



# Uncovering the Landscape of Sharing Economy Research Amid and Beyond the Pandemic: A Bibliometric Analysis

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**Abstract.** As an emerging business model, the sharing economy (SE) or collaborative consumption is subject to volatility, uncertainty, complexity, and ambiguity (VUCA)—including during and beyond the Covid-19 pandemic. Yet amidst the global pandemic, an increasing number of studies on SE were conducted. This literature review takes the approaches of bibliometric and thematic analyses, with research articles published in select reputable databases between 2020 and 2022 as the unit of analysis (i.e., ScienceDirect, Emerald, Taylor & Francis, and SAGE). From a dataset of 717 articles, the authors constructed a visual mapping from bibliometric analysis to uncover eight emerging themes in SE research during the Covid-19 pandemic: (1) SE business model, (2) peer-to-peer SE model in tourism and hospitality, (3) the role of platforms in SE, (4) value co-creation in SE, (5) transportation and SE, (6) collaborative consumption and sustainable consumption, (7) access-based consumption and shared mobility, and (8) circular economy and sustainability. This study is expected to shed light on future research potentials, e.g., in product service system (PSS), the impact of peer-to-peer accommodation, value co-creation and service recovery, reputation and signaling mechanisms in SE, reciprocity, the feasibility of access-based consumption, and the implementation of circular economy in SE.

**Keywords:** Bibliometric Study, Covid-19 Pandemic, Sharing Economy, Thematic analysis, VUCA.

## 1 Introduction

The Covid-19 pandemic has had significant impacts across the globe and many industries—particularly the service sector. According to an estimate by the United Nations Conference on Trade and Development (2021), one of the measurable impacts of the Covid-19 pandemic is a contraction in the global gross domestic product (GDP) of US\$4 billion during 2020 and 2021 [1]. By 2023, many countries have begun entering pandemic recovery phase, but are faced with the threat of recession, with the impact of implementing restrictive economic policies that may further limit the growth and opportunities for businesses [2].

One of the emerging industries sensitive to economic shocks is the sharing economy (SE). Since the publication of the book on collaborative consumption by Botsman and

Rogers [3], SE has emerged as an important sector in the economy and an important research topic in business and economics. The Brookings Institution think tank estimated that SE will grow to US\$ 335 billion by 2025—a 24-fold growth from a mere US\$ 14 billion in 2014 [4]. SE is closely related to and is also referred to as collaborative consumption [5], peer-to-peer economy (P2P) [6], and gig economy [7]. SE can be defined as a phenomenon of peer-to-peer sharing of access to underutilized goods and services, through various service or rental business models [6].

The SE business model is transforming the market through the exchange or rental of services, goods, spaces, and skills—carried out through the intermediary of digital platforms as 'coordinators' [8]. Through technology, SE is revolutionizing production and consumption [9], in which platforms act as intermediaries that bring together contractors providing underutilized services, goods, spaces, or skills (supply side), and consumers seeking services, goods, spaces, or skills (demand side). In more than a decade of SE development, an increasing number of people and businesses are involved in this economic movement (either as producers, consumers, collaborators, or developers of SE intermediary platforms). One study found that such involvement is based on economic gains, enjoyment, and a drive toward ecological sustainability [10]. Another study found that involvement in SE is influenced by intrinsic factors (i.e., pleasure, social orientation, eco-orientation) that correspond to perceived values (i.e., hedonic, social, and environmental values), as well as by extrinsic factors, namely economic factors (i.e., utilitarian value), trend orientation, and convenience offered by SE [5].

Research on SE is growing as various business models and platforms in the sector are flourishing. A search in Scopus database using the keywords “sharing economy” OR “gig economy” OR “collaborative consumption” resulted in the top three most-cited papers. One article examines the intrinsic reasons for engaging in SE [10]. Another article highlights the shift and diversification from an economy based on individual ownership to shared ownership or temporary rental systems [11]. While the third article argued that SE (in this case Airbnb) has both incremental and radical impacts by changing consumption patterns [12].

Several systematic literature reviews and bibliometric analyses have highlighted the importance and opportunities for research on SE. A content and co-citation analysis based on 162 articles published between 2010 and 2015 indicated three areas of research focus: (1) SE business model and impact; (2) SE characteristics, and (3) SE and sustainable development [6]. Additionally, two SE focus areas in tourism and hospitality were identified, i.e., SE impact on tourist destinations and SE impact on tourists. Another review article explored 435 published papers on the topic of SE and found the mediating effect of digital platforms as an important principle in classifying and organizing various SE perspectives, as well as for evaluating research on digital platform technology—whether a digital platform is classified as centralized or decentralized [13]. Further, another review of 45 articles found that trust is a complex concept in SE, with its antecedents (reputation, trust in the platform, and interaction experience), influenced by multiple entities (seller/service provider, buyer/user, platform itself, transaction, and interpersonal relationship) [14]. In addition, one study of literature found that value co-creation is an important concept in SE, among others applied to Airbnb accommodation-sharing services, which can have implications for value co-creation,

value co-reduction, value co-destruction, and value co-recovery [14]. From the review of selected publications on the topic of SE before the Covid-19 pandemic, it is apparent that SE has a strong foundation in the theories of lifestyle, social exchange, and consumption practices [6], trust [13], [15], and value creation [14]

Observations during the Covid-19 pandemic indicate that SEs are sensitive to disruptions or socio-economic shocks. SE actors in the service sector, particularly in tourism and hospitality, are found to be the most adversely impacted by Covid-related disruptions—causing negative growth (“de-growth”) in this industry [16]. On the one hand, SE as a large contributor to the service economy in the digital era is vulnerable to the conditions of volatility, uncertainty, complexity, and ambiguity (VUCA) (e.g., peer-to-peer accommodation-sharing platforms such as Airbnb) [17]. Yet on the other hand, resilience is also found as an advantage of SE in conditions of VUCA (e.g., in the food delivery service sector such as Uber Eats) [18].

