

---

## **A Bibliometric Study on Tourism and its Relation to the Covid-19 Pandemic during 2020 to 2021**

L. Shashikumar Sharma <sup>a</sup> and Trinankur Dey <sup>b, \*</sup>

<sup>a</sup> *Department of Management, Mizoram University, India*

<sup>b</sup> *Faculty of Management and Commerce, The ICAI University Tripura, India*

Received 19 July 2022; Received in revised form 25 October 2022

Accepted 28 October 2022; Available online Day Month year

---

### **Abstract**

The Covid-19 pandemic has impacted the economic activities of the tourism sector ever since the global pandemic was announced in March 2020 by the World Health Organization. This paper examines research articles specifically relating to tourism and Covid-19 from the announcement of the pandemic by conducting a bibliometric analysis to extract the research focus and areas of interest for the tourism sector during the nascent phase pandemic. It also examines the main authors, highest number of publications and co-occurrences of keywords to bring out themes of the research articles. It uses VOSviewer analysis to evaluate the data in the form of a cluster analysis. A total of 542 authors were identified in the 178 articles published in 7 tourism journals. The results of the study find a cluster of keywords in the form of business, intentions, employee and destinations that are correlated in tourism and Covid-19 studies. Themes such as trust, innovation, employee welfare, psychological faculties, conflicts, anxiety during pandemic and ways to meet the possible hurdles in post-Covid are found to be predominantly studied and most of the articles were published in 2021. Despite the limited time frame of the study, the results are relevant to understanding the negative impact of the pandemic on the tourism industry.

### **Keywords**

Tourism, Covid-19, Bibliometric review, Hospitality, Co-occurrence

## **Introduction**

Due to the global spread of the Covid-19 virus, the tourism industry is facing unprecedented problems (Peluso & Pichierri, 2020). Tourism companies, travel agencies, transportation services, hotels, restaurants, pubs, bars, amusement parks, and countless small businesses directly and indirectly related to tourism have experienced a huge setback due to Covid-19. The aftermath of Covid-19 caused the industry to go through a phase in which it may require turnaround strategies to recover. The World Health Organization (WHO) declared the Covid-19 outbreak an international concern on January 30, 2020 and a global pandemic on March 11, 2020. The impact of Covid-19 has been the hardest in comparison to other crises like natural disasters, wars, and terrorism (Garrido-Moreno et al., 2021), and the new norms of social distancing, ever changing standard operating systems (SOPs) including regulating public gatherings are affecting hospitality sector services (Foo et al., 2020). During the pandemic, studies have found empirical evidence that global restaurant and hospitality industries suffered the maximum (Dube et al., 2020; Khan et al., 2021).

The announcement of the global pandemic and its immediate shutdown of economic activities resulting in the shutdown of the tourism sector did not result into immediate academic research outputs even though it affected employees in the tourism and allied industry. A google scholar search for "Covid-19" AND "tourism" yielded 27,000 research articles for the year 2020 which indicates that several studies were carried out in search for antecedents and possible cures and management of the pandemic in scientific journals. Several articles were seen in print and visual media, but in academic research the studies and results are found after the events in the later stages. Although several employees were affected by the crisis, research studies relating to the issues of tourism and hospitality industry may not have been available due to the lack of data and early phase of pandemic (Luo & Xu, 2021). In comparison, scientific communities directly produced more research as the immediate need for vaccines and healthcare products putting emphasis on knowledge sharing, searching and co-creating environments.

The effects of Covid-19 influenced the core concept of tourism by incorporating the concept of social distancing. The uncertain future economic conditions, job insecurity (Chen & Eyoum, 2021), health problems of employees due to isolation, risk taking behaviour, possibility of changing workplace and work (Bajrami et al., 2021), impact on investments leading to the emergence of several problems such as national commands and local responses, government policies and support systems, business self-improvement measures, and a post-crisis tourism product (Chen et al., 2020) are some of the innumerable topics to be analysed. Although Covid-19 brought down the tourism industry, it has also created positivity through a sustainable competitive advantage (Kwok & Koh., 2021). Whatever damage the disaster has done to the tourism sector, it has given us a challenge, a lesson or,

more importantly, a strategy to sustain and hold out. Governments' proactive engagement, assessment of the problem, immediate response and taking proactive steps to mitigate the impact, perceiving the epidemic as an opportunity to reorganize and establish contingency plans and long-term initiatives to prevent and reduce the risk of future harm (Quang et al., 2020) has also encouraged the researchers to study the phenomena. There is a growing concern about knowledge in this area of Covid-19 and its impact on the tourism industry such as its negative impact, economic resilience, and perceived risk (Ntounis et al., 2021; Rather, 2021).

