Research on Green Tourism Intention: A Bibliometric Analysis

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Abstract. Green tourism has gained significant attention from tourism stakeholders worldwide due to its numerous advantages. Moreover, Destination Management Organizations (DMOs) have embraced the concept of green tourism to attract and retain tourists to specific destinations. This study employs a bibliometric analysis to explore the intention of tourists to visit or revisit green destinations. By analyzing 107 documents sourced from Scopus, this research provides valuable insights into trending topics, keywords, authors, affiliations, countries, and more within the realm of green tourism intention. The study offers a comprehensive overview of the current trends in green tourism intention, facilitating future research endeavors in this field. Additionally, it yields practical implications for Destination Management Organizations (DMOs), emphasizing the contemporary importance of embracing the concept of green tourism. The results indicate a growing research interest in green tourism intention, signaling a promising avenue for future investigations.

Keywords: green tourism, intention to visit, tourist behavior, bibliometric analysis
1. Introduction

Tourism has become one of the most significant sectors of the global economy in the 21st century. The 21st century has witnessed an increase in tourism-related activities. These activities have had a substantial social and economic impact (Basti & Gojevi, 2012). According to data from the United Nations World Tourism Organisation (UNWTO), the number of international visitors increased by 6% in 2018, bringing the total to approximately 1.4 billion. Even in 2017, there were more than one billion travels, and this number is expected to increase by 3–4% in 2019 (WTO, 2019). As a prominent and significant sector of the global economy, tourism generates millions of dollars annually for countries that actively participate in the industry. Tourism has contributed to the economic structure of both developed and developing nations, including the gross domestic product, employment opportunities, and so on. Therefore, many nations utilise tourism as one of their instruments to generate employment opportunities, diversify their economies, and acquire foreign currency. Given that tourism is one of the world's greatest industries, environmental considerations must be prioritised in tourism development. (Bohdanowicz, 2005) Tourism development in developing nations generates considerable waste and reduces environmental capacity. Therefore, tourism must conserve and protect the environment so that people can continue to travel (Chun, 2006). In recent decades, research on environment-related issues has shifted from a secondary to a primary focus.

Tourism has a variety of impacts, including economic, sociocultural, and environmental, despite the fact that it provides benefits to numerous parties. Comparatively to sociocultural and environmental factors, economics plays a larger role in policymaking (Durbarry, 2004). By emphasising the economic aspect, sociocultural and environmental factors may be overlooked. Since there is a growing awareness of the negative effects of tourism on the environment, numerous efforts are being made to develop a sustainable tourism model (Sutiarso, 2018).

Regarding tourist behaviour, there is also a shift in the manner in which visitors consume tourism. Previously, travellers were only interested in relaxing and appreciating nature, such as the sun, the sea, and the mountains. Today's tourists prefer to unwind and take pleasure in a variety of aspects, including culture, nature, and history (Chun, 2006). In addition, travellers have a propensity to travel in small groups to numerous pristine destinations rather than in large groups. Thus, ecotourism, nature tourism, green tourism, alternative tourism, responsible tourism, gentle tourism, new tourism, and sustainable tourism are used to describe tourism development that prioritises environmental conservation. Green tourism is one of the highlighted topics in this research.

In the past two decades, there has been a rise in global interest in ecotourism. This concept emphasises both environmental preservation and community empowerment. The essence of green tourism is providing environmental, social, and community benefits. Modern visitors are savvier because they want to maximise the money they spend while visiting tourist destinations in order to feel satisfied. Due to the intense global competition among tourist destinations, destination management organisations (DMOs) must be inventive in order to incorporate the green tourism concept into tourist destinations. It is the DMO's responsibility to effectively manage destinations through coordination, planning, marketing, and promotion (Ying et al., 2014); therefore, the DMO's role is crucial.

Many studies have been conducted in recent years to examine the relationship between tourism and sustainability. The increasing number of publications in the field of sustainable tourism has resulted in the production of a number of papers employing the bibliometric analysis technique. Several studies that employ bibliometric analysis and discuss sustainable tourism include: sustainable tourism in the domain of open innovation (Della Corte et al., 2019); sustainable tourism paradigm (Mihalic et al., 2021); research progress on sustainable tourism (C. Zhang et al., 2022); development of sustainable tourism and its relationship with economic growth (León-Gómez et al., 2021); and the role of marketing in sustainable tourism (Pahrudin et al., 2019). The author is unaware of any publication that employs bibliometric analysis and focuses on green tourism, specifically green tourism intention. Consequently,
this research may be the first to examine green tourism intentions using bibliometric analysis, which could contribute to its originality. This paper attempts to close the gap by investigating green tourism intentions and reviewing all Scopus-published articles on the topic using bibliometric analysis. In addition, this document serves as a guide for choosing databases, keywords, and inclusion criteria within the realm of green tourism. This paper provides an overview of green tourism, the relationship between green tourism and other research areas, and the findings of research papers and scholars who have acknowledged green tourism's purpose. Additionally, Biblioshiny and VOSviewer are utilised to resolve a number of research questions (RQs):

RQ1: What does the literature review on green tourism intentions include?
RQ2: What is the most important contribution to the field of green tourism?
RQ3: What are the predominant green tourism trends?
RQ4: Which theories are frequently applied to green tourism intentions?

