Ten Years of Customer Engagement Research in Tourism and Hospitality: A Bibliometric Analysis

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Abstract. *This research study aims to review and synthesize customer engagement (CE) research in tourism and hospitality published between 2012 and 2021. A total of 134 articles published in this period were collected from the SCOPUS database. A systematic review through bibliometric analysis was conducted and the results of the descriptive analysis along with the results from keywords analysis based on text mining in the abstracts were presented. This study represents an attempt at providing a comprehensive bibliometric analysis of CE research in the tourism and hospitality field following the PRISMA protocol and using a VOSviewer software.*

Keywords. Bibliography, customer engagement, tourism, hospitality

1 Introduction

Customer engagement (CE) is the new buzz word in the marketing literature. The inclusion of customer engagement as a research priority topic of the Marketing Science Institute (2010, 2020) is a verification of the prominence of this concept (So, Li & Kim, 2020). The rise of social media enhances customer-brand interactions which increase the initial practical and research interest in CE (Tsiotsou, 2019). Despite the ample academic discussion of CE, there is no consensus on the conceptualization, dimensionality, and operationalization of this concept (Syrdal & Briggs, 2018). While some researchers focus on behavioral aspects of CE (Van Doorn et al., 2010, p. 253), other researchers conceptualize it as a "psychological state" (Brodie et al., 2011; Hollebeek, 2011).

Founded on the service-dominant (S-D) logic (Hollebeek, Srivastava & Chen, 2019), CE is gaining recognition in high-involvement and high-value industries that are intangible and experiential in nature, such as hospitality and tourism (Rather et al., 2022; Chen et al., 2021; Hao, 2020; So, Li & Kim, 2020). Along with the practitioners' interest, the scientific acknowledgment of CE is also evident. Recently, three systematic literature reviews on CE in the hospitality and tourism sector (i.e., Hao, 2020; Chen et al., 2021; So, Li & Kim, 2020) provided an in-depth overview of the studies on CE. Besides elucidating the present position and paving the future research on CE, they call for further development of a research outline in the hospitality and tourism sector (So, Li & Kim, 2020). Based on this and having in mind the limitations of the previous literature review studies, the present paper applies a bibliometric and network analysis for quantitative mapping of the academic intellectual structure of CE in the context of hospitality and tourism (2012-2021). Aside from systematic literature review, the bibliometric analysis applies statistical tools for revealing "trends and citations and/or co-citations of a particular theme" (Paul & Criado, 2020, p. 2). Additionally, this paper extends the review to more than a single keyword (customer engagement), including several related keywords (i.e., consumer engagement, brand engagement, etc.), thus comprising a broader review scope. Therefore, this study strives to reveal the research stream of CE in the hospitality and tourism setting, by identifying the authors, journals, and countries that have the highest contribution to this research setting. Further, keyword network co-occurrence analysis is performed, and leading research topics are revealed. By applying these methods, our study attempts to address the following research questions:

RQ1: Which are the most important keywords existing in the most influential articles in this field?

RQ2: Which are the most prominent research themes on CE in hospitality and tourism?

The remainder of the paper is as follows. First, the theoretical background of the CE concept is presented, followed by the presentation of the methodology and data. Further, results and analysis are elaborated, and future research streams are discussed.

2 Theoretical background

The concept of customer engagement appeared in the marketing literature around 2005 (Sawhney, Verona & Prandelli, 2005), and since then the concept has attracted growing research, especially at the end of the first decade of the 21st century (Bowden, 2009; Van Doorn et al., 2010; Brodie et al., 2011).

Indeed, there is an increasing number of published articles on the CE topic (Vivek, Beatty & Morgan, 2012; Wang & Lee, 2020; Ciunova-Shuleska, Palamidovska-Sterjadovska & Bogoevska-Gavrilova, 2022) due to the increased interest in the concept of engagement among both researchers and practitioners. However, there is a lack of consensus about the definition and operationalization of the CE concept, and therefore different conceptualizations of the construct (as a psychological and/or behavioral) (Van Doorn et al., 2010; Brodie et al., 2011; Hollebeek, 2011; Bowden, 2009) exist. Bowden (2009) defined CE as a sequential psychological process that individuals move through to become loyal to the brand. According to Brodie et al. (2011, p. 260), CE is a psychological state that "occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g., a brand) in focal service relationships". According to Van Doorn et al. (2010, p. 254), CE is defined as "a customer's behavioral manifestations that have a brand or firm focus, beyond purchase, resulting from motivational drivers", whereas Hollebeek (2011, p. 790) defined CE as "the level of an individual customer's motivational, brand-related, and context-dependent state of mind characterized by specific levels of cognitive, emotional, and behavioral activity in direct brand interactions."

