et al. 2012; Trainor 2012; Rapp et al. 2010	Score on customers satisfaction (survey), # of posts, comments with a positive sentiment
	Customer Loyalty	Chen et al. 2009; Öztayşi, Kaya, et al. 2011	Net promoter score (NPS), word-of-mouth equity, Score of loyalty (survey)
	Peer-to-Peer-Communication	Trainor et al. 2014; Woodcock, Green, et al. 2011	Quantity/frequency of posts, amount of UGC, impressions-to-interactions ratio
	Customer Convenience	Findings from interviews*	# of social media platforms to interact with the company, score of convenience ratio (survey)
	Customer Competence	Findings from interviews*	# of activities triggered by customers, # of opinion leader on social media
	Personal. Product and Services	Findings from interviews*	Personalized product quality, level of individual service quality
Organizational Performance	Customer Lifetime Value	Borle et al. 2008; Weinberg & Pehlivan 2011	Customer social media value, connected customer lifetime value
	Financial Benefits	Zablah et al. 2012; Rapp et al. 2010; Öztayşi et al. 2011	Revenue of sold products or services via social media (tracked by first contact via social media),
	Brand Awareness	Dutot 2013	Likes on social media, brand perceptions
	Business Optimization	Trainor 2012; Öztayşi et al. 2011	# of successful process changes, successful implemented Social CRM strategy, governance
	Comp. Advent.	Trainor 2012; Rapp et al. 2010	Score of benchmark system (survey)
	New Product Performance	Trainor 2012; Ernst et al. 2011	# of innovative products, successful realized product releases or service ideas
* For details see Küpper et al. (2015).			

Table 7.   Conceptual Social CRM performance measurement model.

References

Alt, R. and Reinhold, O. (2012). Social Customer Relationship Management (Social CRM) - Application and Technology. Business & Information Systems Engineering, 54(5), 287–291.

Alvarez, G., 2013. Hype Cycle for E-Commerce 2013, Gartner, Inc.

Askool, S. and Nakata, K. (2011). A conceptual model for acceptance of social CRM systems based on a scoping study. AI & SOCIETY, 26(3), 205–220.

Becker, J.U., Greve, G. and Albers, S. (2009). The impact of technological and organizational implementation of CRM on customer acquisition, maintenance, and retention. International Journal of Research in Marketing, 26(3), 207–215.

Borle, S., Singh, S.S. and Jain, D.C. (2008). Customer Lifetime Value Measurement. Management Science, 54(1), 100–112.

Vom Brocke, J., Simons, A., Niehaves, B., Riemer, K., Plattfaut, R. and Cleven, A. (2009). Reconstructing the Giant: On the Importance of Rigour in Documenting the Literature Search Process. In Proceedings of the 17th European Conference on Information Systems. Verona, Italy, 3226–3238.

Cenfetelli, R.T. and Bassellier, G. (2009). Interpretation of Formative Measurement in Information Systems Research. MIS Quarterly, 33(4), 689–707.

Chen, J.J.-S. Yen, J.R., Li, E. and Ching, R.K.H. (2009). Measuring CRM effectiveness: Construct development, validation and application of a process-oriented model. Total Quality Management, 20(3), 283–299.

Chin, W.W. (1998). The Partial Least Squares Approach to Structural Equation Modeling. In G. A. Macoulides, ed. Modern Methods for Business Research. Mahwah, New Jersey: Lawrence Erlbaum Associates, 295–336.

Chuang, S.-H. and Lin, H.-N. (2013). The roles of infrastructure capability and customer orientation in enhancing customer-information quality in CRM systems: Empirical evidence from Taiwan. International Journal of Information Management, 33(2), 271–281.

Diamantopoulos, A. and Winklhofer, H.M. (2001). Index Construction with Formative Indicators: An Alternative to Scale Development. Journal of Marketing Research, 38(2), 269–277.

Dutot, V. (2013). A New Strategy for Customer Engagement: How Do French Firms Use Social CRM? International Business Research, 6(9), 54–67.

Dutu, C. and Hălmăjan, H. (2011). The Effect of Organizational Readiness on CRM and Business Performance. International Journal of Computers, 5(1), 106–114.

Ernst, H., Hoyer, W.D., Krafft, M. and Krieger, K. (2011). Customer relationship management and company performance—the mediating role of new product performance. Journal of the Academy of Marketing Science, 39(2), 290–306.

