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# Impact of Covid-19 Pandemic on Tourists' Behavior and Preferences: A Critical Insight

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# ABSTRACT

**Purpose:** This paper aims to explore the variations in tourists' behavior and preferences due to the COVID-19 pandemic and highlight the latest tourism and hospitality industry trends.

**Design/methodology/approach:** This paper is based on a review of the allied literature on tourist preferences, tourist behavior, tourism marketing, tourism management, and a combination of reports from various organizations.

**Findings:** The paper identifies that the COVID-19 pandemic has significantly impacted the tourists' behavior and preferences regarding their choice of accommodation, transportation, and destination, which has increased the popularity of domestic tourism, sustainable travel, free and independent travel, and short-distance trips. COVID-19 has accelerated the trend of safety and hygiene, virtual reality, cashless payment, contactless services, travel bubbles, and artificial intelligence and robots. There is a significant possibility that these trends will continue.

**Practical implications:** It is essential to adopt the latest tourism and hospitality trends in response to tourists' changing behavior and preferences due to the COVID-19 pandemic. Keeping up with the latest trends in the industry will give the best opportunity to reach the target audience and ensure that the business delivers the customer experience that consumers want and expect.

**Originality:** This paper provides a comprehensive overview of how COVID-19 has impacted tourists' behavior and preferences. This is the first study to highlight the latest tourism and hospitality industry trends during and after the pandemic.

Keywords: COVID-19, Tourists' preferences, Travel behavior, Latest trends

# **INTRODUCTION**

In December 2019, the very first case of the novel coronavirus (COVID-19) was reported in Wuhan, China. Soon after, it was declared as a pandemic by World Health Organization (WHO). The cases of COVID-19 are still increasing in various places of the world, but the severity of the pandemic varies. World Health Organization (WHO) has been carefully observing the condition, issuing guidelines, and recommending preventative measures (WHO, 2020). Although the recovery of the tourism and hospitality industry is being driven by vaccination (UNWTO, 2021), there is also a fear that vaccines will be less effective against newer variants of COVID-19 (UNCTAD, 2021).

The damage caused by the COVID-19 is comparable to World War II (Chakraborty and Maity, 2020; Sobrosa Neto *et al.*, 2020). The pandemic has had a significant impact on travel agencies, airlines, hotels, restaurants, OTA platforms, and other tourism businesses (Gössling *et al.*, 2020; Uğur and Akbıyık, 2020). Due to travel bans and prevention guidelines, tourists' willingness to travel decreased, causing many to cancel vacation plans (Li, Ding, *et al.*, 2021). While the recovery of the tourism and hospitality industry is multifaceted and dependent on many crucial elements, it is ultimately determined by the post-COVID travel behavior of tourists (Miao *et al.*, 2021). The market prospect is still uncertain as not much is known regarding tourists' differences in risk aversion, satisfaction among tourists with the new normal in the pandemic situation, or post-COVID travel plans (Shamshiripour *et al.*, 2020).

The unusual circumstances created by the pandemic have made many individuals reconsider their routines and preferences (Shamshiripour *et al.*, 2020). There is also a paradigm shift in tourist behavior due to the pandemic (Kock *et al.*, 2020). Some behaviors are reactive and temporary, while some are predicted to consolidate over a period of time and develop into a permanent part of post-COVID behavior (Miao *et al.*, 2021).

The tourism industry is always considered to be the most vulnerable when it comes to disasters or crises. Many health-related emergencies (Ebola, SARS, and Foot and Mouth Disease) have wreaked havoc on the tourism and hospitality industry on a local and global scale in the previous 15 years (Yu *et al.*, 2021). None, however, has had the same global economic impact as the COVID-19 pandemic (Mirzaei *et al.*, 2021).

Although COVID-19 has shown a devastating impact on the tourism and hospitality industry, it might also be considered as a chance to develop resilience in the tourism system (Gössling

*et al.*, 2020). The tourism and hospitality industry now has a unique opportunity to evolve in a far more sustainable way, post-pandemic, with the support of governments, policymakers, market experts, technological innovators, and the people employed in the industry (Hall *et al.*, 2020; Sharma *et al.*, 2021).

This paper is based on a review of the related literature on tourist preferences, tourist behavior, tourism marketing, tourism management, and reports from various organizations. The objectives of this paper are 1) to find out the impact of COVID-19 on tourists' behavior and preferences and 2) to find out the latest trends in the tourism and hospitality industry during and after the pandemic.