In the following section, the concept of green tourism is examined. In Section 3, the methodology and tools utilised in this investigation are described. In Section 4, results and their analysis are presented. Finally, some conclusions and suggestions for future research are derived from this investigation.

2. Literature Review

2.1. Green Tourism

In the tourism industry, "green" and "environmentally friendly" are synonymous. Green tourism incorporates responses and activities into an environmental context in an effort to mitigate problems. This concept focuses on the product life cycle and calculates variables such as washing water, heating, ventilation, and lighting (Bagheri et al., 2020). Green tourism is sometimes also referred to as ecotourism or sustainable tourism. Due to the overlapping nature of these concepts, it is quite challenging to distinguish between these three terminologies. Green tourism could be considered from two angles (Susanty et al., 2017). First, green tourism as an indicator to inform tourists of pristine and attractive tourist destinations. In this context, green tourism is also associated with exotic travel destinations. Green tourism is also used to demonstrate that tourism operations in a particular location do not harm the environment. In addition, a service or product is considered green if it provides consumer and producer benefits without harming the environment. Al Fahmawee & Jawabreh (2023) note that the most intriguing objective of green tourism is that it attempts to minimize environmental damage caused by traditional tourism and strengthen the cultural identification of local people. Environmental responsibility, local economic vitality, cultural diversity, and experiential richness are also components of the green tourism concept (Susanty et al., 2017). It conforms to the World Tourism Organization’s definition of green tourism. Environmental responsibility involves protecting, preserving, and enhancing the physical environment to ensure the long-term viability of life-sustaining ecosystems. Local economic vitality is associated with efforts to support the local economy, business, and society in order to assure economic vitality and sustainability. Respect for culture is related to cultural diversity in order to preserve indigenous culture. Experiential richness correlates with an endeavor to provide enriching and satisfying experiences through active and meaningful participation as well as engagement with nature, people, and culture. In terms of environmental responsibility, tourism operations must demonstrate efforts to avoid or reduce environmental impacts using one of three methods. They are efficiently utilizing resources such as raw materials, water, and energy; preventing air, land, and water degradation; and preserving biodiversity.

To satisfy the expectations of green tourism, there are five natural and cultural environment-related principles (McBride, 1996):

1. The tourism operation could not harm the environment due to waste produced by travelers or tourism-related businesses
2. The tourism operation is traditional in nature
3. Employ local individuals, abilities, and crafts
4. Tourism enterprises must operate in a sustainable manner
5. The administration monitors tourism operations and their impact on the environment.

Referring to the five aforementioned principles, green tourism involves tourist participation in preserving the environment.

2.2. Theory of Planned Behavior

Green tourism intention refers to the desire to visit or return to a green tourism destination. It could be investigated with the Theory of Planned Behavior (TPB). Ajzen introduced this theory in 1991. This theory contends that a person's behavioral intentions can predict their behavior (Ajzen, 1991). According to Ajzen, there are three primary predictors of an individual's intent. Individual behavior reflects a positive or negative evaluation of the activity. A person's behavior reveals their positive or negative attitude towards their actions. The subjective standard addresses external coercion to participate in or refrain from action. Perceived behavioral control is the belief that an individual can engage in a particular behavior. For instance, if an individual has a positive perception of behavior, is motivated by subjective societal standards, and is influenced by other participants, that individual is more likely to participate than if one or more of these variables do not exist (David & Rundle-Thiele, 2018; Sommestad et al., 2019; Yuzhanin & Fisher, 2016). This theory also suggests that external variables, such as an individual's past conduct, may be able to predict the development of an objective.

