Sharing-collaborative economy in tourism: A bibliometric analysis and perspectives for the post-pandemic era

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Abstract

Sharing economy research has risen exponentially during the last 4 years. Although several theoretical revisions on this topic have been developed, a conceptual analysis based on bibliometric techniques and science mapping tools is lacking. Within this framework, this article has two aims: (i) to carry on a performance analysis to identify the outstanding themes and (ii) to visually present the scientific structure by topics of research in sharing-collaborative economy as well as its evolution to identify future directions. The resources in the Web of Science Citation Index were used. Intelligent techniques and, more specifically, the SciMAT tool (based on co-word analysis and h-index analysis) were applied using a sample of 940 indexed papers from 2010 to 2020 (with 10.652 global citations). Our results show that the new post-pandemic era requires the sharing economy industry to investigate alternative ways: to improve trust, to innovate, to search for authenticity and experiences, to attend tourist motivations based on sustainability, and to use big data and manage overtourism.

Keywords

bibliometric, sharing economy, collaborative economy, trends tourism

Introduction

Sharing is a trend born with the Internet. As the Oxford Dictionary defines, the sharing economy is "an economic system in which assets or services are shared between private individuals, either for free or for a fee, typically by means of the Internet" (as cited in Heo, 2016: 167). Other popular terms to define this trend are "collaborative consumption" or "peer to peer economy" (Cheng, 2016).

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Martin (2016) reviews how the discourse on the "sharing economy" has evolved since entering the realm of public discourse in 2011–2012, concerning the term "collaborative consumption" implemented since 2010. As Prayag and Ozanne (2018) state, collaborative consumption is defined as people coordinating the purchase and distribution of a resource for a fee or other compensation. In the same vein, Wirtz et al. (2019) remark that "peer to peer" services are known as a collaborative economy and collaborative consumption. They provide temporary, short-term access to an asset. On the contrary, "access-based services" are commercial sharing systems without any transfer of ownership. More specifically, "peer-to-peer sharing business models are a subset of access-based platforms…and exclude platforms with marketers….." As these authors summarize, both models (peer-to-peer and access-based services) are frequently referred to as sharing economy.

In any case, whether using the term shared economy or the term collaborative economy, different industries have been analyzed: cars, houses, and toys (Heo, 2016). In the tourism industry, Cheng (2016) remarks that tourists and residents can share their homes, cars, four course meals, and expert local knowledge (e.g., locals being tour guides). Examples include taxi services (Uber), restaurant services (Eatwith), tour guide services (Vayable), and accommodation services (Airbnb; Ert et al., 2016: 62).

The growth of the sharing economy (SE) is related to social-economic conditions "in pursuit of better value distribution of the supply chain," to technology development and the need for social connection (Cheng, 2016). More specifically, this industry has enjoyed remarkable growth in the last 5 years (Cheng and Edwards, 2019). As both works underline, two recent special issues of leading tourism (*Journal of Travel and Tourism Marketing*) and hospitality journals (*International Journal of Contemporary Hospitality Management*) illustrate this boom.

In this frame, the present work will carry on a bibliometric analysis to reach two main objectives, based on Cobo et al. (2012) proposal. The first objective is to measure the visibility and impact of the scientific production in the analyzed topic. To reach this objective, a performance analysis will be conducted using the scientific impact (h-index) and the citations obtained by themes. The second objective is to identify the scientific structure by research themes, as well as its evolution in different periods. To satisfy this objective, a scientific map analysis will be done to identify the most prolific themes of research based on productivity (number of papers referring to each theme in each period). Two maps will be generated (one for each period) after a co-word analysis that measures word co-occurrence by following a longitudinal approach that permits the identification of emerging and dying themes of research.

As the following lines will show, this analysis will permit the identification of future research lines in the arena of sharing-collaborative economy.

Theoretical framework

Previous revisions

Some revisions have been made in the past on collaborative economy and shared economy. Among the pioneering compilation works is that of Cheng (2016), who reviewed 66 articles on sharing economy retrieved from Scopus, with 10 papers related to tourism and hospitality from 2010 to 2015. His approach was developed using co-citation and content analysis. Some years later, Cheng and Edwards (2019) compared the current tourism and hospitality Western academic literature of the sharing economy with news media discourse in tourism and hospitality in the period 2011–2016 (August). This was an innovative approach in that it combined the analysis of scientific texts in academic journals (12) with the analysis of informative texts in news media (547).

Previously, Ertz and Leblanc-Proulx (2018) presented a thorough bibliometric and network analysis of 729 published articles to provide fresh new insights into the evolution of the collaborative economy research field and its increasing coverage of sustainability-related topics. However, their study was focused on papers orientated toward sustainability. The keywords of their analysis included (1) Sustainability AND Collaborative Economy OR Sharing Economy OR Collaborative Consumption as well as (2) Environment AND Collaborative Economy OR Sharing Economy OR Collaborative Consumption.

In the same year, Prayag and Ozanne (2018) conducted a systematic literature review of 71 articles published over the 2010–2016 period that discussed the unprecedented growth in P2P accommodation sharing. Their study was focused on accommodation services, without considering all the collaborative economy services available.

Recently, Hossain (2020) reviewed the extant sharing economy (SE) literature by applying a systematic literature review approach of 219 articles extracted from the Web of Science (WOS) and Scopus databases. In the same year, Sainaghi et al. (2020) analyzed a sample of 99 most cited papers on sharing economy to identify clusters of themes from 2010 to 2019. Also, Sainaghi (2020) and Sainaghi and Baggio (2020) analyzed 189 papers talking about P2P APs. Kuhzady, Seyfi and Béal (2020) did a systematic review of 371 papers from 2000 to 2019 identified in Scopus and WOS databases but focusing on P2P accommodation in the sharing economy because, as they said, accommodation was the largest and most important sector in the tourism industry. Belarmino and Koh (2020) also focused their revision in P2P accommodation services using 107 articles from 2010 to 2017. Altinay and Taheri (2019) focused also on the accommodation sub-sector following the service-dominant logic to better understand the success of Airbnb.