#### Effect of COVID-19 on the Tourism and Hospitality Industry

COVID-19 profoundly impacted all aspects of life, including the economy, health, environment, social and cultural sectors, education, and tourism (Pahrudin *et al.*, 2021). None of the previous crises or disasters had such a long-lasting detrimental impact on the tourism and hospitality industry (Gössling *et al.*, 2020; Li, Ding, *et al.*, 2021). Compared to the COVID-19 pandemic, the earlier crisis remained restricted to particular places, existed for a shorter period, and caused less loss of lives (Miao *et al.*, 2021).

The pandemic had unprecedentedly impacted the tourism and hospitality industry, resulting in reduced business operations and substantial job losses. As a result, the focus of tourism businesses shifted to how to deal with the impact of the COVID-19 pandemic. Duarte Alonso et al. (2020) claimed that tourism industry owners and managers would try to figure out how to change and modify their business practices in light of COVID-19.

The COVID-19 pandemic has caused great damage worldwide since March 2020 and had a devastating impact on the tourism and hospitality industry. In 2019, travel and tourism accounted for 330 million jobs, i.e., 1 in every four new jobs created worldwide and contributed 10.3% of global GDP (WTTC, 2020). The travel and tourism industry suffered a loss of almost US\$4.5 trillion in 2020, with the contribution to GDP dropping by 49.1% compared to 2019, 62 million jobs were lost (representing a drop of 18.5% compared to 2019), and the domestic visitor spending and international visitor spending decreased by 45% and 69.4% respectively (WTTC, 2021).

According to UNWTO (2021), in July 2021, international tourism showed signs of recovery; 54 million tourists crossed international borders (highest since April 2020) as some

destinations uplifted travel restrictions and the global vaccination rollout progressed in various parts of the world.

UNWTO Secretary-General Zurab Pololikashvili said: "There is clearly a strong demand for international tourism, and many destinations have started welcoming visitors back safely and responsibly. However, the true restart of tourism and the benefits it brings, remain on hold as inconsistent rules and regulations and uneven vaccination rates continue to affect confidence in travel" (UNWTO, 2021)

# Effect of COVID-19 on Tourists' Behavior and Preferences

COVID-19 has impacted not only the accommodation, transportation, travel agency, and businesses of other key tourism market players but also the tourists' behavior and preferences. It is more crucial to understand the impact of the pandemic on tourists' behavior and preferences to help in the recovery of the tourism and hospitality industry. Zenker and Kock (2020) revealed the impact of COVID-19 on visitor risk perception and the way the pandemic affected tourists' travel in the future. X. Li et al. (2021) found that the preferences of tourists regarding destination had shifted. The study also found that tourists prefer not to travel to places having more confirmed cases. Zheng et al. (2021) found that fear of travel can provoke a variety of coping strategies and encourage tourists to be more careful while traveling.

Zielinski and Botero (2020) predicted that, after the pandemic, tourists might not be this much cautious regarding the risk of traveling. Dryhurst et al. (2020) found that tourists might avoid visiting crowded places, will follow government suggestions, and adopt self-protection measures as their perception of risk increases. Donaire et al. (2021) revealed the preferences of tourists toward natural and coastal areas. Shamshiripour et al. (2020) examined the change in the mobility habits of people due to the pandemic. Wen et al. (2021) predict that COVID-19 may increase the popularity of free and independent travel, luxury trips, and wellness tourism, and future tourism activities may include new types of tourism, such as slow tourism and smart tourism.

The pandemic has impacted every aspect of the tourism and hospitality industry, so the tourists' behavior patterns. However, the most significant changes in behavior patterns are choice of destination, mode of transportation, length of the trip, and how people travel (Donaire *et al.*, 2021).

# **Transportation**

The pandemic has tremendously impacted public transportation. Both domestic and international airlines have been particularly impacted. Domestic passenger traffic has lost almost US\$22 to 31 billion of gross operating revenues of airlines, while international passenger traffic has lost almost US\$ 158 to 179 billion of gross operating revenues of airlines (ICAO, 2021).

The COVID-19 has changed the travel pattern of tourists; as a result, tourists adopted the alternative mode of transportation. de Haas et al. (2020) also predicted that, after the pandemic, Dutch individuals would lower their flight frequency dramatically. Similarly, Shamshiripour et al. (2020) found that sharing space with others does not make tourists feel safe or comfortable, and they prefer to travel through personal vehicles, biking, private bicycles, and walking. Gössling et al. (2020) state that according to a report by the Norwegian Tourism Organization, car rental companies have been the least affected by the crisis.

