



Exploring Customer Participation and Customer-to-Customer Interactions in Service Experiences

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Abstract: *Customer Participation (CP) and Customer-to-Customer Interaction (CCI) are prevalent characteristics in contemporary service experiences in different sectors, such as healthcare, museums, and education. Several studies have explored the association between CP and its impact on customer satisfaction. The results reveal that the customers indeed assess the quality of service based on their interactions with the service system, e.g., their role and effort in the service process and their interactions with the other customers. Despite these important findings, the literature on CP, CCI, and customer satisfaction is still fragmented. The main objective of this study is to conduct a comprehensive bibliometric analysis based on the relevant literature. The study analyzes 124 articles published between 1994 and 2023. Our study concludes that academic interest in CP and CCI is continuously growing and identifies the emerging research directions for future work.*

Keywords: *Customer participation, Customer-to-Customer interaction, Service quality, Customer satisfaction.*

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1. INTRODUCTION

Customer participation (CP) and customer-to-customer interactions (CCI) have experienced impressive growth in many service businesses, building on beliefs about its potential impacts for value creation and consequently for improving service effectiveness and competitiveness. Likewise, in service management research, the topics of CP and CCI have been attracting increased attention. Looking retrospectively, many service companies have significantly increased and diversified the participatory role of customers as a co-value creator. Nowadays examples of customers assuming pivotal roles in service activities, and potentially enhancing the whole service experience, abound across very diverse sectors, including virtual services, social media, hospitality, higher education, healthcare, etc. (Paruthi et al., 2023; Rowley, 1996; Zgolli & Zaiem, 2017). Early on, Kelley and Hoffman (1997) advanced the perspective of customers as a productive resource, opening the discussion about the implications of customer productive roles for service outcomes, quality, and ultimately satisfaction. Likewise, the importance of interactions and exchanges with other customers has progressively been put forward as a promising arena for service improvements.

Frequently cited examples of domains for the management of CCI include, for example, service settings where customers share time and space. Research results have supported that, when customers stand in long queues, waiting to be served, their perceived experience can be positively or negatively influenced by the presence and actions of other customers. The perception of the waiting time can be reduced by making the wait more enjoyable, profiting from the presence of other customers, establishing contact, promoting the initiation of relationships, and social conversations, or even experiencing pleasant smiles from them. In contrast, a grumpy impatient customer, or the observation of annoying behavior from other customers can negatively affect a customer's perceived experience, increasing the waiting time inconvenience (Dabholkar, 1990; Dong, 2015; Gallan et al., 2013; Nicholls, 2020).

Despite the growth in the examples and interest in these topics, the observation of the literature in the field suggests that the existing research contributions remain largely fragmented and far from exhaustively addressing the full implications of CP and CCI for managerial actions and decision-making. This paper contributes to the advancement of knowledge about the implications and management of CP and CCI, building a bibliographic literature review, and analyzing 124 articles selected from the Scopus database, published until June 2023. Specifically, the study addressed the following three research questions (RQs):

- RQ1) Does CP and CCI play a role in the quality of service and satisfaction?
- RQ2) In what type of service sectors CP and CCI are identified as key role players?
- RQ3) What are the emerging fields that evolve the literature trend?

The study offers a timely and relevant contribution as it attempts to bring together literature on CP and CCI as an integrated research and debate – prevalent research perspectives have addressed these topics independently. Using VOSviewer software to provide a bibliometric approach in this field, we analyze keyword networks and identify trends in these fields.

The rest of this paper is organized as follows: we first describe our methodology. Then, we present and discuss our results. Finally, we conclude by summarizing the main findings and providing some suggestions for future work.

2. METHODOLOGY

2.1. Data Selection and Filtering

This study presents a bibliographic review of CP, CCI, service quality, and customer satisfaction to identify the link between them. The purpose of the work is to contribute to understand better the connection related studies in this domain and support managerial decisions about the integration of CP and CCI in service value creation.

Relevant publications were identified from Scopus (<http://www.scopus.com>), one of the widely reliable and popular academic databases. We aimed to obtain as many relevant publications as possible, including a vast pool of research meeting the purpose of our addressed problem, using a set of criteria that are described for the sake of rigor and reproducibility of the work. To this end, we conducted a two-phase search in this database (Khan et al., 2003; Tranfield et al., 2003).