Numerous academicians have used this theory to explain human behavior in a variety of disciplines, including education, online shopping, health, and green consumerism (Ulker-Demirel & Ciftci, 2020). Attitude, subjective norm, and perceived behavioral control all influence an individual's behavior. Several researchers have identified the need to contribute to the discourse on motives and prosocial motivations. Popular and generally pragmatic in a number of ways, pro-social is a prevalent paradigm. In addition, pro-social is an examination of various aspects of environmental behavior, such as sustainable health care, pro-environmental accommodation, tourism research, housing rental, agriculture development, garbage collection in protected areas, sustainable agriculture, sustainable education, sustainable tourism, sustainable use, energy conservation, water treatment, electronic waste recycling, and sustainable transportation. A study conducted in India demonstrates that an expanded model that incorporates pro-social motivations is more accurate at predicting electric vehicle consumer intent. This theory demonstrates that behavior stems from an individual's intention, which is defined as a cognitive representation of an individual's motivation to try or perform a behavior and is influenced by three global latent predictors: subjective standard, behavior, and perceived behavioral control (T. M. Nguyen, 2020; T. P. L. Nguyen, 2022; H. Park & Blenkinsopp, 2009).

Prior research on green tourism has also utilized TPB as its guiding principle. As an illustration, research conducted by Chakraborty et al. (2022) Their paper is titled "Going Green on the Go: Are Indian Travelers Ready to Embrace Travel Responsibilities? They attempt to identify variables that influence Indian visitors' intentions to select green hotels. This research adds novel variables to the TPB model. Another study (X. V. Zhang & Chan, 2021) also utilized TPB as its guiding theory. Their paper's title is "Do knowledge and experience value affect participation and purchasing decisions in green tourism activities? A case study of the use of natural dyes in China". This study seeks to determine whether or not travelers intend to purchase green products at a particular destination. In this study, the TPB Model has been expanded by adding two variables, namely experience value and environmental knowledge. Other researchers (Fenitra et al., 2021) also employ TPB to examine travelers' intentions to recycle their waste while traveling. According to these studies, TPB is the primary theory for analyzing an individual's intentions regarding a particular behavior. Han et al. (2017) and Landon et al. (2018) acknowledge TPB as a relevant theory for predicting individuals' intentions to engage in pro-environmental behavior.
3. Research Methodology

The term "bibliometric analysis" refers to a common research technique that is applied in many fields. This approach is also very recent in the scientific community. Intentions for green tourism will be analyzed bibliometrically in this paper. Scientometrics is the study of mathematical science and scientific research, and bibliometric analysis is a component of scientometrics. Bibliometric data, such as references that have been published, is necessary for bibliometric research to be conducted. Because academic publishing has been expanding dramatically, it has been difficult to digest a paper's content. Academic publication retrieval has been made easier by the use of various visualizations (Börner et al., 2003). The organization of academic literature that is pertinent to the study issue during bibliometric analysis has made it possible to conceptualize the research topic more thoroughly and to grasp it better (Aria & Cuccurullo, 2017).

A study uses bibliometric analysis to comprehend and examine an increase in article publication during 2017. Biblioshiny and Vos Viewer will be used in this essay to examine the status of green tourism research. By examining a number of attributes from multiple sources, this software will display visuals. By displaying visual maps from published literature, researchers may swiftly and effectively gather information. Furthermore, this analysis makes it possible to spot growing research trends as well as authors and articles that are regularly mentioned in publications that are relevant.

3.1. Data Collection

The author decides to use Scopus as the database. Scopus is a well-known multidisciplinary database for abstracts and citations, so the researcher decides to conduct bibliometric analysis using Scopus. Scopus provides easy access to academic publications with peer review, including books, journals, and symposiums. Publishers include author name, author affiliations, year of publication, electronic identity (EID), title of reference, volume/issues/pages, number of citations, reference, document category, and digital object identifier (DOI) in the metadata they provide. Scopus contains over 84 million data records from over 7,000 publishers in 27,000 journals. According to Elsevier's Fast-Fact website, company articles account for approximately 18% of global research and 28% of shared citations. The Scopus database is a reliable and trusted source for bibliometric analysis (Biancone et al., 2020).

On April 19, 2023, research data on green tourism and the intention to visit were extracted. This information is summarized using bibliometrics. The researcher used the search terms "green tourism" and "revisit intention" or "intention to visit" to compile relevant data from the Scopus database. The author employs publications from 2003 to 2022 (20 years) as inclusion criteria, as the "green" or "sustainability" concept has gained popularity over the past two decades. The researcher utilized the article's title, abstract, and keywords during the search procedure. This study examines various forms of writing, including articles, book chapters, conference papers, and novels. The researcher also decides to investigate English-language publications. There are 107 documents in total. Figure 1 demonstrates a data collection flowchart.
3.2. **Extraction of Data and Processing**