A recent study on the impact of the Covid-19 pandemic on SE found that the pandemic affects the existence and survival of SE amid shocks, as well as the coping mechanisms of SE actors [19], and exposes the vulnerability of SE to socioeconomic disruption [20]. Conversely, several studies underline the positive impacts of the Covid-19 pandemic on SE, in the form of outsourcing opportunities for freelancers, entertainment, and food delivery services [21], and the impact of technology-seeking and novelty-seeking behavior in shaping user trust in SE platforms [22]. From the above description, it appears that there is still a gap in the SE phenomenon in the context of the Covid-19 pandemic. Therefore, it is important to examine the patterns, themes, and trends of sharing economy (SE) research in the context of the Covid-19 pandemic. In this paper, the authors explore the patterns, themes, and trends of SE research through bibliometric analysis of articles published in international journals listed in reputable databases from 2020 to 2022.

## 2 Methods

This literature study utilizes bibliometric analysis by applying the PRISMA guidelines (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) as the benchmark for writing a review article [23], [24]. This method has been applied to various bibliometric studies in business and management, including entrepreneurship [25], accounting [26], neuromarketing [27], and value co-creation [28]. The current study also applies the SPIDER approach (Sample, Phenomenon of Interest, Design, Evaluation, Research type) [29].

The sample in the study is collected from articles in scientific journals that specifically discuss the sharing economy (SE) or related terms, in the context of the Covid-19 pandemic. Inclusion criteria included that the articles were: (1) published in reputable international journals indexed in selected data sources (ScienceDirect, Emerald, Taylor & Francis, and SAGE databases), (2) published in English, and (3) published between 2020 and 2022. The key terms used in the Boolean search from the abovementioned select data sources were: (“sharing economy” OR “gig economy” OR “collaborative consumption”) AND (“Covid-19”)—which were used to search in the title, abstract,

and keyword fields. Articles published in proceedings or book chapters were excluded. Similarly, articles published in scientific journals but were editorials or retracted articles were also excluded.

The authors then examined patterns, themes, and trends of SE research in the context of the Covid-19 pandemic. This study uses a thematic analysis design with bibliometric visualization, with the help of Publish or Perish application and web search in each of the select databases. Then with the help of Zotero reference management software, the authors created a new database of articles that meet the inclusion criteria, combining the findings in the form of RIS (Research Information Systems) files, before presenting a visualization of bibliometric analysis results in the form of network visualization and clustering with the help of VOSViewer application. The evaluation in this study was carried out after obtaining visual clusters, with a thematic analysis approach to suggest patterns, themes, and trends in SE research in the context of the Covid-19 Pandemic, which were then discussed in light of current patterns/trends and future research opportunities. The types of articles analyzed in this study were based on both empirical research and literature studies—using qualitative, quantitative, or mixed methods in their approaches.

Upon searching in select databases, the authors initially extracted a total of 755 articles; 194 of which were obtained from ScienceDirect, 352 from Emerald, 151 from Taylor & Francis, and 58 from SAGE. Of the extracted articles, 31 were excluded because they were not empirical research or literature review articles (including editorials, letters to the editor, business case studies, case reports, mini-reviews, and commentaries). Of the remaining 724 articles, one article was not included in the analysis because it was retracted from Emerald database, while six articles were duplicates. Finally, a total of 717 articles met the eligibility and inclusion criteria for review. Table 1 shows the process of sample identification, selection, and eligibility for the articles in accordance with the PRISMA guidelines [23], [24].

**Table 1.** Article Identification, Selection, and Eligibility

Stage	Articles	Number of Articles per Database			
		ScienceDirect	Emerald	Taylor & Francis	SAGE
Identification	755	194	352	151	58
Selection	724	187	342	138	57
Eligibility	717	187	336	138	57

Subsequently, the authors exported the combined database of 717 articles into RIS files, to be used for bibliometric analysis using VOSViewer software. Network visualization mapping was carried out based on this bibliometric data with a co-occurrence approach for related keywords (i.e., to show relatedness), with the unit of analysis being keywords. Following this, a thematic analysis of the clusters formed from the visual bibliometric analysis was conducted, followed by the identification of selected articles that addressed the research themes, trends, and further opportunities.

### 3 Results and Discussion

#### 3.1 Top Ten Journals that Contributed to SE research in the context of Covid-19 Pandemic

From the process of article identification, extraction, eligibility, selection, and evaluation, a total of 717 articles were analyzed in this study. Among these articles, the ten journals that contributed the most articles were: (1) International Journal of Contemporary Hospitality Management, (2) International Journal of Hospitality Management, (3) Journal of Cleaner Production, (4) Information Technology & People, Resources, (5) Conservation & Recycling, (6) Australasian Marketing Journal, (7) International Journal of Production Economics, (8) Journal of Business Research, (9) Electronic Commerce Research and Applications, and (10) Management of Environmental Quality. Data on the top ten journals based on the number of articles, along with the impact factor (IF) of the journal is presented in Table 2. Based on the various types of journals that publish many articles on the topic of SE, it appears that SE is a research topic that covers a wide range of business and management fields, including tourism and hospitality, production, marketing, e-commerce, technology, resource management, and environmental management.

