Strengthening Customer Relationship in the Social Media Era: The Importance of Customer Relationship Orientation and Customer Knowledge Management

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Abstract
Social media enable firms to better involve customers in co-creation and innovation processes, and to improve customer knowledge management to achieve greater performance. The study analyzes the net effect of customer relationship orientation through customer collaboration and customer role in innovation on customer knowledge management and on customer relationship performance, as outcomes, in the social media context. In order to empirically investigate the proposed research model, data collected from an online survey administered to 418 managers are processed with structural equation modeling. Findings suggest some detailed insights about the importance of engaging customers in value co-creation and innovation processes in order to gain a competitive advantage. Results contribute to both the theoretical and practical knowledge addressing the call for further research useful to improve the current understanding of the impact of customer relationship orientation on firm performance and highlighting the role played by social media in collecting customer-related knowledge.

Keywords: Customer relationship orientation; Customer collaboration; Innovation; Customer Knowledge Management; Customer Relationship Performance; Social Media; SEM

1 Introduction
The advent of social media has enabled firms to better communicate with their customers (Nguyen, Yu, Melewar, & Chen, 2015), to create strength relationships, to acquire and share knowledge (Chua & Banerjee, 2013), and to engage with them (Sashi, 2012) also in co-creation and innovation processes (Krishen, Berezan, Agarwal, & Kachroo, 2016). In particular, using social media for acquiring and managing customer knowledge represents a new strategic source of competitive advantage that positively affects both customer relationship performance and financial performance (Fidel, Schlesinger, & Cervera, 2015).

In actual scenario, social media are empowering customers, and knowledge appears to be one of the most strategic firms’ assets (Greenberg, 2010). Therefore, customer knowledge management through social media emerged as a crucial practice and a dynamic capability that leads to a superior competitive advantage (Lusch, Vargo, & O’Brien, 2007). In order to better manage customer knowledge, previous studies suggest that firms should focus on customers’ needs (Frambach, Fiss, & Ingenbleek, 2016), establish and maintain relationships with customers (Trainor, Andzulis, Rapp, & Agnihotri, 2014), and actively collaborate and involve them in value co-creation and innovation processes (Lusch et al., 2007). In other words, firms recognize to customers a central role in their activities. They are involving customers in co-creation and innovation processes, and they are managing customer knowledge in order to better satisfy customer desires (Fidel, Cervera, & Schlesinger, 2016). Doing so, firms aim to improve their performances, especially in terms of customer relationship performance. Although customer relationship orientation and customer knowledge management are perceived to be necessary to serve customers, few researches have empirically investigated the role of customers and customer knowledge management in influencing firm performances in the context of social media. The present paper seeks to address this gap empirically analyzing the net effect of customer relationship orientation through customer collaboration and customer role in innovation on customer knowledge management and, in turn, on customer relationship performance, as outcomes.
That is, the study uses structural equation modeling (SEM) technique in order to estimates the net influence of each independent variable with the dependent ones (Woodside, 2013). In this regard, the present study contributes to the existing body of literature on customer relationship management and social media management by addressing the call for further research focused on the possible indirect effect of customer relationship orientation on firm performance (Racela, 2014; Ramani & Kumar, 2008). In fact, findings reveal that customer relationship orientation through customer collaboration and customer role in innovation is a key strategic firm’s ability as it enhances customer knowledge management and customer relationship performance, such as customer satisfaction, retention and loyalty. In addition, the study provides evidence of the crucial role played by social media in supporting firms to collect and transform customer-related information into customer-related knowledge useful to strengthen customer relationships in the actual scenario.

The study also provides some interesting insights for practitioners. In particular, this study suggests that firms have to consider efforts devoted to the development and support of customer relationships orientation through social media in order to exploit customer-related knowledge for value creation and innovation processes and, in turn, for their customer relationship performance. Moreover, firms have to raise their awareness about the importance of social media in actively involving customers as a new strategic way for collaborating with them and gathering knowledge useful to achieve a greater customer and economic values.

The rest of the paper is organized as follows. Section 2 recaps earlier literature related to the key topics of the study and presents the research hypotheses. Section 3 describes the sample, the data collection process and the SEM methodology. Thereafter, section 4 validates the measurement constructs and presents the results, and section 5 discusses this study’s main findings. Finally, section 6 draws conclusions and implications.