#### Accommodation

Due to the high chances of infection in hotels, the hotel industry is proven to be the hardest hit by the COVID-19 pandemic (Shin and Kang, 2020). Hao et al. (2020) proposed several approaches and recommended that hotels should implement safety and hygiene steps to protect customers' place environment, such as thorough sanitization and detecting customer and personnel health.

Shin and Kang (2020) emphasized that technology innovation is crucial to reduce risk and play a vital part in the recovery of the hotel industry from the pandemic. Kim et al. (2021) also found that when COVID-19 was prominent, customers had a more positive attitude toward robot-staffed hotels in comparison to human-staffed hotels.

#### Destination

According to Z. Li et al. (2020), tourists have always avoided traveling to a place that is perceived to be risky and will change their choice of destination if a health risk is involved. Health risk has always been the key concern many people have while traveling, visiting destinations, or hotels (Shin and Kang, 2020). Hall et al. (2020) showed that tourists prefer to travel to national or regional areas rather than distant destinations. Moreover, tourists have also shown interest in nature-based destinations and charming coastal cities (Donaire *et al.*,

2021; Li *et al.*, 2020), as destinations with open space are considered to be less risky. Huang et al. (2021) found that Chinese residents reduced their preferences in all modes of travel, and most of the tourists would prefer to visit natural, rural, and cultural destinations post-pandemic.

Pan et al. (2021) found the effect of COVID-19 on the preferences of cruise travelers. They found that behavioral intention is positively affected by the perceived crisis management while the behavioral intention of tourists is negatively affected by travel constraints.

Although the COVID-19 pandemic has caused devastating damage to the tourism and hospitality industry, the industry has observed a steady recovery due to the changing situation worldwide because vaccination and the quality of tourism services were a major concern for many tourists (Li, Ding, *et al.*, 2021). Therefore, under the ongoing threat of the pandemic, it is crucial to manage tourism destinations safely. Technological innovations and social media can be used to improve destination safety and restore tourists' confidence.

#### Food and Beverage

The COVID-19 pandemic has also made people more conscious of food safety and hygiene standards in hotels, restaurants, airplanes, cruises, and bars. Huang et al. (2021) found that, in the future, tourists will be more cautious about what they eat while traveling and will avoid consuming wildlife food.

J. Kim and Lee (2020) examined the perceived risk of COVID-19 and how it relates to customers' preferences for private dining rooms. According to the study findings, customers who believe the risk of COVID-19 is high (vs. low) value private dining tables and restaurants.

#### Latest Trends in Tourism and Hospitality Industry

The COVID-19 pandemic has transformed people's lives in several manners and impacted their travel behavior and preferences, which ultimately resulted in the emergence of new trends in the tourism market. Wen et al. (2021) examined the impact of COVID-19 on Chinese citizens' lifestyle and travel. They predicted that the demand for independent travel, luxury travel, and wellness tourism services would increase.

# **Domestic Tourism**

The COVID-19 pandemic has shifted the tourists' preferences toward local destinations because of the uncertainty of the pandemic worldwide. Renaud (2020) found that tourists would prefer to visit local places, and the travel mobility of people has also reduced. Hall et al. (2020) also revealed that tourists prefer to visit national or regional places rather than more distant destinations. Huang et al. (2021) found that COVID-19 has dramatically reduced Chinese people's preferences for outbound travel to countries with high infection rates. Miao et al. (2021) state that, according to a report of UNWTO, tourist arrivals will be more in domestic and regional destinations.

#### Virtual Travel

Virtual travel provides the opportunity to discover any destination anytime by anyone, including people with reduced mobility or underprivileged. COVID-19 resulted in the closure of tourism destinations to prevent the spread of the virus. However, virtual travel projects, on the other hand, provided tourists with a unique experience and received excellent feedback from tourists. The Palace Museum in China, which had been closed for more than 70 days, launched the "Traveling in the Palace Museum" series, which attracted over 100 million online tourists (Zhang *et al.*, 2022).

To meet client expectations, tourism businesses are increasingly adopting virtual travel technologies and delivering virtual tourism activities (Neuburger and Egger, 2021). El-Said and Aziz (2021) recommended that virtual travel should be accessible, which means that people from different backgrounds should be able to use it.