- In the first phase, the following search query was used: customer participation OR customer-to-customer interaction AND service quality OR customer satisfaction, either in the article title or in the abstract or keywords. The initial article extraction resulted in a total of 257 publications. The time frame covered in this study extends from the beginning of database records to the end of June 2023.
- From these publications, the second phase of the search was performed as follows. The document type was limited to journal articles, the language to English, and the subject area to “Business and Social Science”. Applying these criteria, the final article extraction resulted in a total of 124 articles.

In the end, the analysis involved monitoring 124 articles published on the Scopus database from 1994 to June 2023. Table 1 summarises the actions taken in each of these search phases for identifying the relevant publications.

Table 1. Search criteria for identifying relevant publications

Search stages	Output (articles)
Phase I)	
Electronic database: http://www.scopus.com/ ;	257
Search Formula: “Customer participation OR customer-to-customer interaction AND service quality OR customer satisfaction”, by “article title, abstract, and keywords”	
Year: 1994-2023 (June)	
Phase II)	
Document Types: Articles	124
Language: English	
Subject Areas: Business and Social Science	

Source: Authors

2.2. Descriptive Statistics

For these 124 articles, Figure 1 illustrates the number of papers published each year in the period from 1994 to 2023 (30 years of exploration). At first glance, we notice that the number of published works has rapidly expanded in recent years, indicating significant growth in the interest of researchers, especially during the last decade (Figure 2), in studying the implications of CP and CCI on service quality and customer satisfaction.

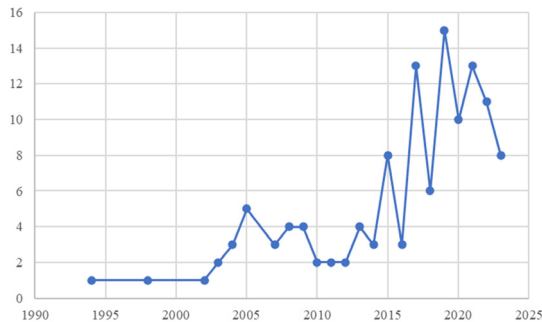


Figure 1. Distribution of the articles by the published year, until June 2023
Source: Authors

Figure 2 offers an illustration of the number of papers published in each of the past three decades. In particular, research on this area emerged in the 90s and it has become a hot topic since 2015. Furthermore, the interest has considerably increased (tripled) from the second to the third decade.

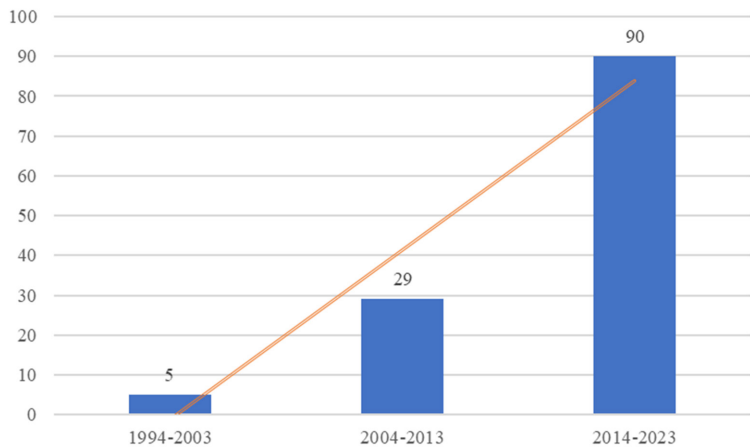


Figure 2. Number of publications during recent three decades
Source: Authors

After downloading the articles in CSV format from the database, we proceeded to use VOSviewer software (version 1.6.19) to analyze the collected articles. VOSviewer is a powerful tool, developed by [Van Eck and Waltman \(2010, 2014\)](#), for visualizing and analyzing bibliometric networks for mapping and clustering articles based on their citation, co-citation, bibliographic coupling, keyword co-occurrence, and co-authorship networks.

3. ANALYSIS AND RESULTS

Answer to RQ1 (Does CP and CCI play a role in quality of service and satisfaction?)