Despite this growing boom, the pattern of research in the field of the collaborative economy remains blurred (Ertz and Leblanc-Proulx, 2018). As both authors remark, additional analysis of literature using objective bibliometric tools is needed. The need for recent research on this topic is also highlighted by the abrupt interruption of the sharing economy boom due to the COVID-19 pandemic. The increased skepticism of the future of this industry was anticipated by Cheng and Edwards (2019). Of the five major sectors of the sharing economy (ride-hailing, accommodation, freelance work, entertainment, and delivery services) two of them (transportation and accommodation) are negatively impacted by COVID-19-related lockdown due to travel restrictions (Batool et al., 2020).

In this scene, our study differs from previous reviews in five main points. First, compared to previous revisions, this article considers a significantly greater number of articles (940 papers indexed in the WOS). The relevance of using this database on bibliometric analysis has been suggested by Martínez-Vergara and Valls-Pasola (2020). Also, this database collects information from 1900 to the present, including citation statistics since 1997 for the journals with the highest frequency in a field and the highest impact, as well as the most published articles in a field. In addition, the Journal Citation Reports provided by WOS is the best-known quality indicator and also valued by the organizations that evaluate research activity worldwide.

Second, compared to previous studies, this article adopts a holistic approach without focusing on specific sub-fields of study, such as sustainability, P2P accommodation services (Belarmino and Koh, 2020; Belarmino and Koh, 2020; Kuhzady et al., 2020) or P2P Aps (Sainaghi, 2020) among others.

Third, a longitudinal analysis has been added, unlike most previous bibliometric studies which adopt a static approach. This analysis has permitted us to show differentiated results for two different periods that were defined because a turning point was identified in 2017. In this year, the number of JCR indexed papers on the topic increased exponentially. For this reason, 2017 was the

starting point of the second period. The first period started with the first indexed paper on the topic in 2010.

Fourth, this study does not focus on a specific brand. Therefore, we adopt a different approach from that of Altinay and Taheri (2019) developed from a theoretical perspective, Wang et al. (2020) conducted with 91 papers, Ozdemir and Turker (2019) conducted with 614 news, or Dann et al. (2019) conducted with 118 articles between 2013 and 2018; all of them focused on specific technology platforms such as Airbnb.

Finally, we have not chosen any particular period, for example, from 2010 to 2019 as Sainaghi et al. (2020) did, but different sub-periods to show a longitudinal vision. Several statistical tools have been applied, and no just a theoretical description as Altinay and Taheri (2019) did.

In sum, and as Sainaghi (2020) concludes, the academic literature on sharing economy is fragmented and still in its initial stages, so further studies are needed.

Previous revisions

Sainaghi (2020) did a theoretical classification of the main topics on P2P APs; also, Altinay and Taheri (2019) present the main topics identified in the sharing economy accommodation sub-sector. So, following these authors, this epigraph will show a theoretical classification of the main topics investigated on sharing economy-collaborative economy from a global perspective.

First, from the Service-Dominant Logic, developed by Vargo and Lusch (2004), the development of the Sharing Economy model has been based on a shift from company-centric value creation to co-creating value with consumers' (Heo, 2016). The key point from this approach is trust (Cheng, 2016; Zhu et al., 2017). For this approach, some topics have been investigated in the past to explain trust: online reviews, direct messaging communication between hosts and guests, users' profiles that display a photograph, and descriptive personal information about the service (Guttentag, 2015). In addition, new visual ways to build trust have been investigated, such as the seller's photos in the sharing economy markets (Ert et al., 2016: 62). Future applications of this theory in the field of the post-pandemic sharing economy era could focus on new ways of building trust, and more specifically brand love and engagement, such as health seals for tourism companies, motivational communication campaigns for potential tourists through social networks, customized messages, vaccination included in the trip, etc.

Second, from a related approach, known as the Experiential Theory, promoted by Pine and Gilmore (1998), the relevance of services to understand the development of the sharing-business economy has also been highlighted. This branch of research uses experiential value propositions of sharing economy providers to encourage emotions and experiences' memorability (Mody et al., 2019). In general terms, these authors support the notion that the search for memorable experiences is behind the success of this type of business (Cheng, 2016). That is, P2P services are used for their economic benefits but also because of their experiential values to consumers (Heo, 2016). Future applications of this theory could focus on the development of new tools to mitigate the brakes of the pandemic on tourism: the development of special events in the city to encourage tourism, the creation of virtual communities to share feelings, expectations and concerns in advance, the development of 3D applications to experience the visit before the trip and to motivate oneself, among others.

Third, and following a consumers' point of view, the basis to understand sharing economy models have been grounded on the Hedonic Pricing Theory (Rosen, 1974), which suggests that the price of a product is a function of the measurable, utility-affecting attributes or characteristics of the product (Gibbs et al., 2018). The physical characteristics of the offering seem to be the most relevant

factor to determine the final price of the offer (Gibbs et al., 2018). From this approach, the key point is that tourists search for better value for money (Cheng, 2016). In this field, the understanding of pricing has been a key point, as the pricing for the sharing economy business drives consumer decision-making and business profitability (Gibbs et al., 2018). These authors state that the price is determined by considering several variables capable of providing value to consumers (privacy, comfort, capacity, centrality, amenities, convenience, star rating, host professionalism/excellence, and other quality signals). The key point is that consumers obtain lower prices, better accessibility, great flexibility, and ease of use (Zhu et al., 2017). For example, the distance to the places to visit matters for tourists' accommodation choices (Benítez-Aurioles, 2018), and rooms located close to the city center are much appreciated. This theory can be applied also in future research as far as post-pandemic tourists will also be concerned about cost advantages, even more in an economy that has suffered from the paralysis of many sectors of activity for so long.

