

# Trends and Future Research Directions in Online Customer Experience: Insights from Bibliometric Analysis

Trends and Future  
Research Directions in  
Online Customer  
Experience  
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## Abstract

**Purpose:** Companies perceive "customer experience" as a crucial differentiator in the current dynamic landscape. The purpose of this study is to evaluate the trends and create a comprehensive map to gain quantitative insights into the existing literature on "online customer experience".

**Methodology:** This study is based on the bibliometric analysis of 176 documents selected from the Scopus database. The study analyzed the extant literature for the last 15 years, i.e., from 2007 to 2022, and the results using tables and co-occurrence plots are presented for the top journals, countries, authors, affiliations, subject area, and keywords. Content analysis for the top 20 most cited articles is also performed to provide a comprehensive picture of extant literature in this domain.

**Findings:** Authors and Institution's from developed economies contributed significantly to this domain. The presence of developing countries, like India, brings out the importance being given to this research field. The analysis indicates the presence of multi-disciplinarity in this research domain with research areas such as Business Management, Accounting, Econometrics, Computer Science, and Social sciences. Bibliometric results showed that the year 2007, 2015, and 2020 are crucial years, representing three distinct phases.

**Originality/value:** The study put forward that consumer in present times, across all geographies and demographics, seek out-of-the-box experiences; hence staging "memorable experiences" is of utmost importance for any organization to remain ahead of others; thus, as the world transcends towards "Experience Economy" researchers and industry practitioners must carry out further study in this domain.

**Keywords:** Consumer Behaviour, Customer Satisfaction, Experience Economy, Scopus Database, Content Analysis

## 1. Introduction

In the current dynamic landscape, companies perceive "customer experience" as an essential factor for gaining a competitive advantage. Today, customers' opinion carries significant influence and the exponential growth of information and communication technology has facilitated multiple avenues to express it. Through online reviews, websites, social networking sites, and access to the internet, customers have extensive knowledge about competitive products and services. Customers want more from a product or service than just its consumption. Customers seek a one-of-a-kind and memorable experience that accompanies the delivery and post-sales service/support for goods and services (Joseph & Gilmore, 1999) (Stein & Ramaseshan, n.d.).

Research by Deloitte shows that customers are more inclined to order things "online" than buying in physical stores. Customers are becoming less tolerant of organizations that do not offer simple and smooth experiences. Delivering a consistent and seamless experience has become challenging due to the increased complexity and cost of delivering services through multi-channels. Businesses need to identify different touch points; the customers engage with their brand, build the necessary competencies, and deploy resources to provide a memorable customer experience (Fenech Celine et al., 2016).



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Covid-19 impacted all spheres of our lives, which changed consumer behavior spanning all businesses, countries, and demographics. As priorities changed, emphasis on health and safety has increased, which has impacted our decisions making and purchasing behavior. Consequently, what was seen as an excellent customer experience in the past may no longer be appropriate in the present time, hence, nearly all firms are reviewing their interaction with clients (Hernandez Julio, 2020). Working on the "customer experience" in the "online domain" is vital in this competitive world. Organizations these days have shown keen interest in managing customer experience; thus, domain experts are being engaged in meeting customers' increasing expectations.

## 2. Literature review

The emergence of the internet as a distribution and communication channel has opened up tremendous opportunities for organization-customer interactions. These interactions happen as a result of activities like information search for companies and/or products, or for services like banking, transactions on e-commerce websites, and engagement in social networking sites or online communities. According to customer experience research, carried out by Forbes (2020), 200 global marketing experts emphasized the necessity of a refined customer experience strategy as a method to differentiate a business from its competition. This, in turn, will increase consumer loyalty, satisfaction, and brand engagement. Businesses find it increasingly challenging to predict what customers want, particularly as digital technology develops, and customers' expectations continue to rise. Consumers are adopting multi-channel for the purchase of goods and services, in addition to expecting personalized services, which for businesses at some point in time becomes challenging (Fenech Celine et al., 2016).

Abbott was one of the pioneers in this field, who elaborated on the idea of "experience" way back in 1955. He described it as what people wish are not goods or services but "pleasant experiences" (Abbott, 1955). In the book "The Experience Economy," Joseph Pine and James Gilmore introduced the concept of "Experiential Marketing" and discussed how "experiences" are valued more than goods and services (Pine & Gilmore, 2011). The customer experience concept was extensively discussed in marketing journals and research papers. The idea supported the notion of focusing on an all-encompassing "experience." Since then, academicians and practitioners have paid close attention to evaluating the concept of customer experience (Sindhu and Bharti, 2020). Dhillon et al., (2021) explored the impact of experiential marketing by taking its different dimensions on consumer satisfaction in the luxury cosmetic industry in India. Lucas et al., (2021) researched consumer experience and values through a marketing lens in the context of shopping centers in the Brazilian region. Akma Mohd Salleh et al., (2019) investigated the impact of flow theory-derived web experience factors such as usability, interactivity, trust, and aesthetics on purchasing intention. Thus, academicians across the globe are working in the "customer experience domain", across different industries to further their knowledge.

The term "experience" has been discussed in multiple disciplinary fields like marketing, philosophy, and management, resulting in various definitions of customer experience (Ferreira and Teixeira, 2013; Jo ? Sko Brakus et al., 2009). The term "customer experience," as per Schmitt (2010), refers to the perception, emotions, and ideas that consumers have when they come into contact with brands and engage in the consumption process. Schmitt also asserts that experience may be influenced by packaging, communication, in-person contacts, and marketing events (Schmitt, 2010). Customer experience, according to Meyer and Schwager (2007), refers to a customer's internal and subjective reaction to any direct or indirect engagement with a company. Typically, direct contact occurs throughout the purchase journey, including its usage and post-sales service. Unexpected interaction constitutes the majority of indirect engagements like advertisements, news items, reviews, word-of-mouth recommendations or criticism, etc. (Meyer and Schwager, 2007). Therefore, Lemon & Verhoef (2016), proposed customer experience as a multidimensional construct focusing on a customer's cognitive, emotional, behavioral, sensorial, and social responses to a firm's offerings during the customer's entire purchase journey.

