Customer Experience Literature Analysis Based on Bibliometry

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Abstract. Customer experience (CX) has attracted an increasing interest of practitioners and scholars, since it has become an important basis for the competitiveness of organizations. To better understand how the literature in the customer experience field has evolved, this study presents a bibliometric study of 613 articles published in peer-reviewed journals from 1991 to 2018 using citation and reference co-citation analyses. The results show that service quality, service encounter, and service-dominant logic literature encompass the foundations (intellectual roots) of the CX research field. This work brings four main contributions. Firstly, it demonstrates the emergence of customer-centric theories that have contributed to the development of the CX field. Secondly, initial studies emphasized the hedonic aspects of consumption, although subsequent studies have broadened the CX scope. Thirdly, customer experience has evolved from a static to a dynamic view. Lastly, as the field consolidates, the role of technology has gained prominence.

Keywords: Customer experience · Service experience · Customer journey · Bibliometry

1 Introduction

According to a study by Gartner [1], 81% of marketers say their companies compete mostly on the basis of customer experience (CX). Multiple international brands have job titles such as chief experience officer, vice-president of customer experience, and customer experience manager, who are in charge of managing CX [2]. CX is crucial for B2B companies [3] and has the great strategic potential for small businesses [4]. The practitioner interest has strongly stimulated customer experience research, which has become a key focus of service marketing and service science literature [5].

Although there is no consensus about how to define the CX concept [6], the major accepted view defines CX as a multidimensional construct focusing on the customer's cognitive, emotional, behavioural, sensorial, and social responses to all direct or indirect interactions with the firm during the customer's entire journey [6, 7].

Regarding CX consequences, both practitioners and scholars agree that CX significantly determines the customer behaviour, affecting relevant marketing outcomes such as customer satisfaction, loyalty, and word-of-mouth communications [8–11]. In light of the increasing interest in CX, this promising research field should be reviewed to a better understanding of its underlying theories and related themes. In the context of services, the concept of CX is also determined by the characteristics of the production processes, because customers play an active role in the delivery activities, and their actions can have a substantial impact in the process experience. Despite a number of efforts to review CX literature, this study aims to analyze the customer experience research field through bibliometry. Thus, the primary goal of this article is to provide a map of CX research in terms of intellectual roots (intellectual structure) that should be of help to scholars seeking to understand the various streams of research in CX and the historical development of the field. Based on 613 CX-related articles (1991–2018), a bibliometric analysis is developed, grounded in two methods, namely: citation analysis and co-citation.

The remainder of the paper is structured as follows. Section 2 outlines a brief overview of the customer experience concept and how other literature reviews have dealt with this subject. This is followed by Sect. 3 that highlights the methodological research procedures. The results in Sect. 4 provide a descriptive analysis based on an overview of customer experience field and co-citation analysis. Finally, Sect. 5 draws some concluding remarks and research implications of this study.

2   Customer Experience Concept

Researchers have agreed that the customer perceives his/her experience in a holistic way which involves multiple subjective responses to all interactions with an organization [2], across multiple touchpoints along the stages of the customer journey (pre-purchase, purchase, and post-purchase) [7]. However, despite the major acceptance of this holistic view, CX has been conceptualized in multiples ways through different lenses [12]. In addition, customer experience can be characterized as an umbrella construct which means a broad concept used to encompass a diverse set of phenomena [13]. Furthermore, the literature has shown that 'customer experience', 'service experience' and 'customer service experience' are common terms used interchangeably to designate the same concept, despite the fact that some authors pointed conceptual differences among them as e.g. [6, 14, 15]. This study draws on research that uses either term to depict customers' experiences in the service context. Nevertheless, for clarity purposes, this study adopts the term customer experience in line with relevant sources in marketing (e.g. [7, 11]) and service science (e.g. [16, 17]).

For the understanding of customer experience, some literature review papers have dealt with this subject. Helkkulla [18] presented a systematic review of the concept by characterizing CX research in three categories: 'phenomenon-based'; 'process-based'; and 'outcome-based'. Vasconcelos et al. [15] integrated CX in a conceptual framework containing three dimensions: 'predispositions', 'interactions', and 'reactions'. De Keyser et al. [2] proposed a framework for understanding and managing CX that considers insights from marketing, philosophy, psychology, and sociology literature.

Hwang and Seo [19] integrated the CX research in a conceptual framework describing the antecedents (internal and external factors) and consequences (emotional, behavioral and brand-related outcomes) of CX management. Lipkin [20] posited CX research by applying three different perspectives: 'stimulus-based'; 'interaction-based'; and 'sense making-based'. Jain et al. [6] summarize the CX literature in terms of the emergence and development of the concept, proposing a CX research agenda at three different levels: conceptual, management and measurement. Kranzbühler et al. [13] integrate CX research from organizational and consumer perspectives, connecting insights from both angles. Bueno et al. [8] identified how CX has been measured in relevant publications in the marketing field. Mahr et al. [12] synthesize contributions about CX across its five dimensions (physical, social, cognitive, affective and sensorial) in the services and marketing domains.

While complimenting the previous studies, this work differs from them in its objective and coverage. Specifically, it addresses the main theoretical basis of customer experience research field by combining co-citation analysis with a qualitative content analysis based on 613 articles. The next section provides more details on the research methods.

3   Research Methods

Bibliometry involves an analysis of scientific publications to structure and bridge-related research within a field [21]. When conducting bibliometric analysis, an often used method is co-citation analysis, which aims to identify researchers who are cited together, and, therefore, represent similar ideas, unveiling the intellectual structure of a research field [21]. Co-citation has been widely used in services, marketing, and business research as e.g. [22–24]. In order to build and visualize the results, VOS-viewer software is usually adopted [25].

The data for this study were obtained through the Social Science Citation Index (SSCI) accessible online through the Web of Science (WoS), which is one of the largest multidisciplinary databases of peer-reviewed literature. It is the most frequently used database for bibliometric studies in management and organizational areas [21]. Moreover, the WoS provides a unique feature of citation counts and metadata, which allows the use of influence objective measures to qualify the relative importance of the articles [26]. Therefore, several scholars have used only the WoS database to perform bibliometric studies as e.g. [24, 27].