Fourth, this new business model has also been explained using a wider perspective. From this "eclectic" approach, consumers are not the only benefiting agent. As the Stakeholder Theory proposed by Freeman (1984) supports, the sharing-collaborative economy has distorted the boundaries between consumers and service providers as well as local residents and business entities in tourism destinations. The main players involved are individuals (tourists and guests), firms, governments and communities. Their interests must be aligned because some agents could be damaged, for example, the traditional labor market (Cheng, 2016). Recent reviews (Wang et al., 2020) have identified five types of stakeholders: consumers, peer service providers, platform providers, competitors and society. Comparing these five stakeholders, the vast concentration of research has been on consumers. Future research on this theory should delve into the role of public institutions and other stakeholders in tourism promotion. All this to identify potential initiatives that could be adopted to stimulate the sharing economy as in the past (associations, laws, agreements, research professorships, etc.).

Fifth, and moving the focus to new technologies, the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM; Legris et al., 2003), and the Theory of Planned Behavior (TPB; Ajzen, 1991) have also been used to understand the rise of sharing economy services (Zhu et al., 2017). The fast development of the Internet has led to the proliferation of online platforms that encourage collaborative consumption, that is, for the peer-to-peer (P2P) sharing of consumer goods (Heo, 2016). However, a debate exists because of the professionalization of many platforms such as Airbnb. This begs the question of whether these companies should be considered as sharing economy platforms or lodging corporations (Dogru et al., 2020). As the authors explain, the professionalization arises when, for example, Airbnb providers offer multiple units on the platform, often within the same building or local area. Most of the studies on the sharing economy were focused on the accommodation and transportation sectors (Hossain, 2020). This stream of research based on new technologies is highly promising in future years to enhance the sharing economy by including all available technological advances to ensure the security of the trip, for example, by monitoring the contacts/relationships maintained.

Sixth, and based on human interactions, the Social Cognitive Theory outlines how the sharing economy changes human behaviors because of the interaction between personal factors, behavior and the environment (Zhu et al., 2017), that is, how this business model encourages social interactions (Heo, 2016). So, the most important point from this approach is that the sharing economy provides social benefits, for example, it allows experiencing a social atmosphere while receiving a shared service (Zhu et al., 2017). In the post-pandemic era, this theory can be used to instill peace and security before, during, and after the visit, for example, using online gaming or transmedia storytelling marketing.

Seventh, at a macro-economic level, and as Cheng (2016) underlines, a wide area of attention has been paid to environmental impacts. From this approach, Sustainable Models are used to describe the rise of the sharing economy in tourism as a great precursor of sustainable development (Cheng, 2016) because it enables a shift away from owning assets toward sharing assets. Conversely, a stream of research talks about the "nightmarish form of neoliberalism" (Martin, 2016). Not everything is positive in the sharing economy industry. In the post-pandemic horizon, some negative effects on this kind of tourism business still represent future threats. For example, sharing economy services are expected to hurt local tourism industries (Heo, 2016). In the same vein, Dogru et al. (2020) discussed the counter-current to collaborative economy businesses, arguing their adverse impact on tourism (e.g., Airbnb adversely affects hotel performance).

Finally, and moving the focus to innovations, and more specifically to the Disruptive Innovation Theory (Guttentag, 2015), an alternative point of view has been used by some scholars to explain the growth of the sharing economy industry. As Guttentag explains, new service providers that offer alternative benefits can, over time, transform a market and capture conventional consumers. For example, Prayag and Ozanne (2018) claimed that disruptive changes at the landscape level (irruption and development of new technologies, economic recession, etc.) generate opportunities for individuals to create alternative accommodation models (e.g., peer-to-peer business models). Recently, and due to the new scenario, consumption patterns are changing even more because collaborative consumption affects expansion in destination selection, increases travel frequency, length of stay and the variety of activities experienced in tourism destinations (Zhu et al., 2017). According to Martínez-Vergara and Valls-Pasola (2020), disruptive innovations can be understood from two perspectives: low-end disruption (to an unserved market, with less purchasing power) and new-market disruption (to create new consumption for pioneers that will encourage tourism which will act as locomotives for the revitalization of the tourism industry in general, and the sharing economy in particular). This makes it possible to attend market segments that were previously ignored but that now could represent future trends.

In summary, as previous lines have shown, seven main areas of research have been identified regarding the sharing economy-collaborative economy (Heo, 2016). They come from various disciplines, such as psychology, law and finance, among others. Each branch of research puts the focus on different key points: the search for familiarity, service quality, utility (Zhu et al., 2017), sustainable tourism products (Cheng, 2016), the urgency of seasonalizing the supply of touristic services (Juul, 2015). Additionally, they still represent interesting research trends to re-energize the sharing economy model in the new pandemic scene because following Hossain (2020), three main blocks of effects are expected from the relaunch of this model: economic, social and environmental impacts. From the eight lines of research, it seems that last one has been the most prolific, as "much of the literature surrounding P2P accommodations and the sharing economy has focused on investigating the phenomena as a disruptor" (Belarmino and Koh, 2020).

Taking these previous works as a starting point, this study will try to reach two main objectives. The first objective is to identify the outstanding themes in the topic of sharing-collaborative economy. The second objective is to identify the scientific structure by themes of research in the main topic of study, as well as its longitudinal evolution in different periods to identify future directions.

To reach both objectives, the following research questions will be addressed.

- *RQ1: Which are the outstanding themes in the sharing-collaborative economy field?*
- *RQ2: Which are the future directions?*

Methodology

Software

Our bibliometric analysis allowed a quantitative analysis of all scientific publications indexed in the WOS containing the keywords "sharing economy," or "collaborative economy" or "platform tourism" or "pear to pear" or "P2P" or "airbnb." To choose these keywords we followed previous works. For example, Sainaghi et al. (2020) did their research with these keywords: sharing economy, collaborative economy, collaborative consumption, and P2P. They also added two leading companies: Airbnb and CouchSurfing.