In contrast to direct engagement in brick-and-mortar stores, verbal and visual stimuli used on websites influence how consumers evaluate products "online" (Bleier et al., 2019). According to Gentile (2007), there are six dimensions of online customer experience: cognitive, emotional, sensorial, pragmatic, relational, and lifestyle (Gentile et al., 2007). Authors across the globe have realized the need to work on "customer experience," particularly in the online domain, since every sphere of our lifestyle is impacted by technology, which changes at an unbelievable pace. The growth of Information and Communication Technology (ICT), coupled with the competitive environment, where the only differentiation could be the "experiential factor," has forced researchers and industry practitioners to further explore this field.

A study was conducted by Martin (2015); they gathered data from an internet survey of both frequent and infrequent online buyers to assess "Online Customer Experience" (OCE). The study evaluated OCE considering various antecedents like telepresence, challenge, aesthetics, perceived benefits, ease-of-use, customization, connectedness, using cognitive and affective dimensions, and their impact on factors like "satisfaction and repurchase intention" (Martin et al., 2015a). Brun (2017) investigated the relationship between customer loyalty and the five aspects of consumer experience-cognitive, affective, sensory, behavioral, and social. The emphasis of the research was on two channels: branch/agency and online (Brun et al., 2017a). Rajaobelina (2017) researched in a multichannel context and investigated how the customer experience aspects of think, feel, sense, act, and relate impact the quality of relationships with travel companies (in-store and online). Also, Martínez-López et al., (2022) investigated how the use of an instant refund impacts the number of consumer responses. Thus, based on the extant literature it can be inferred that online customer experience is multidimensional, broadly consisting of five dimensions namely cognitive, affective, sensory, behavioral, and social. Hence, the purpose of this study is to evaluate the trends and create a comprehensive map to gain quantitative insights into the existing literature on "online customer experience".

Therefore, the literature review indicates the following gaps, which are addressed in this paper:

- "Customer experience" is a much-researched area, qualitatively and quantitatively; however, we find very few papers in the "online customer experience" domain.
  
- Various bibliometric studies on customer experience have extracted data from the Web of Science database, whereas this study evaluated the data extracted from Scopus.
  
- Customer experience studies as per the extant literature, have generally been done in a particular industry/field, however, this paper covers the whole domain of "online customer experience" by including papers from 2007 to 2022.

### **3. Methodology**

To gain quantitative insights, bibliometric analysis is being used to create a comprehensive map of the existing literature on "online customer experience". This study examined the most contributing authors, journals, publications, institutions, countries, subject areas, keywords, and performed content analysis for the most cited 20 articles. "Online customer experience" was the search term used to extract the data for bibliometric analysis using the Scopus database. As of February 10, 2022, the database produced a preliminary result of 3,911 documents, out of which 3,865 were English-language papers.

1,820 papers were chosen amongst these 3,865 documents after further filtering on the topics of "business, management accounting," and "economics, econometrics, and finance." Finally, 176 papers were selected from the 1,820 shortlisted documents using search terms like "customer experience," "user experience," and "online customer experience." These 176 documents were subjected to bibliometric analysis using the VOSviewer software.

#### *3.1 Research objectives*

Based on the literature review, the following objectives are framed:

- To identify trends and create a comprehensive map to gain quantitative insights

into the existing literature in the domain of "online customer experience".

- To perform a content analysis of the 20 most cited articles in the "online customer experience" domain.

#### 4. Results

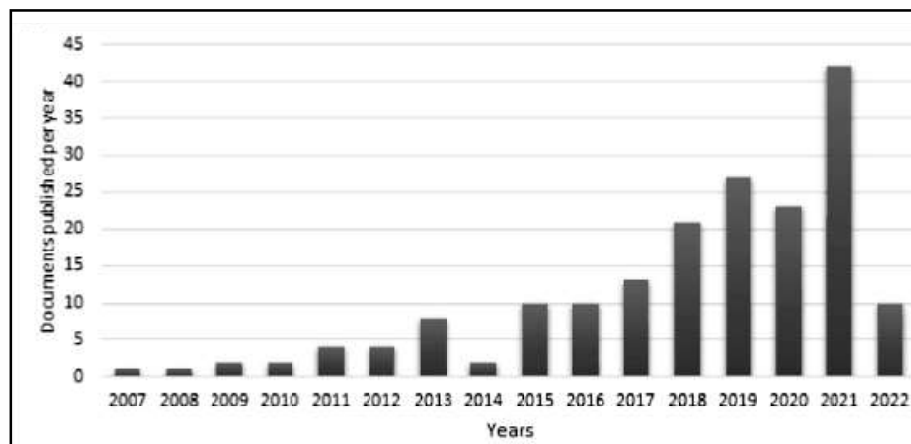
The results of the study are shown in the following section. Charts, figures, and tables are used to present the results for the 176 selected documents. The study identified top journals, authors, affiliations, countries, subject areas, keyword occurrence, and lastly, the content analysis is performed for the top 20 most cited papers as part of the bibliometric analysis for documents published from the year 2007 onwards.

Figure 1 shows the number of publications per year about "Online customer experience" from 2007 to 2022. Research related to "customer experience" has a long history. Still, with the advancements in information and communication technology (ICT) and the focus on human-computer interaction (HCI), the research in the field of "online customer experience" can be traced back to the year 2007 only.

In the initial years, the publications were very few, limited to three documents per year on average. This phase in the study has been termed the "initial phase."

Subsequently, with the growth in ICT, the topic got its attention and became popular with academicians and researchers. From 2015 to 2020, on average, seventeen documents were published, which is termed the "stabilization phase" in the study.

Covid - 19 pandemic changed the whole scenario, as the world moved on from physical to online mode in every possible sphere. There was a considerable spike in published documents in the year 2021 onwards on "online customer experience" due to the keen interest shown by researchers across the globe in this domain. The year 2020, this phase in the paper is termed the "growth phase."



**Figure 1.**  
Documents published per year

Data for 2022 is only till February 10, 2022.

In the field of online customer experience, the top 10 journals in which the maximum number of articles were published are shown below in Table 1. The top 10 journals were identified based on the ranking, where the maximum number of articles were published. The leading journal in this category is the "Journal of Retailing and Consumer Services," which published 16 articles, followed by the "Journal of Research in Interactive Marketing" with seven articles.

"The Journal of Services Marketing" ranked 3rd in this category with five articles to its credit, followed by "Decision Support Systems" and "International Journal of Retail and Distribution Management," which published four articles.