2 Theoretical background

2.1 Customer relationship orientation, customer collaboration and customer role in innovation

Customer relationship orientation is grounded in relationship marketing theory (Grönroos, 1994) and, for the purpose of this study, it is regarded as a strategic orientation that reflects firm’s ability to establish customer interactions, collect detailed information about customers, and to gain a competitive advantage (Jayachandran, Sharma, Kaufman, & Raman, 2005). The advent of social media, especially when combined with firms’ full attention to customer relationship orientation, enhances firms’ ability to collect and use customers’ information (Rodriguez, Ajjan, & Peterson, 2014). Social media play a crucial role in empowering firms’ relationships with customers because they allow firms to establish a two-way communication and to gain customer-related information (Trainor et al., 2014). Collecting customer-related information through social media permits firms to better understand their customers’ needs and preferences, collaborate with them, co-create products and services that better suit their exigencies (Stefanou, Sarmaniotis, & Stafyla, 2003). In other words, collecting customer-related information and establishing more direct relationships with customers mean to create the conditions to a useful collaboration thanks to which customers can be involved in value co-creation and innovation processes (Baldwin & von Hippel, 2011; Gibbert, Leibold, & Probst, 2002).

Previous studies were mainly focused on the direct effect of customer relationship orientation on firm performance (Leal-Rodríguez, Ariza-Montes, Roldán, & Leal-Millán, 2014; Morgan, Vorhies, & Mason, 2009; Racela, 2014). However, mixed results have emerged, calling for further research useful to shed some light on the possible indirect impact of customer relationship orientation on firm performance (Racela, 2014; Ramani & Kumar, 2008). In this context, since firms have to transform these customer-related information into customer knowledge (Han, Kim, & Srivastava, 1998), recent studies have pointed out that customer relationship orientation is directly linked to other organizational processes such as those related to co-creation and innovation ones (Fidel et al., 2016, 2015; Racela, 2014). Thus, this study investigates on the one hand the relationship between customer relationship orientation and customer collaboration, and on the other the relationship between customer relationship orientation and customer role in innovation in the social media context. Therefore:

**H1.** Customer relationship orientation has a positive influence on customer collaboration in the social media context

**H2.** Customer relationship orientation has a positive influence on customer role in innovation in the social media context
2.2 Customer collaboration and customer knowledge management

Customer collaboration understates that customer is always a firm’s collaborator (Lusch et al., 2007) and that customer is a fundamental player in the value co-creation process. In value co-creation, collaborating with customer is identified as a whole collaboration (Prahalad & Ramaswamy, 2004; Thomke & von Hippel, 2002), that is strictly interrelated with customer experience (Pine & Gilmore, 1999) and in which customer performs a crucial role as active co-creator (Lusch et al., 2007; Vargo & Lusch, 2008). In social media environment, firms and customers are continuously interconnected and interactions allow them to share information, interests and opinions each other, enabling firms to develop a learning process from customers (Sawhney, Verona, & Prandelli, 2005). Information acquired from social media interactions lead firms to better manage customer knowledge and, finally, create a superior value for both customers and firms themselves (Fidel et al., 2016, 2015). Thus, this study analyzes the relationship between customer collaboration through social media and customer knowledge management, posits that:

H3. Customer collaboration has a positive influence on customer knowledge management in the social media context

2.3 Customer role in innovation and customer knowledge management

Customer role in innovation refers to customer participation in the development of firm’s product innovation process. According to Lusch et al. (2007), involving customer into the innovation process could be defined as co-production that is “the sharing of inventiveness, co-design or the sharing of production” (Lusch et al., 2007). Customer-oriented firms seek to engage their customers in order to involve them in the creation, development and test of value proposition, service and process (Fidel et al., 2016, 2015). Customer role in innovation benefits from social media diffusion, especially because online interactions are effective ways to share experiences, to search for innovative ideas, to advance innovative proposals, to test new product concepts, and obtain feedbacks about them (Sawhney et al., 2005). The active and participative involvement of customers in the innovation process supports firms to better manage customers’ information and it facilitates co-production of new products and services (Santos-Vijande & Álvarez-González, 2007). Accordingly:

H4. Customer role in innovation has a positive influence on customer knowledge management in the social media context

