

**A Bibliometric Evaluation of Sustainable Tourism Behavior During the Pandemic:
Analysing the Obstacles and New Opportunities**

Jaya Singh Parihar¹, Gagan Deep Sharma²

Jaya Singh Parihar¹

¹Centre for Excellence in Disaster Management,

Guru Gobind Singh Indraprastha University, Dwarka, New Delhi – 110078, India;

email: jayaparihar.90@gmail.com, ORCID ID- 0000-0002-0092-3978

Gagan Deep Sharma²

²University School of Management Studies,

Guru Gobind Singh Indraprastha University, Dwarka, New Delhi – 110078, India;

email: angrishgagan@gmail.com; ORCID ID – 0000-0001-5379-0761

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Abstract

The purpose of this study is to identify dynamic trends, academic collaborations, and research hotspots based on the theory of planned behavior, in the field of tourism behavior post-Covid 19. This is achieved through an integrative evaluation that combines bibliometric (through publication and citation, keyword occurrence analysis, and thematic map) and manual (PRISMA) analysis of 564 publications. Thematic maps allow us to recognize significant themes and subthemes across a variety of time periods in sustainable tourism. These themes further contribute to aggregate dimensions. The discussion section suggests that practices of tourism evolve all the time. According to our findings, to preserve the sustainability of natural systems over the long run, governments need to take specific precautionary steps such as contributing to better sustainable management practices, stringent rules, and regulations regarding the area and time period of tourist travels, and better awareness programs.

Keywords – Tourism behavior, Sustainable tourism, Covid 19, sustainable development, perception, public attitude

Track: Sustainable and Responsible Business

Word Count (excluding tables and references): 2055

1. Introduction

Sustainable tourism considers the economic, social, and environmental issues that may arise during a trip, in addition to the needs of the communities that are hosting visitors and the requirements of the visitors themselves. The consumer behavior that occurs in the context of the acquisition, utilization, and termination of tourism services is referred to as "tourist behavior." According to the theory of planned behavior (TPB), psychological alignment is a factor that can assist in the prediction of human conduct. They consist of a posture toward a specific object (attitude), the conviction that others will concur with an action made concerning that object (subjective norm), self-efficacious thoughts about a consequence (perceived behavioural control), and motivation to carry out that action. Subjective norms, also known as perceived social pressures, can exert varying degrees of impact on an individual's behavior based on the circumstances surrounding the interaction as well as the perspectives held by the participants in the group. Subjective norms and the perception of one's own degree of behavioral control are two factors that can exert a significant amount of effect on behavioral intentions. Individuals who have a strong connection to the natural world are more likely to respond positively to interactions with the environment and to behave in ways that are environmentally conscious. Furthermore, it has been discovered both independently and in the context of the TPB that moral norms and a sense of obligation toward nature promote pro-environmental behavior. This was found to be true both before and after the TPB was created (Clark et al., 2019).

Even though there have been several previous pandemics (such as SARS in 2002, H1N1 in 2008, MERS in 2012, and Ebola in 2013/2014), the COVID-19 pandemic poses an

unprecedented threat to both health and the economy, also, brought these issues to the attention of people all around the world. Since humans and wildlife have come into closer contact over the past thirty years due to climate change and ecosystem changes, including the COVID19 pandemic (Tasnim et al., 2023). Therefore, many have raised the alarm and called for people to change their consumption patterns and to act in a more environmentally and ecologically friendly manner to prevent the emergence of further economically devastating pandemics in the future because of current environmental problems and the resulting current crisis. Studies that have already been conducted on the subject of tourism and pandemics have primarily examined the topic from an economic standpoint by looking at how quickly pandemics affect travel in general and particular destinations in particular, as well as the financial effects that a decline in tourism has on the entire tourism industry (Connor & Assaker, 2021). These studies help us understand how pandemics affect tourism by demonstrating economic vulnerability, but they largely neglect to look at the overall picture of major themes that should be focused on to encourage better sustainable tourism behaviour. Thematic map given in the study helps in better understanding of underlying factors responsible for pro environmental behaviour (Leung et al., 2023).