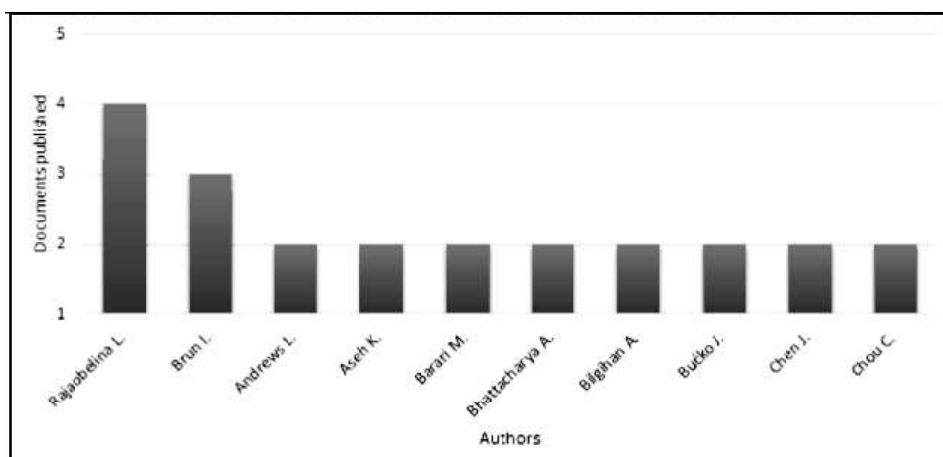
"Electronic Commerce Research and Applications," "Global Business Review," "International Journal of Industrial Engineering and Management," and International Journal of Quality and Service Sciences" have three publications each to their credit. Publications in various journals signify the importance and keen interest in the "online consumer experience" field.

S.No	Source	Documents
1	Journal Of Retailing and Consumer Services	16
2	Journal Of Research in Interactive Marketing	7
3	Journal Of Services Marketing	5
4	Decision Support Systems	4
5	International Journal of Retail and Distribution Management	4
6	Electronic Commerce Research and Applications	3
7	Global Business Review	3
8	International Journal of Industrial Engineering and Management	3
9	International Journal of Quality and Service Sciences	3
10	International Review of Retail Distribution and Consumer Research	3

**Table 1.**  
Top 10 Journal

In the "online customer experience" field, the top 10 prominent authors are mentioned in Figure 2. Lova Rajaobelina published the maximum number of articles which is four; next on the list is Isabelle Brun with three articles, followed by Lynda M. Andrews, Khairi Aseh, Mojtaba Barari, Arijit Bhattacharya, Anil Bilgihan, Józef Bu?ko, Jashen Chen, Cindy Yunhsin Chou with two publications each to their credit.

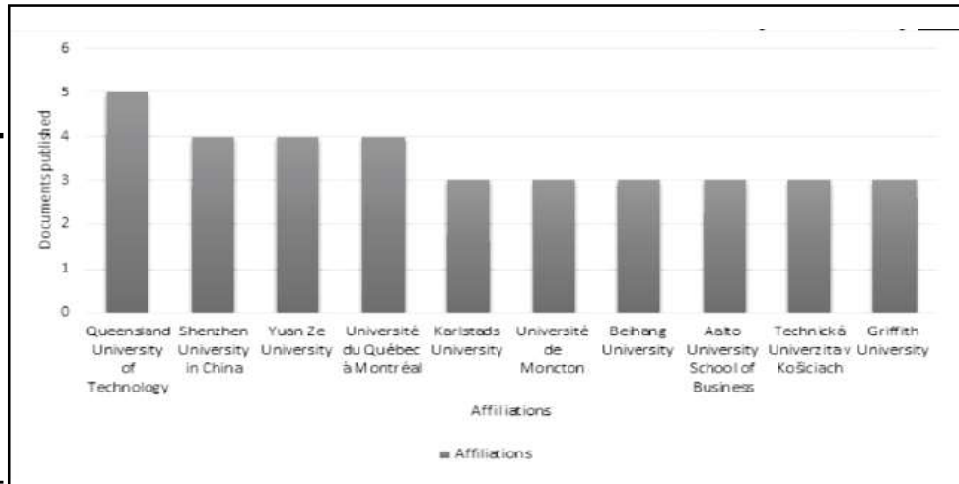
This brings out that authors across the globe have shown keen interest in the field of online customer experience which is in line with the concept that the world is transitioning towards an "Experience Economy."



**Figure 2.**  
Top contributing authors

The top 10 affiliations in the "online customer experience" field can be seen in Figure 3. The Queensland University of Technology, Australia, has the maximum number of publications that is five; next on the list are Shenzhen University in China, Yuan Ze University in Taiwan, and Université du Québec à Montréal in Canada, with four publications each on online customer experience to their credit.

Further, we have a bunch of universities having three publications each; these are Karlstads University (Sweden), Université de Moncton (Canada), Beihang University (China), Aalto University School of Business (Finland), Technická Univerzita v Košiciach (Slovakia), (Australia). From the above results, it can be deduced that Australia has the most significant number of publications in terms of affiliation, followed by China and Canada.

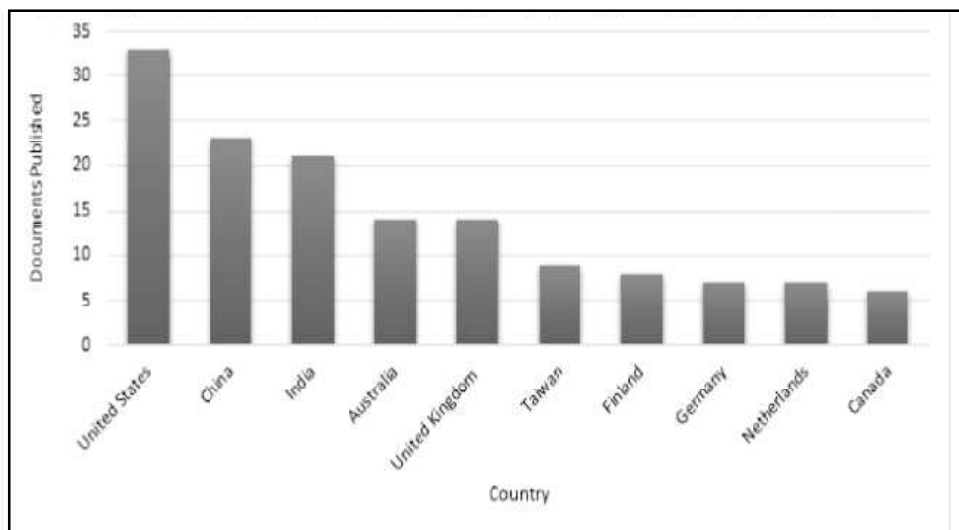


**Figure 3.**  
Publication by affiliations

The top 10 countries which have carried out research in the field of online customer experience are mentioned below in Figure 4. The United States, one of the most influential and early adopters of technology, has the highest number of publications which is thirty-three over the years. Next on the list is the world's most populous country, China, with twenty-three publications.