**Table 2.** Top Ten Journals Contributing to SE research in the context of Covid-19

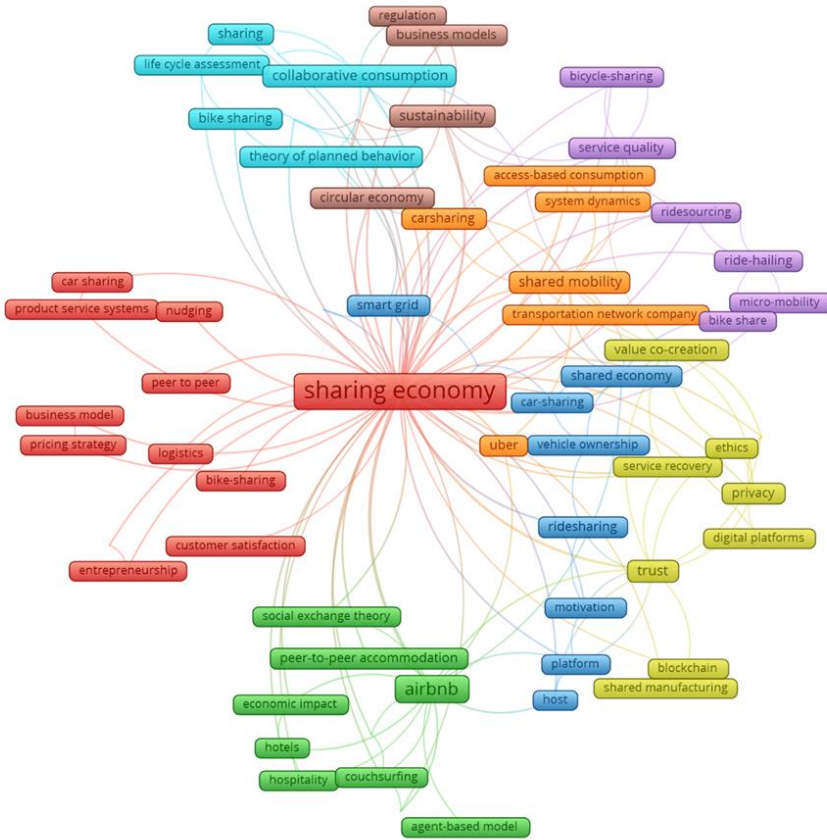
Rank	Journal Name	Number of Articles	Publisher	Impact Factor
1.	International Journal of Contemporary Hospitality Management	14	Emerald	8,65
2.	International Journal of Hospitality Management	13	ScienceDirect	10,54
3.	Journal of Cleaner Production	11	ScienceDirect	10,96
4.	Information Technology & People	11	Emerald	3,88
5.	Resources, Conservation & Recycling	10	ScienceDirect	10,20
6.	Australasian Marketing Journal	9	ScienceDirect	6,47
7.	International Journal of Production Economics	9	ScienceDirect	11,85
8.	Journal of Business Research	9	ScienceDirect	11,06
9.	Electronic Commerce Research and Applications	9	ScienceDirect	6,03
10.	Management of Environmental Quality	9	Emerald	4,77

#### 3.2 Co-Occurrence Analysis based on SE-related Keywords

Keyword co-occurrence analysis explores the underlying themes of SE-related research in the context of Covid-19 pandemic. The key terms used as the unit of analysis were

found in the titles, abstracts, and keywords of the selected publications (n=717). Using VOSViewer freeware, the authors used the full counting method for the co-occurrence analysis with the minimum threshold for occurrence set at three, i.e. each key term must appear in at least three different articles. For theme clustering, the authors determined that the minimum size for each cluster was five, i.e., for a cluster to form, there must be at least five key terms in its network. Then, a network visualization map was constructed based on the co-occurrence of the 69 most frequently cited terms in the dataset. This analysis aims to explore themes for SE-related research in the context of Covid-19 pandemic. From the most-cited 69 key terms, eight major thematic clusters emerged (Figure 1 and Table 3)—each of which represents a research topic [28]. The eight thematic clusters are subsequently discussed in more detail, paying attention to emerging trends and future research opportunities.

**Theme 1: SE Business Model.** In the thematic cluster of SE business model, the key terms include business model, sharing economy, logistics, product service system, entrepreneurship, nudging, and customer satisfaction. Companies and entrepreneurs seeking to compete competitively in SE-based industries must have a strong business model. SE has the potential to reduce the negative impact of a business on the environment and society, and at the same time reduce operating costs, but entrepreneurs must have a sustainable business model and be able to overcome the two biggest barriers, namely capital costs and lack of trust [30]. Furthermore, a sustainable and disruption-resilient SE business model, including when faced with Covid-related VUCA, should bring together various SE actors (i.e., platforms, resource owners, and resource users) to engage in three key activities in a sustainable manner: (1) value creation, (2) value delivery, and (3) value capture [31]. One study found 13 different types of business models offering the potential for SE to create sustainable value based on three criteria: (1) access-based economy, (2) platform-based economy, and (3) community-based economy [32]. Ideally, an optimal SE business model fulfills all criteria by providing access to providers and users through various forms of digital platforms, and by forming a community of providers and users.



**Fig. 1.** Network Visualization Map of SE Research in the Context of Covid-19

**Table 3.** Thematic Clustering of SE Research in the Context of Covid-19

Cluster	Theme	Sub Theme
1 (Red)	SE business model	Business model, sharing economy, logistics, product service system, entrepreneurship, nudging, customer satisfaction, etc.
2 Green)	SE peer-to-peer model in tourism and hospitality	Peer-to-peer accommodation, social exchange theory, hotel, hospitality, couch surfing, economic impact, agency model, etc.

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3 (Blue)	The role of platforms in SE	Ridesharing, car-sharing, platform, demand management, electric vehicle, smart grid, vehicle ownership, etc.
4 (Yellow)	Value co-creation in SE	Value co-creation, blockchain, shared manufacturing, trust, relationship quality, ethics, privacy, service recovery, etc.
5 (Purple)	Transportation and SE	Transportation network, ride-hailing, micro-mobility, ride-sourcing, service quality, loyalty, etc.
6 (Light Blue)	Collaborative consumption and sustainable consumption	Collaborative consumption, sustainable consumption, reciprocity, theory of planned behavior, etc.
7 (Orange)	Access-based consumption and shared mobility	Access-based consumption, shared mobility, system dynamics, car-sharing, etc.
8 (Brown)	Circular economy and sustainability	Circular economy, sustainability, regulation, peer-to-peer sharing, etc.

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One interesting business model to study is the product service system (PSS), which provides equal and cohesive access between products and services to encourage collaborative consumption between the two [33]. PSS is strongly associated with the co-creation of value-in-use, encompassing both tangible and intangible aspects of the value being offered [34]. Another business model that is gaining attention from researchers is the use of electric vehicles within the SE business model for delivery logistics, which has been implemented and analyzed across different industries in China during the Covid-19 pandemic [35], [36].

**Theme 2: SE Peer-To-Peer Model in Tourism and Hospitality.** Thematic cluster two focuses on the tourism and hospitality industry, with several key terms including peer-to-peer accommodation, social exchange theory, hotel, hospitality, couch surfing, economic impact, and agency model. The high frequency of occurrence of these industry-related key terms indicates the importance of the tourism and hospitality industry context in SE research, and conversely the importance of SE-related research for the tourism and hospitality industry [37]. This is mainly due to the emergence of peer-to-peer accommodation platforms such as Airbnb, which has been examined by many researchers [38].