The study involved a bibliographic literature review to address the presence of CP and CCI in service management research. Our purpose in this RQ was to understand the implications of CP and CCI for the quality of service and customer satisfaction. From the first analysis of the articles' keywords network visualization illustrated in Figure 3, we observe that there are three predominant keywords namely, *customer participation*, *customer satisfaction*, and *service quality* which

historically have a strong link between them (Bendapudi & Leone, 2003; Dabholkar, 1990; Kelley et al., 1990). We also see that the frequency of the keyword of *customer participation* is highly followed by *customer satisfaction*, *service quality*, and *customer-to-customer interactions*. We notice that these three dominant keywords have kept their importance over the years, and CCI has started to emerge more recently.

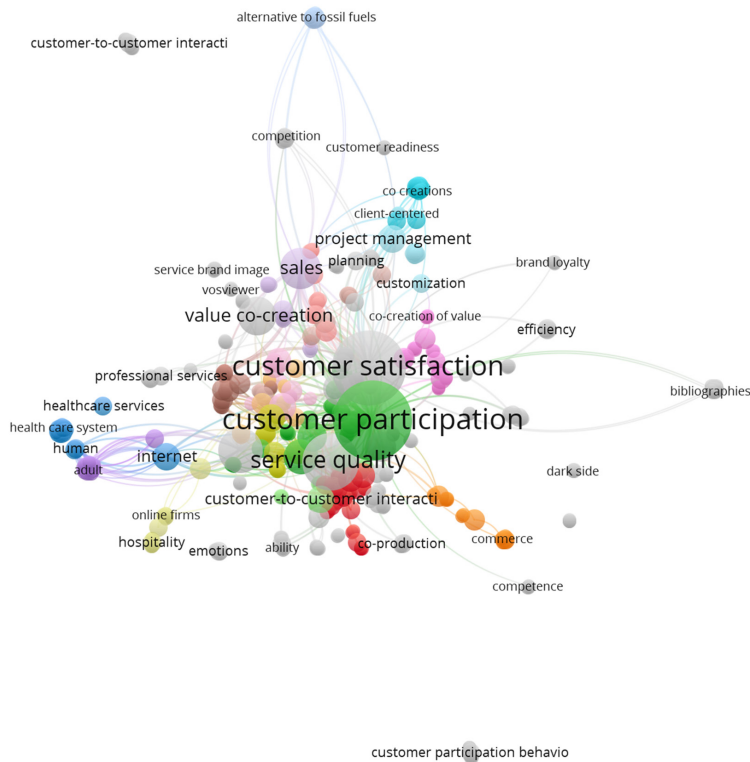


Figure 3. The Network Visualization
Source: Authors

CP and CCI certainly affect service quality and customer satisfaction. Several authors, e.g., Hu et al. (2017), describe the existence of an association between a positive CCI and increased satisfaction levels. Other authors – e.g., Mohd-Any et al. (2015) – make a different point, highlighting the existence of customer (perceived) value dimensions that are intrinsically related to participatory behaviors (e.g., social value, perceived control, etc.). Overall, the authors refer to associations between the quality of the perceived CP and CCI and the increased satisfaction levels. Many of the contributions explore the implications of altering the volume or the content of the tasks and behaviors required from the customers (e.g., complexity, effort, etc.). In this regard, although there seems to be a shared view on the potential benefits of CP and CCI to customer satisfaction, the picture is not so clear when it comes to defining or specifying what should be the nature of the exact characteristics of the tasks that need to be performed by the customers, therefore suggesting some research road ahead. Figure 4 provides more information regarding our four keywords, and as we can see customer participation (a) has the highest occurrences, customer satisfaction (b) has the highest total link strength, and customer-to-customer interaction has the newest average publication year. Additionally, we can see the strength of each correlation between keywords. For example, service quality (b) has a link to CP, customer satisfaction, customer loyalty, value co-creation etc.