Grabner-Kraeuter, S. and Mödritscher, G. (2007). Performance Monitoring of CRM Initiatives. In 40th Annual Hawaii International Conference on System Sciences. Waikoloa, Hawaii, 150–160.

Greenberg, P. (2010). The impact of CRM 2.0 on customer insight. Journal of Business & Industrial Marketing, 25(6), 410–419.

Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2013).A Primer on Partial Least Squares Strucutral Equation Modeling PLS-SEM, Thousand Oaks: Sage Publications.

Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. The Journal of Marketing Theory and Practice, 19(2), 139–152.

Jain, R., Jain, S. and Dhar, U. (2003). Measuring Customer Relationship Management. Journal of Services Research, 2(2), 97–109.

Kaplan, R.S. and Norton, D.P. (1996). Using the Balanced Management System. Harvard Business Review, 75–86.

Keramati, A., Mehrabi, H. and Mojir, N. (2010). A process-oriented perspective on customer relationship management and organizational performance: An empirical investigation. Industrial Marketing Management, 39(7), 1170–1185.

Kim, H.-S. and Kim, Y.-G. (2009). A CRM performance measurement framework: Its development process and application. Industrial Marketing Management, 38(4), 477–489.

Kim, J., Suh, E. and Hwang, H. (2003). A model for evaluating the effectiveness of CRM using the balanced scorecard. Journal of Interactive Marketing, 17(2), 5–19.

Kimiloglu, H. and Zarali, H. (2009). What signifies success in e-CRM? Marketing Intelligence & Planning, 27(2), 246–267.

Küpper, T., Lehmkuhl, T., Jung, R. and Wieneke, A. (2014). Features for Social CRM Technology - An Organizational Perspective. In Proceedings of the 20th Americas Conference on Information Systems. Savannah, USA, 1–10.

Küpper, T. Wieneke, A., Lehmkuhl, T., Jung, R., Walther, S. and Eymann, T. (2015). Measuring Social CRM Performance: A Preliminary Measurement Model. In Proceedings of the 12th International Conference on Wirtschaftsinformatik. Osnabück, Deutschland, 887–901.

Küpper, T., Jung, R., Lehmkuhl, T., Walther, S. and Wieneke, A. (2014). Performance Measures for Social CRM: A Literature Review. In Proceedings of the 27th Bled eConference. Bled, Slovenia, 125–139.

Lehmkuhl, T. and Jung, R. (2013). Towards Social CRM – Scoping the concept and guiding research. In Proceedings of the 26th Bled eConference. Bled, Slovenia, 190–205.

Lin, C., Lin, K., Huang, Y.-A. and Kuo, W.-L. (2006). Evaluation of Electronic Customer Relationship Management: The Critical Success Factors. The Business Review, Cambridge, 6(2), 206–212.

Llamas-Alonso, M.R. Jiménez-Zarco, A.I., Martínez-Ruiz, M.P. and Dawson, J. (2009). Designing a Predictive Performance Measurement and Control System to Maximize Customer Relationship Management Success. Journal of Marketing Channels, 16(1), 1–41.

MacKenzie, S.B., Podsakoff, P.M. and Jarvis, C.B. (2005). The problem of measurement model misspecification in behavioral and organizational research and some recommended solutions. The Journal of Applied Psychology, 90(4), 710–730.

Mathieson, K., Peacock, E. and Chin, W.W. (2001). Extending the Technology Acceptance Model: The Influence of Perceived User Resources. Data Base for Advances in Information Systems, 32(3), 86–112.

Moore, G.C. and Benbasat, I. (1991). Development of an Instrument to Measure the Perceptions of Adopting an Information Technology Innovation. Information Systems Research, 2(3), 192–222.

Mumuni, A.G. and O'Reilly, K. (2014). Examining the Impact of Customer Relationship Management on Deconstructed Measures of Firm Performance. Journal of Relationship Marketing, 13(2), 89–107.

Nadeem, M. (2012). Social Customer Relationship Management (SCRM): How Connecting Social Analytics to Business Analytics Enhances Customer Care and Loyalty? International Journal of Business and Social Science, 3(21), 88–102.

Nguyen, B. and Mutum, D.S. (2012). A review of customer relationship management: successes, advances, pitfalls and futures. Business Process Management Journal, 18(3), 400–419.

Öztayşi, B., Kaya, T. and Kahraman, C. (2011). Performance comparison based on customer relationship management using analytic network process. Expert Systems with Applications, 38(8), 9788–9798.