Peer-to-peer accommodation platforms and the features being offered are found to significantly influence users' interest, perceived authenticity, and experience [39]. In addition, user experience was also found to influence how much users like using the Airbnb platform, which in turn influences the desire to reuse and willingness to recommend. Meanwhile, another study found that user involvement in peer-to-peer accommodation activities, specifically couch surfing, can improve destination image, familiarity, electronic word-of-mouth, and willingness to revisit [40]. This can happen because users/visitors feel more involved and have a greater chance to get a truly authentic tourist experience.

A study in the United States measured the impact of peer-to-peer accommodation on the conventional hotel industry, determining that Airbnb tends to drive down the average price of hotel rooms in a city, but does not negatively affect the occupancy rate—which is referred to as “the Airbnb paradox” [41]. This finding suggests that the economic impact of SE is not only felt by SE actors, but also by incumbent industries being disrupted by the emergence of SE-based businesses. In addition to tourism and hospitality services, SE also has an impact on industries that are conventionally retail-based but have also experienced SE disruption and penetration, one of which is the luxury clothing rental business. The existence of clothing rental platforms was found to contribute to both market expansion and cannibalization impacts, but the market expansion impact is greater than the cannibalization impact [42]. Consequently, fashion designers can utilize the agency business model to increase market reach and brand awareness through SE-based platforms. The emerging peer-to-peer model is an interesting field of research in the context of SE, especially considering the vulnerability and potential resilience of P2P actors in tourism and hospitality-related SE business models.

**Theme 3: The role of platforms in SE.** Key terms in this thematic cluster include the concepts of ridesharing, car-sharing, platforms, demand management, electric vehicles, smart grid, and vehicle ownership. Research on ridesharing and car-sharing has been conducted extensively in the European context, in which many actors are involved in these forms of SE [43]. In the Indonesian context, ridesharing is found to initially reduce vehicle ownership, as users/customers no longer need to own a vehicle to gain access to travel, but can eventually encourage greater vehicle ownership as more and more people take on the role of service providers [44]. Meanwhile, with the development of the electric vehicle (EV) industry, the opportunity to develop EV-based businesses with SE models has been increasing—including leasing, car-sharing, charging area leasing, and smart grids [45]. The most important step is developing platforms that can accommodate this, and any related SE model. As digital platforms continue to play an important role in SE in the foreseeable future, research on the evolving role of platforms in SE is still needed.

**Theme 4: Value co-creation in SE.** In this theme, the key terms of interest include value co-creation, blockchain, shared manufacturing, trust, relationship quality, ethics, privacy, and service recovery. One study found that value co-creation and user loyalty in SE are driven by service quality, especially the offline service dimension (when users

and providers already interact offline) [46]. Another study found that ethical considerations are also important in value co-creation and SE—which consists of privacy, security, reliability, and service recovery [47]. Trust, commitment, and user satisfaction are key factors that significantly affect customers' willingness to engage in value co-creation [22]. One study noted that relationship style, and personal interactions (compared to professional style) resulted in more trust in service providers in SE businesses, and could influence the outcome of post-purchase behavior [48]. In addition, pioneering research in SE-related blockchain, i.e., shared manufacturing is emerging, involving both vertical and horizontal sharing of resources using decentralized blockchain models [49], [50]. In terms of value co-creation, SE actors must also pay attention to the related concepts of value co-destruction and co-recovery (especially in the context of VUCA) through collaborative engagement between providers and users through digital platforms as the intermediary [51]. This theme, along with its related concepts, is still emerging and is expected to continue as an important topic of research in the field of SE.

**Theme 5: Transportation and SE.** This theme relates to theme 3, but with quite different underlying concepts and key terms. In theme 5, the key terms of interest include transportation networks, ride-hailing, micro-mobility, ride-sourcing, service quality, and loyalty. Studies within this theme emphasize the existence and usefulness of reputation systems (e.g., star ratings and reviews) as quality signals in SE [52]—as practiced by various ride-hailing SE businesses such as Uber, Grab, and GoJek. In addition, the transportation sector also involves the concept of micro-mobility, i.e., mobility within a limited scope realized using various platforms for bicycle sharing [53], as well as electric bicycle and scooter (e-bike) sharing [54]. To keep users willing to use SE-based transportation platforms, it is recommended that SE-based companies pay attention to service quality and perceived usefulness, as both have an impact on satisfaction and the desire to keep using the platform, which ultimately leads to user loyalty [55]. The exploration of this theme not only sheds light on the intricate dynamics of transportation and mobility within SE, but also highlights the pivotal role of service quality, reputation, and loyalty in sustaining the continued growth of SE as a transformative model.

**Theme 6: Collaborative Consumption and Sustainable Consumption.** In this theme, the key terms of interest include collaborative consumption, sustainable consumption, reciprocity, and planned behavior theory. Collaborative consumption and sustainable consumption can be realized when all actors behave fairly and morally. Examining the use of bike-sharing in China, one study found that perceived behavioral control and moral obligation are important factors in Chinese consumers' intention to use SE-based bike-sharing services sustainably [56]. This is interesting, as bicycles are highly portable devices and can be easily misused or damaged when shared. Mutual trust and the theory of planned behavior can help explain a more sustainable use of this SE-based service. Meanwhile, another study in the Chinese context found that peer-to-peer interactions are important in collaborative consumption through SE platforms, es-

pecially when it comes to reciprocal behavior that includes mutual support and information/knowledge sharing, with evoked emotions acting as a mediator [57]. Another study noted that food sharing through mobile application platforms, especially amid the Covid-19 pandemic, resulted in genuine relationships between givers and receivers, and encouraged reciprocity [58]. These studies underline the importance of interaction in collaborative consumption activities and expected reciprocal behavior in sustainable consumption, which are important topics to explore in relation to SE—especially in the effort of achieving competitive advantage in the context of VUCA.