#### Free Independent Travel (FIT)

FIT travelers are generally considered to plan their own trips and do activities on their own. However, during the pandemic, FIT travelers would prefer to get some extra guidance when arranging a trip as people know how quickly things can change.

Wen et al. (2021) indicated that Chinese visitors are more likely to travel in small groups or solo, at least in the short term. Furthermore, they may prefer to explore lesser-known locations rather than well-known tourist destinations. Huang et al. (2021) also found that after COVID-19, tourists' preference for free and independent travel would largely increase.

Therefore, COVID-19 has provided tour operators an opportunity to focus more on independent travelers by helping FIT travelers in trip planning and providing location and activity-specific services.

#### Short Distance Trips

COVID-19 has not only increased domestic tourism but also has shortened the trips. Generally, long-distance travel is considered riskier than short-distance, as long-distance travel involves public transportation. Huang et al. (2021) revealed that for the time being, tourists would prefer short travels to extended ones, but COVID-19 would not significantly impact their travel purposes.

Mirzaei et al. (2021) concluded that long-distance trips are seen as a risk to tourists' health; hence passengers choose shorter trips and would prefer to book their trips with the assistance of professionals.

# **Travel Bubbles**

One tourist business trend that emerged as things began to open up was a desire among families and groups of friends to take a memorable journey together to make up for the missed time. According to Donaire et al. (2021), tourists have formed 'bubbles' to keep themselves separate from locals and other tourists in the destination. As the pandemic is still raging, the travel bubble allows tourists to enjoy a vacation while reducing interaction with others.

# Sustainable Travel

As a result of the pandemic, people have realized the significance of establishing a sustainable way of traveling. Tourists are now opting for eco-friendly ways to reconnect with nature. Tourists would focus on ethical travel to natural areas to discover local culture and contribute to the environment's long-term sustainability. Rahimah et al. (2020) found that mortality salience and self-esteem increase materialism, which in turn increases the sustainable attitude of tourists.

#### **Cashless Payment**

The COVID-19 pandemic has given rise to cashless payment. Cashless payments are becoming more common due to digital wallets like Google Pay and PayPal. Cashless

payments are convenient as people need not carry debit or credit cards and can rely on these applications to make payments in hotels, restaurants, and for other services.

García-Milon et al. (2021) found that tourists' intentions to use smartphones, particularly for buying purposes, increased. So tourism and hospitality industry must provide tourists with advanced ways to accept smartphone payments to move towards a more digitalized economy.

# **Contactless Services**

The tourism and hospitality industry requires a lot of human connections, but due to the extremely contagious nature of COVID-19, the industry cannot continue as it was in the past (Wen *et al.*, 2021). However, the travel and hospitality industry has taken significant steps to enhance traveler confidence, during COVID-19, by providing contactless services. From contactless check-in and check-out services in hotels and at airports to buying food and beverages, contactless services are becoming the standards for the industry. Technology innovation is the best and safe solution to maintain social distance (Zeng *et al.*, 2020).

## Safety and Hygiene

Since the COVID-19 outbreak has happened, safety and hygiene have become the utmost priority for all. Huang et al. (2021) found that although COVID-19 will not significantly alter travel behavior, they will pay closer attention to safety and hygiene issues even after COVID-19. According to Mirzaei et al. (2021), health and safety have become one of the top priorities of travelers, and the cleanliness and hygiene at various tourism facilities have become the motivational factor. Furthermore, even if the interaction level is high, clients are more likely to perceive a low health risk when the hotel follows advanced cleanliness measures (Shin and Kang, 2020).

The travel industry is already implementing rules and protocols such as proof of vaccination, PCR tests upon arrival, mandatory masks, and frequent cleaning to ensure a safe and hygienic environment.

#### Artificial Intelligence and Robots

The COVID-19 pandemic may hasten the usage of artificial intelligence and robots to provide contactless services to keep social distance and lower the fear of spreading infection. S. (Sam) Kim et al. (2021) examined the impact of robots on the hospitality industry and concluded that customers had shown a more positive attitude toward robot-staffed hotels in comparison to the human-staffed hotels when COVID-19 was salient.

In the post-pandemic period, ensuring the safety of customers and employees is of utmost importance; thus, intelligent services such as robot cleaners and face and voice recognition systems are likely to be extensively used in the tourism sector to aid the recovery of the tourism and hospitality industry (Shin and Kang, 2020).