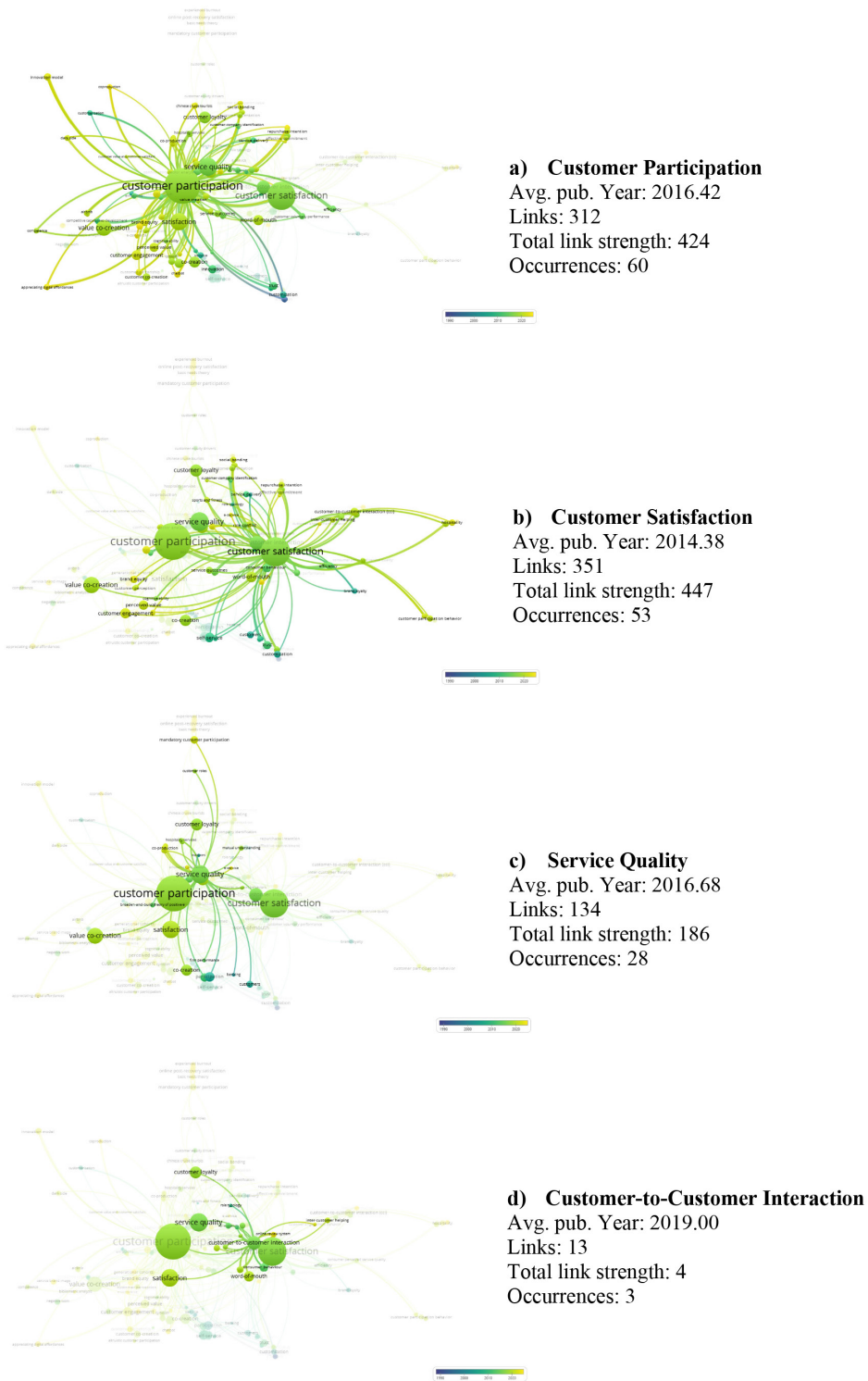


Figure 4. Network information about the links of our four selected keywords
Source: Authors

The published papers were distributed across the world, and among 41 countries, the United States published the largest number of articles (44), followed by China (26) and then Taiwan (15). Additionally, the most influential authors are [Bendapudi and Leone \(2003\)](#), [Chan et al. \(2010\)](#), and [Nambisan and Baron \(2009\)](#) with 2353, 1411, and 1270 citations, respectively. All authors were discussing about CP.