**Theme 7: Access-based Consumption and Shared Mobility.** In this theme, the important key terms include access-based consumption, shared mobility, and system dynamics. One study examined the application of system dynamics to change the consumption pattern of household laundry equipment from ownership-based to access-based (SE), and found that the potential for economic savings and reduction of negative environmental impacts can be realized because the utilization rate for shared machines is higher and the consumption of raw materials is lower [59]. Another study found that the majority of consumers who engage in access-based consumption activities through SE platforms do so for mobility, i.e. to gain access to mobility and travel without having to purchase a vehicle [60]. Consumers also tend to use various SE platforms, and try to gain benefits by engaging as users and comparing the benefits of various access-based and shared mobility platforms [61]. Based on these findings, research opportunities still abound in the topics of access-based consumption, shared mobility, and system dynamics.

**Theme 8: Circular Economy and Sustainability.** In this theme, key terms such as circular economy, sustainability, regulation, and peer-to-peer sharing emerge. The circular economy is a concept or pathway to sustainability that provides benefits to various stakeholders, as it ensures that product design, production, processes, and systems within companies minimize waste and inefficiency [62], [63]. It is the antithesis of the linear economy consisting of extraction, production, consumption, and disposal [64]. One study found that amid disruptions such as the Covid-19 pandemic, supply chains with resilience and sustainability are essential for SE aiming to implement circular economy business models [63]. Even amid VUCA, this can be done through supply chain regionalization, supply network diversification, pliability, collaboration, and transparency. In addition, SE businesses may apply smart technologies in good practices of circular economy to enhance their dynamic capabilities. Another study found that continuous improvement affects loyalty and customer value in SE, so companies that make it easier to compete tend to capture higher customer value, accompanied by loyalty, with the added benefit of realizing the circular business concept [46]. Circular economy business models can be complementary to SE [65]. Ultimately, SE and circular economy are linked by the concepts of sustainability, sustainable consumption, and governance—with SE providing a strong customer focus and circular economy emphasizing sustainability [66]. This link or complementarity should be further explored by SE researchers.

### 3.3 Emerging Trends and Opportunities for SE Research

From the bibliometric analysis that resulted in the clustering of research themes and the thematic analysis above, several trends and opportunities for SE research have emerged. Firstly, in terms of SE business models, there are further opportunities for research on SE business models that are optimally sustainable, both in terms of sustained competitive advantage [67] and ecological sustainability [31], [32]. In addition, research opportunities also emerge on the topic of product service systems (PSS) and SE in logistics (especially in the implementation of electric vehicles). Secondly, research is still needed on the existence, survivability/sustainability of peer-to-peer accommodation rental models. In addition, the impact of peer-to-peer accommodation on tourist experience, destination image, and post-purchase behavior is very interesting to be researched further, in addition to examining its impact on the conventional hospitality industry following the Covid-19 pandemic.

Meanwhile, regarding the role of platforms in the sharing economy, ridesharing and ride-hailing trends that dominate SE in the transportation sector open up research opportunities, especially in developing economies, and regarding the role of platforms in bringing together resource/service providers with users/resource seekers. One interesting area of research relates to demand management (e.g. demand-based pricing) practiced by digital SE platforms. In addition, the trend and development of electric vehicles should open up research opportunities to examine the forms of SE practiced concerning the adoption and use of electric vehicles. In terms of SE and transportation, there are research opportunities related to reputation and signaling mechanisms in SE-based transportation service platforms, as a signal of service quality for the providers. In addition, research is needed on the feasibility of e-bikes rental services and other micro-mobility platforms, especially in developing countries. Another interesting research topic is how to retain customers/users of SE-based transportation services in the presence of direct competition and product substitutes.

How SE relates to value co-creation should also present research opportunities to examine the factors that cause or encourage users of SE platforms to engage in value co-creation. Research examining the relationship between relationship quality, trust, satisfaction, loyalty, and service recovery will also remain important for this domain. Service quality is a common research topic, but there is still a need for research on service recovery, its antecedents, and its impacts. In regards to collaborative consumption and sustainable consumption, there is an opportunity to further research the concept of reciprocity in the use of SE platforms by applying the theory of planned behavior. For example, what is the proportion of users who provide good ratings and reviews for the excellent service they receive, compared to users who “take revenge” on those who provide poor service through ratings and reviews that can lower the reputation of such providers.

On the theme of access-based consumption and shared mobility, a feasibility study needs to be conducted to assess and develop in which contexts access-based consumption can be applied, with what the benefits and potential risks. Regarding shared mobility, it would be interesting to study the impact of SE platforms that offer shared mo-

bility on long-term private ownership. Lastly, in terms of circular economy and sustainability, particularly given the conditions of VUCA, many researchers are linking SE concepts with the concept of circular economy, especially because the linear business model is no longer sustainable. Therefore, studies are needed to link SE, circular economy, and sustainability moving forward.

## 4 Conclusion

Sharing economy (SE) is a sector that has grown substantially in the last decade, and with it the scholarship of SE has also grown significantly. The Covid-19 pandemic proves that SE is a sector that is sensitive to conditions of VUCA and shocks. This literature study with bibliometric and thematic analyses found eight emerging research themes during the pandemic. Following the Covid-19 pandemic, further research opportunities abound—including the topic of product service system (PSS) and SE in logistics, the impact of peer-to-peer accommodation on tourist experience, destination image, and post-purchase behavior, implementation of demand-based management and adoption of SE platform, antecedents of value co-creation and service recovery, implementation of reputation and signaling mechanism in transportation service platform, reciprocity between service providers and users, feasibility study of access-based consumption implementation, and implementation of circular economy concept in SE.