Further, despite being a developing nation, India stands third on the list with twenty-one publications. India's entry into the top three list is no surprise. The exponential growth of ICT and the focus of the Indian government on making India a digitally empowered society, coupled with its 52% population below the age of 30, is a clear testimony of the market potential. (International Institute for Population Sciences (IIPS) and ICF. 2021, 2022)

Australia and the United Kingdom have 14 articles each on online customer experience to their credit. The countries at the bottom of the list are Taiwan, Finland, Germany, Netherlands, and Canada, with nine, eight, seven, seven, and six documents respectively.



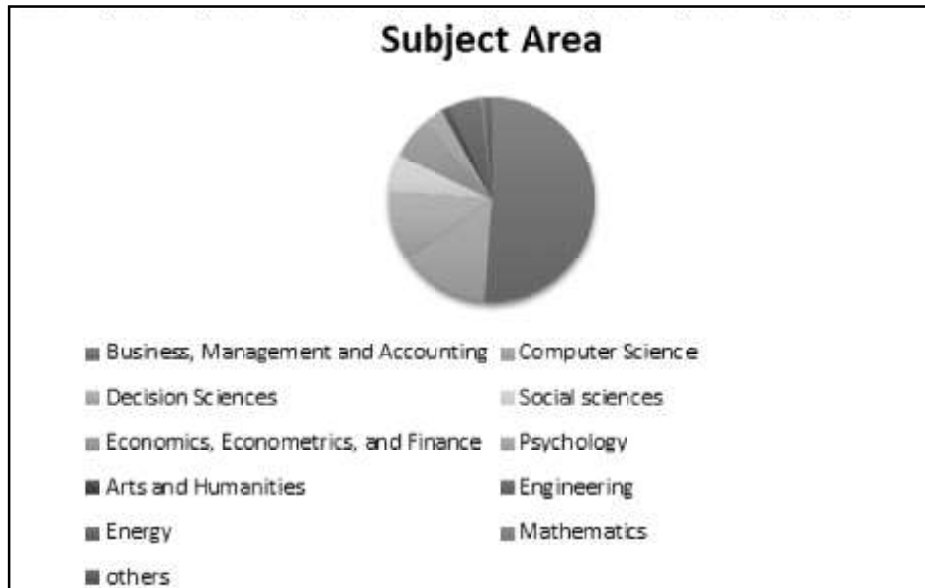
**Figure 4.**  
Publications by countries

Figure 5 shows the different subject areas where research in online customer experience has been carried out from 2007 to 2022. The results reflect that "online customer experience" studies have been carried out in multidisciplinary research areas. Since, for this paper, search criteria are restricted to two subject areas, namely, "Business Management & Accounting" and Economics, Econometrics & Finance" therefore, the maximum number of documents can be seen in the area of Business, Management, and Accounting with 51.2%

share followed by Computer Science and Decision Sciences with 14.3% and 10.7% share respectively.

Social sciences, Economics, Econometrics, and Finance, are other research fields with a share ranging around 6%. Research areas like Psychology, Arts and Humanities, Energy, Mathematics, and others have a minimal share.

The above analysis shows the focus on "customer experience" in multidisciplinary research areas. In this competitive world, organizations are trying their best to stage memorable consumer experiences; hence, academicians and researchers across the globe are focusing on analyzing the antecedents, outcomes, dimensions, and other behavioral aspects of the same.



**Figure 5.**  
Publications by subject area

Figure 6 presents the keywords' occurrence in the online customer experience field and their relationship with others. The threshold for keywords was set at five (Vallaster et al., 2019). The bubble size represents the frequency with which keywords are included in the articles, and the bigger the bubble, the more frequently the keyword appears in the extracted data set (van Eck and Waltman, 2010)

The stronger the relationship between the keywords, the more closely they are associated with each other (Alonso et al., 2009). In the figure shown below, the clusters are color-coded as per the conceptual area, and the same have been grouped into four clusters for analysis of the keywords. Also, the top 10 keywords in the domain of online customer experience are shown in Table 2.

The cluster classifications are described below:

Cluster 1 (Red): The Red cluster identifies the association between "Online Customer Experience" and its antecedents and outcomes. Loyalty, satisfaction, repurchase intentions, and consumer behavior are the notable outcomes of customer experience and customer engagement; service quality is a crucial antecedent of consumer experience.

Cluster 2 (Green): The Green cluster contains keywords related to Sales. Staging "Comprehensive User experience" aims at competitive advantage resulting in improved sales or continuance usage intention. Sales are closely related to social networking, product design, sentiment analysis, data mining, consumer behavior, and many others. In total, this cluster includes 12 keywords that are interrelated to each other.

Cluster 3 (Blue): The blue cluster contains the most commonly used keyword in the data set, i.e., "Customer Experience." This cluster includes 11 keywords that are all related to each other. It indicates that the extant customer experience studies have evaluated the influence of e-commerce, online shopping, web design, website, and retail stores. The clear mandate

for organizations is to stage a memorable customer experience both in the online and physical environment and "marketing strategies" must be designed to achieve a comprehensive customer experience.

Cluster 4 (yellow): The Yellow cluster is about "Customer satisfaction." Customer satisfaction is a significant factor in any consumer behavior research field. In this cluster, there are three other items apart from customer satisfaction: commerce, omnichannel, and perceived value. For customer satisfaction, organizations must provide a seamless customer experience across all channels, hence the keyword "Omni-Channel." The Omni-channel factor has gained a prominent role in customer experience research due to COVID-19 pandemic, where customers are looking for a seamless experience both in the physical and online environment.

