



Research Article

**A BIBLIOMETRIC ANALYSIS OF GLOBAL TRENDS IN TOURISM AND SERVICE
INNOVATION RESEARCH**

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Abstract

This research utilizes bibliometric analysis to decipher the complex field of academic literature on the interconnected concepts of "tourism" and "service innovation". From the field's founding in 1998 to the present, the research explores the networks of collaboration among writers, organizations, and nations, offering insights into the development of concepts and the international exchange of knowledge. The dataset includes 802 documents from 538 sources, referencing 29899 different document types. Articles (471), the most common document type, highlight the breadth of scientific contributions. The analysis of the collaboration network shows a worldwide interconnection, with China emerging as a prominent hub in five countries' collaborative efforts. Thematic nuances are revealed by keyword analysis; "management", "performance", and "information technology" are strongly included in Keywords Plus, while "tourism", "innovation", and "service" dominate titles. Prominent studies by authors like Camisón, MonforMir, Fornell, Hjalager, Buhalis, and Law became important touchstones in the academic publications. The results show a strong 22.24% annual growth rate, indicating continued relevance and interest in this industry. In terms of publications, 2022 stands out as a high point, indicating the conclusion of accumulated knowledge and possibly a sign of new trends. The presence of multi-authored publications and the abstract character of collaborative networks point to a dynamic, multidisciplinary approach to study that is enhanced by a variety of viewpoints. The global trends in tourism and service innovation research are better understood according to this bibliometric analysis, which provides academics, professionals, and decision-makers with insightful knowledge of the changing field.

Keywords: Tourism, Service Innovation, Bibliometric Analysis, Bibliometrix

Introduction

As a diverse sector of the economy, tourism is essential for promoting global interconnectedness, cultural interaction, and economic growth (Song, Li and Cao, 2018). The tourism industry is a vital component of the world economy, offering numerous nations great chances for economic expansion and development (Crouch and Ritchie, 1999). A paradigm shift in the tourism industry has occurred in recent decades, primarily due to changes in customer preferences, technology improvements, and an increasing focus on service innovation (Pencarelli, 2020). Scholars and practitioners have turned their attention to the relationship between service innovation and tourism to comprehend and fully utilize the transformative potential of innovative services in the tourism sector (Mittal and Dhar, 2016).

The incorporation of service innovation has become a critical factor in the success of tourism businesses as the industry develops (Hu, Hornig and Sun, 2009; Kalıpçı, 2023b). Service innovation pertains to the development and execution of novel or enhanced services that offer distinctive consumer experiences, hence augmenting customer contentment and allegiance (Ordanini, Parasuraman and Rubera, 2014).

The tourism industry is dynamic and requires constant adaptation to new trends. One important driver of this growth is service innovation (Tajeddini, Martin and Altınay, 2020). Innovative service concepts must be integrated as companies compete for a competitive edge to improve tourist experiences, maximize resource use, and guarantee sustainable development (Hsu, Hsieh and Yuan, 2013). To explore the complex relationship between tourism and service innovation, this paper uses bibliometric analysis to identify important themes, and significant writers, and develop research trends in both fields. This article also attempts to investigate the connection between tourism and service innovation, emphasizing how service innovation affects the competitiveness and sustainability of the tourism industry. This article uses bibliometric analysis to look at the

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current literature and find important trends, gaps, and prospects for this field of study. This analysis will enable further investigation of possible future research routes by offering insightful information on the state of the field.

Bibliometric analysis can be used in several ways to identify research gaps. First off, it can help researchers find areas that need more investigation by looking at the frequency of keywords and the co-occurrence of terms in the literature. Furthermore, bibliometric analysis can be used to identify emerging trends and new study directions that highlight understudied areas. By examining the citation patterns of publications, researchers can also identify papers that have not received many citations; these studies may point to areas that require more research. All things considered, bibliometric analysis is a helpful method for pointing up unexplored study topics and guiding the direction of scientific projects. The objective of this study is to stimulate additional research on this topic and add to the existing body of knowledge by identifying important trends and research gaps.

