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Impact of COVID-19 on the tourism industry: A review of literature

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Abstract

The biggest pandemic i.e. has had unmatched effects on the world tourism industry, spurring a surge of scholarly investigation. In this essay, multiple publications from the early literature on COVID-19 and tourism are reviewed. Four major topics emerged from the analysis: (1) psychological outcomes and conduct; (2) sustainable futures; (3) monitoring, estimating, and forecasting of impacts; and (4) adoption of new technologies. The theoretical contribution, methodology, and possibilities for further study are all raised by this research, nevertheless. This article also introduces the Curated section of the Annals of Tourism Research. The Collection includes all previous pieces of literature on the subject that have appeared in Annals of Tourism Research, and it will keep expanding as new pieces are added.

Keywords: COVID-19, tourism, sustainability

Introduction

Tourism has undeniably been hampered by COVID-19. However, the scope and persistence of this epidemic are still not entirely understood. However, tourism scholars have made an effort to document change as it occurs, consider the significance of the epidemic, and project the direction of tourism. An appropriate moment to assess the situation is now that the global crisis has been going on for a year. For that reason, this study offers a critical analysis of recent COVID-19 tourist literature. In doing so, this piece also introduces the Curated Collection on COVID-19 and tourism in the Annals of Tourism Research. The Collection will serve as a continually updated repository for COVID-19 research.

The central Chinese province of Hubei's main city, Wuhan, has been the target of a unique coronavirus outbreak since December 2019, according to international news outlets. In January 2020, the World Health Organization (WHO) acknowledged the virus's spread and categorised the new coronavirus strain as an emerging global public health issue. The virus was given the official name "severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)" by the organisation. At that time, Wuhan was placed under lockdown, and quarantine regulations were eventually extended to the entirety of China, and ultimately the entire world. WHO proclaimed "coronavirus disease 2019," often known as COVID-19, a worldwide pandemic in March 2020. Two months later, more than 90 % of individuals throughout the world were subject to travel restrictions (Asquith, 2020) ^[1].

Infection rates had reduced by July 2020, and various levels of travel restrictions had been lifted all around the world. As infection rates fluctuated, the world saw the fluid opening and closure of travel corridors and travel bubbles (Sharun *et al.*, 2020) ^[33]. But as September 2020 drew near, medical experts started issuing alerts about a possible second wave of diseases as the northern hemisphere prepared to enter fall. Cooler weather would cause more people to stay indoors and coincide with a return to school, with some kids having to travel far. Infection rates did, in fact, rise in November. Many countries reinstituted lockdowns and implemented harsher travel rules out of worry about the forthcoming holidays (WHO, 2021). In light of these pandemic effects and prospects, this research conducts a comprehensive evaluation of the COVID-19 tourism literature. Research on COVID-19 has a defined beginning point, which varies from other systematic literature reviews and bibliometric studies that depend on a study area's development over time. Numerous journal papers have been written on the subject over the previous year, with more to come. "You cannot step into the same river again," as is often understood; the flood of Research on COVID-19 is ongoing, and the pandemic's variability is continual. However, this situation reaches a critical level after a year of inquiry and an appropriate point.

For this study multiple papers were reviewed, subjected to keyword analysis, and thematically classified. An overview of crisis and catastrophe management is provided at the outset of this paper. The approach, which includes topic analysis and keyword analysis, is then developed.

Next, the key issues in study are discussed, including: (1) psychological outcomes and conduct; (2) sustainable futures; (3) monitoring, estimating, and forecasting of impacts; and (4) adoption of new technologies. Finally, a number of recurrent challenges in COVID-19 research are explored, and future study directions are presented.