The sample used in this study is limited to articles written in English and published in peer-reviewed journals. The search was performed in January 2019 with the following terms: 'customer experience' AND 'service'; OR 'service experience'. The terms 'customer journey' AND 'service' have also been included due to the close link between the customer journey perspective and the notion of customer experience [28]. The search was performed on the titles, abstracts, and keywords (time period from 1945 to 2018), resulting in 1,112 publications. To ensure that the final sample was in accordance with our aim of addressing only articles related to customer experience several steps were taken. One of the authors checked all the articles in the initial sample by reading articles' titles, keywords, and abstracts. Since decisions regarding inclusion

and exclusion remain relatively subjective, when an abstract content was ambiguous, the paper was read in full by two authors to make a decision about whether it should be included. This screening process involved two researchers working in parallel and comparing their judgments. After excluding 499 articles, the final sample comprised 613 articles (focal sample) and 25,535 cited references (reference sample), which were used to perform the analysis. The final step consisted in interpreting and summarizing the findings. Thus, the bibliometric analysis was complemented with a qualitative content review. Specifically, a thematic approach [29] was adopted to reading and categorizing the articles, identifying themes and, extracting relevant data about the CX research field under investigation, from which results are presented in the next section.

4 Results: Mapping the Research on Customer Experience

The first part of this section discusses the focal sample of articles in terms of frequency and time of publication, most prominent journals, and citation statistics. Figure 1 shows that the number of articles published per year has increased during the review period: 27 between 1991 and 2004 (14 years); 43 between 2005 and 2008 (4 years); 161 between 2009 and 2014 (6 years); 382 between 2015 and 2018 (4 years). The milestones in the time period were associated with the observation of sharp increases in the number of publications (e.g., 2004–2005 from 4 to 9 articles). Although there were few articles since the early 90s, there was a significant increase in the number of publications in the past 10 years (2009–2018). Actually, since 2015 a sharp increase in the number of papers published was evident, with almost than twice as many publications as in any of the six preceding years. It is not possible to infer about a decrease in 2018, since the search was performed in January 2019 and databases are frequently updated during the following year. In summary, customer experience can be considered a recent research field, which has significantly grown since 2009, and whose frequency has intensified in the past four years (2015–2018).
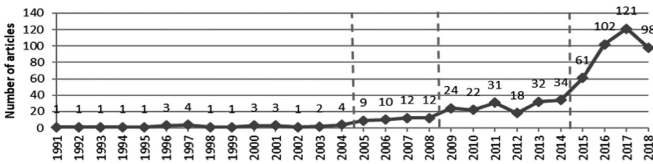

Fig. 1. Frequency of publications

The 613 articles were published in 229 peer-reviewed journals. However, only 15 journals had more than eight focal papers during the review period, which corresponds to 250 papers (approximately 41%). The leading journals were: Journal of Service Management (42 papers), Journal of Service Research (36), Journal of Services Marketing (36), Journal of Service Theory and Practice (17), and Journal of Business Research (17). In fact, CX research has mainly been published in service and marketing research journals. Service journals comprise 108 papers, while marketing journals

totalize 70, as exhibited in Table 1. Moreover, 35 papers were published in hospitality journals and 37 in other journals (e.g., management and information technology). Furthermore, there are no high-ranked outlets entirely devoted to research on CX, which was suggested earlier as a young field [30]. Structures in customer experience research have developed slowly, particularly through specific conferences and journal special issues. For instance, some special issues have been published on this research subject (e.g., volume 26, issue 2 of Journal of Service Management: 'Co-creating Service Experience').

Table 1. Top 10 journals publishing the core articles (Note: Journal's field followed the Academic Journal Guide's categorization)

Rank	Source	Field	#
1	Journal of Service Management	Sector-Service	42
2	Journal of Service Research	Sector-Service	36
	Journal of Services Marketing	Marketing	36
3	Journal of Service Theory and Practice	Sector-Service	17
	Journal of Business Research	Management	17
4	International Journal of Contemporary Hospitality Management	Sector-Hospitality	14
5	Service Industries Journal	Sector-Service	13
6	International Journal of Hospitality Management	Sector-Hospitality	12
7	BT Technology Journal	Info Management	11
8	Journal of Retailing and Consumer Services	Marketing	10
9	Computers in Human Behavior	Info Management	9
	Cornell Hospitality Quarterly	Sector-Hospitality	9
10	European Journal of Marketing	Marketing	8
	Journal of Retailing	Marketing	8
	Journal of the Academy of Marketing Science	Marketing	8

Table 2 lists the most-cited focal articles and most-cited references. Those articles may be considered the most influential publications in the field of customer experience. The citations of each focal article refer to its citations in the SSCI-WoS, while the citations of a reference mean the number of focal articles citing that specific reference. To avoid bias towards older publications – as recommended elsewhere [21] – Table 2 also shows the impact of each focal article and reference based on their citation average per year (criterion used to rank both focal articles and references). This allows having a comparison among articles published at different times.

As can be seen in Table 2, Ostrom et al. [16, 17] are the most cited articles. Although they are not CX-centered publications, both discuss priorities for service research and point out CX as one of them. Certainly, they have influenced scholars to engage with customer experience research topics. Brodie et al. [31] ranked in second

Table 2. Top 20 most-cited focal articles and their references

#	Focal articles	Citation	Average	#	References	Citation	Average
1	Ostrom et al. (2010)	580	58.0	1	Lemon and Verhoef (2016)	30	15.0
2	Ostrom et al. (2015)	290	58.0	2	Verhoef et al. (2009)	125	13.9
3	Brodie et al. (2011)	509	56.5	3	Klaus and Maklan (2013)	40	8.0
4	Verhoef et al. (2009)	598	54.3	4	Vargo and Lusch (2004)	110	7.9
5	Lemon and Verhoef (2016)	153	38.2	5	Lemke et al. (2011)	54	7.7
6	Grewal et al. (2009)	278	25.2	6	Jaakkola et al. (2015)	23	7.7
7	Puccinelli et al. (2009)	260	23.6	7	Vargo and Lusch (2016)	15	7.5
8	Zomerdijk and Voss (2010)	228	22.8	8	Meyer and Schwager (2007)	81	7.4
9	Heinonen et al. (2010)	222	22.2	9	Zomerdijk and Voss (2010)	58	7.3
10	Lemke et al. (2011)	193	21.4	10	Vargo and Lusch (2008)	71	7.1
11	Wu et al. (2014)	123	20.5	11	Gentile et al. (2007)	77	7.0
12	Payne et al. (2009)	224	20.3	12	Ostrom et al. (2015)	21	7.0
13	Meyer and Schwager (2017)	263	20.2	13	Brakus et al. (2009)	57	6.3
14	Chandler and Lusch (2015)	93	18.6	14	Helkkula et al. (2011)	38	6.3
15	Patricio et al. (2011)	151	16.7	15	Payne and (2008)	63	6.3
16	Hui and Bateson (1991)	451	15.5	16	Rose et al. (2012)	31	5.2
17	Bitner et al. (1997).	340	14.7	17	Grewal et al. (2009)	46	5.1
18	Otto and Ritchie (1996)	348	14.5	18	Berry et al (2002)	80	5.0
19	Tax et al. (2013)	87	12.4	19	Patricio et al. (2011)	35	5.0
20	Gallan et al. (2013)	86	12.2	20	Pine and Gilmore (1998)	93	4.7