The remainder of the paper is structured as follows. The next section provides the data and methods. The third section presents the general description of the literature, and the fourth section portrays the descriptive and conceptual structures. The fifth section outlines the reflections and directions for future research, and the last section concludes the study.

2. Data methodology

This study uses integrative review which includes manual and software analysis. This type of review provides a robust and clear information on the subject areas which need further attention and development.

2.1 Criteria for inclusion/exclusion

We found 564 publications in the database using the criteria of the pertinent subject area, English language, and document type. Of these, articles were manually selected for screening using the criteria of title, abstract, and keyword, leaving us with papers. The most recent ABS list (rank 3 and above) and the Australian Business Deans Council (ABDC) ranking (A or A*) 2019 were compared to the data. The scope, subject matter, and relative calibre of the journals that business and management scholars publish in are described in this list. These research with poor quality produced 564 records, which prompted us to perform a comprehensive paper analysis. Finally, as illustrated in the PRISMA diagram, 333 articles were gathered for this systematic literature review (Moher et al., 2009) in Figure 1.

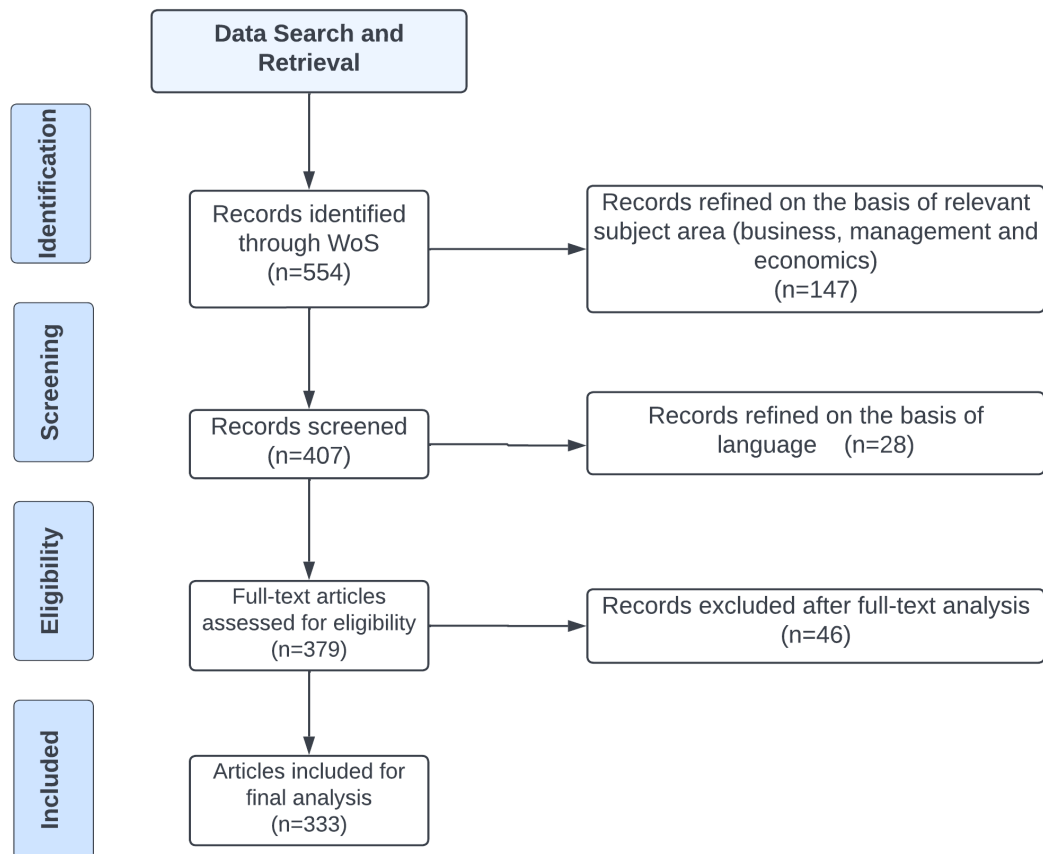


Fig 1. PRISMA framework

3. Results

3.1 A general overview of the work

3.1.1 Document publication and citation