# CONCLUSION

The COVID-19 pandemic has devastatingly impacted the tourism and hospitality industry. The pandemic has not only impacted the supply side (accommodation, transportation, and food and catering) but also the demand side (tourists' behavior and preferences) and thereby has brought new trends in the industry.

This study provides key insights related to changing preferences and behavior of tourists and the latest trends to help policymakers and tourism practitioners to develop effective policies and strategies to boost tourists' trust and confidence. This study revealed that COVID-19 had accelerated the trend of domestic tourism, short-distance trips, travel bubbles, sustainable travel, FIT, virtual travel, safety and hygiene, cashless payment, contactless services, artificial intelligence and robots. There is a significant possibility that these trends will continue. Ecological tourism, local tourism, and traveling with family have become more popular during COVID-19. Safety and hygiene have become crucial for tourists during traveling. Technology has also reshaped the consumption pattern of tourists. It is also clear that people will favor short-distance trips due to the COVID-19 pandemic. As a result, domestic tourism would recover faster than international tourism travel in the post-pandemic era.

The tourism and hospitality industry is competitive, and businesses need to keep up with the latest trends in the industry to avoid being left behind. Moreover, keeping up with the latest trends in the industry will give the best opportunity to reach the target audience and ensure that the business delivers the customer experience that consumers want and expect. On the other hand, failure to keep up with the latest tourism and hospitality trends can have negative consequences, such as giving rival businesses a competitive advantage or business failure. So, it is essential to adopt the latest tourism and hospitality trends in response to tourists' changing behavior and preferences due to the COVID-19 pandemic.

It is high time when all stakeholders, including tourists, should bear a significant amount of responsibility to recover the tourism and hospitality industry, on both the supply and demand

sides, in a more sustainable way in order to respond to the future challenges in a more systematic manner (Cuomo *et al.*, 2021).

#### REFERENCES

- Chakraborty, I. and Maity, P. (2020), "COVID-19 outbreak: Migration, effects on society, global environment and prevention", *Science of the Total Environment*, Elsevier B.V., Vol. 728, p. 138882.
- Cuomo, M.T., Tortora, D., Danovi, A., Festa, G. and Metallo, G. (2021), "Toward a 'New Normal'? Tourist Preferences Impact on Hospitality Industry Competitiveness", *Corporate Reputation Review*, Palgrave Macmillan UK, No. 0123456789, available at:https://doi.org/10.1057/s41299-021-00123-7.
- Donaire, J.A., Galí, N. and Camprubi, R. (2021), "Empty summer: International tourist behavior in spain during covid-19", *Sustainability (Switzerland)*, Vol. 13 No. 8, pp. 1–14.
- Dryhurst, S., Schneider, C.R., Kerr, J., Freeman, A.L.J., Recchia, G., van der Bles, A.M., Spiegelhalter, D., *et al.* (2020), "Risk perceptions of COVID-19 around the world", *Journal of Risk Research*, Routledge, Vol. 23 No. 7–8, pp. 994–1006.
- Duarte Alonso, A., Kok, S.K., Bressan, A., O'Shea, M., Sakellarios, N., Koresis, A., Buitrago Solis, M.A., *et al.* (2020), "COVID-19, aftermath, impacts, and hospitality firms: An international perspective", *International Journal of Hospitality Management*, Elsevier Ltd, Vol. 91 No. June, p. 102654.
- El-Said, O. and Aziz, H. (2021), "Virtual Tours a Means to an End: An Analysis of Virtual Tours' Role in Tourism Recovery Post COVID-19", *Journal of Travel Research*, available at:https://doi.org/10.1177/0047287521997567.
- García-Milon, A., Olarte-Pascual, C. and Juaneda-Ayensa, E. (2021), "Assessing the moderating effect of COVID-19 on intention to use smartphones on the tourist shopping journey", *Tourism Management*, Elsevier Ltd, Vol. 87 No. May, p. 104361.
- Gössling, S., Scott, D. and Hall, C.M. (2020), "Pandemics, tourism and global change: a rapid assessment of COVID-19", *Journal of Sustainable Tourism*, Routledge, Vol. 29 No. 1, pp. 1–20.
- de Haas, M., Faber, R. and Hamersma, M. (2020), "How COVID-19 and the Dutch' intelligent lockdown' change activities, work and travel behaviour: Evidence from longitudinal data in the Netherlands", *Transportation Research Interdisciplinary Perspectives*, The Authors, Vol. 6, p. 100150.
- Hall, C.M., Scott, D. and Gössling, S. (2020), "Pandemics, transformations and tourism: be careful what you wish for", *Tourism Geographies*, Routledge, Vol. 22 No. 3, pp. 577–598.
- Hao, F., Xiao, Q. and Chon, K. (2020), "COVID-19 and China's Hotel Industry: Impacts, a Disaster Management Framework, and Post-Pandemic Agenda", *International Journal of Hospitality Management*, Elsevier, Vol. 90 No. June, p. 102636.
- Huang, S. (Sam), Shao, Y., Zeng, Y., Liu, X. and Li, Z. (2021), "Impacts of COVID-19 on Chinese nationals' tourism preferences", *Tourism Management Perspectives*, Elsevier Ltd, Vol. 40 No. February, p. 100895.
- ICAO. (2021), "Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic

Impact Analysis", International Civil Aviation Organization (ICAO), Montréal, Canada, No. May, p. 125.

- Kim, J. and Lee, J.C. (2020), "Effects of COVID-19 on preferences for private dining facilities in restaurants", *Journal of Hospitality and Tourism Management*, Elsevier Ltd, Vol. 45 No. June, pp. 67–70.
- Kim, S. (Sam), Kim, J., Badu-Baiden, F., Giroux, M. and Choi, Y. (2021), "Preference for robot service or human service in hotels? Impacts of the COVID-19 pandemic", *International Journal of Hospitality Management*, Elsevier Ltd, Vol. 93 No. November 2020, p. 102795.
- Kock, F., Nørfelt, A., Josiassen, A., Assaf, A.G. and Tsionas, M.G. (2020), "Understanding the COVID-19 tourist psyche: The Evolutionary Tourism Paradigm", Annals of Tourism Research, Vol. 85 No. September, available at:https://doi.org/10.1016/j.annals.2020.103053.
- Li, S., Ding, J., Zheng, X. and Sui, Y. (2021), "Beach tourists behavior and beach management strategy under the ongoing prevention and control of the COVID-19 pandemic: A case study of Qingdao, China", *Ocean & Coastal Management*, Elsevier Ltd, Vol. 215 No. November 2020, p. 105974.
- Li, X., Gong, J., Gao, B. and Yuan, P. (2021), "Impacts of COVID-19 on tourists' destination preferences : Evidence from China", *Annals of Tourism Research*, Elsevier Ltd, Vol. 90, p. 103258.
- Li, Z., Zhang, S., Liu, X., Kozak, M. and Wen, J. (2020), "Seeing the invisible hand: Underlying effects of COVID-19 on tourists' behavioral patterns", *Journal of Destination Marketing and Management*, Elsevier Ltd, Vol. 18 No. May, p. 100502.
- Miao, L., Im, J., Fu, X., Kim, H. and Zhang, Y.E. (2021), "Proximal and distal post-COVID travel behavior", *Annals of Tourism Research*, Elsevier Ltd, Vol. 88, p. 103159.
- Mirzaei, R., Sadin, M. and Pedram, M. (2021), "Tourism and COVID-19: changes in travel patterns and tourists' behavior in Iran", *Journal of Tourism Futures*, pp. 1–13.
- Neuburger, L. and Egger, R. (2021), "Travel risk perception and travel behaviour during the COVID-19 pandemic 2020: a case study of the DACH region", *Current Issues in Tourism*, Taylor & Francis, Vol. 24 No. 7, pp. 1003–1016.
- Pahrudin, P., Chen, C.-T. and Liu, L.-W. (2021), "A modified theory of planned behavioral: A case of tourist intention to visit a destination post pandemic Covid-19 in Indonesia", *Heliyon*, Elsevier Ltd, Vol. 7 No. 10, p. e08230.
- Pan, T., Shu, F., Kitterlin-Lynch, M. and Beckman, E. (2021), "Perceptions of cruise travel during the COVID-19 pandemic: Market recovery strategies for cruise businesses in North America", *Tourism Management*, Elsevier Ltd, Vol. 85 No. October 2020, p. 104275.
- Rahimah, A., Khalil, S., Dang, H.P. and Ming-Sung Cheng, J. (2020), "The terror of death and consumers' sustainability attitudes", *Journal of Retailing and Consumer Services*, Elsevier Ltd, Vol. 57 No. June, p. 102196.
- Renaud, L. (2020), "Reconsidering global mobility-distancing from mass cruise tourism in the aftermath of COVID-19", *Tourism Geographies*, Routledge, Vol. 22 No. 3, pp.