and explore the theoretical foundations of customer engagement by drawing on the service-dominant logic (SDL) theory. According to the cited authors, customer engagement is a resulting psychological state due to the virtue of customer experiences with a focal agent/object (e.g. brand) within specific service relationships. Other articles in the 20 most-cited focal articles adopt the SDL perspective as e.g. Refs. [32–35]. Besides those, Verhoef et al. [11] and Lemon and Verhoef [7] take a holistic, multi-dimensional, and dynamic view of the customer experience, trying to conceptualize the CX concept, bring a historical perspective of the roots of customer experience and

defining the construct operationalization within a marketing perspective. Lastly, the consistency of customer experience research takes place due to the intensification of a variety of topics. For instance, other most cited focal articles cover CX management in retailing (e.g. [36, 37]; service design (e.g. [38, 39]; tourism (e.g. [40]); quality (e.g. [41]), and in healthcare (e.g. [42]).

Table 2 also shows the most-cited references of the focal articles. They contribute to the intellectual roots of the focal articles and form the basis of the co-citation analysis presented hereafter. At first sight, it is noting the importance of the marketing community for the CX intellectual structure since 11 out the 20 most-cited references were published in marketing journals. In addition, five were in service management journals and four in management/business journals. Furthermore, the analysis of the 20 most-cited references confirms the predominance of references on customer experience topics (15 out the 20). Therefore, CX-related research has rapidly increased over the past 10 years and specialized CX references have occupied a central position in the intellectual network. To delve deeper into the intellectual structure of CX, co-citation results are presented next.

4.1 Co-citation Results in the Customer Experience Field

Reference co-citation analysis was chosen as the main method because it has been increasingly used to comprehend the intellectual structure of research fields (as in Refs. [23, 24, 26]). The intellectual structure represents the foundations upon which current research is being carried out and contains fundamental theories and methodological canons of the field [21]. Since the study sample had over 25,000 references, it is not viable to conduct a co-citation analysis of the whole sample set. Then, some authors suggested that a cut off point can be established to select the most influential papers (e.g. [21, 26]). Therefore, the current study selected the references which had been cited at least 15 times, and thus 176 references were involved in the co-citation analysis, clustered using the VOSviewer software. VOSviewer employs an algorithm to locate nodes (references) in such a way that the distance between any two nodes reflects the relationship between them [25]. The software then assigns the nodes to clusters through a community detection process, in which each cluster of closely related nodes represents a leading theoretical community within a specific research field. In the network, each node is assigned to only one cluster and the size of each node (reference) reflects its relevance (based on the quantity of connections) [25]. Finally, because these software tools provide quantitative and visual information that tends to be descriptive in nature, content analysis was employed to interpret the information and gain insight.

As showed in Fig. 2, the analysis of customer experience co-citation network led to the identification of four clusters that were named based on the main content of most references belonging to them. Each one of the four clusters corresponds to one influent theoretical basis for CX research. The first cluster (65 red nodes) was labelled 'service quality'. The second one (22 yellow nodes) was nominated 'service encounter'. The third cluster (53 green nodes) represents 'service-dominant logic' and the last one (36 blue nodes) is 'customer experience'. These four clusters comprise the intellectual structure of the customer experience research. Upon Helkkula's framework [18], each cluster is detailed in more detail following.

4.1.1 Service Quality

Cluster 1 (red nodes) illustrates the influence of service quality theory on the intellectual basis of customer experience research. In a traditional view, service quality is the degree of discrepancy between customer's service perceptions and expectations [43, 44]. It relates to the customer satisfaction concept which is traditionally defined as a customer's judgment of a product or service regarding customer's expectations [45, 46]. In fact, although service quality and customer satisfaction concepts arose separately around the 80s, as they progressed (over the 90s) researchers began to see parallels between them [47]. Thus, a number of studies demonstrate significant relationships between service quality and customer satisfaction constructs which affect behavioural intentions (such as loyalty) and financial results (such as profitability) as e.g. [48–52].

Service quality theory has provided a fundamental basis for understanding and measuring CX [7]. Indeed, historically customer experience was not dealt with as a separate concept but, rather, as an element related to customer satisfaction and service quality [11]. Only more recently, service quality, satisfaction, and CX could be distinguished as different constructs, however, in some cases, complementary [15]. CX is exactly replacing service quality [53]. Therefore, service quality theory has influenced the customer experience research, primarily the outcome-based view [18].

According to Ref. [18], the outcome-based research is a type of CX research which focuses on the relationships affecting: (i) the outcomes of the CX or (ii) how the CX moderates other relationships. The outcome-based research focus on measure CX in terms of outcome variables as satisfaction, loyalty, and repurchase intentions, or how these outcomes might be influenced by other variables (such as emotions), positing the experience as one element in a model linking a number of variables (or attributes) to
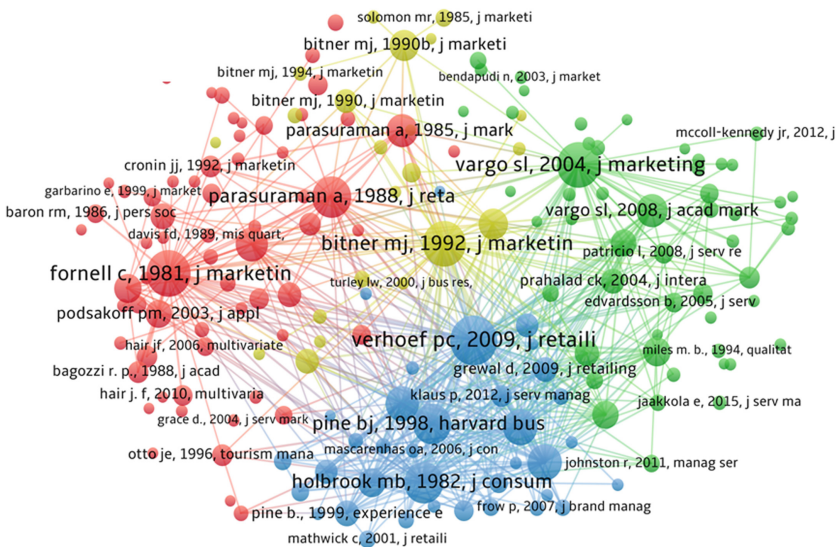