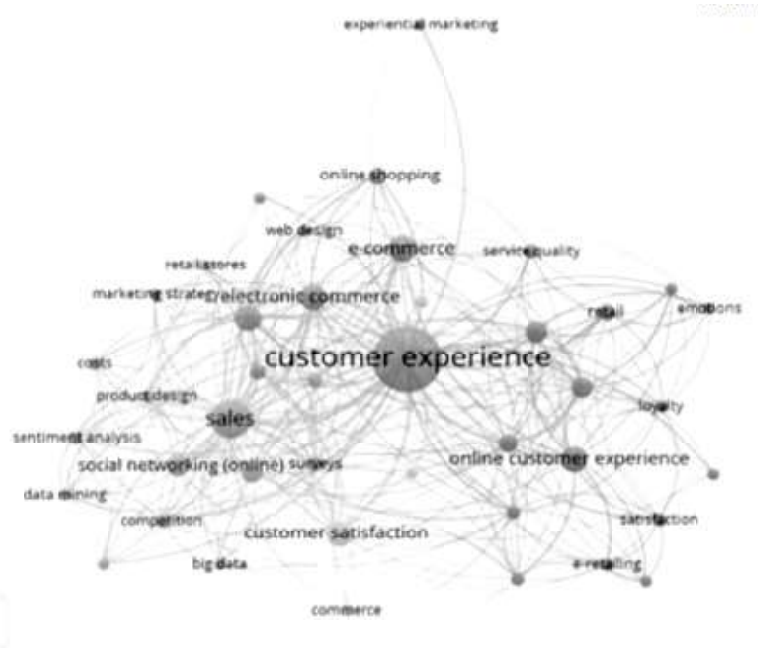


Figure 6.  
Keywords occurrence



S.no	Keyword	Occurrences	Total link strength
1	Customer Experience	138	271
2	Sales	47	178
3	Electronic Commerce	21	85
4	Customer Satisfaction	21	75
5	E-commerce	24	70
6	Social Networking (online)	15	66
7	User Experience	21	57
8	Retailing	16	54
9	Consumption Behaviour	13	53
10	Online Customer Experience	22	52

Table 2.  
Top 10 keywords

Table 3 (refer to appendix) presents the top 20 most cited documents in the "online customer experience" field. The table lists the title of the paper, authors, year of publication, journal, country, data collection strategy, objectives, factors (covering the antecedents, outcomes, mediating or moderating variables, and other factors), dimensions, and lastly use of any theoretical approach to support the findings.

The paper titled "Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes" tops the list with 468 citations; it proposed a model in the e-retailing sector by including antecedents such as telepresence, level of challenge, skill, speed of interactivity, aesthetics, perceived benefits, ease of use, customization,

connectedness, and outcomes like satisfaction, trust in online shopping, online repurchase intention and the mediating effect of perceived control (Rose et al., 2012a).

Next on the list is a paper titled "Re-examining online customer experience to include purchase frequency and perceived risk" with 130 citations (Martin et al., 2015), followed by an article titled "The Case of Amazon.com: Towards a conceptual framework of Online customer service experience (OCSE) using the emerging consensus technique (ECT)" with 124 citations (Klaus, 2013). The last in the list, amongst the top 20 cited documents in the field of "online customer experience," is the paper titled "The Impact of Customer Experience on Relationship Quality with Travel Agencies in a Multichannel Environment," with 46 citations to its credit (Rajaobelina, 2017).

Moving further, Rajaobelina the top contributor in the field of "online customer experience", (figure 2), also has two papers among the top 20 most cited articles. Surprisingly, Rose, whose paper is the most cited, is not among the top contributors in this domain (figure2). Also, Brun who stands next on the list amongst the top contributors, has collaborated with Rajaobelina in the paper titled "Impact of customer experience on loyalty: a multichannel examination," which is included in the top 20 most cited articles.

The "Journal of Research in Interactive Marketing" has the maximum reoccurrence in the list of 20 top-cited articles, followed by the "Technological Forecasting and Social Change" and "International Journal of Information Management." However, on the contrary, only the "Journal of Research in Interactive Marketing" is covered in the list of top 10 journals which published the maximum number of articles in the domain of "Online customer experience" (Table 1). Also, the top-cited article "Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes," with 468 citations (Rose et al., 2012a) which has been published in the "Journal of Retailing" is not included in the list of top 10 journals with the maximum number of publications in the domain of "Online customer experience." Hence, it may not be necessary that the journals publishing the maximum number of articles in a particular field can also be credited with the most cited papers.

The United States of America tops the list of countries with the most cited articles, which is also in line with the top countries publishing the maximum number of articles in the field of "Online customer experience" (figure 5). Next is Australia, followed by the United Kingdom, France, China, and Canada. China is the only developing economy amongst the list dominated by developed countries credited with the most cited articles. India, despite being 3rd amongst 10 countries publishing the maximum articles in this domain, finds no place in the list of 20 most cited papers.

Amongst the top 20 most cited articles, most papers have used quantitative techniques for data collection, thus highlighting the advantage of quantitative methodology over other data collection techniques.

The functionality and psychological factors identified from the top 20 most cited articles are being segregated for the sake of understanding/evaluation.

**Functionality factors:** These factors, as listed below, are related to products/services or websites and directly/indirectly impact the customer experience.

- |  |                           |
|--|---------------------------|
| • Ease of Use                            | • Perceived Benefits      |
| • Perceived Usefulness                   | • Speed of Interactivity  |
| • Customizations.                        | • Aesthetics              |
| • Multi-Device Compatibility             | • Telepresence Challenge  |
| • Usability                              | • Personalization,        |
| • Product Presence                       |                           |
| • Easiness to locate the website and app | • Webpage Design elements |
| • Utilitarian features                   | • Telepresence            |
| • Enjoyment                              | • Social Interactions     |
| • Level of Challenge                     | • Hedonic Features        |
| • Social Support                         | • Focused immersion       |
| • Heightened enjoyment                   | • Curiosity               |

**Psychological factors:** The factors, as listed below, are the ones that impact or influence

consumer behavior or decision-making.

- |                         |                                       |
|-------------------------|---------------------------------------|
| • Trust                 | • Satisfaction                        |
| • Repurchase Intention  | • WOM                                 |
| • Repeat Purchase       | • Brand Engagement                    |
| • Continuance Intention | • Sustainable and Social relationship |
| • Customer purchase     | • Customer loyalty                    |
| • Value for Money       | • Community Engagement                |
| • Behavioral intention  | • Brand equity                        |
| • Sense of Community    | • Customers Attitude                  |

"Ease of use" is the most commonly used functionality factor in the list of 20 top-cited articles and is essential for a seamless and memorable customer experience, particularly in an online environment. When a product or service is easy to use, its adoption and continuous use become effortless, and more and more customers adopt it.