Studies on Covid-19 from scientific perspectives are high in quantity but studies relating to its effect on the tourism sector are few in comparison. This paper is purely based on the publications of Covid-19 and the tourism sector. Although reviewing an area of study which has not gone through a cycle of 24 months is unwarranted, the severe impact of the pandemic on the entire socio-economic field requires consideration of the contributions of scholars, especially in the field of Covid-19 and tourism at the primal. The impact of Covid-19 is enormous, necessitating multidisciplinary study to provide a comprehensive framework of understanding. It's impossible to gain a complete picture of the impact of Covid-19 because it's still an ongoing problem. Such efforts could lead to the recommendation of a guide on how to handle a similar crisis in related areas in other locations

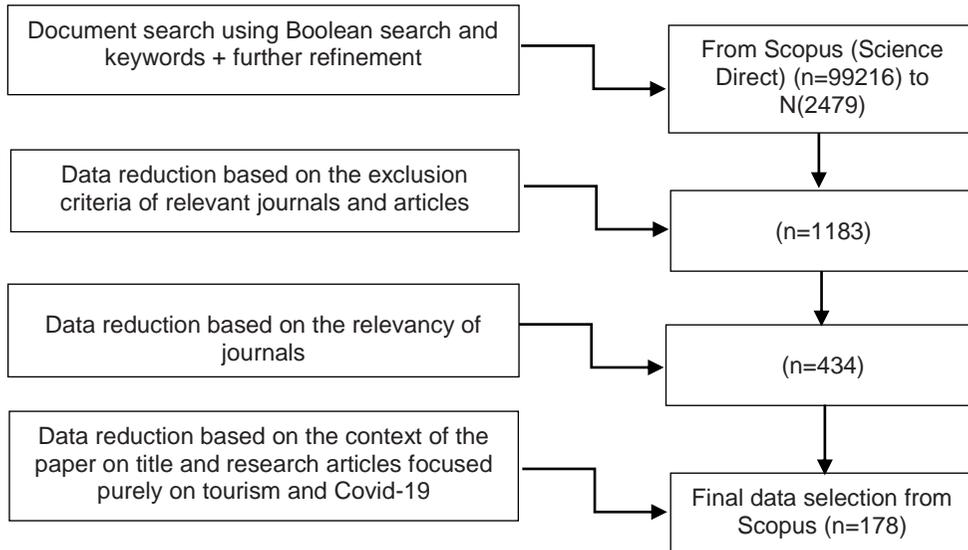
This study aims to conduct a bibliometric analysis on studies of Covid-19 and tourism to extract the research focus and areas of interest for the tourism sector during the nascent phase pandemic. It will also examine the main authors, highest number of publications and co-occurrences of keywords to bring out their themes. Finally, understanding the literature on Covid-19 and its effect on the tourism industry may lead to awareness of the issues it caused and minimize such crises in future. Factors that prevent people from travelling might have a significant influence on the tourist sector. Pandemics, such as Covid-19, fall under this category. Consequently, well-thought-out disaster management is crucial (Yeh, 2021). So, it's critical to improve the reliability of pandemic-related studies. Understanding the literature on Covid-19 and its effect on the tourism industry will lead to a framework of efficacy to address the problems it caused and minimize the future impact.

## **Methodology**

Bibliometric analysis is the study of the evaluation of the quality of publications using quantitative techniques based on the evaluation of several criteria (Leta & Chan, 2021). Bibliometric analysis is also used to find directions for future research, to examine the work of previous researchers, as well as research trends over a period of time. It mainly uses different software to map the key variables and key terms. This article used spreadsheets and VOSviewer to clean up and analyse the data. Although there are several articles

providing bibliometric analysis of publications related to tourism, only a few articles have been found that contain specific analysis of the Covid-19 pandemic and tourism, even although tourism is the sector hardest hit by Covid-19. The aim of this paper is to examine tourism publications in particular with reference to the effects of Covid-19 as well as publications on the related topics of tourism and allied subjects. This paper also seeks to highlight future areas of interest related to Covid-19 and the tourism sector.

In order to select the studies which are transparent and validated a transparent process was followed. For the purpose of choosing the keywords for the data extraction, 22 articles on Covid-19 and tourism were selected from Sage Publications and their keywords were analysed. By using a spreadsheet to count the most recurring words, 18 keywords were identified with their frequencies. These keywords were further analysed for proximity associations to the study investigated by developing themes and after several iterations, 6 keywords were identified and found to be converging to "Covid-19," "tourism," "pandemic," "hospitality," "travel" and "destination." Several variants of these keywords were also included to conduct a comprehensive search. Finally, the Boolean search ("COVID-19" OR "Covid-19" OR "coronavirus") AND ("tourism" OR "tourism industry") OR "hospitality" OR "travel" OR "destination" was used in the Scopus (Science Direct) database in July 2021. Altogether 99,216 articles were yielded from the search which also included articles from the medicine and engineering discipline. It was felt that further refining was required in the Boolean search to ("COVID-19" OR "Covid-19" OR "coronavirus") AND ("tourism" OR "tourism industry") which yielded 2,479 results. These articles were further refined by excluding the disciplines of medicine, agriculture and biosciences and other discipline while selecting only three disciplines of social sciences, business management and economics which yielded 1,312 articles. Only review papers, research articles and book chapters were considered leaving out case reports, write ups and others. This further exclusion led to a selection of 1,183 articles. In the next step, the kinds of journals were examined and it was found that altogether 25 journals were listed from the above exercise and after a thorough examination eighteen journals were removed as predominately (the articles published belongs to general category) and only those belonging to tourism viz., resulting in 7 journals being selected and 434 articles. For the final step, all the selected articles were examined by title, keywords and research articles where the keywords of tourism, Covid-19 or pandemic are covered in the articles and deleted those articles which do not cover these topics. Altogether 256 articles were removed as they were not related to the specific areas of investigation. This resulted in 178 articles covering the period of 2020 to July 2021. The selected articles were extracted to examine the groups of information starting from bibliometric profiling to the study content and categorising on the basis of various of issues of pandemic and tourism.