The review of the literature has shown that the most of the published CE articles mainly study CE with brands no matter whether the brand as the central engagement object is implicitly or explicitly stated in the article, while the customer is the central engagement subject (Hollebeek, 2011; Moliner, Monferrer-Tirado & Estrada-Guillén, 2018; Hollebeek, Glynn & Brodie, 2014; Brodie et al., 2011). Moreover, besides the CE studies that focus on customers as individuals paying for the brand, there are CE studies that focus on consumers as individuals who do not purchase the brand (Sharma et al. 2022; Hollebeek, Glynn & Brodie, 2014; Rather, 2019). However, according to Hollebeek et al. (2022) customer engagement and consumer engagement are highly related concepts. Moreover, some studies focused on CE in a brand community (Sharma et al., 2022; Kumar & Kumar, 2020; Gummerus et al., 2012) linking the CE concept to a virtual (online) brand community.

In the last decade, context-specific exploration of CE has received growing attention from marketing researchers focusing on specific industries such as tourism and hospitality (Rather et al., 2022; Harrigan et al., 2017; So et al., 2016; Dijkmans, Kerkhof & Beukeboom, 2015; So, King & Sparks, 2014; Wei, Miao & Huang, 2013). This led to increased research interest in review studies on CE in the tourism and hospitality field (So, Li & Kim, 2020; Hao, 2020; Opute, Irene & Iwu, 2020; Chen et al., 2021).

So, Li & Kim (2020) reviewed and synthesized CE research in tourism and hospitality published in seven leading hospitality and tourism journals between 2009 and 2019, whereas Hao (2020) provided a systematic review of a total of 173 peer-reviewed articles collected from seven databases and published in the period 2007-2020. Additionally, Opute, Irene & Iwu (2020) used the qualitative approach in systematic reviewing existing literature on CE in tourism, while the research of Chen et al. (2021) employed a systematic bibliometric analysis and content analysis and focused on top-ranked journals from Google Scholar, Science Direct, EBSCOhost, and CNKI databases.

Based on all the above mentioned, in our review study, we analyzed several related terms to CE. Namely, by encompassing a collection of nine CE-related keywords and by conducting a bibliometric analysis on CE research from the tourism and hospitality field generated from the SCOPUS database only, our study differs from others that focused on a single keyword, focused on a review of CE research in general, and relied on conducting qualitative research, and thus enriching the previous CE review literature.

3 Methodology and data

In this study, we followed the PRISMA protocol for systematic reviews (Moher et al., 2009) which consists of four stages: identification, screening, eligibility, and inclusion for a transparent systematic literature review (Lim & Rasul, 2022). In the phase one we found 157 articles by searching the Scopus database on October 16 2021 within the article title (TITLE), abstract (ABS), and keywords (KEY): "customer engagement" OR "consumer engagement" OR "brand engagement" OR "customer brand engagement" OR "consumer brand engagement" OR "customer engagement behavior" OR "customer engagement behaviour" OR "consumer engagement behavior" OR "consumer engagement behaviour" OR "brand community engagement" and using only articles as the document type and the entire period (except 2022). The articles contain the words tourism and/or hospitality (in title, abstract, or keywords). The screening phase cleared the database from duplicates and non-English articles (one duplicate and one non-English article were removed). In the eligibility phase, we checked for editorials, book reviews, and systematic literature reviews, and thus excluded 8 literature review articles to avoid repetition in the results (Lim & Rasul, 2022). In the last phase, we applied content analysis of the abstracts to make the final decision for inclusion and

removed 13 articles. A total set of 23 articles are inadequate after following the PRISMA protocol, and the sample for analysis thus consists of 134 articles. Despite the data visualization on article distribution by year, top journals based on the number of published articles, and the 5 most cited articles, the research hotspots are discovered in the whole analyzed period and in the last five years by using text mining with the most recent version 1.6.18 of the software VOSviewer. Details of the software can be found in Van Eck and Waltman (2010).