Amongst the psychological factors, the most influential amongst the 20 top-cited articles is "Satisfaction and Trust," which is critical for a seamless, memorable, and comprehensive online customer experience. Satisfaction leads to "continuance intention" and "customer loyalty," as per the extant literature. Since the cost of acquiring a new customer is five to twenty-five times higher than the cost of retaining an existing one, organizations need to focus on retaining existing customers (Gallo Amy, 2014). Thus "Satisfaction" is an important critical factor for repurchase intention.

"Customer experience" is a multidisciplinary study that focuses on the different dimensions as proposed by many authors (Lemon and Verhoef, 2016). Surprisingly, amongst the top-cited 20 papers, dimensions have generally not been considered, barring articles titled "Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes," "Re-examining online customer experience to include purchase frequency and perceived risk," "Creating effective online customer experiences," "Using netnography research method to reveal the underlying dimensions of the customer/tourist experience" and "Impact of customer experience on loyalty: a multichannel examination." The most commonly used dimensions in the list of 20 top-cited articles are "Cognitive and Affective." The moderating variables used amongst the top 20 most cited articles are product type, brand trustworthiness, the impact of channels (branch/agency and online), and customers' prior experience in co-innovation projects. The mediating variable "perceived control," "perceived risk," and "community engagement" have been used in a few papers.

Very few papers among the 20 top-cited articles have used any theoretical framework to support their findings. S-O-R framework, Theory of Consumption Values and Developmental Psychology, Service Ecosystem theory, Kaplan's theory of Environmental Preferences, and Technology Acceptance Model are the few theoretical frameworks used to support the findings.

## 5. Discussions

### 5.1 Implications

The study findings have implications, which will be offered as research directions in the following section. This study used bibliometric analysis to evaluate the extant literature, and its findings will significantly benefit academicians and industry practitioners interested in the "online customer experience" field. The paper concludes that there is a rising trend since 2007 when the first paper was published in this domain, and also, there is tremendous potential for further research in this area. Further, it is crucial to note that, amongst the top 20 most cited articles (table 3), most of the papers were published during 2012-2019, which substantially falls under the stabilization phase. (figure1)

"Journal of Retailing and Consumer Services" is the most influential journal in the domain of online customer experience (table 1); hence, researchers and industry practitioners interested in this area can tap this journal.

During 2012-2019, the studies generally used quantitative techniques for data collection, as compared to the qualitative, mixed-method, and theoretical/conceptual approaches.

Researchers interested in this area henceforth should focus more on qualitative or mixed methodological approaches.

Researchers and young scholars interested in the domain of "Online customer experience" may refer to the works of Lova Rajaobelina, who tops the list with the maximum number of published articles (figure 2), and also to the top-cited article "Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes" by Rose for conceptual understanding in this domain (table3).

As far as social and economic implications are concerned, it is clearly understood that the only differentiation in this competitive world could be managed just by "staging experiences," as product/service features can not only be replicated but even improved upon. As per the study, out of the top ten countries (figure 4) which have published the maximum number of articles in this domain, the majority of them are developed economies, barring India and China. Hence, the evident influence of American and European economies in the domain of "online customer experience" signals a massive opportunity for researchers, academicians, and industry practitioners in other parts of the globe to carry out further research, for a better understanding of the field of "online customer experience."

Industry professionals who are working in the domain of online customer experience could also use this study to identify the maximum number of articles published per year and journal wise, which will help them take a walk through it. Further, practitioners with the help of this article could identify and collaborate with the most prominent authors working in this domain and aid in the formulation of better customer experience strategies. Also, this article highlighted the universities and the country where online customer experience is most talked about, this could benefit the practitioners in cross-country collaboration and gaining a better understanding of different contexts. In addition to it, this study showed the keyword occurrence, which could benefit by focusing on key areas such as sales, satisfaction, customer engagement, service quality, e-commerce and retailing, etc. Practitioners could link each of these with online customer experience. Further, the functionality and psychological factors were identified, and working on these can benefit in providing a seamless and memorable customer experience.

This paper made some theoretical contributions to the literature. It evaluated the trends in the "online customer experience" domain and identified "three clear phases" in the overall journey (figure1). The paper further sheds light on the prominent authors (figure 2), the influential countries (figure 4), top journals (table 1) & affiliations (figure 3). The paper evaluated the interrelated patterns of "keywords" in online customer experience (figure 6) and also did the content analysis of 20 top-cited articles (table 3). Lastly, the paper proposed future research directions to help budding researchers in this domain.

#### *5.2 Future research directions*

From the above analysis, future research directions can be inferred. Amongst the top 20 most cited articles (table 3), very few papers have used any theoretical framework to justify their finding, and most of the theories have psychological backing or technological/environmental aspects. Hence, it is suggested that future researchers, academicians, and practitioners should use a theoretical framework to justify their findings. Secondly, young scholars pursuing work in the domain of "Online customer experience" should focus on developing theoretical models that can work across geographies and demographics in multidisciplinary fields.

Amongst the 20 most cited papers (table 3), the methodology used is majorly quantitative, and hardly any articles have used qualitative, mixed-method, and theoretical approaches in the field of online customer experience. Therefore, future researchers should focus more on using either of the methodologies i.e. qualitative, mixed-method, or theoretical.

Amongst the top 20 most cited articles (table 3), most of the authors are from developed nations, barring China and Malaysia. Future researchers from developing economies, including India, have a tremendous opportunity to carry out further research in the "Online customer experience" field.

"Consumer Experience" is a multidimensional subject; however, from the content analysis (table 3), it is inferred that very few papers have used "dimensions" to evaluate the same, hence, comprehensive evaluation of the results is difficult; therefore, scholars willing for

further research in this domain, should for sure, evaluate "online customer experience" using "dimensions."

As the world moves to the digital era, researchers should explore the influence of staging "Online consumer experience" in a business-to-business (B2B) environment. Future bibliometric studies in this domain can use more sophisticated, multivariate statistical tools and their papers should also cover co-citation analysis and bibliometric coupling.