The researcher uses three distinct literature analysis techniques: performance analysis, scientific mapping, and network analysis (Donthu et al., 2021). First, performance analysis examines the number of relevant publications and citations to determine the number of authors, journals, and countries that contribute to green tourism intention research. This method also displays frequently cited journals, authors, and articles. Second, scientific cartography illustrates the relationships between various studies on a particular topic. By analysing co-citations, co-locations, and co-writing, this method identifies publications, specific themes, and the relationship between the topics. Thirdly, network analysis enables the evaluation of specific networks, including clustering and network metrics that can be used to display various results. The author employs two software programmes for data extraction and processing: Vosviewer and Biblioshiny. These applications are capable of analysing attributes from multiple sources and displaying the resulting graphics. Figure 2 illustrates how to organise data extraction and bibliometric analysis.
### Extraction and Processing of Data

<table>
<thead>
<tr>
<th>Tools</th>
<th>The Process</th>
<th>Bibliometric Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scopus</td>
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<td>Analysis of Performance</td>
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<td></td>
<td>Total number of publications</td>
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<tr>
<td></td>
<td></td>
<td>Contributing authors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year of publication (productivity/activity)</td>
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<td></td>
<td>Total of Citation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collaboration</td>
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<tr>
<td></td>
<td></td>
<td>Number of publications cited</td>
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<td></td>
<td>H-Index</td>
</tr>
</tbody>
</table>

#### Maps in Science

- Biblioshiny: Connection between articles
- Biblioshiny: The most influential publications
- Biblioshiny: Foundational themes
- Biblioshiny: Themes that are fundamental
- Biblioshiny, Vosviewer: Written material
- Vosviewer: Connection between authors
- Biblioshiny, Vosviewer: Authors and affiliations of authors

#### Analysis of Network

- Biblioshiny: Degree/level of centrality
- Vosviewer: Map of cluster
- Vosviewer: Visualization items

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**Fig. 2: Data Extraction and Processing: An Overview**

### 4. Results and Discussion

The retrieval of 107 documents is the result of searching for "green tourism" and "revisit intention" or "intention to visit." This result indicates substantial interest in the topic of "green tourism intent." The information in Table 1 pertains to the data collection conducted on April 19, 2023. This table demonstrates that the majority of documents (90% of total documents) are articles, while the remainder are conference papers (4%), books (3%), and book chapters (3%). The results of the extraction indicate that the topic is relatively novel.
According to Figure 3, the result of data extraction begins with one (1) document titled "Implications of Potential Green Tourism Development," published in 2003 by Hong et al. in Annals of Tourism Research. This first article discusses several factors that entice green tourists to visit a South Korean tourist destination that is expected to become a green tourism destination. During the years 2004–2012, there was no research conducted on ecological tourism and its purpose. Then, beginning in 2013, the number of studies on green tourism and its intent increased exponentially. In 2013, the study explored several factors that influence the authenticity of green tourism destinations (Hernández-Mogollón et al., 2013), whereas in 2014, the study did not focus specifically on green tourism but rather on the impact of tourist emotions towards sporting events (Mikalauskas et al., 2014). Then, beginning in 2016, it appears that interest in green tourism intentions has increased annually. Several researchers have conducted a number of studies on the topic of green tourism and its intent (Nimri et al., 2017), (Petrevska & Cingoski, 2017), (Kim et al., 2017), (Cheng et al., 2018), (Chin et al., 2018), (Lee et al., 2019), (She et al., 2019), (Grubor et al., 2019), (Bagheri et al., 2020), (Han, 2020), (Ibnou-Laaroussi et al., 2020), (Han et al., 2020), (Fenitra et al., 2021), (Demir et al., 2021), (M. S. Park et al., 2021), (X. V. Zhang & Chan, 2021), (Wu et al., 2021), (Acampora et al., 2022), (Nekmahmud et al., 2022), (Oka et al., 2022), (Q. Zhang et al., 2022), (Chirieleison et al., 2022), (Chakrabarty et al., 2022), (Malik et al., 2022).
4.1. Publications Used as Sources and the Analysis

4.1.1. Publication Areas
Table 2 below shows that the fields of interest for green tourism span from social sciences to physics and astronomy. However, 26% of articles are in the social sciences, which are followed by computer science (5%), environmental science (16%), business, management, and accounting (24%), and energy (10%). Examining visitor behavior, marketing strategies, and environmental effects are all goals of green tourism. As a result, 76% of the works that have been published come from these areas. The decision sciences, material sciences, physics, and astronomy fields, as well as the arts and humanities, don't produce a lot of publications.
4.1.2. Most-Referenced Publishers
Table 3 displays the top 20 most-cited journals for the topic of green tourism intention, with Sustainability (Switzerland), Annals of Tourism Research, Tourism Management, and Business Strategy and Environment accumulating more than 75 citations each. The journal with the most citations is Sustainability (Switzerland), with a total of 177 citations. This journal contains a large number of articles with an emphasis on the environment and the green tourism movement. Following sustainability (Switzerland) are the International Journal of Contemporary Hospitality Management (140 citations), Annals of Tourism Research (126 citations), Tourism Management (115 citations), and Business Strategy and Environment (89 citations). These five journals are classified as first-quartile (Q1) journals. Consequently, citations, the impact factor, and the index of such journals are more than sufficient to conduct bibliometric analysis.
Table 3: Sources of Publications