4 Results and analysis

4.1 Descriptive analytics

We found that majority of the articles (37) are published in 2021 within the studied period of 2012 to 2021. Furthermore, 88.06 % of articles (118 articles) were published in the recent five years, indicating that researchers' interest in this area is booming (Figure 1).
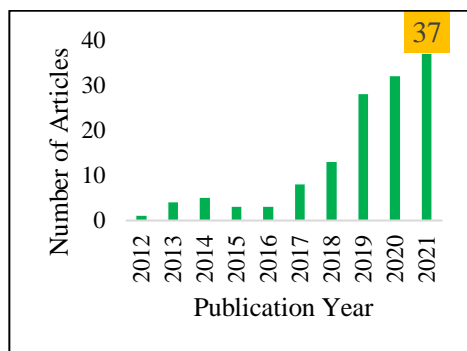

Figure 1. Distribution of articles by year

Figure 2. Top journals based on the number of published articles

In Figure 2, we present a tree map with the top journals based on the number of published articles. The International Journal of Contemporary Hospitality Management is the leader with 12 published articles, followed by the Journal of Hospitality and Tourism Research, etc.

In Table 1, the 5 most cited articles are presented. The most cited article is by Harrigan et al. (2017), with 270 citations, followed by the article by So et al. (2016), with 248 citations, etc.

Table 1. The top five most cited articles

Title	Source title	Authors	Year	Cited by
Customer engagement with tourism social media brands	*Tourism Management*	Harrigan P., Evers U., Miles M., Daly T.	2017	270
The Role of Customer Engagement in Building Consumer Loyalty to Tourism Brands	*Journal of Travel Research*	So K.K.F., King C., Sparks B.A., Wang Y.	2016	248
Customer Engagement With Tourism Brands: Scale Development and Validation	*Journal of Hospitality and Tourism Research*	So K.K.F., King C., Sparks B.	2014	247
A stage to engage: Social media use and corporate reputation	*Tourism Management*	Dijkmans C., Kerkhof P., Beukeboom C.J.	2015	231
Customer engagement behaviors and hotel responses	*International Journal of Hospitality Management*	Wei W., Miao L., Huang Z.	2013	149

We created a country co-authorship map based on the bibliometric data. The counting method is full-

counting, the analysis unit is countries, the maximum number of countries per document is set to 10, the minimum number of documents per country is 1, and the number of citations has no condition. Based on the findings, 46 countries have been found, although the largest group of connected countries is 33, which is used for the density visualization map (Figure 3). The weight of a country is determined by the number of documents it has, and we used rainbow colors the countries in the red area have more documents than the others. The countries in the red zone have a greater number of papers compared to others. According to Figure 3, the United States has the most documents (38), followed by China and India (both 14), Australia (13), the United Kingdom (11), etc.

The countries are divided into seven clusters, with the US collaborating closely with Switzerland, Belgium, and Colombia. India is in the cluster with Estonia, Malta, France, and Saudi Arabia, whereas China is in the cluster with Hong Kong, Macau, Pakistan, South Korea, and Taiwan. In addition, the United States has the highest number of citations (1266), followed by Australia (966), the United Arab Emirates (495), the United Kingdom (315), India (310) etc.
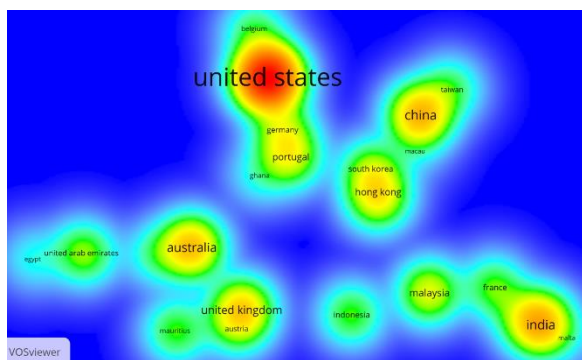

Figure 3. Country density visualization for articles on customer engagement in tourism and hospitality

4.2 Keywords analysis based on text mining in the abstracts

The keyword distribution visualizations built in VOSviewer software based on the keywords extracted from the 134 abstracts are shown and analyzed in this section. First, the focus is on the keywords that appear at least twice in the observed period of 2012-2021, in order to discover research hotspots over the entire period by presenting a network visualization of keyword co-occurrence. The keywords are then analyzed throughout the last three years (2019-2021), with the minimum number of occurrences of the keywords set at two. We show a cluster density visualization of keywords in the last three years for this period.