To this end, SciMAT software was used (Cobo et al., 2012). As Muñoz-Leiva et al. (2015) have explained, the SciMAT software uses co-word analysis to identify the interests and aspirations of academic researchers; thus, "this technique reduces a large set of descriptors (or keywords) to a set of network graphs that effectively illustrate the strongest associations between descriptors" (p. 682).

Sampling

To define the sample, we used the mentioned keywords. The search was only conducted in the English language. The robustness of this method can be seen in the study by Cobo et al. (2013). As they recommend, a de-duplicating process was applied over the keywords. The author's keywords and Keywords Plus were considered to help group words that represent the same concept. For example, we created some umbrella keywords such as TRUST (trust, interpersonal-trust, institutional-trust, trust-perception, trustworthiness, and trust in social commerce) or SATISFACTION (satisfaction, satisfaction-degree, guest-satisfaction, customer-satisfaction, e-satisfaction, tourist-satisfaction, user-satisfaction, and trip-satisfaction), among others.

Some keywords meaningless in this context, such as stop words or words with a very broad and general meaning (Cobo et al., 2013), were removed (e.g., "sharing economy," "tourism," or "collaborative economy").

The initial sample included 940 works (papers, book chapters, conferences, etc.) indexed in the WOS containing our chosen keywords. In our final sample, 940 words were considered, after removing duplicates and papers without a year of publication. 10,652 citations within those papers were recorded and analyzed. The period from 2010 (when the first indexed paper was published) to 2020 was analyzed.

To answer RQ1 citation analysis was used. This is a method of tracking publishing patterns based on the assumption that a heavily cited author, paper, or book is considered important by a large number of scholars in a discipline (Kim & McMillan, 2008).

To answer RQ2, two scientific maps were obtained and compared for two consecutive periods: (i) from 2010 to 2016, with 81 documents and (ii) from 2017 to 2020, with 859 documents. The generic terms, such as sharing economy, were eliminated to better approach the most used words in this field of research. These two periods of time were identified because, as Supplementary Annexe 1 shows, the number of published articles increased exponentially in 2017, doubling over previous years. Also, Supplementary Annexe 2 shows the most prolific journals on this topic.

Co-occurrence analysis of keywords was used to identify related themes of research. As Cheng (2016) states, co-citation analysis has been widely adopted in bibliometric analysis for tourism-related topics. With this procedure, the author's keywords were considered to help group words that represent the same concept. As Muñoz-Leiva et al. (2015: 682) explain, co-word analysis is based

on the association between information units in textual data, representing publications and documents. So, it is possible to reduce "a large set of descriptors (or keywords) to a set of network graphs that effectively illustrate the strongest associations between descriptors" because this tool "analyses the frequency of co-occurrence" or what is the same "the number of documents in which two keywords appear together."

It is important to clarify that in a bibliometric network, each node (unit of analysis) has associated set of documents. With this set of documents, the software carries on a performance analysis. In our analysis, we have calculated the number of documents associated with a node (theme), the maximum number of the citations achieved by those documents and their h-index (Cobo, 2012, Cobo et al., 2012).

Results and discussion

RQ1: outstanding themes

To identify the outstanding themes, we have followed Cobo et al. (2014), so three kinds of bibliometric indicators were used: (i) number of published documents, (ii) number of received citations, and (iii) h-index. Figure 1 presents the values for these three bibliometric indicators for the two analyzed periods.

First, based on the number of published documents associated with each theme (Figure 1), two themes have increased their relevance: AIRBNB (from 10 papers out of 81 in period 1 81 to 286 papers out of 769 in period 2) and INNOVATION_ENREPRENERUR (from 4 papers to 31 papers). On the contrary, some themes have lost their relevance (TRUST, SATISFACTION, and EXPERIENCE-EMOTION), while others have emerged strongly (INTENTION, CONSUMPTION, REVIEWS, and GENTRIFICATION; this term is used to explain how a lower-income population is replaced by one of a higher status due to tourism activities; Jover and Díaz-Parra, 2019). In other words, in the second period, there is greater interest in the role of tourists as consumers and the helpfulness of new technologies and platforms (such as AIRBNB). These results support Dolnicar's (2019) conclusions, which stated that "the number of publications mentioning Airbnb has increased exponentially from 1 in 2010, 2011 and 2012, to 46 in 2016, 119 in 2017 and 91 from January to October 2018."

Second, the maximum number of citations per theme was analyzed (remember that each theme has associated a number of documents using this theme so that the performance indicators were calculated for each set of documents). In period 1, the most cited topic is TRUST, followed by INNOVATION_ENREPRENERUR. In period 2, the most cited papers are those that discuss AIRBNB, INTENTIONS, and CONSUMPTION.

Third, we focused on the h-index obtained for each set of documents under the same umbrella (theme). Figure 2 shows the evolution of themes based on this indicator (h-index). Four main conclusions are supported:

- In period 1, there are three outstanding themes: TRUST (h-index = 5), AIRBNB (h-index = 4) and INNOVATION_ENREPRENERUR (h-index = 3).
- Some themes in period 1 are consolidated in period 2 as stated previously (Figure 2): AIRBNB (h-index = 34) and INNOVATION_ENREPRENERUR (h-index =10).
- Some new themes emerge in period 2 with high h-indexes: INTENTION (h-index =22), CONSUMPTION (h-index =19.) and REVIEWS (h-index =14).