Conceptual Framework

An examination of the development of tourism services over time shows that there have been significant changes in both business practices and consumer expectations (Hu et al., 2019). Conventional tourism methods that featured mass tourism and uniform offerings have been replaced by more individualized and immersive travel strategies (Kazandzhieva and Santana, 2019). The stages of destination development and visitor behavior are outlined in groundbreaking studies by Butler (1980) and Plog (1973), which offer a fundamental understanding of the historical background of the industry.

The tourism business has evolved, with a shift in emphasis from approaches that are product-oriented to experiences that are customer-centric (Yu and Sangiorgi, 2018; Kalıpçı, 2023a). Because of this, service innovation has become more popular as a way for travel agencies to stand out from the competition and become more competitive (Victorino et al., 2005; Aguiar-Quintana, Moreno-Gil and Picazo-Peral, 2016).

Organizations use a variety of tactics to successfully develop service improvements in the tourism industry (Ritchie, 2004). Co-creation, personalization, and digitalization are important tactics for service innovation adoption in the travel and tourism industry (Sarmah, Rahman and Kamboj, 2017). Customers can actively engage in the process of designing services through co-creation, whereas personalization entails adjusting services to each customer's unique tastes (Torres et al., 2018). Utilizing technology, digitalization improves customer experiences and service delivery (Kamalaldin et al., 2020).

A thorough analysis of the conceptual foundations of both tourism and service innovation is necessary to comprehend their synergy (Aksoy et al., 2019). The movement of people for pleasure, business, or recreational reasons is known as tourism, and it is closely related to the type and caliber of services provided at different stages along the visitor's journey (Papatheodorou, 2021). Concurrently, businesses looking to gain a competitive edge in the tourism industry are turning to service innovation, which is defined as the provision of new services or the improvement of present ones, as a strategic lever (Francis and Bessant, 2005).

The conceptual framework that directs this research incorporates viewpoints from the literature on both service innovation and tourism to clarify the interrelated dynamics that propel industry advancement. Sipe and Testa (2018) have highlighted the experience economy in tourism, suggesting that capturing and holding on to visitors requires memorable and distinctive encounters. The importance of constant development and adaptation to satisfy changing customer demands is highlighted in the groundbreaking research on innovation in the service industry (Ostrom et al., 2015). This bibliometric study draws on these viewpoints in an effort to pinpoint influential publications and themes that have influenced the conversation about tourism and service innovation. In recent years, many bibliometric studies on tourism have been found in the literature (Tokić and Tokić, 2015; Zhang, Lyu and Yan, 2015; Şimşek, 2022; Şimşek and Kalıpçı, 2023).

Methodology

The analysis of scientific studies with the support of statistics and numerical analysis is known as bibliometrics. Bibliometric techniques employ a numerical method to locate, assess, and monitor published research. One quantitative analysis technique used to assess the influence of certain academics, research groups, nations, institutions, or journals is called bibliometric analysis. Bibliometric techniques can direct researchers' efforts by highlighting the most successful studies and assist them in finding the literature before they even begin to read. Bibliometrics shows how many papers were published over a specific period. It can also show how much a study has influenced subsequent research (Kalıpçı and Şimşek, 2023). Furthermore, bibliometric

approaches enable researchers to communicate their ideas through writing, cooperation, and citation while basing their conclusions on the body of bibliographic data generated by other scientists in the field. Science mapping and performance analysis both employ bibliometric analysis. Performance analysis displays the assessment of individual and institutional research and publications. The goal of science mapping is to make the dynamics and organization of the scientific area visible (Zupic and Čater, 2015; Krauskopf, 2018; Öztürk and Kurutkan, 2020).

This is a bibliometric study. This study tries to understand the relation between “Tourism” and “Service Innovation” with bibliometric methods. For this reason, an R package “bibliometrix” was used to run the required analysis on the dataset, as it can perform both performance analysis and science mapping (Aria and Cuccurullo, 2017; Şimşek and Kalıpçı, 2023). And, dataset was collected from Wos database, as it has been covering disciplines such as science, social science, arts, humanities (supports 256 disciplines) from 1997 (Clavirate, 2023). When the WoS was searched with the keywords which are “Tourism” and “Service Innovation” 802 studies were found. Only abstracts were chosen to collect the data. 2 research questions have been asked which are:

1. What are the trends in scientific publications on the concepts of “Tourism” and “Service Innovation” worldwide?
2. How have authors, institutions, and countries interacted with each other in scientific publications related to the concepts of “Tourism” and “Service Innovation” in the field of tourism?