4.3 Keywords analysis based on text mining in the abstracts over the entire analyzed period

Based on text data from the Scopus database, we develop a keyword co-occurrence network visualization. The terms (keywords) are mined from abstracts, and the abstract structure labels and copyright assertions are not included in the abstract fields. We found 3048 keywords, and we set the minimum number of occurrences at two, therefore 612 fulfilled the conditions. The software's default choice is to select the 60% most relevant keywords based on the relevance score, leaving 367 terms to be verified. We have removed the keywords that have no meaning for the analysis, such as basis, conceptual framework, consequence, current research, direct effect, and so on, from the list of 367 keywords (Appendix 1a). Items and lines constitute the visualization network. Labels and circles are used to display the items. The item's weight is dependent on the size of the label and circle. The label may not be visible for some items, which is done to avoid the problem of overlapping labels (Van Eck & Waltman, 2020). A link is created by drawing a line between two items. The stronger the relationship between two items, the thicker the line between them and the shorter the distance between them (Cvetkoska & Savic, 2021). The quantity of distinct colors indicates how many different clusters there are. Items that are the same color belong to the same cluster. Figure 4 shows a visualization of the keyword co-occurrence network from 2012 to 2021. The total number of items in this network is 290, with 2,645 links and a link strength of 2,805. We can observe that the items are grouped into 11 clusters based on the different colors. The largest label and circle are displayed for the keyword hospitality management, which belongs to the orange cluster, indicating that it has the highest weight (based on occurrences), followed by engagement behavior, which also belongs to the orange cluster. The keyword hospitality management has 18 occurrences with 95 links, giving it a total link strength of 119. The keyword engagement behavior has ten occurrences with 61 links, and the total link strength is 79.
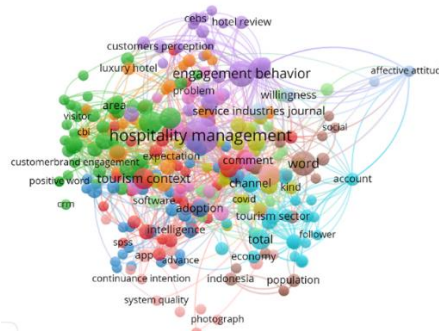

Figure 4. Keyword co-occurrence network visualization over the entire analyzed period

4.4 Keywords analysis based on text mining in the abstracts in the last three years (2019-2021)

There have been 97 papers published in the last three years whose abstracts have been used to identify research hotspots using text mining. We detected 2200 keywords using the VOSviewer software, and we set the minimum number of occurrences of a keyword to 2, so 434 meet this criterion. The software then chooses the 60% most relevant of these by default, leaving 260 keywords. We also removed 53 non-relevant keywords, such as article, base, contrary, direct effect, direct influence, direct relationship, effective implementation, empirical proof, empirical outcome, empirical study, end, and so on (Appendix 1b), leaving 207 keywords for the cluster density visualization (Figure 5). The item satisfaction that belongs to the pink cluster has the highest weight (11 occurrences, 54 links, and the total link strength is 75). In addition, we have found that research hotspots in 2019 are linked with: satisfaction, customer trust, customer loyalty, customer engagement strategy, emotional connection, relationship market strategy, confirmatory factor analysis, etc., while in 2020 the researchers most focus on the hospitality industry, customer brand engagement, engagement behavior, customer experience, destination brand engagement, behavioral engagement. In the last analyzed year, researchers' focus was on COVID, value cocreation, Instagram, celebrity effect, servicescape, and customer retention, and the used software is AMOS for structural equation modeling.
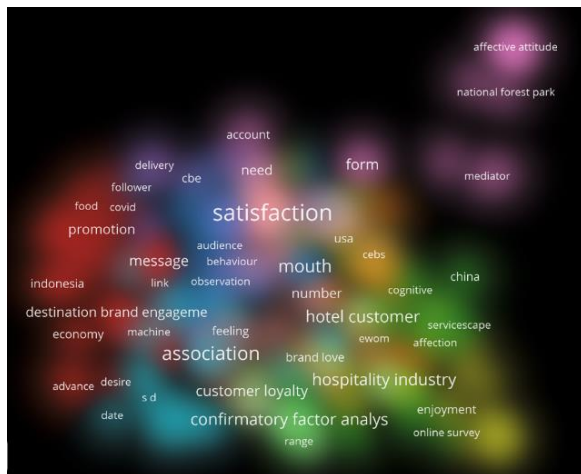

Figure 5. Overlay density cluster visualization in the last 3 years (2019-2021)