Fig. 2. Co-citation results (Color figure online)

outcomes [18]. For this type of research, service quality provided several models build on a statistical basis, which has sought to measure the influence of specific firm actions on customer's perceptions and behaviours (see Ref. [54] for more details). Thus, Cluster 1 presents several references related to statistical methods, mainly multivariate techniques as e.g. [55].

In a recent review aiming to identify the measures of CX, Bueno et al. [8] demonstrated that SERVQUAL [56] has been utilized by several authors to measure CX in different contexts. In fact, Parasuraman [56] occupies a prominent position in the co-citations network together with Cronin and Taylor [57] which presents SERVPERF as an alternative approach of SERVQUAL. It confirms the assumption that the main contribution of service quality theory remains at the measurement level, where service quality appears as a significant starting point to define and measure CX [7, 8].

4.1.2 Service Encounter

Cluster 2 (yellow nodes) represents the influence of service encounter theory on the intellectual basis of CX research. Service encounter theory was developed from the 90s and it is grounded on the fundamental idea that the customer evaluation of a service depends on the service encounter when the customer interacts directly with the firm [58, 59]. Service encounter encompasses all aspects of the service with which the customer may interact, including its personnel, its physical facilities, and other tangible elements during a consumption ratio [60]. In this domain, the term 'servicescape' refers specifically to the influence of the physical surrounding on customer behaviour [59]. Service encounter theory serves primarily what Helkkula [18] categorized as CX process-based research, whose main focus is on the "architectural elements" of the CX process, which often referred to phases or stages of the service process. Indeed, companies seek to design and execute services that match their brand promise, which implies in manage service encounters at different touch points to deliver a consistent CX [61].

Cluster 2 also encompasses references which deal with the role of employees on the behaviour of customers during the service encounter [59], and how the servicescape can influence employee satisfaction, productivity, and motivation [58–60, 62]. In addition, service encounters often occur in the presence of multiple customers who share the servicescape with each other. Therefore, other customers have an impact on one's customer experience [63]. In this line, servicescape comprises not only objective stimuli but also 'subjective, immeasurable, social, symbolic, and often managerially uncontrollable natural stimuli', which all influence customer decisions and social interactions between the customers [64]. All these architectural elements of the service encounter impact the CX and may to be managed by the companies [61].

4.1.3 Service-Dominant Logic

Cluster 3 (green nodes) portrays the influence of the Service-Dominant Logic (SDL) theory on the intellectual basis of CX research. SDL emerged in the mid-2000s as a 'paradigmatic lens for rethinking the role of services and customers in value creation', replacing: (i) services as the basis of all exchange and (ii) customer as an active participant (co-creator) in relational exchanges with the firm [65, 66]. SDL theory serves primarily the CX process-based research, in terms of Helkkula's

framework [18]. In fact, SDL expands the service encounter view to encompass a perspective of providers engaged with a dynamic perspective often referred to as customer journey [7, 67]. In this view, the fundamental premise is that firms must move into the domain of customer experience management in a dynamic way, creating long-term emotional bonds with their customers through the co-creation of memorable experiences potentially involving a network of goods and services [67].

In seeking to translate this fundamental premise in management practices, several authors grounded on SDL theory have dealt with CX trough a service design approach, providing tools to properly manage CX across the different phases and levels of the service [38, 39]. For instance, Bitner et al. [68] describe service blueprints as techniques customer-focused, which allow firms to visualize the service processes, points of customer contact, and the physical evidence associated with their services from their customers' perspective, connecting the underlying support processes throughout the organization that drives and supports CX. In the same line, Patrício et al. [69] introduce the 'service experience blueprint' and Teixeira et al. [70] present the 'customer experience modelling'. Patrício et al. [38] present the 'multilevel service design'. These tools help designers understand how the different levels and stages of customer experience are interrelated and can contribute to design complex service systems.

In addition to providing a theoretical basis for CX process-based research, SDL also supports the phenomenon-based research, which is focused on the individual experiences, usually internal, subjective, event-specific, and context-specific [18]. In this perspective, SDL expands the view of CX beyond hedonic experience by incorporating everyday consumption experiences [71, 72]. Additionally, SDL supports the idea of co-creation of CX, which occurs when interpersonal interaction with other actors within or beyond the service environment influences an actor's subjective response [14, 73]. In this line, SDL allows for a service-ecosystem view of the value co-creation, in which CX is a complex system of different actors and stakeholders [32, 74]. Therefore, experiences are not only subjective but also a relational, social, and inter-subjective phenomenon [32].

4.1.4 Customer Experience

Cluster 4 (blue nodes) represents the customer experience and encompasses what is known as customer experience literature in a specific sense. It provides the seminal works and occupies a central role in the co-citation network of CX research, connecting the different intellectual basis of CX and serving as groundwork. Therefore, it supports phenomenon, process, and outcome-based CX research.

In a phenomenon-based perspective, the seminal article of Holbrook and Hirschman [75] postulates that consumer behaviour links to a subjective state of consciousness regarding 'symbolic meanings', 'hedonic responses', and 'aesthetic criteria' that involves a steady flow of 'fantasies, feelings, and fun'. Later, Pine and Gilmore [76] positioned experience as a distinct entity from goods and services, arguing that consumers want to purchase experiences, which means memorable events that a company stages to engage him/her in an inherently personal way. In a marketing foundation, Schmitt [77, 78] summarizes experiential view as CX-focused, in which consumption is a holistic experience comprised of both the rational and emotional drivers. This

holistic approach gained prominence and was adopted by important references to CX research (e.g. [11]).