<table>
<thead>
<tr>
<th>Publications</th>
<th># of Cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability (Switzerland)</td>
<td>177</td>
</tr>
<tr>
<td>International Journal of Contemporary Hospitality Management</td>
<td>140</td>
</tr>
<tr>
<td>Annals of Tourism Research</td>
<td>126</td>
</tr>
<tr>
<td>Tourism Management</td>
<td>115</td>
</tr>
<tr>
<td>Business Strategy and the Environment</td>
<td>89</td>
</tr>
<tr>
<td>Asia Pacific Journal of Tourism Research</td>
<td>73</td>
</tr>
<tr>
<td>Waste Management</td>
<td>59</td>
</tr>
<tr>
<td>Tourism Economics</td>
<td>50</td>
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<tr>
<td>Journal of Hospitality Marketing and Management</td>
<td>49</td>
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<tr>
<td>Journal of Travel and Tourism Marketing</td>
<td>47</td>
</tr>
<tr>
<td>Journal of Hospitality and Tourism Management</td>
<td>37</td>
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<tr>
<td>PLoS ONE</td>
<td>35</td>
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<tr>
<td>Journal of Sustainable Tourism</td>
<td>34</td>
</tr>
<tr>
<td>Anatolia</td>
<td>28</td>
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<tr>
<td>Corporate Social Responsibility and Environmental Management</td>
<td>27</td>
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<tr>
<td>International Journal of Environmental Research and Public Health</td>
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<tr>
<td>Environmental Engineering and Management Journal</td>
<td>18</td>
</tr>
<tr>
<td>Geojournal of Tourism and Geosites</td>
<td>17</td>
</tr>
<tr>
<td>Frontiers in Psychology</td>
<td>16</td>
</tr>
<tr>
<td>Tourism Management Perspectives</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: Scopus, created in Excel

From top-20 most-cited journals above, it has been shortlisted to top-10 journals that are shown in Figure 4 below. From these top-10 journals, the majority of journals is coming from tourism area in which it is aligned with the topic on green tourism intention that has been discussed specifically on this paper.

![Most Cited Journals](image)

Fig. 4: Top-10 Most-Cited Journals. Source: Scopus, elaborated in Excel
4.1.3. Most Cited Publication Country
Figure 5 displays the countries of origin for cited publications. Figure 5 reveals that Asian countries (China, Korea, and Hong Kong) have the highest number of citations. This is an intriguing fact. China, for instance, has 314 total citations, followed by Korea with 295 total citations and Hong Kong with 107 total citations. Moreover, it appears that many studies on green tourism intentions are conducted in these nations.

![Figure 5: Top publications cited by Countries. Source: Scopus, elaborated in Excel](image)

4.2. Document Analysis

4.2.1. Publications with the Highest Number of Citations
Several authors collaborated on the referenced document, as depicted in Figure 6. On the collaboration side of green tourism's intention, there are four networks. The studies conducted by Q. Zhang et al. (2022), He et al. (2022), Han (2020), and Acampora et al. (2022). Han's article (Han, 2020) is the most-cited with 89 total citations, followed by He et al.’s article (He et al., 2022) with 88 citations and a focus on green tourism intention as the second-most-cited article. In addition, there is one article that does not concentrate on the green tourism intention but receives the highest number of citations overall. Environmental management research in hospitality is the focus of this study (Chan & Hsu, 2016). Consequently, Han, H., authored the most influential article on green tourism intentions. Han, H., wrote about "theory of green purchase behaviour (TGPB): A new theory for sustainable consumption of green hotel and green restaurant products” in this paper in 2020. This paper also explores how the theory of green purchase behaviour (TGPB) explains customer pro-environmental purchasing behaviour for green hospitality products, such as green hotels and restaurants.
4.2.2. Most Frequent Common Keyword

Figure 7 demonstrates the frequency of words used by authors. With a frequency of 17 (6%), a term such as "ecotourism" becomes the most frequently used term. Next, "tourism" appears with a slightly lower frequency of 16 (6%), followed by "sustainability" with a frequency of 13 (5%). "Tourist Destination" and "Tourism Development" round out the top five most common words with 13 (5%) and 12 (4%) occurrences, respectively. It is intriguing to note that the phrases "green tourism", "intention to visit", and "revisit intention" are not commonly used. However, the word "intention" occurs three times (1% of the time). This tree indicates that other researchers have the opportunity to conduct research in the field of green tourism intention.