2.4 Customer knowledge management and customer relationship performance

Knowledge can be conceived as one of the most strategic assets managed by firm (Berchicci, 2013; Grant, 1996; Nguyen et al., 2015). It is acquired through learning and experience (Fidel et al., 2016, 2015) and it is used to create value for both customers and firms. Taking into account Alegre, Sengupta, and Lapiedra (2011) and Gebert, Geib, Kolbe, and Brenner (2003) definitions of knowledge management and adopting the definition of customer knowledge management (CKM) proposed by Fidel et al. (2015), this study considers customer’s figure as an essential source of knowledge and CKM as a set of organizational capabilities related to the acquisition, maintenance and sharing of knowledge. Nowadays, interactions via social media are critical for firms to acquire a deep knowledge about customers and to feed their co-creation and innovation processes. Therefore, CKM allows firms to understand and foresee customers’ needs and commercial potential, achieving a competitive advantage, and affecting positively customer relationship performance. Previous studies demonstrate a direct and positive relationship between knowledge management and firm’s performance (Fidel et al., 2016, 2015). In particular, Vorhies and Morgan (2005) suggest the existence of a positive relationship between CKM and customer satisfaction; while Fidel et al. (2016) highlight a positive relationship between CKM and marketing results. Accordingly:

H5. Customer knowledge management has a positive influence on customer relationship performance
3 Methods

3.1 Sampling and data collection

In order to collect data and to measure the research model’s constructs, a survey was carried out through an online questionnaire administrated to the top-management members of firms operating in Italy and with an active presence on social media. This sample was selected because previous researches suggest that top-management members are the people best placed to answer to questions about their firms’ activities (Hambrick & Mason, 1984). Moreover, the Italian market was chosen because, according to “We are social 2017” report, it represents a suitable context for social media research because both firms and Italian consumers actively use social media platforms to share information, experiences and engage with brands (Kemp, 2017).

The online questionnaire investigated firms’ customer relationship orientation, and their practices concerning the collaboration and the involvement of customers in their value co-creation and innovation processes. The questionnaire explored also firms’ ability to manage customer knowledge and managers’ evaluations about the perceived efficacy of customer knowledge management in terms of customer relationship performance. After constructing the questionnaire, a pre-test was performed to check the questions in terms of order and comprehension, to improve platform usability and to solve eventual problems with the fill in process.

A list of 1,565 email addresses was identified with LeFAC.it – TBS Group, a multi-industry database of the major firms operating in Italy. From June to September 2016, 418 valid responses were received (26.7% response rate). This rate is in line with the response range commonly reached in surveys (Anseel, Lievens, Schollaert, & Choragwic, 2010; Cycyota & Harrison, 2006).

3.2 Measurement of variables

The study uses constructs’ items from previous researches and all measures were adapted to suit the social media context. Customer relationship orientation was measured using four scale items (Harrigan, Soutar, Choudhury, & Lowe, 2015; Jayachandran et al., 2005; Sin, Tse, & Yim, 2005); customer collaboration and customer role in innovation using four scale items each (Fidel et al., 2016, 2015; Santos-Vijande & Álvarez-González, 2007); customer knowledge management using seven scale items (Alegre et al., 2011; Fidel et al., 2016, 2015); and customer relationship performance using five scale items (Rapp, Trainor, & Agnihotri, 2010; Trainor et al., 2014). All items were measured on a 7-point Likert scale (1 – Strongly disagree and 7 – Strongly agree).

In order to test the research model, the study applies structural equation modeling (SEM) technique using LISREL 8.80.

4 Empirical results

4.1 Measurement model

Using LISREL 8.0, the study assesses the research model’s measurement quality through reliability, convergent validity and discriminant validity tests. All constructs achieve satisfactory reliability. In fact, they present Cronbach’s Alpha (CA) values and Composite Reliability (CR) values above the threshold of 0.70 (Bagossi & Yi, 1988; Nunnally & Bernstein, 1994). CA and CR values suggest the internal consistency of items (Table 1). Furthermore, confirmatory factor analysis reveals that all Average Variance Extracted (AVE) values are above the threshold of 0.50 (Fornell & Larcker, 1981), indicating a satisfactory convergent validity of each construct. With regard to discriminant validity, each construct’s AVE square root is greater than its highest correlation with any other constructs, which means that all items are good indicators for their latent variables (Fornell & Larcker, 1981) (Table 2). All loadings were statistically significant at the 0.05 level (t >1.96).
4.2 Structural model

Findings from the structural model are shown in Table 3, which describes the causal relationships among constructs and presents the hypotheses test. T-values reveal that all research hypotheses are supported. The relationship between customer relationship orientation and customer collaboration in the social media context is positive (\( \gamma = 0.476, t = 7.683, p < 0.01 \)). Customer relationship orientation positively affects also customer role in innovation (\( \gamma = 0.598, t = 10.913, p < 0.01 \)). Customer collaboration and customer role in innovation are positively related to customer knowledge management (respectively \( \beta = 0.232, t = 4.499, p < 0.01; \beta = 0.499, t = 9.133, p < 0.01 \)). Moreover, the relationship between customer knowledge management and customer relationship performance is positive (\( \beta = 0.742, t = 13.537, p < 0.01 \)).