**Figure 1** Schematic representation of the systematic literature selection process

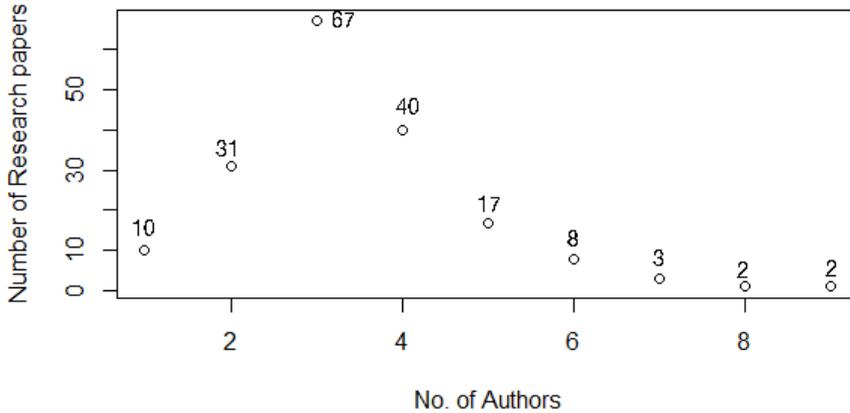
## Data Analysis

Data analysis was performed by examining the article titles, authors, co-authors, and keywords of the final list of journals published (n=178). A mix strategy consisting of quantitative and qualitative method was used to analyse the data. The VOSviewer software was used to analyse the qualitative data, to find the main authors, the highest number of publications, keyword analysis to map and analyse the clusters and draw conclusions from these data. Various parameters were chosen to represent the data in the cluster analysis and the size of the nodes represents the size of the frequency of occurrence. The links between the nodes represents relationships in the form of connections, co-occurrences, collaboration or co-citations.

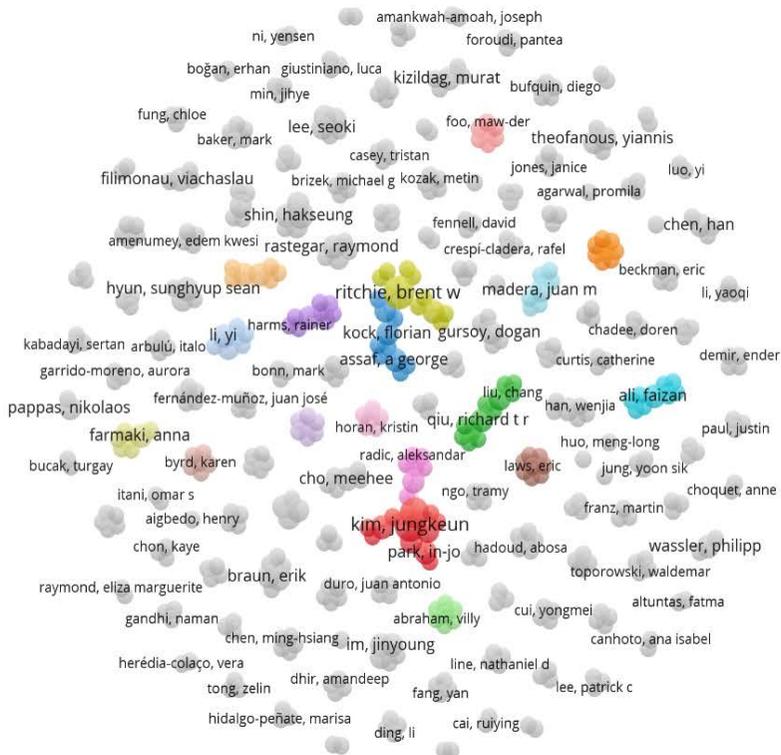
### Authorship Analysis:

A total of 542 authors were identified in the 178 articles published in tourism journals. Figure 2 shows the break-up of the articles and their authors. 67 were authored by 3 people representing 37.04% which was followed by 40 articles (22.47%) authored by 4 people and 31 articles (17.42%) authored by 2 people. Altogether 2 articles were written with a collaboration between 8 and 9 co-authors. 52 authors had collaborated and contributed more than 2 articles in the field of Covid-19 and tourism. The VOSviewer tool was used to analyse co-authorship and found the top 4 authors to be as Jungkeun Kim (5 collaborations), Brent W. Ritchie (5 collaborations), Seongseop (Sam) Kim (4 collaborations), & Hakseung Shin (3 collaborations). 48 authors had at least 2 collaborative publications (Figure

2 and 3). The low number of collaborations in relation to the number of publications could be that the phenomena had been a very recent one (not exceeding more than one and half years) and the articles selected for study were taken from a few select journals. This may have resulted in a slightly skewed finding.