Fig. 6: Collaborative Publication Authorship. Source: Scopus, elaborated in VOSviewer

Fig. 7: The Most Frequently Utilized Keywords. Source: Scopus, created by Biblioshiny
Figure 8 displays a weighted occurrence map of the keywords used by the authors. The map below depicts a total of three clusters. Cluster 1 includes the keywords "green tourism", "tourism development", "destination image", etc. Cluster 2 includes terms such as "intention", "planned behavior", and "responsible behavior", among others. Cluster 3 includes terms such as "structural equation modeling," "environmental concern," and "sustainable practice," among others. From the map below, it is also apparent that the prevalence of particular keywords or research topics fluctuates over time. In 2019, prevalent research topics included "green tourism", "tourism development", "attitude", "influence", etc. In 2020, popular research topics will include "intention", "planned behavior", "satisfaction", "subjective norm", "ecotourism", etc. In 2021, popular research topics will include "responsible behavior," "sustainable practice," "structural equation modeling," and "environmental concern," among others. Fewer studies have been conducted on "green tourism" during this time frame, as indicated by the smaller bubbles. In addition, the most recent period of time indicates that human-related topics such as "planned behavior," "intention," and "positive impact" are gaining in popularity. Therefore, this could be an opportunity for another researcher to investigate this topic further.

Fig. 8: Weighted Keyword Occurrence Map. Source: Scopus, created by Vosviewer

4.2.3. Trendiest Subject of Green Tourism Intention

As depicted in Figure 9, there is a trending topic that relates to the intention of ecological tourism. The graph indicates that "tourism market" and "China" will be popular topics prior to 2020. It appears that a great deal of research on ecological tourism is conducted in China. It is noteworthy to note that "sustainability," "ecotourism," "tourist destinations," and "perception" will be trending topics from 2020 to 2022. Even the term "ecotourism" is becoming the most frequently occurring topic, indicating a growing interest in conducting research on this subject. It is closely related to the purpose of this paper's focus on ecological tourism. Thus, green tourism intention is inextricably linked to "tourist destination," "perception," "ecotourism," and "sustainability." There is a propensity for researchers to investigate this combined topic.
From 2003 to 2022, Figure 10 illustrates the frequency of words associated with green tourism intentions. In recent years, "ecotourism," "tourism," and "tourist destination" have been the terms with the highest frequency, as shown in Figure 10. In addition, from 2020 to 2022, the frequency of occurrence of keywords such as "tourism development" and "perception" will increase.

Figure 11 is a thematic map illustrating the significance and evolution of a particular research topic. There are two axes on a thematic map: the x-axis and the y-axis. The X-axis indicates centrality, whereas the Y-axis indicates density. Centrality measures the significance of particular topics, whereas density measures the growth of particular topics by analyzing the network's strength (Bakshi & Verma, 2023). This diagram is divided into the following four quadrants:
• Upper right: this quadrant is characterized by its high density and centrality. "Motor themes" are the theme category for this quadrant. It indicates that the theme is essential and well-developed. Referring to Figure 10, this quadrant contains special common themes such as clusters of "ecotourism, sustainability, tourism development," "tourism, "tourism management," human," and "tourist destination, marketing, Indonesia," among others. As a result, the topic of "green tourism intention" seeks to incorporate these clusters as further research topics.

• Upper-left quadrant: high density and low centrality characterize this region. This quadrant contains "niche themes." It indicates the theme is significant and specialized. Referring to Figure 10, this quadrant contains specific common themes, such as "Australia, meta-analysis, and research work."

• Lower left quadrant: low density and low centrality characterize this region. It indicates that themes may be developing or waning. Referring to Figure 10 below, this quadrant contains special common themes such as "communication, travel behavior," "heritage tourism, social media," and "cluster."

• Lower-right quadrant: low density and high centrality characterize this region. It indicates that motifs are significant but underdeveloped. Referring to Figure 10 below, this quadrant contains special common themes, such as "game theory" and "tour operator."

4.3. Analysis of the Author

4.3.1. The Most Prolific Author

According to Table 4, Figure 12, and Figure 13 below, they refer to the authors of the paper on "green tourism intention." Based on the data presented in the tables and figures below, Han, H., is the most prolific author with a total of six (6) publications, whereas other authors have approximately the same number of papers, or two (2). Han, H., will produce four (4) related documents in 2020, one (1) in 2021, and one (1) in 2022. In 2020, there are 89 citations to a paper titled "Theory of Green Purchase Behavior"
(TGPB): A New Theory for Sustainable Consumption of Green Hotel and Green Restaurant Products" by Han, H. Other works by Han, H. address topics such as green hotels, sustainable behavior among museum visitors, environmental corporate social responsibility, and environmentally conscious consumption. It aligns with his research interests in sustainable tourism, consumer behavior, hospitality marketing, and so on. By publishing the most papers with the maximum number of citations, Han, H., becomes the most influential and productive author. This paper is the most cited on the subject of green tourism intentions.