## References

1. United Nations Conference on Trade and Development, *Covid-19 and Tourism: An Update*. UNCTAD, 2021.
2. M. Demary and M. Hüther, “How Large Is the Risk of Stagflation in the Eurozone?,” *Intereconomics*, vol. 57, no. 1, pp. 34–39, Jan. 2022, doi: 10.1007/s10272-022-1025-x.
3. R. Botsman and R. Rogers, *What’s Mine Is Yours: The Rise of Collaborative Consumption*, Illustrated edition. New York: Harper Business, 2010.
4. N. Yaraghi and S. Ravi, “The current and future state of the sharing economy (Brookings India IMPACT Series No. 032017).” Brookings Institution India Center, Mar. 2017. [Online]. Available: [https://www.brookings.edu/wp-content/uploads/2016/12/sharingeconomy\\_032017final.pdf](https://www.brookings.edu/wp-content/uploads/2016/12/sharingeconomy_032017final.pdf)
5. A. Luri Minami, C. Ramos, and A. Bruscatto Bortoluzzo, “Sharing economy versus collaborative consumption: What drives consumers in the new forms of exchange?,” *Journal of Business Research*, vol. 128, pp. 124–137, May 2021, doi: 10.1016/j.jbusres.2021.01.035.
6. M. Cheng, “Sharing economy: A review and agenda for future research,” *International Journal of Hospitality Management*, vol. 57, pp. 60–70, Aug. 2016, doi: 10.1016/j.ijhm.2016.06.003.
7. S. Vallas and J. B. Schor, “What Do Platforms Do? Understanding the Gig Economy,” *Annual Review of Sociology*, vol. 46, no. 1, pp. 273–294, 2020, doi: 10.1146/annurev-soc-121919-054857.
8. O. Mont, Y. V. Palgan, K. Bradley, and L. Zvolska, “A decade of the sharing economy: Concepts, users, business and governance perspectives,” *Journal of Cleaner Production*, vol. 269, p. 122215, Oct. 2020, doi: 10.1016/j.jclepro.2020.122215.

9. A. De las Heras, F. Relinque-Medina, F. Zamora-Polo, and A. Luque-Sendra, "Analysis of the evolution of the sharing economy towards sustainability. Trends and transformations of the concept," *Journal of Cleaner Production*, vol. 291, p. 125227, Apr. 2021, doi: 10.1016/j.jclepro.2020.125227.
10. J. Hamari, M. Sjöklint, and A. Ukkonen, "The sharing economy: Why people participate in collaborative consumption," *Journal of the Association for Information Science and Technology*, vol. 67, no. 9, pp. 2047–2059, 2016, doi: 10.1002/asi.23552.
11. R. Belk, "You are what you can access: Sharing and collaborative consumption online," *Journal of Business Research*, vol. 67, no. 8, pp. 1595–1600, Aug. 2014, doi: 10.1016/j.jbusres.2013.10.001.
12. G. Zervas, D. Proserpio, and J. W. Byers, "The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry," *Journal of Marketing Research*, vol. 54, no. 5, pp. 687–705, Oct. 2017, doi: 10.1509/jmr.15.0204.
13. W. Sutherland and M. H. Jarrahi, "The sharing economy and digital platforms: A review and research agenda," *International Journal of Information Management*, vol. 43, pp. 328–341, Dec. 2018, doi: 10.1016/j.ijinfomgt.2018.07.004.
14. J. Camilleri and B. Neuhofer, "Value co-creation and co-destruction in the Airbnb sharing economy.," *International Journal of Contemporary Hospitality Management*, vol. 29, no. 9, pp. 2322–2340, 2017.
15. M. ter Huurne, A. Ronteltap, R. Corten, and V. Buskens, "Antecedents of trust in the sharing economy: A systematic review," *Journal of Consumer Behaviour*, vol. 16, no. 6, pp. 485–498, 2017, doi: 10.1002/cb.1667.
16. C. M. Hall and S. Seyfi, "COVID-19 pandemic, tourism and degrowth," in *Degrowth and Tourism*, Routledge, 2020.
17. M. Kenney and J. Zysman, "The Rise of the Platform Economy," *Issues in science and technology*, vol. 32, pp. 61–69, Mar. 2016.
18. M. Raj, A. Sundararajan, and C. You, "COVID-19 and Digital Resilience: Evidence from Uber Eats." arXiv, Jun. 12, 2020. doi: 10.48550/arXiv.2006.07204.
19. M. Hossain, "The effect of the Covid-19 on sharing economy activities," *Journal of Cleaner Production*, vol. 280, p. 124782, Jan. 2021, doi: 10.1016/j.jclepro.2020.124782.
20. G. Chen, M. Cheng, D. Edwards, and L. Xu, "COVID-19 pandemic exposes the vulnerability of the sharing economy: a novel accounting framework," *Journal of Sustainable Tourism*, vol. 30, no. 5, pp. 1141–1158, 2022, doi: 10.1080/09669582.2020.1868484.
21. M. Batool *et al.*, "How COVID-19 has shaken the sharing economy? An analysis using Google trends data," *Economic Research-Ekonomska Istraživanja*, vol. 34, no. 1, pp. 2374–2386, 2021, doi: 10.1080/1331677X.2020.1863830.
22. D.-C. Dabija, L. M. Csorba, F.-L. Isac, and S. Rusu, "Building Trust toward Sharing Economy Platforms beyond the COVID-19 Pandemic," *Electronics*, vol. 11, no. 18, Art. no. 18, Jan. 2022, doi: 10.3390/electronics11182916.
23. D. Moher, A. Liberati, J. Tetzlaff, and D. G. Altman, "Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement," *BMJ*, vol. 339, p. b2535, Jul. 2009, doi: 10.1136/bmj.b2535.
24. M. J. Page *et al.*, "The PRISMA 2020 statement: an updated guideline for reporting systematic reviews," *Systematic Reviews*, vol. 10, no. 1, p. 89, Mar. 2021, doi: 10.1186/s13643-021-01626-4.
25. A. Konys, "Towards Sustainable Entrepreneurship Holistic Construct," *Sustainability*, vol. 11, no. 23, Art. no. 23, Jan. 2019, doi: 10.3390/sul1236749.