From a process-based perspective, CX is the process of strategically managing a customers' entire experience with a company to create value both to the customer and the firm [36, 79]. CX refers to the holistic management approach of designing and directing the interactions that customers have with the company and its employees, to improve the total customer experience [11]. Practitioners have to apprise CX management as one of the most promising approaches to address the challenges of consumer markets because CX enhances relationships with customers and builds long-term customer loyalty [79].

In an outcome-based perspective, measuring CX is critical for the firms. Therefore, many companies try to measure and evaluate customer experience through the use of multiple metrics and scales. In this way, the experiential view provides some influential references. For instance, Brakus et al. [80] constructed a brand experience scale that includes four dimensions: 'sensory', 'affective', 'intellectual', and 'behavioural'. Chang and Horng [81] developed a multidimensional scale of experience quality which is composed of five dimensions: 'physical surroundings', 'service providers', 'other customers', 'customers' companions' and the 'customers themselves'. References [9, 53] propose a scale to measure the overall quality of the customer experience, which has four dimensions: 'peace of mind', 'moments of truth', 'focus on output', and 'product experience'.

Finally, due to recent advances in mobile technology and the increasing number of consumers using the Internet to make purchases, the dynamics of e-commerce have changed considerably, making it impressive for companies to re-engineer their interaction and service delivery to gain an ideal CX. In this direction, since the 2000s some studies have focused on the online CX as e.g. in Refs. [82–84]. Next, the following results deals with the growing literature relating technology and CX.

4.2 The Technology Advance at Customer Experience Literature

'Enhancing the customer experience' and 'leveraging technology to advances services' are among the top priorities of contemporary research for advancing the service field [17]. Indeed, the interplay between technology and CX is presented in several recent articles (e.g. Refs. [93–100]), shaping a research stream whose early works emerged in the 2000s based on the service encounter theory. At that time, scholars have already recognized the CX management challenges facing the increasing deployment of technology, since technology infusion changes the essence of service encounters and, therefore, the ways the customer experiences the service [85–87], by enabling service customization, improving service recovery and spontaneously delighting customer [85].

An initial and prolific line of research has focused heavily on self-service technologies, especially on the factors for customer acceptance or lack of acceptance of the technology [86, 88–90]. In addition to the service encounter theory, the service-dominant logic provides a framework for this research line, by applying key themes of value co-creation, co-production, and resource-integration as lens to provide insights into the adoption of self-service technology and CX consequences [91, 92]. Recent

studies have dealt with customer's acceptance of emerging technologies such as artificial intelligence (e.g. [93]) and service robots (e.g. Ref. [94]), investigating the effects on the CX and customer's behavioural consequences. Others publications have already dealt with how emerging technologies can support the CX measurement and management, including big data (e.g. Ref. [95]), internet of things (e.g. Ref. [96]), augment reality (e.g. Ref. [97]), and mobile social media (e.g. Ref. [98])

Currently, the concept of service encounter 2.0 has emerged encompassing 'any customer-company interaction that results from a service system that is comprised of interrelated technologies (either company-or customer-owned), human actors (employees and customers), physical/digital environments and company/customer processes' [99]. In this context, the CX literature points to the need for further investigate the interplay among the CX's physical, digital and social realms to create a consistently superior CX [100].

5   Concluding Remarks

This paper identified the most influential published sources and explored the changes that have come about in the intellectual structure of customer experience research using bibliometric techniques. In terms of volume of publication, 2009 reveals a significant increase in the number of publications, with emphasis on the past four years (2015–2018). This increasing interest can be partially explained by the emergence of service-dominant logic and by the fact that companies are now competing mostly on the basis of customer experience. The bibliometric analysis revealed three clusters of research (service quality, service encounter, and service-dominant logic), which constitutes the foundations of the CX research field. Nevertheless, in the past years, the CX literature has evolved to form its own body of knowledge and, consequently, a number of studies specifically dedicated to the experiential aspects of the consumption have started to gain influence in the field.

Based on the current results, some implications for the customer experience research can be summarized:

- The emergence of customer-centric service theories has contributed to the development of the CX research field. With the emergence of service quality theory in the late 70s and early 80s, the customer perspective came to occupy a central focus in the service evaluation. In the 90s, service encounter theory has continued the centrality of the customer, emphasizing the direct interactions between the customer and organization and how service processes should be managed from the customer perspective. Later, in the mid-2000s, the emergence of the service-dominant logic theory deepened the central role of the customer, while broadening the spectrum of influence over the customer to increasingly complex value networks that translate into the service ecosystem. Taken all of them together, these customer-centric theories have allowed the development of a theoretical corpus culminated in the emergence of CX specific literature.
- The initial studies focusing on CX emphasized the hedonic aspects of consumption. In this sense, these seminal articles positioned CX as a phenomenon related to

memorable experiences staged by organizations to customers, which are involved in 'fantasies, feelings, and fun'. Conversely, later studies have changed the conceptualization of customer experience construct. Indeed, the definition of CX has evolved into a holistic view that represents the customer response to multiple interactions with the organization (objective and subjective aspects), including all routine customer-organization encounters.

- Customer experience has evolved from a static to a dynamic view. Initially, the main focus of the CX research was to evaluate the service delivery from the customer perspective, following the tradition of the service quality theory. Overall, these initial studies focused on investigating customer perceptions during the purchase were losing attention from researchers. As the CX research field evolves and other theoretical influences are incorporated into the intellectual structure, the customer experience view expands to integrate other different stages of the purchase, including the moments before and after its realization. This implies the need for organizations to continuously monitor and manage processes in the different purchase phases to engage the customer. Furthermore, the idea that services are co-created with customers gain impulse and highlights the relationship between experience and co-creation.
- As customer experience research field consolidates, the role of technology has gained prominence. Research into how technology can help monitor and improve the CX has emerged in the late 2000s and especially from 2015. It may result from the consolidation of a theoretical body entirely devoted to customer experience, which allowed the field to expand its related topics. In addition, the increasing importance of the internet in consumption relations also contributed to driving the interest of the CX field to technology. More recently, cheapness and advances in emerging technologies such as artificial intelligence, big data, analytics, and robotics have driven research that links customer experience and technology.