Table 4: Author and Publication Quantity

<table>
<thead>
<tr>
<th>Author</th>
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<td>Chen, X</td>
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<tr>
<td>Others</td>
<td>&lt;2</td>
</tr>
</tbody>
</table>

Fig. 12: Production of Author over Time. Source: Scopus, created in Biblioshiny
Figure 14 displays a list of countries that have been cited in publications related to green tourism intention. China is the most cited country with 314 total citations, followed by Korea with 295 total citations and Hong Kong with 107 total citations. There are a total of 10 countries, with China being the most cited with 314 total citations. Other countries in the top 10 most-cited nations include the United Kingdom, the United States, Malaysia, Turkey, Spain, Australia, and Finland. It is noteworthy to note that the three most-mentioned countries in Asia are China, Korea, and Hong Kong. It appears that the majority of green tourism research is conducted in Asia. In addition, there are a few studies conducted in western nations such as the United Kingdom, the United States, Spain, Australia, and Finland.
4.3.2. Author H-Index
Figure 15 illustrates the impact of authors as measured by the H-Index. From Figure 15 below, it can be seen that Han, H, is the author with the highest H-index of 4, followed by authors with an H-index of 2. In this instance, the H-index is measured in terms of green tourism intent and not at the aggregate level.

![Figure 15: Author H-Index. Source: Scopus, created in Excel](image)

Figure 16 depicts the author's output in terms of the number of published articles and citations over a specified time frame. The dimension of the circle represents the number of published articles, while the color density represents the number of citations per year. The larger the circle, the greater the number of articles published by the author. The darker the circle, the greater the total number of citations per year. It is noteworthy to note from Table 4 that Han, H., He, P., and He, Y. are the most prolific authors in terms of published articles and total citations. Following them are Chua, B.L., Acampora, A., and others.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Document</th>
<th>Total Citation</th>
<th>TC/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Han, H</td>
<td>6</td>
<td>163</td>
<td>54.3</td>
</tr>
<tr>
<td>He, P</td>
<td>2</td>
<td>113</td>
<td>56.5</td>
</tr>
<tr>
<td>He, Y</td>
<td>2</td>
<td>113</td>
<td>56.5</td>
</tr>
<tr>
<td>Chua, B.L.</td>
<td>2</td>
<td>28</td>
<td>14.0</td>
</tr>
<tr>
<td>Acampora, A</td>
<td>2</td>
<td>10</td>
<td>10.0</td>
</tr>
<tr>
<td>Chen, X</td>
<td>2</td>
<td>8</td>
<td>8.0</td>
</tr>
<tr>
<td>Chwialkowska, A</td>
<td>2</td>
<td>9</td>
<td>9.0</td>
</tr>
<tr>
<td>Guo, W</td>
<td>2</td>
<td>7</td>
<td>7.0</td>
</tr>
<tr>
<td>Horita, Y</td>
<td>2</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Kato, K</td>
<td>2</td>
<td>2</td>
<td>1.0</td>
</tr>
</tbody>
</table>
4.3.3. Authorship and Co-Authorship

Figure 17 below illustrates the mapping of several authors that collaborate with other authors by VOSviewer. There are fifteen (15) co-authors on the topic of green tourism. Since the intention of green tourism is a relatively new topic, this collaboration has become fashionable. From this mapping, it shows that Han, H., has collaborated with other authors to publish five (5) documents from 2020 to 2022. Others, such as Zhang, Q., also collaborated with Sun, H., and Guo, W.; He, Y., collaborated with He, P., and Xu, F.; Horita, Y., collaborated with Kato, K.; Acampora, A., collaborated with Lucchetti, M.C., Merli R., and Ali F.

Fig. 17: Authorship and Co-Authorship. Source: Scopus, created in Vosviewer

4.3.4. Affiliation of the Author

Figure 18 demonstrates the affiliation of authors with universities. It shows that Sejong University becomes the most productive author’s affiliation with 6 documents, followed by Cyprus International
University and Universiti Putra Malaysia with 5 documents each, Griffith University and Seoul National University with 4 documents each, and other universities, e.g., Gyeongsang National University, Ming Chuan University, Southeast University, Wakayama University, and Woosong University with 3 documents each. From these facts, it is fascinating to know the majority of authors’ affiliations in Asia and the Pacific.