**Figure 2** Number of authors and their publications



**Figure 3** Density diagram of Author's publications





## Discussion

The tourism sector is the most effected sector in the international hospitality market (Farmaki et al., 2020); and most of the employees in the sector remain unemployed (Kaushal & Srivastava, 2021). The fight against Covid-19 has been ongoing and yet the intensity continues with fluctuations. Several studies address the needs for prevention and control along with viable economic activities in intermittent times. This study focused on tourism and Covid-19 research from 2020 to July 2021 in tourism journals. The initial announcement of infection through human-to-human contact by the WHO in January 2020 has been taken as the benchmark for the start of the pandemic period. All the articles examined in this study related to Covid-19 and some aspects of tourism during the period. Although the pandemic was officially announced in March 2020, the research articles started publishing from the mid-2020, it took almost three months to start publishing about Covid-19 and tourism as evidenced by the call for articles by 17 journals and 8 book chapters on tourism and Covid-19 (Loi et al., 2021). Prior to the outbreak of Covid-19, several studies had been carried in the form of crises management during 2015-2019 (Leta & Chan, 2021).

An analysis of the keywords business, intention, employee and destination revealed that several interrelated studies were conducted on these topics and their relation to tourism during Covid-19 pandemic. Research on “business” found studies related to innovation (Breier et al., 2021), fine dining (Kim et al., 2021), disaster recovery (Burhan et al., 2021), triple layered (economic, social and environment) (Bertella et al., 2021), and cognitive trust (Chen et al., 2021). Interestingly, most of the articles mentioned the need to reinvent the business model to suit the needs and wants of the customers. The use of drones for food delivery (Kim et al., 2021), robots and artificial intelligence as tools of service innovation (Kim et al., 2021) are some of the innovative ideas found in the study. The second cluster ‘intention’ brings a plethora of keywords relating to intent of purchase or life changing decisions purchase intention (perceived ease of use and perceived usefulness) and purchase decisions. Some of the peer-reviewed articles focused on the themes of intent to recommend stimuli (Yung et al., 2021), purchase intention (Li et al., 2021), intention to travel (Rasoolimanesh et al., 2021), intention to quit work (Jung et al., 2021) are some of the areas of study which have been explored. The trust issues of tourist destinations or hotels in the post-covid era and employee’s loss of trust due to breach of psychological contract during Covid-19 are some of the areas explored.

The third cluster ‘employee’ shows a varying number of articles written over the period as the sector tried to sustain itself despite lockdowns, various standard operating procedures (SOP) time, and the shutting down of businesses. The studies covered retaining employees (Kaushal & Srivastava, 2021), the lack of support systems (Agarwal, 2021), employee conflict (Wu et al., 2021), and mental well-being (Park & Hai, 2021). Most of the

studies were related to the welfare of employees during the pandemic. Issues relating to psychological and anxiety related issues, conflicts, as well as the intention to quit work were also examined by several articles.

The fourth cluster 'destination' covered new issues like trustworthiness during crises (Rasoolimanesh et al., 2021), tourism co-creation and destination marketing (González et al., 2021), resilience to crises for MICE and destinations (Garrido-Moreno et al., 2021), and virtual reality for destinations (Yung et al., 2021). Most of the studies were related to post-covid demand and how to encounter possible hurdles.

Post pandemic studies were also mentioned in the studies conducted during the surveyed period. Issues like visiting intention to upscale restaurants (Dedeoğlu & Boğan, 2021), focus on retaining well-trained staff (Canhoto & Wei, 2021), franchising of large hotels, merges and acquisition strategies (Hao et al., 2020), liquidity and revenue problems in hospitality industries (González -Torres et al., 2021), sustainable and resilient growth (Sobaih et al., 2021), CSR commitments in post-covid (Filimonau et al., 2020) and career adaptability (Lee et al., 2021) were some of the important issues addressed.

Evaluation of the data finds that very few collaborative studies were conducted. This may be because the phenomena was recent and people were still adapting to a new norm of social distancing and relying on information technology where the human and social element of close contact, conversations and dialogues are reduced. Of the 178 articles examined, only two were research articles on which more than 7 had collaborated. Although the period of study is short and the area of study is relatively new, it was observed that two authors had maximum number of publications (5 collaborated publications). These observations conclude that given the immediately anticipated need in the post-covid era, more publications are needed.

## **Conclusion**

The purpose of this article is to examine perspective of research articles published on tourism and Covid-19 to identify the areas interested by the stakeholders of the tourism sector during the initial phase of the pandemic. The study examined the data using bibliometric analysis by organising the data in a transparent manner for replicative study. Since the announcement of the pandemic by WHO in 2020, the number of publications on Covid-19 and its impact on several economic sectors has increased rapidly. Discussions and studies made it possible to look at the crisis from different perspectives, and to prepare for the unexpected possible consequences of the crises. Studies published in different parts of the world, examined the impact of tourism on economies relating to the allied and core industry of tourism. The impact of such an economic downturn has resulted in divergent perspectives on the tourism sector, and issues for resumption are discussed in most research studies published after the pandemic was announced. The expectations and in

particular the allied industries are also geared towards the future needs and wants of customers. This study finds that most of the clusters and themes of the research works are related to the core issues of business, employees and tourism products. The studies are mainly descriptions of the effects of Covid-19 and expected future decisions in form of a return to business. Trust issues, retaining skilled human resources, issues of mergers and acquisitions, HRM issues, and business innovations are some of the areas which have been explored and need further investigation. The restructuring capacity of the tourism sector is a recurring theme in the literature examined.