Figure 2 displays the total number of publications on sustainable investment that have been released chronologically. The publishing pattern has changed from 4 item per year from 2000 to 58 articles in 2022. It appears that publishing has significantly increased since 2015 with maximum paper published in 2021. Sustainable Development Goals (SDGs) that build on the Millennium Development Goals were asset out in 2015 which justifies the sudden rise in the publications (Rosato et al., 2021). COP26 which took place in Glasgow in 2021, outlines four major goals which are in line of increased publication in the same year.

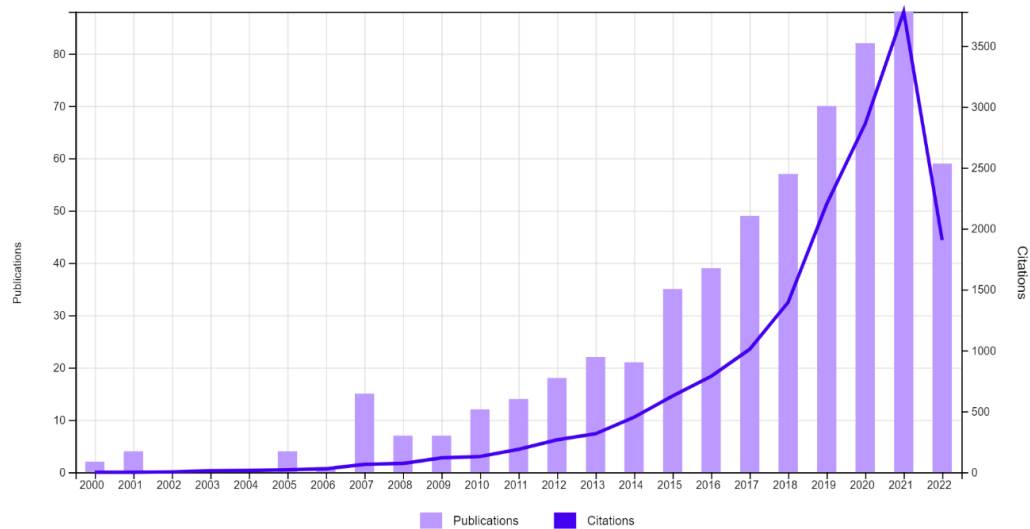


Fig 2. Year-wise publication for sustainable tourism behaviour

3.2 Conceptual structure of publication

3.2.1. Keywords co-occurrence analysis

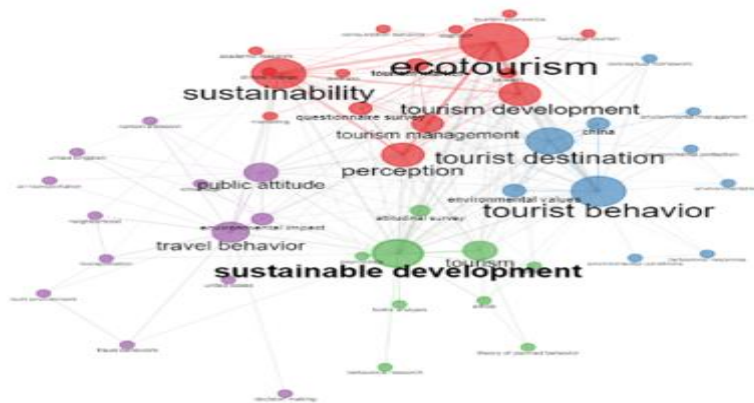


Fig 3. Keyword co-occurrence analysis map

The term "keyword co-occurrence" describes the frequent occurrence, proximity, and shared existence of related terms that have been identified in numerous studies. While not identical, co-occurrence may include keywords that are like one another and connected to the same subject (Aria & Cuccurullo, 2017). Figure 3 shows the network of keywords that are most frequently used together in the body of existing literature. The links between the nodes indicate co-occurrence, the colours each signify a cluster, and each node denotes a particular word. According to the thickness of the nodes and the quantity of links, keywords are grouped into 4 clusters, and many of them are used frequently.