COVID-19 Pandemic: Tragedy or Crisis

Many people think of the COVID-19 epidemic as a catastrophe or natural disaster. Before examining the current status of tourism research on the pandemic, it is imperative to clarify each term's meaning. The worldwide tourist sector has become more sensitive to and conscious of crisis and catastrophe management in the twenty-first century. Despite the fact that the terms "crisis" and "disaster" are frequently used synonymously, some academics have noted distinctions. A catastrophe happens when "a business... is confronted with rapid, unforeseen catastrophic developments over which it has little control," according to Faulkner (2001) ^[12], who also distinguished between a crisis and a disaster. In contrast, internal organisational structures are at least partially responsible for a crisis. Consequently, a crisis here relates to internal occurrences, but a tragedy is related to external events.

A few academics have claimed that in the case of COVID-19, it is critical to view the pandemic as a disaster in order to better comprehend how outside forces (such virus outbreaks) affect tourism (e.g., Hao *et al.*, 2020) ^[16]. On the other hand, several academics contend that in terms of COVID-19's impact on tourism, the terms "disaster" and "crisis" are equivalent (Hall *et al.*, 2020) ^[15]. A significant event like COVID-19 will unavoidably result in both internal and external difficulties. In a similar vein, crises and catastrophes are unanticipated events that endanger the functioning of enterprises associated to tourism, jeopardise the reputation of destinations, and affect passenger trust (Ritchie & Jiang, 2019) ^[31]. As a result, the terms "crisis" and "disaster" are used synonymously throughout this review article.

Methodology

Several recommendations made by Pickering and Byrne (2014) ^[28] for locating pertinent material were followed in order to evaluate the early literature on COVID-19 and tourism. To start, many search terms were determined, including "coronavirus tourism," "pandemic tourism," "pandemic tourism," "COVID tourism," and "coronavirus tourist." These were only found in searches of publications published in 2020 and 2021 in the two largest databases, Google Scholar and the Web of Science (WoS). Google Scholar offers records from a variety of publications, including non-WoS-indexed journals, in contrast to WoS, which only includes articles from conference proceedings, books, and journals that are indexed by WoS. Additionally, Google Scholar differs from other databases in that it often allows users to search for terms in full-text sources; this feature increases search effectiveness.

Additional improvements included restricting the sample to English-language articles and evaluating COVID-19's

contribution to the study presented. The consequences of tourism in the (post-) COVID-19 period were only briefly mentioned in many studies, including Zhang and Yang's (2020) ^[45, 46], which did not take this context into account while developing their study approach. Such items were taken out of the sample. Since social scientific articles from fields other than tourism and hospitality also provide insight into how COVID-19 and tourism are connected with other viewpoints and situations, it is significant that the sample was not restricted to these journals.

Journals from other disciplines, such as general business (e.g., Journal of Business Research), geography (e.g., Dialogues in Human Geography), public health (e.g., International Journal of Environmental Research and Public Health), information systems (e.g., Journal of Statistics and Management Systems), sociology (e.g., International Journal of Sociology and Social Policy), human development (e.g., Journal of Statistics and Management Systems), and human geography, have also published relevant articles. In addition to (e.g., Development Southern Africa). The publications' organisation is also notable. Many writers were eager to publish their findings as soon as possible without expanding their work into a lengthy article; as a result, many articles took the form of research notes or short messages.

According to frequent opinion articles, over half of the selected publications (48.59 percent) used conceptual research approaches. Qualitative approaches were far less common than quantitative procedures. Only 10.44 percent of the sample's papers were qualitative, whereas 40.56 percent were quantitative. Favored quantitative techniques included surveys, forecasts, econometric analysis, text analytics, and experiments. To examine the effects of COVID-19-related constructs (e.g., perceived risk and uncertainty) on various tourism consequences (e.g., behavioural intention and well-being), a significant portion of quantitative studies used survey data and multivariate statistical analysis (e.g., structural equation modelling) (e.g., Nguyen & Coca-Stefaniak, 2020) ^[27].