## 6. Conclusion

This paper evaluated the trends and proposed future research directions in the "online customer experience" domain based on bibliometric analysis. The study analyzed the extant literature for the last 15 years, i.e., from 2007 to 2022, and the results using tables and co-occurrence plots are presented for the top journals, countries, authors, affiliations, subject area, and keywords. Content analysis for the top 20 most cited articles is also performed to provide a comprehensive picture of the evaluation of data collection strategy, research objectives, antecedents, outcomes, dimensions, mediating/moderating variables, and theoretical framework. The conclusion is as follows:

Bibliometric results show that the year 2007, 2015, and 2020 are crucial years, representing three distinct phases in the research on "Online Consumer Experience". The year 2021 had the maximum number of publications, due to the impact of the COVID-19 pandemic, which encouraged researchers to focus on this domain. The USA, followed by China leads the way in terms of literature volume. India stood at the third position due to the tremendous growth of ICT and the focus of government on digitalization.

The authors with the maximum publications in this domain are Lova Rajaobelina and Isabelle Brun. The leading journal in this category is the "Journal of Retailing and Consumer Services," followed by the "Journal of Research in Interactive Marketing". Loyalty, satisfaction, customer experience, repurchase intentions, consumer behavior, social networking, product design, sentiment analysis, data mining, web design, website, Omni-channel, and perceived value are the "keywords" observed in this domain.

The content analysis of 20 top-cited articles shows that the paper titled "Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes" (Rose et al., 2012) followed by "Re-examining online customer experience to include purchase frequency and perceived risk" (Martin et al., 2015) tops the chart in terms of citations. The "Journal of Research in Interactive Marketing", followed by the "Technological Forecasting and Social Change" and "International Journal of Information Management" have the maximum reoccurrence in the list of 20 top-cited articles. The United States of America tops the list of countries with the most cited articles, followed by Australia. India, despite being 3rd amongst 10 countries publishing the maximum articles in this domain, finds no place in the list of 20 most cited papers.

Satisfaction and Trust, and Ease of use are the commonly used psychological and functionality factor in the list of 20 top-cited articles. Surprisingly, "dimensions" have generally not been considered in the 20 most cited papers, and also very few of them have used any theoretical framework to support their findings.

As far as future research trends are concerned, the study put forward that consumer in present times, across all geographies and demographics, seek out-of-the-box experiences; hence staging "memorable experiences" is of utmost importance for any organization to remain ahead of others; thus, as the world transcends towards "Experience Economy" researchers and industry practitioners must carry out further study in this domain.

Like previous research articles in this domain, this paper also has its limitations. Since this paper was based on the bibliometric analysis, it was restricted to specific subject areas, "business, management accounting" and "economics, econometrics, and finance" thus, future researchers could further explore other subject areas to broad base the study. This paper covers the whole domain of "online customer experience"; however, future studies could focus on specific industries like tourism, banking, retail, or entertainment. Next, the paper covers the bibliometric analysis of papers in English; thus, other language papers could also be included in future studies.

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Table 3: Top 20 most cited papers

Rank	Title	Author & Year	Journal	Citations	Data Collection	Country	Objectives	Variables	Dimensions	Moderating / Mediating variables	Theory
1	Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes	(Rose <i>et al.</i> , 2012b)	Journal of Retailing	468	Survey	United Kingdom	To identify the components of OCE and to develop a theoretical model of OCE based on a pre-existing theory of customer purchase intention	Telepresence, Level of Challenge, Skill, and Speed of Interactivity, Aesthetics, Perceived Benefits, Ease-of-Use, Customization, Connectadness, Online Shopping Satisfaction, Trust in Online Shopping, and Online Repurchase Intention	Cognitive and Affective	Mediating effect of Perceived Control	S-O-R framework
2	Re-examining online customer experience to include purchase frequency and perceived risk	(Martin <i>et al.</i> , 2015b)	Journal of Retailing and Consumer Services	130	Survey	Australia	To examine the relationship of OCE variables across two important groups; frequent and infrequent online shoppers, to investigate the impact of perceived risk for the two groups.	Telepresence, Challenge, Aesthetics, Perceived Benefits, Ease-of-Use, Customization, Connectadness, Satisfaction, Trust, Perceived Risk, and Repurchase Intentions	Cognitive and Affective		-

Rank	Title	Author & Year	Journal	Citations	Data Collection	Country	Objectives	Variables	Dimensions	Moderating/ Mediating variables	Theory
3	The case of Amazon.com: Towards a conceptual framework of online customer service experience (OCSE) using the emerging consensus technique (ECT)	(Klaus, 2013)	Journal of Services Marketing	124	Interviews	France	To explore what constitutes OCSE in the chosen context, develop a conceptual framework of OCSE, Explore the dynamic nature of OCSE	Usability, Product Presence, Communication, Social Presence, Interactivity, Context Familiarity, Trust, and Value for Money			
4	Towards a unified customer experience in online shopping environments: Antecedents and outcomes	(Bigjhan <i>et al.</i> , 2016)	International Journal of Quality and Service Sciences	120	Theoretical	United States	To develop a theoretical model for a unified online customer experience by drawing from related literature on consumer behavior in the online contexts	Easiness to Locate the Website and App, Ease of Use & Usefulness, Hedonic & Utilitarian Features, Enjoyment, Personalization, Social Interactions, Multi-device Compatibility, Word of Mouth, Repeat Purchase, and Brand Engagement			

Rank	Title	Author & Year	Journal	Citations	Data Collection	Country	Objectives	Variables	Dimensions	Moderating / Mediating variables	Theory
5	A mixed-method approach to examining brand-consumer interactions driven by social media	(Rohm et al., 2013)	Journal of Research in Interactive Marketing	108	Mixed-method approach	United States	To analyze the role of social media platforms such as Facebook and Twitter among younger consumers in their interactions with brands.				
6	The impact of customer experience and perceived value on sustainable social relationship in blogs: An empirical study	(Chen and Lin, 2015)	Technological Forecasting and Social Change	93	Survey	Taiwan	To propose a model to understand and examine the formation of sustainable social relationships and the continued usage of blogs in marketing contexts	Sense experience, feel experience, think experience, Act experience, Relate experience, Satisfaction, Continuance intention, Sustainable social relationship			