The word that stands out the most in the red cluster appears to be “ecotourism”, “sustainability”, “tourism development”, “tourism management”, “perception”, “tourist markets”, and “questionnaire survey”. Ecotourism and sustainability are the main topics of this cluster. The

next important cluster, which is green in colour, contains the words "sustainable development" and "tourism" prominently. The next cluster, which is blue in colour, contains the keywords "tourist destination" and "tourist behaviour". The fourth cluster, which is purple in colour, has keywords like "travel behaviour" and "public attitude" (Kovačić et al., 2023).

3.2.2. Thematic Map

A thematic map represents pertinent conceptual structure themes on a Cartesian plane. Centrality and density are the two primary factors that determine how well thematic maps are understood (Cobo et al., 2015). The extent of internal ties within the themes is shown by density, whereas centrality represents the degree of connection produced by a particular subject with other themes. Based on the two ideas, a thematic map shows four quadrants and four themes. Top right quadrant represents Motor theme (high centrality and high density), Niche Theme are shown in by upper left quadrant (high density and low centrality). Theme that is emerging or waning are represented by bottom left quadrant (low density and low centrality). Lower right quadrant shows fundamental or basic themes (high centrality and low density) (Yu et al., 2023).

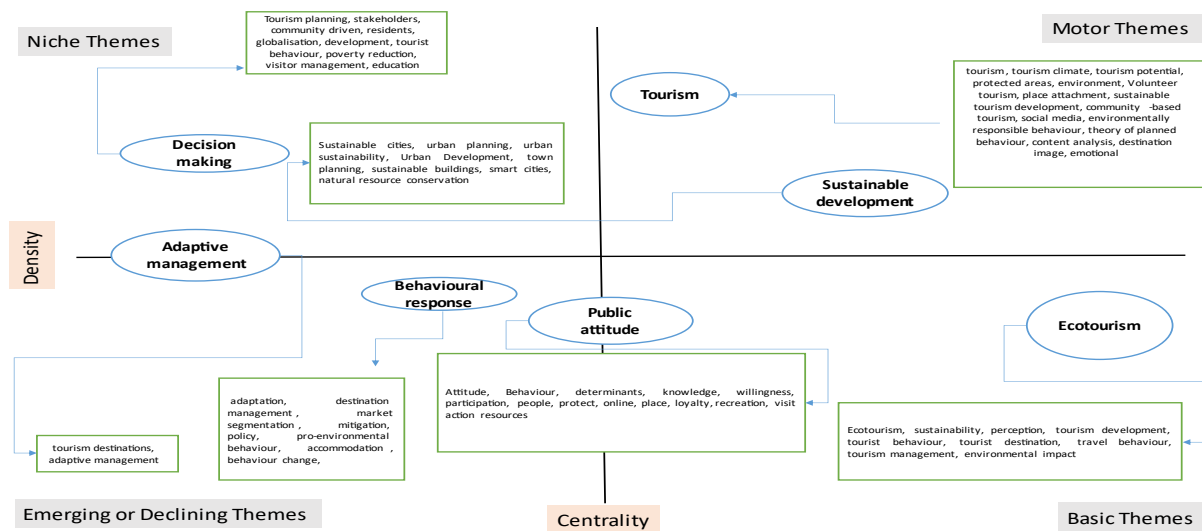


Fig 4. Thematic map

4. Discussion

These components of the data structure lay the groundwork for conceptualising the framework and are derived from the commonalities identified within the analysis of the conceptual structure of the extant literature, which are further supported by the inductive analysis (figure 5).