In this research, where the analyses were reviewed through bibliometrics, no ethics committee approval or special/legal permission was required.

Findings

In order to reveal the trends in scientific publications regarding the concepts of "Tourism" and "Service Innovation" around the world, main information about the data, annual scientific production graph and tree map are included.

Table 1 provides basic information about the data. As seen in the table, the first study was published in 1998. 538 different sources contain 802 documents. 29899 documents were used in the references in total. 471 of the documents are article, which are the majority in document types. 911 Keywords Plus have been used, while 2489 Author's Keywords have been used in the documents. 2054 authors have been appeared 2227 times showing that some authors have contributed to different documents more than once. There are only 174 single-authored documents. The other details can be seen below.

Table 1. Main Information About Data

Description	Results
<i>Main Information About Data</i>	
Timespan	1998:2023
Sources (Journals, Books, etc)	538
Documents	802
Average years from publication	5,44
Average citations per documents	9,916
Average citations per year per doc	1,876
References	29899
<i>Document Types</i>	
Article	471
Book chapter	33
Early access	21
Proceedings paper	4
Editorial material	3
Proceedings paper	247
Review	23
<i>Document Contents</i>	

Keywords Plus (ID)	911
Author's Keywords (DE)	2489
Authors	
Authors	2054
Author Appearances	2227
Authors of single-authored documents	166
Authors of multi-authored documents	1888
Authors collaboration	
Single-authored documents	174
Documents per Author	0,39
Authors per Document	2,56
Co-Authors per Documents	2,78
Collaboration Index	3,01

Figure 1 shows the annual scientific production graph, which is an important indicator for the cumulative increase in the scientific publications was found 22.24%. The curve in the figure below shows that there has been a steady increase in the publishing of the studies about subject. The year 2022 is the peak point for the publishing. 2021 can be categorized one of the most productive years for the scientific world such as 2016 and 2020.