Rank	Title	Author & Year	Journal	Citations	Data Collection	Country	Objectives	Variables	Dimensions	Moderating / Mediating variables	Theory
7	Creating effective online customer experiences	(Bleier et al., 2019)	Journal of Marketing	78	Field experiment	Germany	To investigate how unique design elements, across experiments, shape four dimensions of the online customer experience and thus influence purchase	Web design elements, Customer Purchase	Informativeness (Cognitive), Entertainment (Affective), Social Presence (Social), Sensory Appeal (Sensory)	The moderating role of Product Type (search vs. experience) and Brand Trustworthiness	
8	Making Omni channel an augmented reality: the current and future state of the art	(Hilken et al., 2018)	Journal of Research in Interactive Marketing	70	Theoretical	Netherlands	To explore the current and future roles of augmented reality (AR) as an enabler of Omni channel experience across the customer journey				

Rank	Title	Author & Year	Journal	Citations	Data Collection	Country	Objectives	Variables	Dimensions	Moderating / Mediating variables	Theory
9	Using netnography research method to reveal the underlying dimensions of the customer/tourist experience	(Ragoh <i>et al.</i> , 2013)	Qualitative Market Research: An International Journal	70	Netnography method	Malaysia	To identify the underlying dimensions that constitute the constructs of customer experience.		Comfort, Educational, Hedonic, Novelty, Recognition, Relational, Safety, and Beauty		
10	Why do teens spend real money in virtual worlds? A consumption values and developmental psychology perspective on virtual consumption	(Mäntymäki and Salo, 2015)	International Journal of Information Management	69	Survey	Finland	To evaluate what value, do teenagers create by purchasing virtual items and premium user accounts in a social virtual world and how this relates to their developmental stage				Theory of Consumption Values and Developmental Psychology

Rank	Title	Author & Year	Journal	Citations	Data Collection	Country	Objectives	Variables	Dimensions	Moderating / Mediating variables	Theory
11	Online grocery shopping: the impact of shopping frequency on perceived risk	(Mortimer <i>et al.</i> , 2016)	International Review of Retail, Distribution, and Consumer Research	67	Survey	Australia	To examine the specific relationship between online shopping satisfaction, trust, and repurchase intention, across two groups, frequent and infrequent online grocery shoppers, to investigate the impact of perceived risk	Online Shopping satisfaction, Trust, Online Repurchase Intention		Mediating effect of Perceived Risk	
12	Understanding relationships among customer experience, engagement, and word-of-mouth intention on online brand communities: The perspective of service ecosystem	(Zhang <i>et al.</i> , 2017)	Internet Research	66	Survey	China	To investigate what and how customer experience elevates customer engagement and consequent word-of-mouth intention on online brand communities	Social Support (Informational support and Emotional support), Social Presence, Flow, Community engagement, WOM engagement		Mediating effect of Community Engagement	Service Ecosystem theory

Rank	Title	Author & Year	Journal	Citations	Data Collection	Country	Objectives	Variables	Dimensions	Moderating/ Mediating variables	Theory
13	The future of omnichannel retail: A four-stage Delphi study	(von Briel, 2018)	Technological Forecasting and Social Change	64	Delphi technique	Australia	To perform a four-stage Delphi research with 18 retail professionals to determine the significant trends, major obstacles, key technologies, and primary customer touchpoints that will emerge in Omni channel retail over the next 10 years.				
14	The influence of website dimensionality on customer experiences, perceptions and behavioral intentions: An exploration of 2D vs. 3D web design	(Visinescu et al., 2015)	Information and Management	57	Survey	United States	To elaborate on previous research and look at how 3D environments affect psychological and perceptual variables that have been found to impact online shopping behaviors	Perceived Usefulness, Perceived Ease of Use, Behavioural Intention, Cognitive Absorption-Temporal Focused Immersion, Heightened Enjoyment, Curiosity			Kaplan's theory of Environmental Preferences, Technology Acceptance Model, Cognitive Absorption, Nomological net

Rank	Title	Author & Year	Journal	Citations	Data Collection	Country	Objectives	Variables	Dimensions	Moderating/ Mediating variables	Theory
15	Impact of customer experience on loyalty: a multichannel examination	(Brun <i>et al.</i> , 2017b)	Service Industries Journal	53	Survey	Canada	To investigate the relationship between Schmitt's five aspects of customer experience and loyalty. The research focuses on two distinct channels: branch/agency (physical) and internet (Web-based)	Customer Loyalty	Cognitive, Affective, Sensory, Behavioural, and Social	Moderating impact of Channel (Branch/agency and online)	
16	Motivations for customer engagement in online co-innovation communities (OCCs): A conceptual framework	(Zhang <i>et al.</i> , 2015)	Journal of Hospitality and Tourism Technology	53	Prior literature and applicable business practices	United States	To extend the present understanding of the OCC concept as a unique business innovation model	Brand Equity, Sense of Community and Monetary Incentives and Customers' Attitudes		The moderating role of Customers' prior Experience in Co-Innovation projects	

Rank	Title	Author & Year	Journal	Citations	Data Collection	Country	Objectives	Variables	Dimensions	Moderating / Mediating variables	Theory
17	Exploiting user experience from online customer reviews for product design	(Yang et al., 2019)	International Journal of Information Management	52	Online textual customer reviews	China	To develop a computational approach that can be utilized to build a UX knowledge base from online reviews for product design				
18	Exploring the role of the online customer experience in firms' multi-channel strategy: An empirical analysis of the retail banking services sector	(Klaus et al., 2013)	Journal of Strategic Marketing	52	Interviews	France	To synthesize existing retail banking service literature, explore current online channel retail banking service strategies and practices to ascertain and classify practices and investigate the role of the online customer experience, particularly focused on social media in a multi-channel environment				

Rank	Title	Author & Year	Journal	Citations	Data Collection	Country	Objectives	Variables	Dimensions	Moderating/ Mediating variables	Theory
19	Online shopping experience in an emerging e-retailing market	(Izogo and Jayawardhena, 2018)	Journal of Research in Interactive Marketing	48	Nemography and conversation analysis	United Kingdom	To look into the drivers and consequences of OSE, as well as to gain a better understanding of how individuals act in group scenarios through a qualitative research approach that is naturalistic and unobtrusive				
20	The Impact of Customer Experience on Relationship Quality with Travel Agencies in a Multichannel Environment	(Rajaobelina, 2017)	Journal of Travel Research	46	Survey	Canada	To investigate the influence of the customer experience on the quality of relationships with travel agencies in a multichannel context (in-store and online)	Think, Feel, Act, Sense, Relate, and Relationship Quality			