Experimental investigations were carried out to collect reactions from people in various pandemic scenarios and to compare patterns in these scenarios (e.g., Zhang *et al.*, 2020) ^[45, 46]. Given the significant uncertainty surrounding the pandemic, anticipating the tourism-related recovery has become crucial. In the (post-) COVID-19 period, various quantitative studies have utilised a variety of models to provide projections (e.g., Skare *et al.*, 2021). Interviews, case studies, and content analysis were the most prevalent types of qualitative research. A survey was utilised to collect quantitative data for just one research in the sample, and interviews were conducted to provide qualitative findings (Brizek *et al.*, 2021) ^[5].

Findings: major research themes

1. Psychological outcomes and conduct

The concepts of risk, danger, and uncertainty have a significant impact on people's mental states and behaviours when evaluating psychological consequences and individual behaviour during crises and catastrophes (Ritchie & Jiang, 2019) ^[31]. According to psychologists, a frequent reaction to a pandemic is dread (Van Bavel *et al.*, 2020) ^[6]. The psychological effects and behaviour study associated to COVID-19 therefore mainly focuses on how individuals experience and respond to risk, its consequences for

behaviour, and its repercussions on the operations of tourist organisations.

Numerous research examined how locals' perceptions of danger will change as a result of entering tourists during the COVID-19 era. In the COVID-19 literature, a protective attitude to reduce perceived risk from "outsiders" (i.e., tourists) in local communities appears to be prevalent. Topics covered include locals' hostility against particular tourists (such as cruise tourists) (e.g., Renaud, 2020) ^[30], prejudice against tourists by locals (e.g., Tse and Tung, 2021) ^[38], and sympathy for foreign visitors (Thyne *et al.*, 2020) ^[35].

The pandemic also caused researchers to reevaluate their work on risk and tourism-related diseases. Chen *et al.* (2021) ^[9] examined 115 papers on the subject and found that there was no theoretical framework for studies on disease risk management.

The COVID-19 epidemic is linked to a lot of unfavourable feelings that might harm people's physical and mental health.

These are related to risk perception studies as well, especially when loneliness and isolation coexist with social exclusion and travel constraints. Few research have looked at tourists' emotional reactions and coping mechanisms associated to (non-)travel during the epidemic, despite the fact that such feelings have an impact on mental health and well-being. One exception comes from Buckley and Westaway (2020) ^[7], who contend that items for women's walking-in-nature tourism offer psychotherapeutic advantages.

A few empirical research look at distinct pandemic-related motivations. Kock *et al.* (2020) ^[24] use evolutionary psychology to highlight illness avoidance as the primary pandemic-related incentive for travellers. Relatedly, Huang & Liu (2020) ^[18] evaluate the impact of corporate social responsibility (CSR) marketing on the charitable intents of previous visitors using COVID-19-inspired altruism.

2. Sustainable futures

Ambitions in the tourist sector have long placed a strong emphasis on sustainability. Around the definition, guiding ideas, and standards of the phrase, there has been much research and spirited discussion. It is therefore not unexpected that this subject comes up frequently in the COVID-19 literature. Many individuals worldwide saw improvements in the air quality and a decrease in noise pollution during the early stages of the epidemic, when flights were cancelled, work-from-home directives were issued, and borders were closed.

Cooper and Alderman (2020) ^[10] said that the industry has to take triple bottom line sustainability more seriously as a result of these quick developments. The survival of the globe depends on reducing greenhouse gas emissions, but in promoting a triple bottom line strategy, they also emphasise that this must be balanced with the upkeep of robust local economies (see also Jones & Comfort, 2020 ^[19]; Newsome, 2020). Galvani *et al.* (2020) ^[14] extend this viewpoint by contending that, in order to achieve sustainability, the idea must be valued in people's daily lives and that people should then apply its ideas to their own enterprises and political choices (see also Corbisiero & La Rocca, 2020) ^[11].