To the best of our knowledge, bibliometric studies are not yet well established in the field of customer experience research. Although this study attempts to systematically map the field using bibliometric co-citation analysis, it is not without its own limitations. In particular, special attention should be given to the fact that the data collection was conducted using exclusively the SSCI-WoS database and, naturally, not all issues and areas have been covered. As such, the next steps of this study would be to extend to other databases in order to complement the results obtained in this phase.

References

1. Gartner: Key findings from the gartner customer experience survey (2018). https://www.gartner.com/en/marketing/insights/articles/key-findings-from-the-gartner-customer-experience-survey. Accessed 1 Aug 2019
2. De Keyser, A., Lemon, K.N., Klaus, P., Keiningham, T.L.: A framework for understanding and managing the customer experience. Marketing Science Institute, Working Paper Series Report, 15-21 (2015)

3. Morgan, B.: The 10 best B2B customer experience [Web log post], 4 June 2019. https://www.forbes.com/sites/blakemorgan/2019/06/04/the-10-best-b2b-customer-experiences/#24ce226653f5. Accessed 22 Aug 2019

4. Patel, S.: Five small businesses that get customer experience right [Web log post] (2018). https://www.entrepreneur.com/article/319520. Accessed 31 Aug 2019

5. McColl-Kennedy, J.R., et al.: Fresh perspectives on customer experience. J. Serv. Mark. **29**(6/7), 430–435 (2015)

6. Jain, R., Aagja, J., Bagdare, S.: Customer experience – a review and research agenda. J. Serv. Theory Pract. **27**(3), 642–662 (2017)

7. Lemon, K.N., Verhoef, P.C.: Understanding customer experience throughout the customer journey. J. Mark. **80**(6), 69–96 (2016)

8. Bueno, E.V., Beauchamp Weber, T.B., Bomfim, E.L., Kato, H.T.: Measuring customer experience in service: a systematic review. Serv. Ind. J. **39**(11–12), 779–798 (2019)

9. Klaus, P., Maklan, S.: Towards a better measure of customer experience. Int. J. Market Res. **55**(2), 227–246 (2013)

10. Maklan, S., Klaus, P.: Customer experience: are we measuring the right things? Int. J. Market Res. **53**(6), 771–772 (2011)

11. Verhoef, P.C., Lemon, K.N., Parasuraman, A., Roggeveen, A., Tsiros, M., Schlesinger, L. A.: Customer experience creation: determinants, dynamics and management strategies. J. Retail. **85**(1), 31–41 (2009)

12. Mahr, D., Stead, S., Odekerken-Schröder, G.: Making sense of customer service experiences: a text mining review. J. Serv. Mark. **33**(1), 88–103 (2019)

13. Kranzbühler, A.M., Kleijnen, M.H.P., Morgan, R.E., Teerling, M.: The multilevel nature of customer experience research: an integrative review and research agenda. Int. J. Manag. Rev. **20**(2), 433–456 (2018)

14. Jaakkola, E., Helkkula, A., Aarikka-Stenroos, L.: Service experience co-creation: conceptualization, implications, and future research directions. J. Serv. Manag. **26**(2), 182–205 (2015)

15. Vasconcelos, A.M.D., Barichello, R., Lezana, A., Forcellini, F.A., Ferreira, M.G.G., Cauchick Miguel, P.A.: Conceptualisation of the service experience by means of a literature review. Benchmarking: Int. J. **22**(7), 1301–1314 (2015)

16. Ostrom, A.L., et al.: Moving forward and making a difference: research priorities for the science of service. J. Serv. Res. **13**(1), 4–36 (2010)

17. Ostrom, A.L., Parasuraman, A., Bowen, D.E., Patrício, L., Voss, C.A.: Service research priorities in a rapidly changing context. J. Serv. Res. **18**(2), 127–159 (2015)

18. Helkkula, A.: Characterising the concept of service experience. J. Serv. Manag. **22**(3), 367–389 (2011)

19. Hwang, J., Seo, S.: A critical review of research on customer experience management: theoretical, methodological and cultural perspectives. Int. J. Contemp. Hosp. Manag. **28**(10), 2218–2246 (2016)

20. Lipkin, M.: Customer experience formation in today's service landscape. J. Serv. Manag. **27**(5), 678–703 (2016)

21. Zupic, I., Čater, T.: Bibliometric methods in management and organization. Organ. Res. Methods **18**(3), 429–472 (2015)

22. Bragge, J., Kauppi, K., Ahola, T., Aminoff, A., Kaipia, R., Tanskanen, K.: Unveiling the intellectual structure and evolution of external resource management research: insights from a bibliometric study. J. Bus. Res. **97**(1), 141–159 (2019)

23. Ferreira, F.A.F.: Mapping the field of arts-based management: bibliographic coupling and co-citation analyses. J. Bus. Res. **85**, 348–357 (2018)

24. Leung, X.Y., Sun, J., Bai, B.: Bibliometrics of social media research: a co-citation and co-word analysis. Int. J. Hosp. Manag. **66**, 35–45 (2017)

25. van Eck, N.J., Waltman, L.: Software survey: VOSviewer, a computer program for bibliometric mapping. Scientometrics **84**, 523–538 (2010)

26. Dzikowski, P.: A bibliometric analysis of born global firms. J. Bus. Res. **85**, 281–294 (2018)

27. Gurzki, H., Woisetschläger, D.M.: Mapping the luxury research landscape: a bibliometric citation analysis. J. Bus. Res. **77**, 147–166 (2017)

28. Følstad, A., Kvale, K.: Customer journeys: a systematic literature review. J. Serv. Theory Pract. **28**(2), 196–227 (2018)

29. Braun, V., Clarke, V.: Using thematic analysis in psychology. Qual. Res. Psychol. **3**(2), 77–101 (2006)

30. Nag, R., Hambrick, D.C., Chen, M.-J.: What is strategic management, really? Inductive derivation of a consensus definition of the field. Strateg. Manag. J. **28**(5), 935–955 (2007)

31. Brodie, R.J., Hollebeek, L.D., Jurić, B., Ilić, A.: Customer engagement: conceptual domain, fundamental propositions, and implications for research. J. Serv. Res. **14**(3), 252–271 (2011)

32. Chandler, J.D., Lusch, R.F.: Service systems: a broadened framework and research agenda on value propositions, engagement, and service experience. J. Serv. Res. **18**(1), 6–22 (2015)