5 Conclusion

The article's review of CE research in tourism and hospitality outlined several takeaways that provide important implications for future CE research in this field. *First*, the interest in researching the CE in the tourism and hospitality field has been continually growing from 1 article in 2012 to 37 published articles in 2021. The highest increase in the number of published articles can be noticed in 2019 compared to 2018, with 88.06% of all articles being published in the period from 2017 to 2021 which indicates that SCOPUS journals have been highly responsive to CE research studies in tourism and hospitality in the last 5 years. Second, the top 5 most influencing authors Harrigan et al. (2017), So et al., (2016), So, King & Sparks (2014), Dijkmans, Kerkhof & Beukeboom (2015), and Wei, Miao & Huang (2013) published their research studies in Tourism Management, Journal of Travel Research, Journal of Hospitality and Tourism Research and International Journal of Hospitality, with Tourism and Management being the journal where two of the top five articles were published. These five most cited studies amounted to a total of 1145 citations with an average of 229 citations per article indicating that prospective authors should be aware of these articles and use them as a basis when making the theoretical foundation of their future CE research. *Third*, authors who worked on the CE topic in tourism and hospitality come from 46 countries with the United States being the country with the most published documents. Regarding the collaboration, and based on the identified clusters, it can be noticed that there is a strong collaboration among researchers from several Asian countries, whereas the other researchers collaborate with colleagues from countries that do not belong to the same region and are located far from each other. *Fourth*, the most often occurred keywords in the research studies published in the period 2012-2021 are hospitality management and engagement behavior indicating that the researchers predominantly analyzed the CE topic from a behavioral perspective. *Fifth*, the keyword satisfaction is the most often occurred keyword in the research studies from the last three years (2019-2021) meaning that the latest CE research mostly linked CE to satisfaction as an important marketing indicator, leading to the conclusion that the satisfaction will be the major research hotspots in CE studies in tourism and hospitality.

Customer satisfaction is strongly related to CE and both could be improved by enhancing customer experience and motivating customer co-creation in hospitality management. Providing a personalized customer experience in tourism is expected to enrich the customer value, as well as the value for tourist providers (Mohammadi et al., 2021). Nowadays, the active role of customers in creating their experience is enabled by using the Internet and especially through social media.

So, based on the extracted theoretical highlights, future academic and managerial efforts in tourism and hospitality should be put into stimulating customer co-creation as a superior form of CE (Chathoth et al., 2014). This in turn will provide enhanced customer

experience and customer satisfaction, as well as customer retention and loyalty (Rather et al., 2022).

Though this study contributes to paving the CE research in tourism and hospitality, it is limited in several ways. First, Scopus is used for retrieving the 134 English journal articles, so this study cannot exclude the possibility of omitting some articles published in journals that are indexed in other databases. Future studies may also consider other databases, as well as non-English articles and conference papers, book reviews, doctoral and master thesis, etc. Second, although this study applies text mining in terms of keywords analysis, the future study may use topic modeling to reveal the hidden research themes. At last, although the present study thoroughly reviewed the past and present CE studies in the context of tourism and hospitality, continuous mapping of the scientific knowledge will be needed in the following years, due to the dynamic nature of this field.

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Appendix 1

a) Excluded terms for the keyword co-occurrence network visualization over the entire analyzed period

2013international journal, 2015international journal, 2017international journal, 2018international journal, 2019international journal, 2020current issue, 2020international journal, academic research, basis, conceptual framework, consequence, current research, direct effect, direct influence, direct relationship, ease, effective implementation, empirical analysis, empirical evidence, empirical result, empirical study, end, essential element, establishment, evidence, example, extant literature, findings highlight, first study, first time, flow, further research, further understanding, future research direction, higher level, hospitality literature, identification, iii, important driver, important implication, indirect effect, influential impact, item, key implication, large number, limited attention, limited research, literature review, main purpose, mediating effect, moderating effect, new insight, novelty, object theme, positive attitude, positive relationship, present research, present study, previous research approach, prior research, recent year, referral, research finding, research framework, research gap, share, significance, significant antecedent, significant difference,

significant impact, significant positive effect, significant role, subject, theoretical, theoretical framework, third

b) Excluded terms for the keyword co-occurrence network visualization for the last three years (2019-2021)

article, basis, contrary, direct effect, direct influence, direct relationship, effective implementation, empirical evidence, empirical result, empirical study, end, evidence, example, extent, first study, first time, flow, further research, higher level, iii, important implication, important role, indirect effect, influential, impact, item, key implication, limitation, limited attention, mediating effect, medium, moderating effect, new insight, novelty, object, positive impact, positive influence, positive relationship, present study, previous research approach, recent year, referral, research finding, research gap, sense, significance, significant antecedent, significant difference, significant impact, significant positive effect