26. T. Turzo, G. Marzi, C. Favino, and S. Terzani, "Non-financial reporting research and practice: Lessons from the last decade," *Journal of Cleaner Production*, vol. 345, p. 131154, Feb. 2022, doi: 10.1016/j.jclepro.2022.131154.
27. A. H. Alsharif, N. Z. Md Salleh, R. Baharun, and A. Rami Hashem E, "Neuromarketing research in the last five years: a bibliometric analysis," *Cogent Business & Management*, vol. 8, no. 1, p. 1978620, Jan. 2021, doi: 10.1080/23311975.2021.1978620.
28. S. H. H. Shah, S. Noor, A. B. Ahmad, A. S. Butt, and S. Lei, "Retrospective view and thematic analysis of value co-creation through bibliometric analysis," *Total Quality Management & Business Excellence*, vol. 33, no. 7–8, pp. 752–776, 2022, doi: 10.1080/14783363.2021.1890017.
29. A. Cooke, D. Smith, and A. Booth, "Beyond PICO: The SPIDER Tool for Qualitative Evidence Synthesis," *Qual Health Res*, vol. 22, no. 10, pp. 1435–1443, Oct. 2012, doi: 10.1177/1049732312452938.
30. K. Govindan, K. M. Shankar, and D. Kannan, "Achieving sustainable development goals through identifying and analyzing barriers to industrial sharing economy: A framework development," *International Journal of Production Economics*, vol. 227, p. 107575, Sep. 2020, doi: 10.1016/j.ijpe.2019.107575.
31. S. K. Curtis and O. Mont, "Sharing economy business models for sustainability," *Journal of Cleaner Production*, vol. 266, p. 121519, Sep. 2020, doi: 10.1016/j.jclepro.2020.121519.
32. M. Laukkanen and N. Tura, "The potential of sharing economy business models for sustainable value creation," *Journal of Cleaner Production*, vol. 253, p. 120004, Apr. 2020, doi: 10.1016/j.jclepro.2020.120004.
33. R. Labbate, R. F. Silva, I. S. Rampasso, R. Anholon, O. L. G. Quelhas, and W. L. Filho, "Business models towards SDGs: the barriers for operationalizing Product-Service System (PSS) in Brazil," *International Journal of Sustainable Development & World Ecology*, vol. 28, no. 4, pp. 350–359, 2021, doi: 10.1080/13504509.2020.1823517.
34. P. Akbar and S. Hoffmann, "Creating value in product service systems through sharing," *Journal of Business Research*, vol. 121, pp. 495–505, Dec. 2020, doi: 10.1016/j.jbusres.2019.12.008.
35. Y. Li, M. K. Lim, Y. Tan, S. Y. Lee, and M.-L. Tseng, "Sharing economy to improve routing for urban logistics distribution using electric vehicles," *Resources, Conservation and Recycling*, vol. 153, p. 104585, Feb. 2020, doi: 10.1016/j.resconrec.2019.104585.
36. G. Liu, J. Hu, Y. Yang, S. Xia, and M. K. Lim, "Vehicle routing problem in cold Chain logistics: A joint distribution model with carbon trading mechanisms," *Resources, Conservation and Recycling*, vol. 156, p. 104715, May 2020, doi: 10.1016/j.resconrec.2020.104715.
37. S. Kuhzady, H. Olya, A. Farmaki, and Ç. Ertaş, "Sharing economy in hospitality and tourism: a review and the future pathways," *Journal of Hospitality Marketing & Management*, vol. 30, no. 5, pp. 549–570, 2021, doi: 10.1080/19368623.2021.1867281.
38. S. Kuhzady, S. Seyfi, and L. Béal, "Peer-to-peer (P2P) accommodation in the sharing economy: a review," *Current Issues in Tourism*, vol. 25, no. 19, pp. 3115–3130, 2022, doi: 10.1080/13683500.2020.1786505.
39. T. N. Akarsu, P. Foroudi, and T. Melewar, "What makes Airbnb likeable? Exploring the nexus between service attractiveness, country image, perceived authenticity and experience from a social exchange theory perspective within an emerging economy context," *International Journal of Hospitality Management*, vol. 91, p. 102635, Oct. 2020, doi: 10.1016/j.ijhm.2020.102635.
40. S. Kuhzady, C. Çakici, H. Olya, B. Mohajer, and H. Han, "Couchsurfing involvement in non-profit peer-to-peer accommodations and its impact on destination image, familiarity,

- and behavioral intentions,” *Journal of Hospitality and Tourism Management*, vol. 44, pp. 131–142, Sep. 2020, doi: 10.1016/j.jhtm.2020.05.002.
41. T. Dogru, M. Mody, C. Suess, S. McGinley, and N. D. Line, “The Airbnb paradox: Positive employment effects in the hospitality industry,” *Tourism Management*, vol. 77, p. 104001, Apr. 2020, doi: 10.1016/j.tourman.2019.104001.
  42. Y. Feng, Y. (Ricky) Tan, Y. Duan, and Y. Bai, “Strategies analysis of luxury fashion rental platform in sharing economy,” *Transportation Research Part E: Logistics and Transportation Review*, vol. 142, p. 102065, Oct. 2020, doi: 10.1016/j.tre.2020.102065.
  43. K. Münzel, W. Boon, K. Frenken, J. Blomme, and D. van der Linden, “Explaining carsharing supply across Western European cities,” *International Journal of Sustainable Transportation*, vol. 14, no. 4, pp. 243–254, Jan. 2020, doi: 10.1080/15568318.2018.1542756.
  44. J. Paundra, J. van Dalen, L. Rook, and W. Ketter, “Ridesharing platform entry effects on ownership-based consumption in Indonesia,” *Journal of Cleaner Production*, vol. 265, p. 121535, Aug. 2020, doi: 10.1016/j.jclepro.2020.121535.
  45. F. Xu *et al.*, “A sharing economy market system for private EV parking with consideration of demand side management,” *Energy*, vol. 190, p. 116321, Jan. 2020, doi: 10.1016/j.energy.2019.116321.
  46. A. Akhmedova, M. Mas-Machuca, and F. Marimon, “Value co-creation in the sharing economy: The role of quality of service provided by peer,” *Journal of Cleaner Production*, vol. 266, p. 121736, Sep. 2020, doi: 10.1016/j.jclepro.2020.121736.
  47. W. Nadeem and S. Al-Imamy, “Do ethics drive value co-creation on digital sharing economy platforms?”, *Journal of Retailing and Consumer Services*, vol. 55, p. 102095, Jul. 2020, doi: 10.1016/j.jretconser.2020.102095.
  48. L. Lu, R. Cai, and C. King, “Building trust through a personal touch: Consumer response to service failure and recovery of home-sharing,” *Journal of Business Research*, vol. 117, pp. 99–111, Sep. 2020, doi: 10.1016/j.jbusres.2020.05.049.
  49. C. Yu, X. Jiang, S. Yu, and C. Yang, “Blockchain-based shared manufacturing in support of cyber physical systems: concept, framework, and operation,” *Robotics and Computer-Integrated Manufacturing*, vol. 64, p. 101931, Aug. 2020, doi: 10.1016/j.rcim.2019.101931.
  50. C. Yu, X. Xu, S. Yu, Z. Sang, C. Yang, and X. Jiang, “Shared manufacturing in the sharing economy: Concept, definition and service operations,” *Computers & Industrial Engineering*, vol. 146, p. 106602, Aug. 2020, doi: 10.1016/j.cie.2020.106602.
  51. E. Sthapit, M. J. Stone, and P. Björk, “Sources of Value co-creation, co-destruction and co-recovery at Airbnb in the Context of the COVID-19 Pandemic,” *International Journal of Hospitality & Tourism Administration*, vol. 0, no. 0, pp. 1–28, Jun. 2022, doi: 10.1080/15256480.2022.2092249.
  52. M. Basili and M. A. Rossi, “Platform-mediated reputation systems in the sharing economy and incentives to provide service quality: The case of ridesharing services,” *Electronic Commerce Research and Applications*, vol. 39, p. 100835, Jan. 2020, doi: 10.1016/j.elerap.2019.100835.
  53. V. Sunio, M. Laperal, and I. Mateo-Babiano, “Social enterprise as catalyst of transformation in the micro-mobility sector,” *Transportation Research Part A: Policy and Practice*, vol. 138, pp. 145–157, Aug. 2020, doi: 10.1016/j.tra.2020.05.027.
  54. G. McKenzie, “Urban mobility in the sharing economy: A spatiotemporal comparison of shared mobility services,” *Computers, Environment and Urban Systems*, vol. 79, p. 101418, Jan. 2020, doi: 10.1016/j.compenvurbsys.2019.101418.
  55. Y.-M. Cheng, “Why do customers intend to continue using internet-based sharing economy service platforms? Roles of network externality and service quality,” *Journal of Asia Business Studies*, vol. 15, no. 1, pp. 128–152, Jan. 2020, doi: 10.1108/JABS-05-2019-0142.