### **Limitations and Future Research**

This study has some limitations as the articles were mainly taken from one database viz., Science Direct by Scopus. There are therefore limitations related to missing out on other articles published related to Covid-19 and tourism outside the preview of Scopus. Second, the duration of the study period was short as the occurrence of the phenomena was short and very little work was published. This short duration was deemed necessary due to the extreme need for new knowledge in the field. Due to the constraints imposed by the methodology used in this study, the findings must be evaluated with care. The qualitative technique employed in this study prevents us from understanding the phenomenon under study in other situations or from reaching generalizable conclusions. Further, Covid-19 is still an ongoing pandemic; studies on tourism research and Covid-19 have been growing at an increasing pace and this paper did not review the most current research. The inclusion and exclusion criteria in selection of samples also may have missed out on journals relating to issues of policies and business practices during the pandemic. Therefore, future research may include other cluster areas into their bibliometric research to find cross-disciplinary research gaps. Issues relating to top level management decisions during Covid-19 (Im, 2021), the impact of services associated with quarantine (Altuntas & Gok, 2021), and the state of mental well-being (Bufquin et al., 2021) during the pandemic are some of the areas suggested for future studies.

## References

- Altuntas, F. & Gok, M. S. (2021). The effect of COVID-19 pandemic on domestic tourism: A DEMATEL method analysis on quarantine decisions. *International Journal of Hospitality Management*, 92. pp. 102718- 102719 <https://doi.org/10.1016/j.ijhm.2020.102719>
- Agarwal, P. (2021). Shattered but smiling: Human resource management and the wellbeing of hotel employees during COVID-19. *International Journal of Hospitality Management*, 93, 102765. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102765>
- Bertella, G., Lupini, S., Romanelli, C. R., & Font, X. (2021). Workshop methodology design: Innovation-oriented participatory processes for sustainability, *Annals of Tourism Research*, 89, 103251. <https://doi.org/10.1016/j.annals.2021.103251>
- Bajrami, D., Terzić, A., Petrović, M. D., Radovanović, M., Tretiakova, T. N., & Hadoud, A. (2021). Will we have the same employees in hospitality after all? The impact of COVID-19 on employees' work attitudes and turnover intentions. *International Journal of Hospitality Management*, 94, 102754. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102754>
- Breier, M., Kallmuenzer, A., Clauss, T., Gast, J., Kraus, S., & Tiberius, V. (2021). The role of business model innovation in the hospitality industry during the COVID-19 crisis. *International Journal of Hospitality Management*, 92, 102723. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102723>
- Bufquin, D., Park, J-Y., Back, R. M., Meira, J. V. S., & Hight, S. K., (2021). Employee work status, mental health, substance use, and career turnover intentions: An examination of restaurant employees during COVID-19, *International Journal of Hospitality Management*, 93. 102764. <https://doi.org/10.1016/j.ijhm.2020.102764>
- Burhan, M., Salam, M. T., Hamdan, O. A., & Tariq, H. (2021). "Crisis management in the hospitality sector SMEs in Pakistan during COVID-19". *International Journal of Hospitality Management*, 98, 103037. <https://doi.org/https://doi.org/10.1016/j.ijhm.2021.103037>
- Canhoto, A. I., & Wei, L. (2021). Stakeholders of the world, unite!: Hospitality in the time of COVID-19. *International Journal of Hospitality Management*, 95, 102922. <https://doi.org/https://doi.org/10.1016/j.ijhm.2021.102922>
- Chen, H., & Eyoun, K. (2021). Do mindfulness and perceived organizational support work? Fear of COVID-19 on restaurant frontline employees' job insecurity and emotional exhaustion. *International Journal of Hospitality Management*, 94, 102850. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102850>