4.3.5. Publication by Countries
Figure 19 also illustrates the corresponding author’s countries in terms of Single Country Publications (SCP) and Multiple Country Publications (MCP). From Figure 19, the majority of countries have more SCP than MCP, which implies authors in certain countries collaborate with their local authors. For example, China, Korea, Malaysia, Indonesia, India, Spain, Italy, etc. However, there are several authors who collaborate with other authors from different countries. These authors came from the United States, Great Britain, and Germany.

![Affiliation of the Author](image)
Fig. 18: Affiliation of the Author. Source: Scopus, created in Biblioshiny

![Authors’ Corresponding Countries](image)
Fig. 19: Authors’ Corresponding Countries. Source: Scopus, created in Biblioshiny
5. Limitations

The researcher has acknowledged there are limitations to this research because it just emphasises tourists’ revisit intention in the context of green tourism. In addition, this research was also developed based on the articles that have been published. Any previously published research could provide additional insight into the intention of green tourism. However, there is little research on this area because the area is quite new to academic research. Considering the scope of this research, there are a limited number of university-wide research collaborations. In addition, there are numerous publications written in languages other than English. This research may be strengthened by conducting more observation to evaluate the accuracy of the insights that are displayed in it. In addition, researchers may incorporate additional disciplines, such as green tourism behaviour, in a comprehensive manner. The researcher hopes that the findings of this article will inspire others to conduct research in this area. Hence, this research might be validated by disseminating questionnaires or interviews to the tourists that visit green tourism destinations. In addition, this research on green tourism intention might provide a promising avenue for future investigations in another context, such as green tourism purchase intention, etc.

6. Conclusion

Green tourism is unquestionably one of the most essential tourism concepts, as it will benefit numerous stakeholders, such as society, the environment, and the community. There is an increasing global interest in ecotourism. Tourists would desire to visit destinations that embrace the concept of green tourism. It is intriguing to consider whether or not travellers intend to visit or return to green destinations. Using bibliometric analysis, this study highlights the trends in green tourism intentions.

In order to conduct bibliometric analysis, 107 Scopus documents pertaining to green tourism are utilised in this study. The data extraction procedure reveals that articles on green tourism intentions were published between 2003 and 2022. Nevertheless, there was a period between 2004 and 2012 in which no published articles were produced. Since 2013, the number of published articles on green tourism has increased exponentially. It appears that 2013 is the beginning of the popularity of the green tourism concept among travellers.

In 2013, the first research was conducted on the intention of green tourism, focusing on the factors that influence the authenticity of green tourism destinations. It was carried out by Hernandez-Mogollón et al. (2013). Then, in 2014, there was also a study conducted by Mikalauskas et al. that discussed the impact of tourist emotions towards sporting events. It did not specifically address green tourism at the time. There was a growing interest in investigating the intentions of ecological tourism. Several studies on green tourism intentions have been conducted, including those by Oka et al. (2022), Chakraborty et al. (2022), Maki et al. (2022), Bagheri et al. (2020), and Hong et al. (2003). The Theory of Planned Behaviour (TPB) constitutes the majority of theories utilised in research on green tourism intentions.

There are several frequently used keywords among authors. "Ecotourism," "Tourism," and "Sustainability" are the most frequently used terms in the field of green tourism intention research. The terms "green tourism" and "ecotourism" are synonymous despite having significantly different meanings. Both phrases, however, refer to environmental preservation. In addition, words such as "tourist destination" and "tourism development" are quite popular since green tourism is identical with certain tourist destinations that keep their operations in conservation of the environment.

There are several researchers who are very productive in publishing articles on green tourism. From 2020 to 2022, the researcher Han, H., produces six (6) documents that are cited a total of 89 times. In addition, his H-index of 6 is the highest among green tourism intention researchers. He is affiliated with
Sejong University, a South Korean institution. In addition, China has the highest number of published papers, followed by South Korea and the United States.

This research has benefited both academic and professional stakeholders. This study provides a comprehensive overview of green tourism, focusing on its intent. By performing bibliometric analysis on published papers, the researcher has uncovered significant insights regarding the theoretical implications of green tourism. In the sphere of green tourism intent, these valuable insights include trending topics, keywords, authors, affiliations, and countries, among others. It unquestionably provides a starting point for future green tourism intention research by another researcher. This study will contribute to the growing body of research on green tourism intentions as it follows the recent trend in the field. Consequently, this study will help to close a gap in the existing body of research. This study will provide destination management organisations (DMOs) with the knowledge they need to embrace the green tourism concept and integrate it into their operations. DMOs could place green tourism at the centre of several essential activities, such as planning, marketing, and operation.

References