56. H. Si, J. Shi, D. Tang, G. Wu, and J. Lan, "Understanding intention and behavior toward sustainable usage of bike-sharing by extending the theory of planned behavior," *Resources, Conservation and Recycling*, vol. 152, p. 104513, Jan. 2020, doi: 10.1016/j.resconrec.2019.104513.
57. R. G. Starr, A. Q. Zhu, C. Frethey-Bentham, and R. J. Brodie, "Peer-to-peer interactions in the sharing economy: Exploring the role of reciprocity within a Chinese social network," *Australasian Marketing Journal (AMJ)*, vol. 28, no. 3, pp. 67–80, Aug. 2020, doi: 10.1016/j.ausmj.2020.06.002.
58. J. Harvey, A. Smith, J. Goulding, and I. Branco Illodo, "Food sharing, redistribution, and waste reduction via mobile applications: A social network analysis," *Industrial Marketing Management*, vol. 88, pp. 437–448, Jul. 2020, doi: 10.1016/j.indmarman.2019.02.019.
59. R. Wasserbaur, T. Sakao, M. Ljunggren Söderman, A. Plepys, and C. Dalhammar, "What if everyone becomes a sharer? A quantification of the environmental impact of access-based consumption for household laundry activities," *Resources, Conservation and Recycling*, vol. 158, p. 104780, Jul. 2020, doi: 10.1016/j.resconrec.2020.104780.
60. S. Sands, C. Ferraro, C. Campbell, J. Kietzmann, and V. V. Andonopoulos, "Who shares? Profiling consumers in the sharing economy," *Australasian Marketing Journal (AMJ)*, vol. 28, no. 3, pp. 22–33, Aug. 2020, doi: 10.1016/j.ausmj.2020.06.005.
61. L. Lou, L. Li, S.-B. Yang, and J. Koh, "Promoting User Participation of Shared Mobility in the Sharing Economy: Evidence from Chinese Bike-sharing Services," *Sustainability*, vol. 13, no. 3, Art. no. 3, Jan. 2021, doi: 10.3390/su13031533.
62. C. E. Hull, J. D. Russell, and M. Kukar-Kinney, "Making Sustainability a Core Competency: Consumer Response to Sustainable Innovative Products," *Sustainability*, vol. 14, no. 18, Art. no. 18, Jan. 2022, doi: 10.3390/su141811688.
63. A. Cherrafi, A. Chiarini, A. Belhadi, J. El Baz, and A. Chaouni Benabdellah, "Digital technologies and circular economy practices: vital enablers to support sustainable and resilient supply chain management in the post-COVID-19 era," *The TQM Journal*, vol. 34, no. 7, pp. 179–202, Jan. 2022, doi: 10.1108/TQM-12-2021-0374.
64. B. Ly, "Competitive advantage and internationalization of a circular economy model in apparel multinationals," *Cogent Business & Management*, vol. 8, no. 1, p. 1944012, Jan. 2021, doi: 10.1080/23311975.2021.1944012.
65. L. Aldieri, M. Brahmi, B. Bruno, and C. P. Vinci, "Circular Economy Business Models: The Complementarities with Sharing Economy and Eco-Innovations Investments," *Sustainability*, vol. 13, no. 22, Art. no. 22, Jan. 2021, doi: 10.3390/su132212438.
66. M. Henry, D. Schraven, N. Bocken, K. Frenken, M. Hekkert, and J. Kirchherr, "The battle of the buzzwords: A comparative review of the circular economy and the sharing economy concepts," *Environmental Innovation and Societal Transitions*, vol. 38, pp. 1–21, Mar. 2021, doi: 10.1016/j.eist.2020.10.008.
67. S. Kang and Y. K. Na, "Effects of Strategy Characteristics for Sustainable Competitive Advantage in Sharing Economy Businesses on Creating Shared Value and Performance," *Sustainability*, vol. 12, no. 4, Art. no. 4, Jan. 2020, doi: 10.3390/su12041397.

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