	Documents count	H index	Sum. citation
Period 1 Themes (81 papers)			
TRUST	6	5	1214
AIRBNB	10	4	178
INNOVATION_ENTREPRENEUR	4	3	414
SATISFACTION	1	1	7
EXPERIENCE_EMOTION	1	1	5
Period 2 Themes (769 papers)			
AIRBNB	286	34	3835
INTENTION	114	22	1344
REVIEWS	60	14	697
CONSUMPTION	98	19	1109
INNOVATION_ENTREPRENEUR	31	10	307
GENTRIFICATION	6	2	24
Period 1 (h-index)		**Period 2 (h-index)**	

Figure 1. Performance measures (bibliometric indicators) for both periods. (*) H-index was used as an indicator to generate the map. To this end, each document containing a particular keyword was added to each element of the whole network and map; then, the h-index achieved by those documents joined in the same node (term) was calculated (Cobo et al., 2012).
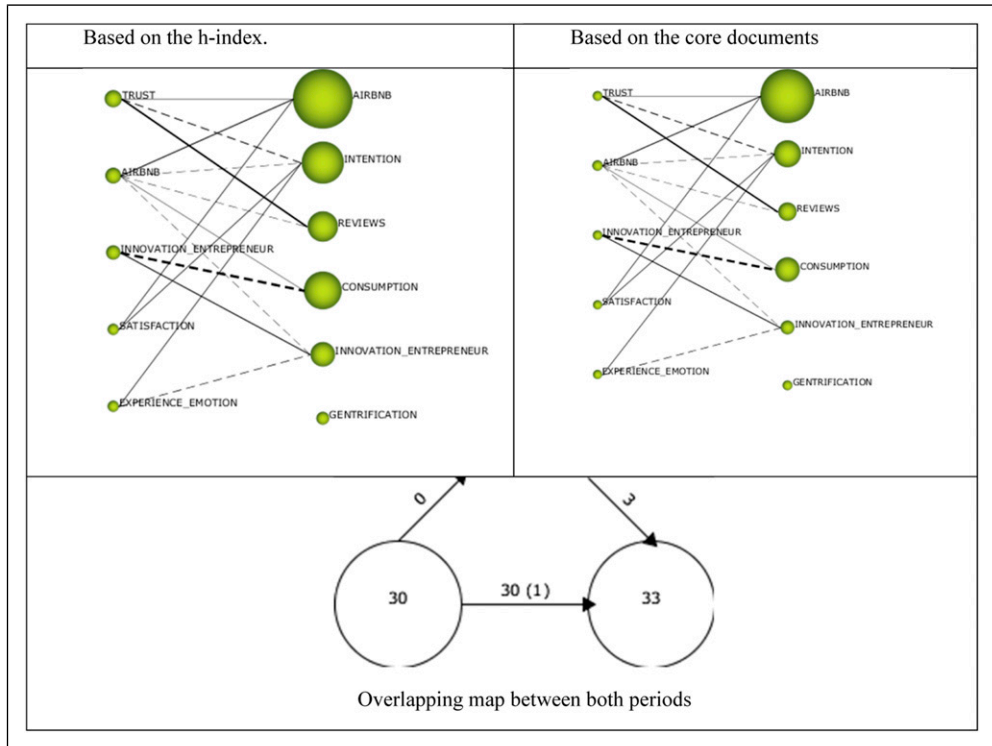
Figure 2. Evolution of the topics from period 1 to period 2.

To conclude, as the overlapping map included in the last row of Figure 2 shows, the number of key works has augmented slightly between both periods. This means that the research community maintains its terminology.

RQ2: scientific structure (central themes and future directions)

Figure 3 illustrates the strategic diagrams for the two periods, including the indicators used to analyze the centrality and density of each theme in both periods. Based on the idea that "centrality" measures the degree of interaction of a network with other networks and "density" measures the internal strength of the network (Cobo et al., 2014), four groups of themes are identified to help answer RQ2:

(i)   Motor themes (high centrality and high density): top right on the map.
(ii) Declining themes (low centrality and low density): bottom left on the map.
(iii) Highly developed but isolated themes (low centrality but high density: top left on the map.
(iv) Basic-transversal themes (high centrality but low density): bottom right on the map.