Answer to RQ2 (In what type of service sectors CP and CCI are identified as key role players?)

The overview of the research on CP and CCI in different service setting suggests that there are some service industries more permeable to the effects of CP and CCI, leading to pioneering studies in the field. Not surprisingly, many of the service settings addressed traditionally require customers to spend time in the service facilities and to share the experience and the space with other customers. These circumstances contribute to the increase in the scope and intensity of CP and CCI for several reasons. The presence of customers in the service spaces creates opportunities for service providers to engage them in some activities, allowing also for the adoption of customer socialization strategies to promote engagement, learning, and enjoyment. For example, [Rowley \(1996\)](#), in an early study in the context of education services, refers to the dimension of customer compatibility as a key aspect affecting the quality of the service. [Hu et al. \(2017\)](#) studied user satisfaction and motivation on Facebook and revealed more positive CCI indicates more satisfaction and commitment. [Mohd-Any et al. \(2015\)](#) investigated the value created by the user travel website users and concluded that website-perceived participation influences e-value more than actual participation. Also, in the healthcare service sector, more positivity makes customers more inclined to participate in CP behaviors, and customer satisfaction is directly and indirectly affected by participation ([Gallan et al., 2013](#); [Yoo et al., 2012](#)). Among the broad service settings, we could observe that, still today, CP and CCI and their link to service quality and customer satisfaction, involve to a great extent some presence and the interaction of customers in the service premises (healthcare, higher education, library, restaurant, tourism, hotel, retail). This scenario is not so dominant in banking services, for which many of the encounters between customers and providers are now made virtually. Notwithstanding, results also point to the growing importance of CP and CCI in virtual service settings. On the one hand, the virtualization of the delivery is, in many cases translated into an increase in customer tasks and roles in the service experience (e.g., self-service technologies). On the other hand, in virtual services, customers are deprived of many service clues and informal instructions that are usually embedded in the service spaces as well as from the assistance of employees who assist them in going through the service delivery steps and operations. For these reasons, customers might be more likely to resort to other customers to get guidance and instructions (i.e., CCI) even before the service actually takes place ([Amorim & Bashashi Saghezchi, 2014](#); [Touni et al., 2022](#); [Xie et al., 2020](#)). From our bibliographic study, the main sectors that we came across are sales, hospitality, restaurant chain, and healthcare. Although we would expect in other sectors where there are more people together such as tourism, education, health, retail but those sectors did not appear so much maybe because they are more sectoral specific terms that are not captured in our keywords literature review.

Answer to RQ3 (What are the emerging fields that evolve the literature trend?)

To further understand the dynamic change of research keywords (RQ3), we considered the keywords in three decades in Figure 5. From 1994 to 2003 (a), from 2004 to 2013 (b), and from 2014 to 2023 (c). The lighter colors indicate recent studies and the darker colours indicate older studies. According to our findings, the first appearance of CP and customer satisfaction was in 1994 (the same year appearance) and the first appearance of service quality and CCI was in 2002 and 2007 respectively. Therefore, the newest keyword refers to CCI in 2007.



As shown in Figure 5 (c) fields related to digital technologies (e.g., Online post-recovery satisfaction, Metaverse, Electric vehicle, Appreciating digital, Online review system, Chatbot, and Brand equity) are the emerging fields that evolved the literature trend.

4. CONCLUSION

This study employed VOSviewer for bibliometrics analysis on CP, service quality, customer satisfaction, and CCI. It analysed 124 articles published in the Scopus database from 1994 to 2023. The study provides an overview of these articles by highlighting the main contributing countries and the most influential authors in the field. Results from three decades of investigation show that CP is considerably more established than CCI. According to the overlay visualization, the term CCI gained more relevance over the past decade. However, the research suggests that there exists an ample space for further investigation in this area. For example, CP sometimes appears as “consumer participation”, so our data collection did not capture those works. The same applies to replacing the keyword “customer” with “consumer” in the term CCI. Furthermore, we considered only the Scopus database, so other databases (e.g., Web of Science) could also be explored. Moreover, emerging fields such as digital or online services can be considered for the future work. Finally, measuring and validating the impacts of CP and CCI on service quality and customer satisfaction deserves further investigations.

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