Decision making, adaptive management and behavioral response forms a collective term legislative measure, which indicates these orders and underlying concepts lead to policy and programme improvement. Similarly, decision making, public attitude, behavioral response, and sustainable development together modifies behavior, leading to behavioral adaption. Sustainable tourism id formed by tourism, ecotourism and sustainable tourism (Seshadri et al., 2023).

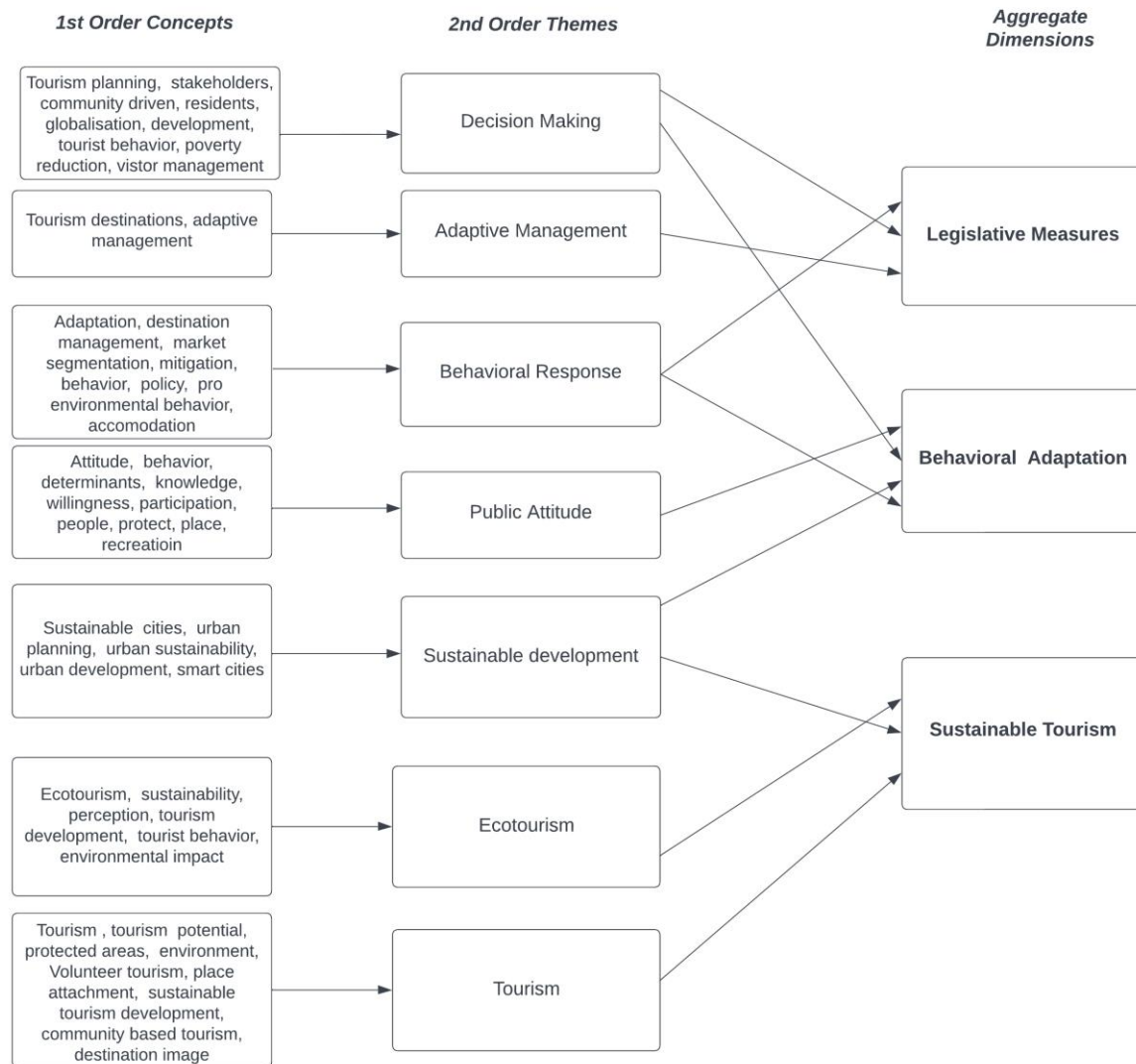


Fig 5. Concepts, Order and Aggregate dimensions

5. Future research agenda and Policy Implications

The coronavirus pandemic may lead to in-group/out-group prejudices among both locals and visitors, a phenomenon that is yet understudied. Future research is required to understand local inhabitants' xenophobic inclinations. In conclusion, future tourism research must consider how the coronavirus pandemic may subtly alter the behaviour of both visitors and locals. The tourism industry has changed. These changes are anticipated on the business side as well. Innovative capacities are crucial for crisis recovery; however, tourism enterprises frequently lack innovation (Fan et al., 2023). Due to path-dependent behaviour and low levels of collaboration, small operators—often the backbone of the tourism industry—are particularly vulnerable in this regard. On a larger scale, the coronavirus pandemic calls for close coordination with external systems like the health or emergency services. On a micro level, it encourages companies to adopt new operational procedures, such as social distance rules. Thus, the tourism sector should benefit more from collaborative action and social bricolage both during and after COVID-19 (Zenker & Kock, 2020).

Covid impact on tourism industry requires sustainable policies. The first step is for governments to make sustainable tourism policy creation and implementation a top priority. These regulations ought to strike a balance between expanding the economy, protecting the environment, and improving people's quality of life. Tourism businesses, for instance, can benefit from government rules and incentives that promote eco-friendly measures like energy-efficient building design, trash minimization, and water conservation. Carbon emissions from tourism can be mitigated by encouraging the use of public transportation and bicycle infrastructure (Chua et al., 2021).

Second, tourist boards and destination management organizations (DMOs) play an important role in encouraging responsible practices among visitors. They can work together with residents, companies, and other stakeholders to create and promote eco-friendly tourist offerings. Training programs on eco-friendly operations and certifications are only one example of how DMOs may aid tourist enterprises in implementing sustainable practices. To lessen the impact of mass tourism and to provide more sustainable, genuine experiences, DMOs can also aim to diversify the types of tourism they offer (Rivera et al., 2022).