These four groups of research themes have emerged in our analysis considering the number of times each keyword appeared in the different documents, and with which other keywords it appeared. Sphere size is proportional to the number of published documents associated with each
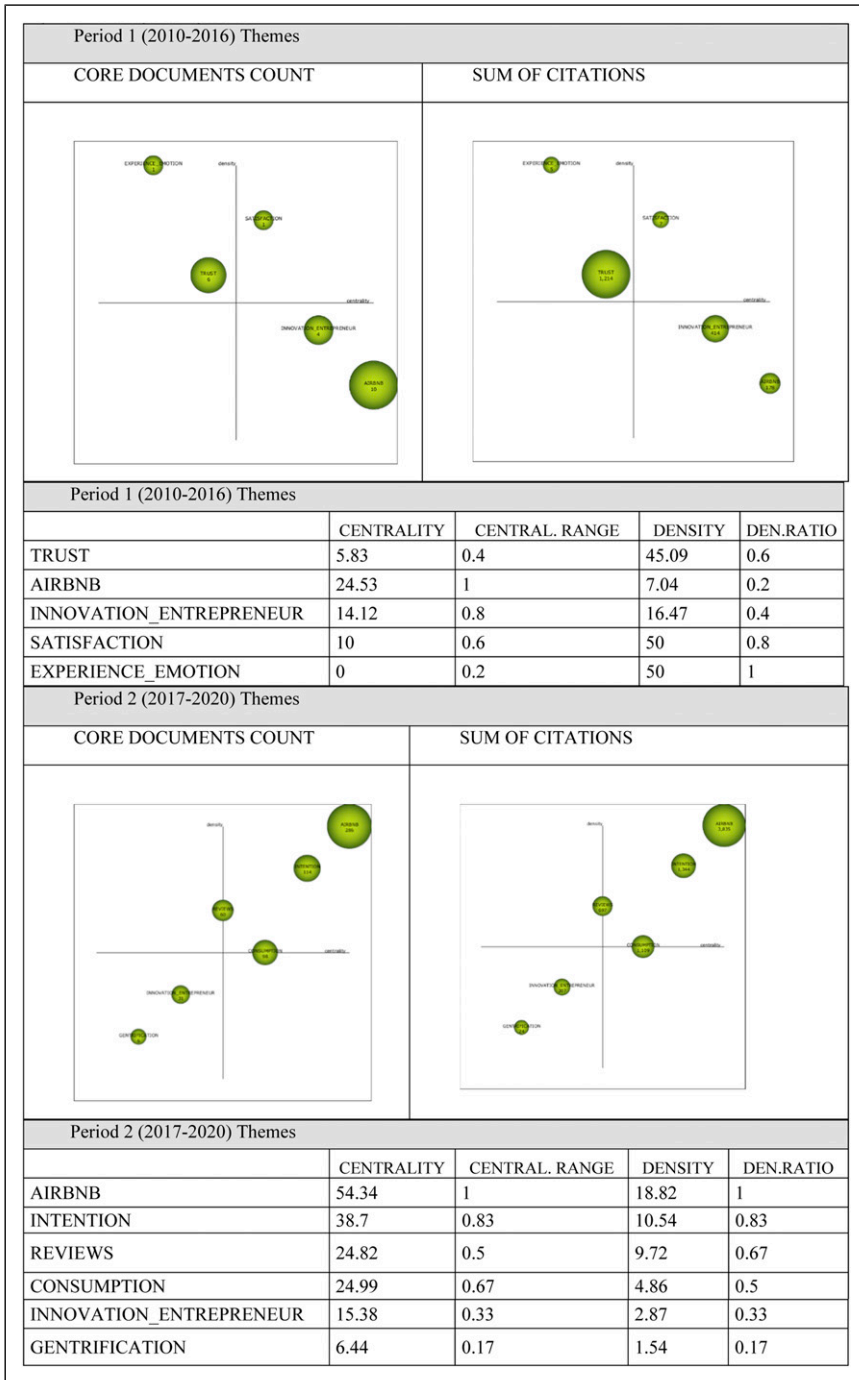
Figure 3. Strategic diagrams. (*) The maximum citation for each term was used as an indicator to generate the maps. To this end, each document containing a particular keyword was added to each element of the whole network and map; then, the maximum citation achieved by those documents joined in the same node (term) was calculated (Cobo et al., 2012).

research theme (Cobo et al., 2014). In addition, Figure 3 shows in parentheses the number of citations achieved by each theme and the number of core documents.

Motor themes (high density and centrality): upper right quadrant. As Figure 3 shows in the upper right quadrant of the map, there is one highly developed and indispensable theme that builds the research field in period 1 (central nodes): SATISFACTION (density = 50).

In period 2, Figure 3 shows that four new motor themes appear: AIRBNB (density = 18,82), INTENTION (density = 10,54), REVIEWS (density = 9,7), and CONSUMPTION (density = 4,86).

Declining or emerging themes (low density and low centrality): lower left quadrant. In period 1, there are no declining/emerging themes, while in period 2, we find two promising themes: INNOVATION_ENTREPRENERUR and GENTRIFICATION.

Highly developed but isolated themes (high density but low centrality): upper left quadrant. The themes located in the upper left quadrant of the maps in Figure 3 have strong internal ties (high density) but weak external links (low centrality). They are peripheral themes (low centrality).

In period 1, there are two themes (upper left quadrant in Figure 3): TRUST and EXPERIENCE-EMOTION.

In period 2, there are no isolated themes (low centrality) that many authors paid attention to (high density; upper left quadrant in Figure 3). This quadrant is empty.

Basic-transversal themes (high centrality but low density): lower-right quadrant. This group of themes was investigated with other relevant ones, but its weight is low because it lacks development. Themes in this group have been named as transversal, basic and general topics. In period 1, Figure 3 shows two themes belonging to this group (lower-right quadrant): INNOVATION_ENTREPRENEUR and AIRBNB. In period 2, Figure 3 shows that no transversal themes were identified.

To conclude, in period 1, there are several themes with many connections with other themes (i.e., they act as central nodes of the nets). The three most relevant are AIRBNB, INNOVATION_ENTREPERNEUR, and TRUST. These themes were investigated in conjunction with those that are shown in their respective nets (Annexe 3):

- AIRBNB connects with CONSUMPTION, IMPACT, UBER, PEAR-TO-PEAR, and HOTEL.
- INNOVATION_ENTREPERNEUR connects with SUSTAINABILITY, CITY, SOCIAL MOTIVATIONS, and TRANSPORT.
- TRUST connects with TECHNOLOGY, WORD-OF-MOUTH, QUALITY, REPUTATION, and REVIEWS.

In period 2, there are also several themes with many connections with other themes in this period. Four of them are key: AIRBNB, REVIEWS, CONSUMPTION, and INNOVATION_ENTREPERNEUR. These themes were investigated with those that are shown in their respective nets (Annexe 3):

- *AIRBNB* connects with CO-CREATION, TRUST, SATISFACTION, ACCOMMODATION, and HOTEL,
- *REPUTATION* connects with REVIEWS, WORD-OF-MOUTH, IMPACT, PRICE, and SENTIMENTAL ANALYSIS.

- *INNOVATION_ENTREPERNEUR* connects with AUTHENTICITY, UBER, TRANSPORT, FUTURE, and SHORT-TERM-RENTALS.
- *CONSUMPTION* connects with SUSTAINABILITY, PLATFORM, MOTIVATIONS, CITY, and SOCIAL.
- *BIG-DATA* connects with GENTRIFICATION AND OVER TOURISM.

Conclusions and future managerial/research implications

Some years ago, the literature suggested that the future of the sharing economy remained uncertain (Heo, 2016: p. 168). Based on our results, an evolution of the research themes can be observed (Figure 2). That is, some themes in period 1 have evolved in period 2. As Supplementary Annexe 3 shows, the topics investigated during the last years represent promising lines of research in the next years as far as they are starting to be investigated linked to other interesting topics as the following lines explain.