679–689.

- Shamshiripour, A., Rahimi, E., Shabanpour, R. and Mohammadian, A. (Kouros). (2020), "How is COVID-19 reshaping activity-travel behavior? Evidence from a comprehensive survey in Chicago", *Transportation Research Interdisciplinary Perspectives*, Elsevier Ltd, Vol. 7, p. 100216.
- Sharma, G.D., Thomas, A. and Paul, J. (2021), "Reviving tourism industry post-COVID-19: A resilience-based framework", *Tourism Management Perspectives*, Elsevier Ltd, Vol. 37 No. December 2020, p. 100786.
- Shin, H. and 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*, Elsevier Ltd, Vol. 91 No. August, p. 102664.
- Sobrosa Neto, R. de C., Sobrosa Maia, J., de Silva Neiva, S., Scalia, M.D. and de Andrade Guerra, J.B.S.O. (2020), "The fourth industrial revolution and the coronavirus: a new era catalyzed by a virus", *Research in Globalization*, Vol. 2, available at:https://doi.org/10.1016/j.resglo.2020.100024.
- Uğur, N.G. and Akbıyık, A. (2020), "Impacts of COVID-19 on global tourism industry: A cross-regional comparison", *Tourism Management Perspectives*, Elsevier, Vol. 36 No. September, p. 100744.
- UNCTAD. (2021), "Covid-19 and Tourism an Update", *Covid-19 and Tourism an Update*, No. June, pp. 1–23.
- UNWTO. (2021), "vaccines-and-reopen-borders-driving-tourism-s-recovery @ www.unwto.org", available at: https://www.unwto.org/news/vaccines-and-reopenborders-driving-tourism-s-recovery (accessed 10 December 2021).
- Wen, J., Kozak, M., Yang, S. and Liu, F. (2021), "COVID-19: potential effects on Chinese citizens' lifestyle and travel", *Tourism Review*, Vol. 76 No. 1, pp. 74–87.
- WHO. (2020), "Novel-Coronavirus-2019 Www.Who.Int", available at: https://www.who.int/es/emergencies/diseases/novel-coronavirus-2019 (accessed 10 December 2021).
- WTTC. (2020), "Travel & Tourism. Global Economic Impact Trends 2020", World Travel & *Tourism Council*, No. June, pp. 1–20.
- WTTC. (2021), "Economic-Impact @ wttc.org", available at: https://wttc.org/Research/Economic-Impact (accessed 10 December 2021).
- Yu, M., Li, Z., Yu, Z., He, J. and Zhou, J. (2021), "Communication related health crisis on social media: a case of COVID-19 outbreak", *Current Issues in Tourism*, Taylor & Francis, Vol. 24 No. 19, pp. 2699–2705.
- Zeng, Z., Chen, P.J. and Lew, A.A. (2020), "From high-touch to high-tech: COVID-19 drives robotics adoption", *Tourism Geographies*, Routledge, Vol. 22 No. 3, pp. 724–734.
- Zenker, S. and Kock, F. (2020), "The coronavirus pandemic A critical discussion of a tourism research agenda", *Tourism Management*, Elsevier Ltd, Vol. 81 No. June, p. 104164.

- Zhang, S.-N., Li, Y.-Q., Ruan, W.-Q. and Liu, C.-H. (2022), "Would you enjoy virtual travel? The characteristics and causes of virtual tourists' sentiment under the influence of the COVID-19 pandemic", *Tourism Management*, Elsevier Ltd, Vol. 88 No. September 2021, p. 104429.
- Zheng, D., Luo, Q. and Ritchie, B.W. (2021), "Afraid to travel after COVID-19? Selfprotection, coping and resilience against pandemic' travel fear'", *Tourism Management*, Elsevier Ltd, Vol. 83 No. November 2020, p. 104261.
- Zielinski, S. and Botero, C.M. (2020), "Beach tourism in times of COVID-19 pandemic: Critical issues, knowledge gaps and research opportunities", *International Journal of Environmental Research and Public Health*, Vol. 17 No. 19, pp. 1–19.