The importance of greater inclusion to sustainable tourism futures is highlighted by a critical mass of tourism studies in addition to the body of literature on rethinking sustainability

models and frameworks. The disparities of the pandemic's consequences are highlighted by Tomassini and Cavagnaro's (2020) ^[37] suggestion that a return to Massey's (2005) ^[26] theorization of power geometry is helpful. Neoliberal capitalism was criticised by Massey (2005) ^[26], who offered an interpretation of space as a multirelational network of power dynamics.

According to Ateljevic (2020) ^[2], there is a "quiet revolution" taking place that is motivated by the common good and aware citizenship, in which personal (inner) development is manifesting itself in daily actions. However, in conceptualising regenerative tourism, Cave and Dredge (2020) ^[8] place more emphasis on the complexity of economics, advocating instead for diverse economies - the coexistence of capitalism, alternative capitalism, and non-capitalist agendas - as providing destination communities with more opportunities and, consequently, greater resilience.

3. Monitoring, estimating, and forecasting of impacts

Since the pandemic has presented the worldwide tourist industry with hitherto unheard-of difficulties, rapid impact monitoring and appraisal are essential for decision-making at various levels. Bausch, Gartner, and Ortanderl (2021) ^[4] create an impact grid using a tourism systems approach to comprehend the effects of the pandemic on tourism among subjects (such as tourists and residents) and objects (e.g., destinations and intermediaries).

By predicting how infection and mortality rates affect US stock returns of tourism-related companies, Sharma and Nicolau (2020) ^[32] evaluate the pandemic's impact; cruise lines were the most significantly impacted. Kaczmarek *et al.* (2021) ^[20] collect stock market information from 52 nations' worth of tourism-related enterprises, showing that certain companies are less affected than others by low valuation, restricted leverage, and high investment. Additionally, businesses in nations that preserve certain closure regulations are more resistant to the harmful consequences of COVID-19. To comprehend the effects of COVID-19 as an external economic shock, Yang, Zhang, and Chen (2020) ^[45, 46] design a dynamic stochastic general equilibrium model. Policies that subsidised travel-related spending were helpful in reducing their effects.

Several research calibrate the socio-cultural consequences of the epidemic in addition to economic impact calculations. In three significant Chinese cities, Qiu, Li, and Li (2020) ^[29] evaluate locals' willingness to pay for pandemic risk reduction and calibrate the societal costs of pandemic risk brought on by tourism activities. The deterioration in visitors' social well-being as a result of perceived discrimination brought on by COVID-19 is also examined by Yang & Wong (2020) ^[45, 46]. Social media usage and anxiety connected to COVID-19 further reduced this impact.

4. Adoption of new technologies

Technology creates new connections between individuals (possible visitors and workers in the tourism industry) and environments (Fennell, 2021 ^[13]; Kwok & Koh, 2021) ^[25]. Some technologies have gained more traction during the pandemic due to increased demand from businesses and consumers, including virtual tours (Fennell, 2021) ^[13], service robotics (Zhao & Bacao, 2020) ^[47, 48], drone delivery services (Kim *et al.*, 2021) ^[23], and mobile payment

(Fennell, 2021) ^[13]. (Khanra *et al.*, 2021) ^[21]. Extended reality, which is anticipated to offer customised experiences to get beyond physical travel obstacles, was especially expedited by COVID-19-related travel constraints (Kwok & Koh, 2021) ^[25]. Fennell (2021) ^[13] offers an example of a virtual ecotourism experience that serves as a proxy for the real thing. It is a customised, interactive, real-time tour that allows visitors to see sensitive areas while reducing the environmental effect of their journey.

Several empirical studies address users' adoption of various technologies during the pandemic. Zhao and Bacao (2020) ^[47, 48] identified users' intentions to continue using food delivery apps throughout the pandemic as primarily influenced by satisfaction, perceived task-technology fit, trust, effort expectations, and social influence. Consumers' beliefs of decreased human connection with robotic services would lower their perceived infection risk, according to Wan, Chan, and Luo (2021) ^[40], which would eventually result in increased visit intentions. Customers may prefer robotic services during the pandemic, but depending on the firms' resource availability, demand type, and value chains, these services are not always technically and financially possible for enterprises to deploy.