Research line: the future of P2P platforms, mainly AIRBNB, will depend on trust

One of the outstanding research topics in both periods was *AIRBNB*, connected with CO-CREATION and TRUST. Another topic, *REPUTATION*, also emerged in period 2, linked to REVIEWS and WORD-OF-MOUTH, among others (see Supplementary Annexe 3).

This result makes sense because recently P2P exchanges and sharing economy services are becoming riskier, now even more due to this new pandemic environment. Sharing economy services are exposed to risks other than monetary loss (Ert et al., 2016). Many times, the sharing economy industry has bypassed government regulations harming consumer rights, safety, and quality as well as disability compliance standards (Cheng, 2016).

In the past, several measures were implemented "to help assuage the safety fears and general uncertainties associated with staying with a stranger" (Guttentag, 2015: 1198), such as progressive identity verification devices, 24-h telephone hotlines and free professional photographers. All these measures to provide safety improve trust. Given that the most common reputation mechanism to reach trust comprises the exhibition of online reviews of the seller by experienced users (Ert et al., 2016: 62), the future of the collaborative economy will require frequent feedback to guarantee the security of the service received. These reviews should be referred to both product attributes (e.g., apartment size and location), and seller attributes (reputation, visual appearance; Ert et al., 2016) because guests' perceptions are formed from both sources.

In summary, forthcoming research should pay attention to investigate the need to alleviate "trust" tension in the future (Cheng, 2016) because trust and reputation are pivotal to the proper working of the sharing economy industry (Ert et al., 2016); or what is the same, engagement and brand love. To this end, researchers could work on the development of some certifications or protocols to ensure the safety of the user, together with other feedback mechanisms (reviews, 24/7 attention, etc.). As Belarmino and Koh (2020) have concluded, "there has yet to be an examination of safety and security in P2P accommodations" (p. 12).

Research line: authenticity and experiences in sharing-collaborative innovative models

Our results also show that recent research connects *INNOVATION_ENTREPERNEUR* with AUTHENTICITY, FUTURE, and SHORT-TERM-RENTALS in period 2 (Annexe 3).

This means that in the future authenticity will be necessary for success. These results support Belarmino and Koh's (2020) findings for P2P consumption: value and uniqueness are key themes among tourism and hospitality researchers. Authenticity and memorable experiences are two sides of the same coin, and the study of this topic in the hospitality industry remains underrepresented (Mody et al., 2019).

So, future research should discover, in the current scenario, how authentic and innovative services could be provided without compromising the health of the guest, for example, taking advantage of all the potential offered by new technologies. A potential line of research to link innovativeness and authenticity could be the study of the effectiveness of supporting avatars and virtual communities to promote close, warm, and authentic interactions between clients and service providers. In this vein, more research is needed on the use of the best visual evidence, for example, testing different photos of the seller (Ert et al., 2016), to find the best way to communicate a safe environment in a credible, objective, and authentic way.

Research line: sustainability in consumption

Our results show the rise of recent studies on *CONSUMPTION* linked to CITY, SOCIAL, SUSTAINABILITY, PLATFORM, and MOTIVATIONS (Supplementary Annexe 3).

As Ertz and Leblanc-Proulx (2018) remark, the gauging of the sustainability potential of the collaborative economy is a new but emerging area of interest to be investigated because previous literature has not deeply discussed the specific effects of the collaborative economy (e.g., reduction in carbon emissions or minimizing waste and pollution).

To better investigate sustainable tourism, qualitative studies should be developed because as our results show, sustainability and motivations are starting to be investigated together. This means that the study of the sharing economy using mixed methods represents a promising line of research. As Prayag and Ozanne (2018) indicate, the bulk of the research has been developed from a quantitative perspective, without incorporating a qualitative or conceptual approach.

Research line 4: big data and gentrification

Lastly, a recent research topic in the arena of sharing economy is the use of *BIG-DATA* linked to GENTRIFICATION and OVERTOURISM.

From this approach, future research can be developed to investigate the impact of short-term rentals on housing markets, leading to overtourism, and on whether and how to regulate this matter (Wachsmuth, and Weisler, 2018). These short-term rental housing are systematically driving gentrification and displacement, and as these authors remark. So, "understanding geographically specific vulnerability patterns in other cities" is an urgent research task. To date, research has been developed from a Western perspective and in Western regions (Cheng, 2016). More specifically, as Ertz and Leblanc-Proulx (2018) have concluded, earlier geographical analysis of the number of contributions revealed that Europe dominates in terms of productivity. Therefore, it can be concluded that the potential of eastern regions to offer these kinds of collaborative services remains under-investigated. A key variable to be investigated is location (Gibbs et al., 2018).

To conclude, some limitations cannot be obviated. For example, additional keywords, such as ridesharing collaborative consumption, could have been considered. This opens the study for further research.

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Supplementary material

Supplementary material for this article is available online.

References

Ajzen I (1991) The theory of planned behavior. *Organizational behavior and human decision processes* 50(2): 179–211.

Altinay L and Taheri B (2019) Emerging themes and theories in the sharing economy: a critical note for hospitality and tourism. *International Journal of Contemporary Hospitality Management* 31(1): 180–193.

Batool M, Ghulam H, Hayat, MA, et al. (2020) How COVID-19 has shaken the sharing economy? An analysis using Google trends data. *Economic Research-Ekonomska Istraživanja*: 1–13.

Benítez-Aurioles B (2018) The role of distance in the peer-to-peer market for tourist accommodation. *Tourism Economics* 24(3): 237–250.

Belarmino A and Koh Y (2020) A critical review of research regarding peer-to-peer accommodations. *International Journal of Hospitality Management* 84: 102315.

Cheng M (2016) Sharing economy: A review and agenda for future research. *International Journal of Hospitality Management* 57: 60–70.