As a third point, it is crucial for the public and commercial sectors to work together to encourage sustainable tourist practices. Governments can work with tourist trade groups to create certifications and standards for environmental responsibility. Travelers may use these criteria to find and support establishments that are committed to sustainability. Sustainable tourist infrastructure, such renewable energy projects and waste management systems may also be funded through public-private partnerships (Chua et al., 2021).

The importance of community involvement and social sustainability in tourist development cannot be overstated. The people who live there should have a say in important tourist decisions and get direct rewards from the industry. Communities may take the lead in welcoming visitors and presenting their culture and history by taking advantage of government regulations that encourage community-based tourism. This method guarantees that the monetary gains from tourism are shared more widely, which is good for the society as a whole (Toubes et al., 2021).

In conclusion, the COVID-19 pandemic provides an opening for a more environmentally responsible travel sector. Governments should craft all-encompassing policies that promote growth, sustainability, and the common good. Sustainable tourism can only be promoted via public-private partnerships, community involvement, and education. We can make the tourist sector more robust and responsible for the benefit of future generations if we put sustainability first in its recovery and growth.

6. Conclusion

This study performs a bibliometric analysis as well as a network and visualization analysis of the issues linked to sustainability that will face the tourism industry till 2022. It is helpful to have a considerable number of publications that enable the development of an exhaustive overview, which is why this analysis was done over a period of 22 years (2000–2022). It covers the whole period during which this topic has been published. This is a crucial addition to the review because previous studies have only looked at shorter time periods. By searching for articles in the Scopus database, we concluded that there has been a productive period of scholarly writing on this topic in recent years, specifically between the years 2015 and the present. To be more explicit, throughout the course of the last two years of the study, we came across more than fifty papers that dealt with the topic. This study gives a summary of the

research that has been done on the tourist behavior associated with tourism (Ballantyne & Packer, 2011).

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