33. Heinonen, K., Strandvik, T., Mickelsson, K.J., Edvardsson, B., Sundström, E., Andersson, P.: A customer-dominant logic of service. J. Serv. Manag. **21**(4), 531–548 (2010)

34. Payne, A., Storbacka, K., Frow, P., Knox, S.: Co-creating brands: diagnosing and designing the relationship experience. J. Bus. Res. **62**(3), 379–389 (2009)

35. Wu, P.-L., Yeh, S.-S., Huan, T.C., Woodside, A.G.: Applying complexity theory to deepen service dominant logic: configural analysis of customer experience-and-outcome assessments of professional services for personal transformations. J. Bus. Res. **67**(8), 1647–1670 (2014)

36. Grewal, D., Levy, M., Kumar, V.: Customer experience management in retailing: an organizing framework. J. Retail. **85**(1), 1–14 (2009)

37. Puccinelli, N.M., Goodstein, R.C., Grewal, D., Price, R., Raghubir, P., Stewart, D.: Customer experience management in retailing: understanding the buying process. J. Retail. **85**(1), 15–30 (2009)

38. Patrício, L., Fisk, R.P., FalcãoeCunha, J., Constantine, L.: Multilevel service design: from customer value constellation to service experience blueprinting. J. Serv. Res. **14**(2), 180–200 (2011)

39. Zomerdijk, L.G., Voss, C.A.: Service design for experience-centric services. J. Serv. Res. **13**(1), 67–82 (2010)

40. Otto, J.E., Ritchie, J.R.B.: The service experience in tourism. Tour. Manag. **17**(3), 165–174 (1996)

41. Lemke, F., Clark, M., Wilson, H.: Customer experience quality: an exploration in business and consumer contexts using repertory grid technique. J. Acad. Mark. Sci. **39**(6), 846–869 (2011)

42. Gallan, A.S., Jarvis, C.B., Brown, S.W., Bitner, M.J.: Customer positivity and participation in services: an empirical test in a health care context. J. Acad. Mark. Sci. **41**(3), 338–356 (2013)

43. Grönroos, C.: A service quality model and its marketing implications. Eur. J. Mark. **18**(4), 36–44 (1984)

44. Parasuraman, A., Zeithaml, V.A., Berry, L.L.: A conceptual model of service quality and its implications for future research. J. Mark. **49**(4), 41–50 (1985)

45. Oliver, R.L.: A cognitive model of the antecedents and consequences of satisfaction decisions. J. Mark. Res. **17**(4), 460–469 (1980)
46. Oliver, R.: Cognitive, affective, and attribute bases of the satisfaction response. J. Consum. Res. **20**, 418–430 (1993)
47. Oliver, R., Rust, R., Varki, S.: Customer delight: foundations, findings, and managerial insights. J. Retail. **73**(3), 311–336 (1997)
48. Anderson, E., Fornell, C., Lehman, D.: Customer satisfaction, market share, and profitability: findings from Sweden. J. Mark. **58**, 53–66 (1994)
49. Bolton, R.N., Drew, J.H.: Multistage model of service customers' quality and value assessments. J. Consum. Res. **17**(4), 375–384 (1991)
50. Cronin Jr., J.J., Brady, M.K., Hult, G.T.M.: Assessing effects of quality, value and customer satisfaction. J. Retail. **76**(2), 193–218 (2000)
51. Tam, J.L.M.: Customer satisfaction, service quality and perceived value: an integrative model. J. Mark. Manag. **20**, 897–917 (2004)
52. Zeithaml, V.A., Berry, L.L., Parasuraman, A.: The behavioral consequences of service quality. J. Mark. **60**(2), 31–46 (1996)
53. Klaus, P., Maklan, S.: EXQ: a multiple-item scale for assessing service experience. J. Serv. Manag. **23**(1), 5–33 (2012)
54. Gupta, S., Zeithaml, V.: Customer metrics and their impact on financial performance. Mark. Sci. **25**(6), 718–739 (2006)
55. Hair, J.F., Black, W., Babin, B., Anderson, R.: Multivariate Data Analysis. Pearson New International Edition (2010)
56. Parasuraman, A., Zeithaml, V., Berry, L.: SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. J. Retail. **64**, 12–40 (1988)
57. Cronin, J.J., Taylor, S.A.: Measuring service quality: a reexamination and extension. J. Mark. **56**(3), 55–68 (1992)
58. Bitner, M.J.: Evaluating service encounters: the effects of physical surroundings and employee responses. J. Mark. **54**(2), 69–82 (1990)
59. Bitner, M.J.: Servicescapes: the impact of physical surroundings on customers and employess. J. Mark. **56**(2), 57–71 (1992)
60. Shostack, G.L.: Planning the service encounter. In: Czepiel, J.A., Solomon, M.R., Suprenant, C.F. (eds.) The Service Encounter: Managing Employee/Customer Interaction in Service Businesses, pp. 243–254. Lexington Books, New York (1985)
61. Bolton, R.N.: Service timing: designing and executing service in a dynamic environment. In: Maglio, P.P., Kieliszewski, C.A., Spohrer, J.C., Lyons, K., Patrício, L., Sawatani, Y. (eds.) Handbook of Service Science, Volume II. SSRISE, pp. 13–33. Springer, Cham (2019). https://doi.org/10.1007/978-3-319-98512-1_2
62. Hui, M.K., Bateson, J.E.G.: Perceived control and the effects of crowding and consumer choice on the service experience. J. Consum. Res. **18**(2), 174–184 (1991)
63. Grove, S.J., Fisk, R.P.: The impact of other customers on service experiences: a critical incident examination of "getting along". J. Retail. **73**(1), 63–85 (1997)
64. Rosenbaum, M.S., Massiah, C.: An expanded servicescape perspective. J. Serv. Manag. **22**(4), 471–490 (2011)
65. Vargo, S.L., Lusch, R.F.: Evolving to a new dominant logic for marketing. J. Mark. **68**, 1–17 (2004)
66. Vargo, S.L., Lusch, R.F.: Service-dominant logic: continuing the evolution. J. Acad. Mark. Sci. **36**(1), 1–10 (2008)
67. Tax, S.S., McCutcheon, D., Wilkinson, I.F.: The service delivery network (SDN): a customer-centric perspective of the customer journey. J. Serv. Res. **16**(4), 454–470 (2013)