Finally, the structural model explains 22.7% of the variance in customer collaboration (\( R^2 = 0.227 \)), 35.8% of that in customer role in innovation (\( R^2 = 0.358 \)), 36.8% of that in customer knowledge management (\( R^2 = 0.368 \)), and 55.0% of that in customer relationship performance (\( R^2 = 0.550 \)).

Table 1 Reliability, convergent validity and discriminant validity tests.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>( \alpha )</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer relationship orientation</td>
<td>0.843</td>
<td>0.864</td>
<td>0.621</td>
</tr>
<tr>
<td>Customer collaboration</td>
<td>0.787</td>
<td>0.802</td>
<td>0.561</td>
</tr>
<tr>
<td>Customer role in innovation</td>
<td>0.882</td>
<td>0.884</td>
<td>0.660</td>
</tr>
<tr>
<td>Customer knowledge management</td>
<td>0.898</td>
<td>0.899</td>
<td>0.562</td>
</tr>
<tr>
<td>Customer relationship performance</td>
<td>0.915</td>
<td>0.919</td>
<td>0.694</td>
</tr>
</tbody>
</table>

Table 2 Correlation matrix.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer collaboration</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer role in innovation</td>
<td>0.285</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer knowledge management</td>
<td>0.374</td>
<td>0.565</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer relationship performance</td>
<td>0.277</td>
<td>0.419</td>
<td>0.742</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Customer relationship orientation</td>
<td>0.476</td>
<td>0.598</td>
<td>0.409</td>
<td>0.303</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Table 3 Structural relationships and hypotheses testing.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path</th>
<th>Completely std ( \gamma ) and ( \beta )</th>
<th>t value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 (+)</td>
<td>Customer relationship orientation → Customer collaboration</td>
<td>0.476</td>
<td>7.683**</td>
<td>Support</td>
</tr>
<tr>
<td>H2 (+)</td>
<td>Customer relationship orientation → Customer role in innovation</td>
<td>0.598</td>
<td>10.913**</td>
<td>Support</td>
</tr>
<tr>
<td>H3 (+)</td>
<td>Customer collaboration → Customer knowledge management</td>
<td>0.232</td>
<td>4.499**</td>
<td>Support</td>
</tr>
<tr>
<td>H4 (+)</td>
<td>Customer role in innovation → Customer knowledge management</td>
<td>0.499</td>
<td>9.133**</td>
<td>Support</td>
</tr>
<tr>
<td>H5 (+)</td>
<td>Customer knowledge management → Customer relationship performance</td>
<td>0.742</td>
<td>13.537**</td>
<td>Support</td>
</tr>
</tbody>
</table>

** p < 0.01

5 Discussion

The study proposes a conceptual model useful to understand the net effect of customer relationship orientation on customer collaboration, on customer role in innovation and in turn on customer knowledge management and on customer relationship performance. Using SEM technique to test the conceptual model, the study shows that customer relationship orientation through customer collaboration and customer role in innovation is a key strategic firm’s ability as it enhance customer knowledge management and, in turn, customer relationship performance. In addition, the research provides evidence of the crucial role played by social media in supporting firms to collect customer-related information, and to build long-lasting relationships with customers on a more direct and personal way in order to engage with them in co-creation and innovation processes.
In this regard, one of the most interesting findings is that the path that links customer knowledge management and customer relationship performance has the highest coefficient. In line with previous research (Alegre et al., 2011; Fidel et al., 2015; Gebert et al., 2003), this result suggests that the acquisition, maintenance and sharing of customer-related knowledge within the firm represent a crucial organizational capability that effectively helps firms to improve customer relationship performance. Moreover, this finding highlights that social media are key enablers for customer knowledge management and relationship building because they allow firms to collect and transform customer-related information into a deep knowledge of customers useful to anticipate and better satisfy customers’ desires.

Further valuable results concern the positive relationship between customer relationship orientation and customer collaboration and between customer relationship orientation and customer role in innovation. Developing a strong customer relationship orientation enables firms to apply solutions that allow to establish positive relationships with customers, who, in turn, increase their willingness to be engaged with firms, to share their preferences and opinions, and to actively participate to value creation and innovation processes. In other terms, customers become more inclined in starting a long-lasting and profitable collaboration with firms, letting them develop higher level of customer knowledge management. Also these results reveal the crucial role played by social media in favoring effective online interactions through which firms and customers can share experiences and feedbacks, and propose innovative ideas.