- Chen, H., Huang, X., & Li, Z. (2020). A content analysis of Chinese news coverage on COVID-19 and tourism. *Current Issues in Tourism*, 1–8. <https://doi.org/10.1080/13683500.2020.1763269>
- Chen, S. (Joseph), Waseem, D., Xia, Z. (Raymond), Tran, K. T., Li, Y., & Yao, J. (2021). To disclose or to falsify: The effects of cognitive trust and affective trust on customer cooperation in contact tracing. *International Journal of Hospitality Management*, 94, 102867. <https://doi.org/https://doi.org/10.1016/j.ijhm.2021.102867>
- Dedeoğlu, B. B., & Boğan, E. (2021). The motivations of visiting upscale restaurants during the COVID-19 pandemic: The role of risk perception and trust in government. *International Journal of Hospitality Management*, 95, 102905. <https://doi.org/https://doi.org/10.1016/j.ijhm.2021.102905>
- Dube, K., Nhamo, G., & Chikodzi, D. (2020). COVID-19 cripples global restaurant and hospitality industry. In *Current Issues in Tourism* (pp. 1–4). Routledge. <https://doi.org/10.1080/13683500.2020.1773416>
- Farmaki, A., Miguel, C., Drotarova, M. H., Aleksić, A., Časni, A. Č., & Efthymiadou, F. (2020). Impacts of Covid-19 on peer-to-peer accommodation platforms: Host perceptions and responses. *International Journal of Hospitality Management*, 91, 102663. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102663>
- Filimonau, V., Derqui, B., & Matute, J. (2020). The COVID-19 pandemic and organisational commitment of senior hotel managers. *International Journal of Hospitality Management*, 91, 102659. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102659>
- Foo, L. P., Chin, M. Y., Tan, K. L., & Phuah, K. T. (2020). The impact of COVID-19 on tourism industry in Malaysia. *Current Issues in Tourism*. <https://doi.org/10.1080/13683500.2020.1777951>
- Garrido-Moreno, A., García-Morales, V. J., & Martín-Rojas, R. (2021). Going beyond the curve: Strategic measures to recover hotel activity in times of COVID-19. *International Journal of Hospitality Management*, 96, 102928. <https://doi.org/https://doi.org/10.1016/j.ijhm.2021.102928>
- González-Torres, T., Rodríguez-Sánchez, J.-L., & Pelechano-Barahona, E. (2021). Managing relationships in the Tourism Supply Chain to overcome epidemic outbreaks: The case of COVID-19 and the hospitality industry in Spain. *International Journal of Hospitality Management*, 92, 102733. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102733>
- Hao, F., Xiao, Q., & Chon, K. (2020). COVID-19 and China's Hotel Industry: Impacts, a Disaster Management Framework, and Post-Pandemic Agenda. *International Journal of Hospitality Management*, 90, 102636. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102636>

- Im, J., Kim, H., & Miao, L. (2021). CEO letters: Hospitality corporate narratives during the COVID-19 pandemic. *International Journal of Hospitality Management*, 92, 102701. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102701>
- Im, J., Kim, J., & Choeh, J. Y. (2021). COVID-19, social distancing, and risk-averse actions of hospitality and tourism consumers: A case of South Korea. *Journal of Destination Marketing and Management*, 20, 100566. <https://doi.org/https://doi.org/10.1016/j.jdmm.2021.100566>
- Jang, S., Kim, J., Kim, J., & Kim, S. (Sam). (2021). Spatial and experimental analysis of peer-to-peer accommodation consumption during COVID-19. *Journal of Destination Marketing and Management*, 20, 100563. <https://doi.org/https://doi.org/10.1016/j.jdmm.2021.100563>
- Jiang, Y., Ritchie, B. W., & Verreyne, M.-L. (2021). Developing disaster resilience: A processual and reflective approach. *Tourism Management*, 87, 104374. <https://doi.org/https://doi.org/10.1016/j.tourman.2021.104374>
- Jung, H. S., Jung, Y. S., & Yoon, H. H. (2021). COVID-19: The effects of job insecurity on the job engagement and turnover intent of deluxe hotel employees and the moderating role of generational characteristics. *International Journal of Hospitality Management*, 92, 102703. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102703>
- Karl, M., Kock, F., Ritchie, B. W., & Gauss, J. (2021). Affective forecasting and travel decision-making: An investigation in times of a pandemic. *Annals of Tourism Research*, 87, 103139. <https://doi.org/https://doi.org/10.1016/j.annals.2021.103139>
- Karl, M., Muskat, B., & Ritchie, B. W. (2020). Which travel risks are more salient for destination choice? An examination of the tourist's decision-making process. *Journal of Destination Marketing and Management*, 18, 100487. <https://doi.org/https://doi.org/10.1016/j.jdmm.2020.100487>
- Kaushal, V., & Srivastava, S. (2021). Hospitality and tourism industry amid COVID-19 pandemic: Perspectives on challenges and learnings from India. *International Journal of Hospitality Management*, 92, 102707. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102707>
- Kim, H., Fung So, K. K., J. Mihalik, B., & Lopes, A. P. (2021). Millennials' virtual reality experiences pre- and post-COVID-19. *Journal of Hospitality and Tourism Management*, 48, 200–209. <https://doi.org/https://doi.org/10.1016/j.jhtm.2021.06.008>
- Kim, J. J., Kim, I., & Hwang, J. (2021). A change of perceived innovativeness for contactless food delivery services using drones after the outbreak of COVID-19. *International Journal of Hospitality Management*, 93, 102758. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102758>