Cheng M and Edwards D (2019) A comparative automated content analysis approach on the review of the sharing economy discourse in tourism and hospitality. *Current Issues in Tourism* 22(1): 35–49.

Cobo Martín MJ (2012) *SciMAT: herramienta software para el análisis de la evolución del conocimiento científico. Propuesta de una metodología de evaluación*. Granada: Universidad de Granada.

Cobo MJ, Chiclana F, Collop A, et al. (2013) A bibliometric analysis of the intelligent transportation systems research based on science mapping. *IEEE transactions on intelligent transportation systems* 15(2): 901–908.

Cobo MJ, López-Herrera AG, Herrera-Viedma E, et al. (2012) SciMAT: A new science mapping analysis software tool. *Journal of the American Society for Information Science and Technology* 63(8): 1609–1630.

Dann D, Teubner T and Weinhardt C (2019) Poster child and guinea pig – insights from a structured literature review on Airbnb. *International Journal of Contemporary Hospitality Management* 31(1): 427–473.

Dolnicar S (2019) A review of research into paid online peer-to-peer accommodation: Launching the Annals of Tourism Research Curated Collection on peer-to-peer accommodation. *Annals of Tourism Research* 75: 248–264.

Dogru T, Mody M, Suess C, et al. (2020) Airbnb 2.0: Is it a sharing economy platform or a lodging corporation?. *Tourism Management* 78: 104049.

Ert E, Fleischer A and Magen N (2016) Trust and reputation in the sharing economy: The role of personal photos in Airbnb. *Tourism Management* 55: 62–73.

Ertz M and Leblanc-Proulx S (2018) Sustainability in the collaborative economy: A bibliometric analysis reveals emerging interest. *Journal of Cleaner Production* 196: 1073–1085.

Freeman E (1984) *Stakeholder Management Framework and Philosophy.* Pitman, Mansfield, MA.

Gibbs C, Guttentag D, Gretzel U, et al. (2018) Pricing in the sharing economy: a hedonic pricing model applied to Airbnb listings. *Journal of Travel and Tourism Marketing* 35(1): 46–56.

Guttentag D (2015) Airbnb: disruptive innovation and the rise of an informal tourism accommodation sector. *Current issues in Tourism* 18(12): 1192–1217.

Heo Y (2016) Sharing economy and prospects in tourism research. *Annals of Tourism Research* 58: 166–170.

Hossain M (2020) Sharing economy: a comprehensive literature review. *International Journal of Hospitality Management* 87: 102470.

Jover J and Díaz-Parra I (2019) Gentrification, transnational gentrification and touristification in Seville. Spain. *Urban Studies* 57(15): 3044–3059.

Kim J and McMillan SJ (2008) Evaluation of internet advertising research: A bibliometric analysis of citations from key sources. *Journal of Advertising* 37(1): 99–112.

Kuhzady S, Seyfi S and Béal L (2020) Peer-to-peer (P2P) accommodation in the sharing economy: a review. *Current Issues in Tourism*: 1–16.

Legris P, Ingham J and Collerette P (2003) Why do people use information technology? A critical review of the technology acceptance model. *Information & management* 40(3): 191–204.

Martin CJ (2016) The sharing economy: A pathway to sustainability or a nightmarish form of neoliberal capitalism?. *Ecological economics* 121: 149–159.

Martínez-Vergara SJ and Valls-Pasola J (2020) Clarifying the disruptive innovation puzzle: a critical review. *European Journal of Innovation Management* 24: 893–918.

Mody M, Suess C and Lehto X (2019) Going back to its roots: can hospitableness provide hotels competitive advantage over the sharing economy?. *International Journal of Hospitality Management* 76: 286–298.

Muñoz-Leiva F, Porcu L and del Barrio-García S (2015) Discovering prominent themes in integrated marketing communication research from 1991 to 2012: a co-word analytic approach. *International Journal of Advertising* 34(4): 678–701

Ozdemir G and Turker D (2019) Institutionalization of the sharing in the context of Airbnb: a systematic literature review and content analysis. *Anatolia* 30(4): 601–613.

Pine BJ and Gilmore JH (1998) Welcome to the experience economy. *Harward Business Review* 76(4): 97–105.

Prayag G and Ozanne LK (2018) A systematic review of peer-to-peer (P2P) accommodation sharing research from 2010 to 2016: progress and prospects from the multi-level perspective. *Journal of Hospitality Marketing & Management* 27(6): 649–678.

Rosen S (1974) Hedonic prices and implicit markets: product differentiation in pure competition. *Journal of political economy* 82(1): 34–55.

Vargo SL and Lusch RF (2004) Evolving to a new dominant logic for marketing. *Journal of marketing* 68(1): 1–17.

Sainaghi R (2020) The current state of academic research into peer-to-peer accommodation platforms. *International Journal of Hospitality Management* 89: 102555.

Sainaghi R, Köseoglu MA, Angella F, et al. (2020) Sharing economy: a co-citation analysis. *Current Issues in Tourism* 23(8): 929–937.

Sainaghi R and Baggio R (2020) Clusters of topics and research designs in peer-to-peer accommodation platforms. *International Journal of Hospitality Management* 88: 102393.

Wang X, Lin X and Abdullat A (2020) Sharing economy: a review of the literature and a framework for future research. *VINE Journal of Information and Knowledge Management Systems* 51: 418–437.

Wachsmuth D and Weisler A (2018) Airbnb and the rent gap: Gentrification through the sharing economy. *Environment and Planning A: Economy and Space* 50(6): 1147–1170.

Wirtz J, So KKF, Mody MA, et al. (2019) Platforms in the peer-to-peer sharing economy. *Journal of Service Management* 30(4): 452–483.

Zhu G, So KKF and Hudson S (2017) Inside the sharing economy. *International Journal of Contemporary Hospitality Management* 29: 2218–2239.

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