Finally, findings reveal significant and positive relationships between customer collaboration and customer knowledge management and between customer role in innovation and customer knowledge management. It is important to notice that the effect of customer role in innovation exceeds the effect of customer collaboration on customer knowledge management. This result suggests the prominent influence of the involvement of customers in organizational processes, especially those related to co-production and innovation, and stress the role played by firm’s ability to collect and manage customer-related knowledge useful to better satisfy and retain customers with new product and services. In fact, as also suggested by previous literature (Boulding, Staelin, Ehret, & Johnston, 2005; Chua & Banerjee, 2013; Ryals, 2005), developing a good customer knowledge management means to acquire knowledge from customers and this is easier if both firms and customers are in relationship. In this perspective, involving customers seems to be a key organizational practice in order to better understand customers’ exigencies and preferences, adapt or create new product and services to their needs and, in turn, improve customer relationship performance. In this regard, it emerges also that social media can effectively facilitate customers’ collaboration and involvement, allowing firms to better meet the needs of their customers.

Therefore, it turns out that in order to serve customers in their preferred way, it is required an effectively management of customer-related knowledge, as well as the building of an integrated customer relationship orientation useful to constantly collaborate with and engage customers in firms’ value co-creation and innovation processes.

6 Conclusions and Managerial Implications

Recently the traditional perception about customers has been changed. Customers are more and more involved in innovation process, both in the configuration and the evaluation phase of product development (Matzler, Grabher, Huber, &Füller, 2013). Firms are now more interested in collaborating with customers, promoting occasions of interaction, sharing ideas and opinions, and, thus, acquiring information about their preferences and exigencies. In this regard, the present study sheds some lights on the importance of customers’ involvement and participation in firms’ value co-creation process, especially in innovation (co-production) one. Findings reveal that, in the actual scenario, social media are key enablers that allow firms to collect data from customers and to improve their customer knowledge management, which in turn can be used to gain a competitive advantage, especially in terms of enhancement of customer relationship performance.

These results contribute to both the theoretical and practical knowledge, providing some detailed insights about the importance of customers in value co-creation and innovation processes in order to enhance customer relationship performance in the social media context. In particular, the study contributes to the literature on customer relationship management and social media management, by studying the effect of customer relationship orientation through customer collaboration and customer role in innovation on customer knowledge management and customer relationship performance, as outcomes.
More precisely, the study answers the call for empirically analyzing the possible indirect effect of customer relationship orientation on firm performance (Racela, 2014; Ramani & Kumar, 2008). It emerges that customer relationship orientation is an essential element of a firm’s strategy and practice because it allows firms to collect and transform customer-related information into customer-related knowledge when is related to co-creation and innovation processes. These results have important practical implications, since they suggest that firms have to consider efforts devoted to the development and support of customer relationships orientation through social media in order to exploit customer-related knowledge for value creation and innovation processes and, in turn, for their customer relationship performance. Hence, developing relationships that directly involve and engage customers is an essential condition for firms to improve their value creation and innovation processes, as they contribute to the creation of customer-related knowledge useful to enhance their performance.

In this light, managers have to continuously boost the involvement and the commitment of their customers and have to become aware of the importance of customer knowledge management because of its significant and positive impact on customer satisfaction, customer retention and customer loyalty. An additional contribution of this study concerns the identification of the role played by social media in supporting firms to collect customer-related information, and to build long-lasting relationships with customers on a more direct and personal way in order to engage with them in co-creation and innovation processes. Also these findings have important practical implications. In fact, firms with a social media usage devoted to collect customer-related information and to detect both customers and market trends and opportunities are more likely to create value, also in terms of new products and services, which meet customers’ preferences and exigencies. Moreover, firms have to raise their awareness about the importance of social media in actively involving customers as a new strategic way for collaborating with them and gathering knowledge useful to achieve a greater customer and economic values. Hence, firms need to effectively manage social media interactions and customer knowledge in their organizational processes.

Although the study provides interesting theoretical and managerial implications, it has also some limitations, which could provide directions for future research. In fact, the present paper is a first attempt to understand if and how customer orientation, customer relationship orientation, customer collaboration and customer role in innovation facilitate customer knowledge management and firm performances. Future studies along these lines should expand the research model in order to take into account other variables, such as innovation capacity and the type of social media used by firms to interact with customers.

References