- Kim, J., & Lee, J. C. (2020). Effects of COVID-19 on preferences for private dining facilities in restaurants. *Journal of Hospitality and Tourism Management*, 45, 67–70. <https://doi.org/https://doi.org/10.1016/j.jhtm.2020.07.008>
- Kim, J., Kim, J., & Wang, Y. (2021). Uncertainty risks and strategic reaction of restaurant firms amid COVID-19: Evidence from China. *International Journal of Hospitality Management*, 92, 102752. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102752>
- Kim, K., Bonn, M. A., & Cho, M. (2021). Clean safety message framing as survival strategies for small independent restaurants during the COVID-19 pandemic. *Journal of Hospitality and Tourism Management*, 46, 423–431. <https://doi.org/https://doi.org/10.1016/j.jhtm.2021.01.016>
- Kim, M. J., Hall, C. M., & Bonn, M. (2021). Can the value-attitude-behavior model and personality predict international tourists' biosecurity practice during the pandemic? *Journal of Hospitality and Tourism Management*, 48, 99–109. <https://doi.org/https://doi.org/10.1016/j.jhtm.2021.05.014>
- Kim, S. (Sam), Kim, J., Badu-Baiden, F., Giroux, M., & Choi, Y. (2021). Preference for robot service or human service in hotels? Impacts of the COVID-19 pandemic. *International Journal of Hospitality Management*, 93, 102795. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102795>
- Kim, S., Kim, P. B., & Lee, G. (2021). Predicting hospitality employees' safety performance behaviors in the COVID-19 pandemic. *International Journal of Hospitality Management*, 93, 102797. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102797>
- Kwok, A. O. J., & Koh, S. G. M. (2021). COVID-19 and Extended Reality (XR). In *Current Issues in Tourism* (Vol. 24, Issue 14, pp. 1935–1940). Routledge. <https://doi.org/10.1080/13683500.2020.1798896>
- Lee, P. C., Xu, S. (Tracy), & Yang, W. (2021). Is career adaptability a double-edged sword? The impact of work social support and career adaptability on turnover intentions during the COVID-19 pandemic. *International Journal of Hospitality Management*, 94, 102875. <https://doi.org/https://doi.org/10.1016/j.ijhm.2021.102875>
- Leta, S. D. & Chan, I. C. C. (2021). Learn from the past and prepare for the future: A critical assessment of crisis management research in hospitality. *International Journal of Hospitality Management*, 95, 1-11. <https://doi.org/10.1016/j.ijhm.2021.102915>
- Li, X., Gong, J., Gao, B., & Yuan, P. (2021). Impacts of COVID-19 on tourists' destination preferences: Evidence from China. *Annals of Tourism Research*, 90, 103258. <https://doi.org/https://doi.org/10.1016/j.annals.2021.103258>

- Li, Y., Yao, J., & Chen, J. (2021). The negative effect of scarcity cues on consumer purchase decisions in the hospitality industry during the COVID-19 pandemic. *International Journal of Hospitality Management*, 94, 102815. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102815>
- Loi, K. I., Lei, W. S., & Lourenço, F. (2021). Understanding the reactions of government and gaming concessionaires on COVID-19 through the neo-institutional theory – The case of Macao. *International Journal of Hospitality Management*, 94, 102755. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102755>
- Luo, Y., & Xu, X. (2021). Comparative study of deep learning models for analyzing online restaurant reviews in the era of the COVID-19 pandemic. *International Journal of Hospitality Management*, 94, 102849. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102849>
- Miao, L., Im, J., Fu, X., Kim, H., & Zhang, Y. E. (2021). Proximal and distal post-COVID travel behavior. *Annals of Tourism Research*, 88, 103159. <https://doi.org/https://doi.org/10.1016/j.annals.2021.103159>
- Min, J., Kim, J., & Yang, K. (2021). How generations differ in coping with a pandemic: The case of restaurant industry. *Journal of Hospitality and Tourism Management*, 48, 280–288. <https://doi.org/https://doi.org/10.1016/j.jhtm.2021.06.017>
- Ntounis, N., Parker, C., Skinner, H., Steadman, C., & Warnaby, G. (2021). Tourism and Hospitality industry resilience during the Covid-19 pandemic: Evidence from England. *Current Issues in Tourism*, 1–14. <https://doi.org/10.1080/13683500.2021.1883556>
- Peluso, A. M., & Pichierri, M. (2020). Effects of socio-demographics, sense of control, and uncertainty avoid ability on post-COVID-19 vacation intention. *Current Issues in Tourism*. <https://doi.org/10.1080/13683500.2020.1849050>
- Quang, T. D., Tran, T. C., Tran, V. H., Nguyen, T. T., & Nguyen, T. T. (2020). Is Vietnam ready to welcome tourists back? Assessing COVID-19's economic impact and the Vietnamese tourism industry's response to the pandemic. *Current Issues in Tourism*. <https://doi.org/10.1080/13683500.2020.1860916>
- Rather, R. A. (2021). Monitoring the impacts of tourism-based social media, risk perception and fear on tourist's attitude and revisiting behaviour in the wake of COVID-19 pandemic. *Current Issues in Tourism*, 1–9. <https://doi.org/10.1080/13683500.2021.1884666>
- Sánchez-Cañizares, S. M., Cabeza-Ramírez, L. J., Muñoz-Fernández, G., & Fuentes-García, F. J. (2021). Impact of the perceived risk from Covid-19 on intention to travel. *Current Issues in Tourism*, 24(7), 970–984. <https://doi.org/10.1080/13683500.2020.1829571>