Öztayşi, B., Sezgin, S. and Özok, A.F. (2011). A measurement tool for customer relationship management processes. Industrial Management & Data Systems, 111(6), 943–960.

Palmatier, R.W., Dant, R.P., Grewal, D. and Evans, K.R. (2006). Factors Influencing the Effectiveness of Relationship Marketing: A Meta-Analysis. Journal of Marketing, 70(4), 136–153.

Peltier, J.W., Zahay, D. and Lehmann, D.R. (2013). Organizational Learning and CRM Success: A Model for Linking Organizational Practices, Customer Data Quality, and Performance. Journal of Interactive Marketing, 27(1), 1–13.

Perreault, W.D.J. and Leigh, L.E. (1989). Reliability of nominal data based on qualitative judgments. Journal of Marketing Research, 26(2), 135–148.

Petter, S., Straub, D. and Rai, A. (2007). Specifying Formative Constructs in Information Systems Research. MIS Quarterly, 31(4), 623–656.

Rapp, A., Trainor, K.J. and Agnihotri, R. (2010). Performance implications of customer-linking capabilities: Examining the complementary role of customer orientation and CRM technology. Journal of Business Research, 63(11), 1229–1236.

Reinartz, W., Krafft, M. and Hoyer, W.D. (2004). The Customer Relationship Management Process: Its Measurement and Impact on Performance. Journal of Marketing Research, 41(8), 293–305.

Reinhold, O. and Alt, R. (2013). How Companies are Implementing Social Customer Relationship Management: Insights From Two Case Studies. In Proceedings of the 26th Bled eConference. Bled, Slovenia, 206–221.

Ringle, C.M., Wende, S. and Will, A. (2005). Smartpls 2.0, Hamburg.

Sedera, D. and Wang, W. (2009). Towards a CRM and SCM Benefits Measurement Model. In Proceedings of the International Conference on Information Systems. Phoenix, USA, 1–12.

Shafia, M.A. Mazdeh, M.M., Vahedi, M. and Pournader M. (2011). Applying fuzzy balanced scorecard for evaluating the CRM performance. Industrial Management & Data Systems, 111(7), 1105–1135.

Söllner, M., Hoffmann, A., Hoffmann, H., Wacker, A. and Leimeister, J.M. (2012). Understanding the Formation of Trust in IT Artefacts. In Proceedings of the 33rd International Conference on Information Systems. Orlando, USA, 1–18.

Trainor, K.J. (2012). Relating Social Media Technologies to Performance: A Capabilities-Based Perspective. Journal of Personal Selling and Sales Management, 32(3), 317–331.

Trainor, K. J. Andzulis, J., Rapp, A. and Agnihotri, R. (2014). Social media technology usage and customer relationship performance: A capabilities-based examination of social CRM. Journal of Business Research, 67(6), 1201–1208.

Walther, S., Sedera, D., Sarker, S. and Eymann, T. (2013). Evaluating Operational Cloud Enterprise Systems Success: An Organizational Perspective. In Proceedings of the 21st European Conference on Information Systems. Utrecht, Netherlands, 1–12.

Wang, W., Sedera, D. and Tan, F. (2009). Measuring CRM and SCM Benefits: A Preliminary Measurement Model. In Proceedings of the 13th Pacific Asia Conference on Information Systems. Hyderabad, India, 1–12.

Weinberg, B.D. and Pehlivan, E. (2011). Social spending: Managing the social media mix. Business Horizons, 54(3), 275–282.

Woodcock, N., Broomfield, N., Downer, G. and Starkey, M. (2011). The evolving data architecture of social customer relationship management. Journal of Direct, Data and Digital Marketing Practice, 12(3), 249–266.

Woodcock, N., Green, A. and Starkey, M. (2011). Social CRM as a business strategy. Journal of Database Marketing & Customer Strategy Management, 18(1), 50–64.

Zablah, A.R., Bellenger, D.N., Straub, D. and Johnston, W.J. (2012). Performance Implications of CRM Technology Use: A Multilevel Field Study of Business Customers and Their Providers in the Telecommunications Industry. Information Systems Research, 23(2), 418–435.

Zinnbauer, M.A. and Eberl, M. (2005). Measuring Customer Relationship Management Performance: A Consumer-Centric Approach. Journal of Marketing Channels, 12(3), 79–104.