Online teaching grew more popular as tourism instructors and students were more used to distance-learning technology, according to Tiwari, Séraphin, and Chowdhary (2020) ^[36]. Remote learning does, however, present significant difficulties in impoverished nations with inadequate telecommunications infrastructure. Zoom is examined by Tuma *et al.* (2020) ^[39] as a synchronous tourism education mode and several digital engagement tactics are highlighted. A basic model with a small private online course, an advanced model for synchronous online broadcasting, and an expansion model with MOOC resources are contrasted in Qiu, Li, and Li's (2020) ^[29] comparison of the benefits and drawbacks of three online teaching models based on different technologies.

For a long time, tourism research has been attacked for being highly theoretical and for not being useful to those who are involved in the sector (Baum, 2019 ^[3]; Vong, 2017). The similar problem can be seen in research on COVID-19, where just a small number of studies give industrial practitioners and other stakeholder's useful information. There are a number of gaps between academic research and practise, according to Khan (2019) ^[21]. During the epidemic, some of these issues have come to light more than others, such as the inability of research to deliver timely knowledge and a communication gap between academics and business. Best practises in (online) marketing tactics, government policies to mitigate negative effects, and safety regulations that can safeguard visitors without detracting from their experiences can all have an impact on how stakeholders handle the COVID-19 situation.

Conclusion

The review has evaluated several scholarly journal papers about tourism and the COVID-19 pandemic that were released during the epidemic's first year. It sought to consider the main research areas and suggest potential directions for further study.

It is also agreed that it would take time to properly understand the value of COVID-19 to the tourism sector. It is therefore not surprising that several scholarly publications

have started asking writers to consider how the epidemic has affected their research.

It is therefore not surprising that several scholarly publications have started asking writers to consider how the epidemic has affected their research. The usefulness of pre-COVID data has, however, occasionally been questioned. As a result, even if the data summarised above show that the pandemic is being discussed in almost every area of the field, we must be careful to avoid using COVID-19 as the primary lens through which we view tourism research. Questions about the pandemic's long-term impact on the sector should be raised in response to rhetoric about it ushering in a "new normal." Trends come and go, but contributions to theory and methodology are what stick around in academia.

Therefore, it is not unexpected that a number of scientific journals have begun requesting authors to take into account how the pandemic has influenced their research. However, there have been instances where the value of pre-COVID data has been questioned. Because of this, we must be cautious to avoid using COVID-19 as the major lens through which we view tourism research, even if the statistics summarised above demonstrate that the pandemic is being discussed in nearly every aspect of the field. In response to claims that the epidemic would usher in a "new normal," concerns regarding the pandemic's long-term effects on the industry should be voiced. In academia, trends come and go, but contributions to theory and technique endure.

The reason that there aren't many responses to these inquiries might be mostly down to time. This review looked at scholarly works that were published in the first year of the epidemic. The sample would not have included such work given the time commitments needed to obtain rich data. Indeed, a significant portion of the sample consists of comments and brief exchanges. Quantitative analysis using more readily available data sets comes next. In the sample, qualitative research is uncommon, and just one study uses mixed methodologies.

Finally, it's important to identify a few additional restrictions that may limit the review's generalizability. In line with the aforementioned issue, there is little representation in the sample for COVID-19 research that has been influenced by recent pandemic developments. For instance, research has just recently begun to look at how vaccination aids in the recovery of the tourist industry (Wang, Kunasekaran, & Rasoolimanesh, 2021); yet, this subject received relatively little attention in the literature in the sample. Additionally, this study ignored research in other languages including Chinese, French, and Russian in favour of concentrating solely on English-language studies. Future assessments will now have the chance to evaluate geographic patterns in the development of COVID-19 research.

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