- Park, I.-J., & Hai, S. (2021). How does career future time perspective moderate in the relationship between infection anxiety with the COVID-19 and service behavior among hotel employees? *Tourism Management Perspectives*, 39, 100846. <https://doi.org/https://doi.org/10.1016/j.tmp.2021.100846>
- Park, I.-J., Kim, J., Kim, S. (Sam), Lee, J. C., & Giroux, M. (2021). Impact of the COVID-19 pandemic on travelers' preference for crowded versus non-crowded options. *Tourism Management*, 104398. <https://doi.org/https://doi.org/10.1016/j.tourman.2021.104398>
- Pham, L. D. Q., Coles, T., Ritchie, B. W., & Wang, J. (2021). Building business resilience to external shocks: Conceptualising the role of social networks to small tourism and hospitality businesses. *Journal of Hospitality and Tourism Management*, 48, 210–219. <https://doi.org/https://doi.org/10.1016/j.jhtm.2021.06.012>
- Pillai, S. G., Haldorai, K., Seo, W. S., & Kim, W. G. (2021). COVID-19 and hospitality 5.0: Redefining hospitality operations. *International Journal of Hospitality Management*, 94, 102869. <https://doi.org/https://doi.org/10.1016/j.ijhm.2021.102869>
- Rasoolimanesh, S. M., Seyfi, S., Rastegar, R., & Hall, C. M. (2021). Destination image during the COVID-19 pandemic and future travel behavior: The moderating role of past experience. *Journal of Destination Marketing & Management*, 21, 100620. <https://doi.org/https://doi.org/10.1016/j.jdmm.2021.100620>
- Rather, R. A. (2021). Demystifying the effects of perceived risk and fear on customer engagement, co-creation and revisit intention during COVID-19: A protection motivation theory approach. *Journal of Destination Marketing & Management*, 20, 100564. <https://doi.org/https://doi.org/10.1016/j.jdmm.2021.100564>
- Sharma, A., Shin, H., Santa-Maria, M. J., & Nicolau, J. L. (2021). Hotels' COVID-19 innovation and performance. *Annals of Tourism Research*, 88, 103180. <https://doi.org/https://doi.org/10.1016/j.annals.2021.103180>
- Shin, H., & Kang, J. (2020). Reducing perceived health risk to attract hotel customers in the COVID-19 pandemic era: Focused on technology innovation for social distancing and cleanliness. *International Journal of Hospitality Management*, 91, 102664. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102664>
- Shin, H., Sharma, A., Nicolau, J. L., & Kang, J. (2021). The impact of hotel CSR for strategic philanthropy on booking behavior and hotel performance during the COVID-19 pandemic. *Tourism Management*, 85, 104322. <https://doi.org/https://doi.org/10.1016/j.tourman.2021.104322>
- Sobaih, A. E. E., Elshaer, I., Hasanein, A. M., & Abdelaziz, A. S. (2021). Responses to COVID-19: The role of performance in the relationship between small hospitality enterprises' resilience and sustainable tourism development. *International Journal of*

- Hospitality Management*, 94, 102824. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102824>
- Wong, A. K. F., Kim, S. (Sam), Kim, J., & Han, H. (2021). How the COVID-19 pandemic affected hotel Employee stress: Employee perceptions of occupational stressors and their consequences. *International Journal of Hospitality Management*, 93, 102798. <https://doi.org/https://doi.org/10.1016/j.ijhm.2020.102798>
- Wu, G., Liang, L., & Gursoy, D. (2021). Effects of the new COVID-19 normal on customer satisfaction: Can facemasks level off the playing field between average-looking and attractive-looking employees? *International Journal of Hospitality Management*, 97, 102996. <https://doi.org/https://doi.org/10.1016/j.ijhm.2021.102996>
- Wu, X., Lin, L., & Wang, J. (2021). When does breach not lead to violation? A dual perspective of psychological contract in hotels in times of crisis. *International Journal of Hospitality Management*, 95, 102887. <https://doi.org/https://doi.org/10.1016/j.ijhm.2021.102887>
- Yan, J., Kim, S., Zhang, S. X., Foo, M.-D., Alvarez-Risco, A., Del-Aguila-Arcentales, S., & Yáñez, J. A. (2021). Hospitality workers' COVID-19 risk perception and depression: A contingent model based on transactional theory of stress model. *International Journal of Hospitality Management*, 95, 102935. <https://doi.org/https://doi.org/10.1016/j.ijhm.2021.102935>
- Yung, R., Khoo-Lattimore, C., & Potter, L. E. (2021). VR the world: Experimenting with emotion and presence for tourism marketing. *Journal of Hospitality and Tourism Management*, 46, 160–171. <https://doi.org/10.1016/j.jhtm.2020.11.009>
- Zheng, D., Luo, Q., & Ritchie, B. W. (2021). Afraid to travel after COVID-19? Self-protection, coping and resilience against pandemic 'travel fear.' *Tourism Management*, 83, 104261. <https://doi.org/https://doi.org/10.1016/j.tourman.2020.104261>