68. Bitner, M.J., Ostrom, A.L., Morgan, F.N.: Service blueprinting: a practical technique for service innovation. Calif. Manag. Rev. **50**(3), 66–94 (2008)
69. Patrício, L., Fisk, R.P., Falcão, E., Cunha, J.: Designing multi-interface service experiences: the service experience blueprint. J. Serv. Res. **10**(4), 318–334 (2008)
70. Teixeira, J., Patricio, L., Nunes, N.J., Nobrega, L., Fisk, R.P., Constantine, L.: Customer experience modeling: from customer experience to service design. J. Serv. Manag. **23**(3), 362–376 (2012)
71. Carù, A., Cova, B.: Marketing theory: a more humble but complete view of the concept. Mark. Theory **3**(2), 267–286 (2003)
72. Edvardsson, B., Enquist, B., Johnston, R.: Cocreating customer value through hyperreality in the prepurchase service experience. J. Serv. Res. **8**(2), 149–161 (2005)
73. Helkkula, A., Kelleher, C., Pihlström, M.: Practices and experiences: challenges and opportunities for value research. J. Serv. Manag. **23**(4), 554–570 (2012)
74. Vargo, S.L., Lusch, R.F.: Institutions and axioms: an extension and update of service-dominant logic. J. Acad. Mark. Sci. **44**(1), 5–23 (2016)
75. Holbrook, M.B., Hirschman, E.C.: The experiential aspects of consumption: consumer fantasies, feelings, and fun. J. Consum. Res. **9**(2), 132–140 (1982)
76. Pine, J., Gilmore, J.: Welcome to the experience economy. Harvard Bus. Rev. **76**(4), 97–105 (1998)
77. Schmitt, B.H.: Experiential marketing. J. Mark. Manag. **215**(1–3), 53–67 (1999)
78. Schmitt, B., Zarantonello, L.: Consumer experience and experiential marketing: a critical review. Rev. Mark. Res. **10**, 25–61 (2013)
79. Homburg, C., Jozić, D., Kuehnl, C.: Customer experience management: toward implementing an evolving marketing concept. J. Acad. Mark. Sci. **45**(3), 377–401 (2017)
80. Brakus, J.J., Schmitt, B.H., Zarantonello, L.: Brand experience: what is it? How is it measured? Does it affect loyalty? J. Mark. **73**(3), 52–68 (2009)
81. Chang, T.Y., Horng, S.C.: Conceptualizing and measuring experience quality: the customer's perspective. Serv. Ind. J. **30**(14), 2401–2419 (2010)
82. Bilgihan, A., Kandampully, J., Zhang, T.: Towards a unified customer experience in online shopping environments: antecedents and outcomes. Int. J. Qual. Serv. Sci. **8**(1), 102–119 (2016)
83. Novak, T.P., Hoffman, D.L., Yung, Y.F.: Measuring the customer experience in online environments: a structural modeling approach. Mark. Sci. **19**(1), 22–42 (2003)
84. Rose, S., Clark, M., Samouel, P., Hair, N.: Online customer experience in e-retailing: an empirical model of antecedents and outcomes. J. Retail. **88**(2), 308–322 (2012)
85. Bitner, M.J., Brown, S.W., Meuter, M.L.: Technology infusion in service encounters. J. Acad. Mark. Sci. **28**(1), 138–149 (2000)
86. Bitner, M.J., Ostrom, A.L., Meuter, M.L.: Implementing successful self-service technologies. Acad. Manag. Perspect. **16**(4), 96–108 (2002)
87. Meuter, M.L., Ostrom, A.L., Roundtree, R.I., Bitner, M.J.: Self-service technologies: understanding customer satisfaction with technology-based service encounters. J. Mark. **64**(3), 50–64 (2000)
88. Davis, F.D.: Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Q. **13**(3), 319–340 (1989)
89. Meuter, M.L., Ostrom, A.L., Bitner, M.J., Roundtree, R.: The influence of technology anxiety on consumer use and experiences with self-service technologies. J. Bus. Res. **56**(11), 899–906 (2003)
90. Salomann, H., Kolbe, L., Brenner, W.: Self-services in customer relationships: balancing high-tech and high-touch today and tomorrow. E-Service **4**(2), 65–84 (2006)

91. Hilton, T., Hughes, T., Little, E., Marandi, E.: Adopting self-service technology to do more with less. J. Serv. Mark. **27**(1), 3–12 (2013)

92. Nilsson, E., Ballantyne, D.: Reexamining the place of servicescape in marketing: a service-dominant logic perspective. J. Serv. Mark. **28**(5), 374–379 (2014)

93. Ostrom, A.L., Fotheringham, D., Bitner, M.J.: Customer acceptance of AI in service encounters: understanding antecedents and consequences. In: Maglio, P.P., Kieliszewski, C.A., Spohrer, J.C., Lyons, K., Patrício, L., Sawatani, Y. (eds.) Handbook of Service Science, Volume II. SSRISE, pp. 77–103. Springer, Cham (2019). https://doi.org/10.1007/978-3-319-98512-1_5

94. Wirtz, J., et al.: Brave new world: service robots in the frontline. J. Serv. Manag. **29**(5), 907–931 (2018)

95. Burton, J., Nasr, L., Gruber, T., Bruce, H.L.: Special section: advancing customer experience and big data impact via academic–practitioner collaboration. J. Serv. Mark. **31**(2), 142–147 (2017)

96. Balaji, M.S., Roy, S.K.: Value co-creation with internet of things technology in the retail industry. J. Mark. Manag. **33**(1–2), 7–31 (2017)

97. Hilken, T., de Ruyter, K., Chylinski, M., Mahr, D., Keeling, D.I.: Augmenting the eye of the beholder: exploring the strategic potential of augmented reality to enhance online service experiences. J. Acad. Mark. Sci. **45**(6), 884–905 (2017)

98. Carlson, J., Rahman, M.M., Taylor, A., Voola, R.: Feel the VIBE: examining value-in-the-brand-page-experience and its impact on satisfaction and customer engagement behaviours in mobile social media. J. Retail. Consum. Serv. **46**, 149–162 (2019)

99. Larivière, B., et al.: "Service Encounter 2.0": an investigation into the roles of technology, employees and customers. J. Bus. Res. **79**, 238–246 (2017)

100. Bolton, R.N., et al.: Customer experience challenges: bringing together digital, physical and social realms. J. Serv. Manag. **29**(5), 776–808 (2018)