Figure 1. Annual Scientific Production Graph

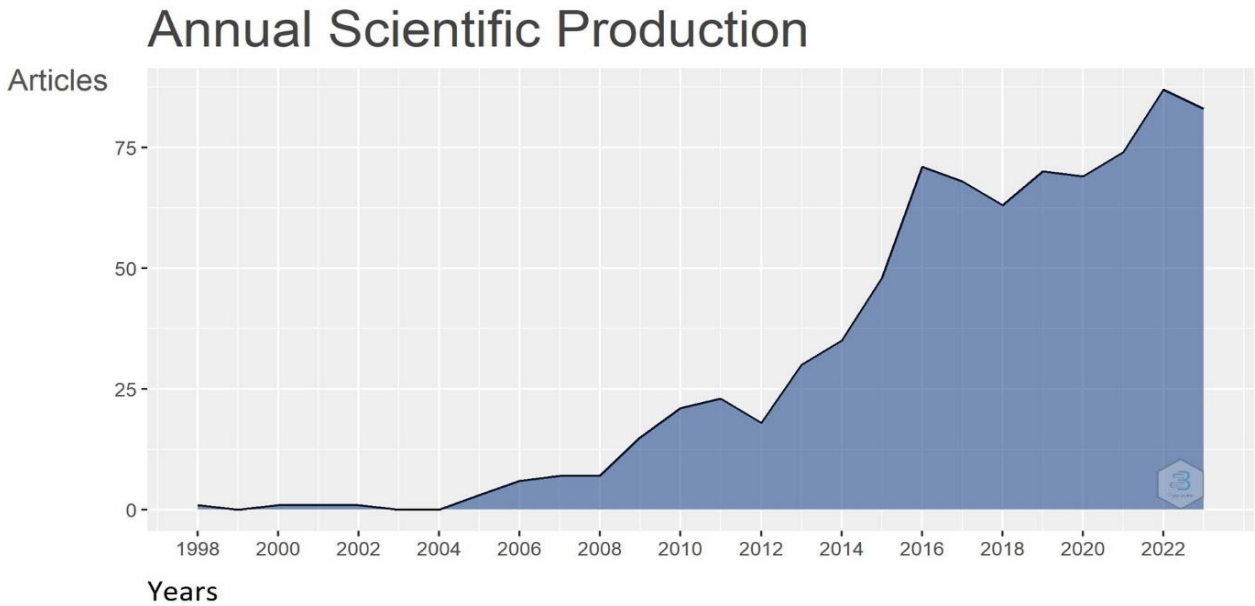
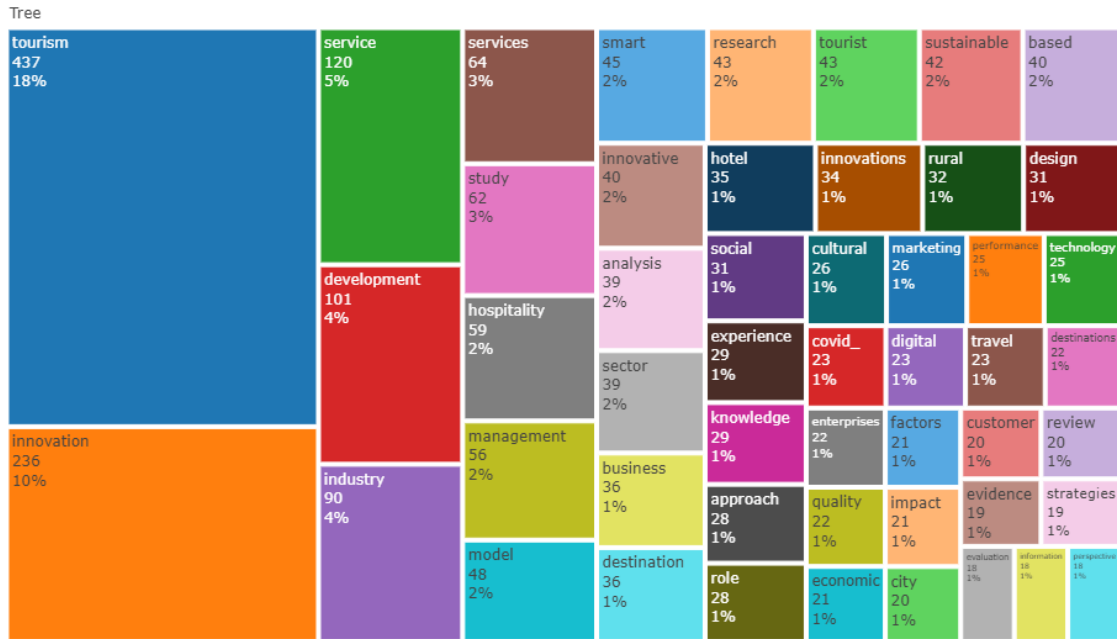


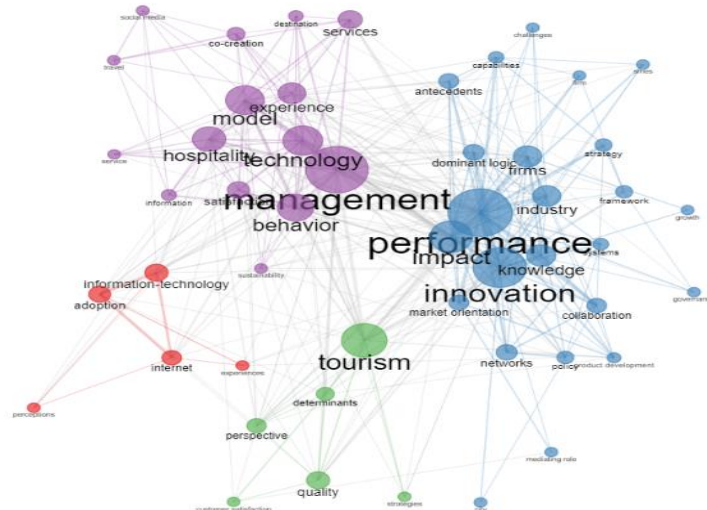
Figure 2 below shows a tree map of the most frequently used words in the titles of the documents. As can be seen in the figure, tourism ranked first ($f=437$, 18%), followed by innovation ($f=236$, 10%), service ($f=120$, 5%), development ($f=101$, 4%) in the fourth place, and industry ($f=90$, 4%) in the fifth place. Others can be seen in the map below.

Figure 2. Tree Map



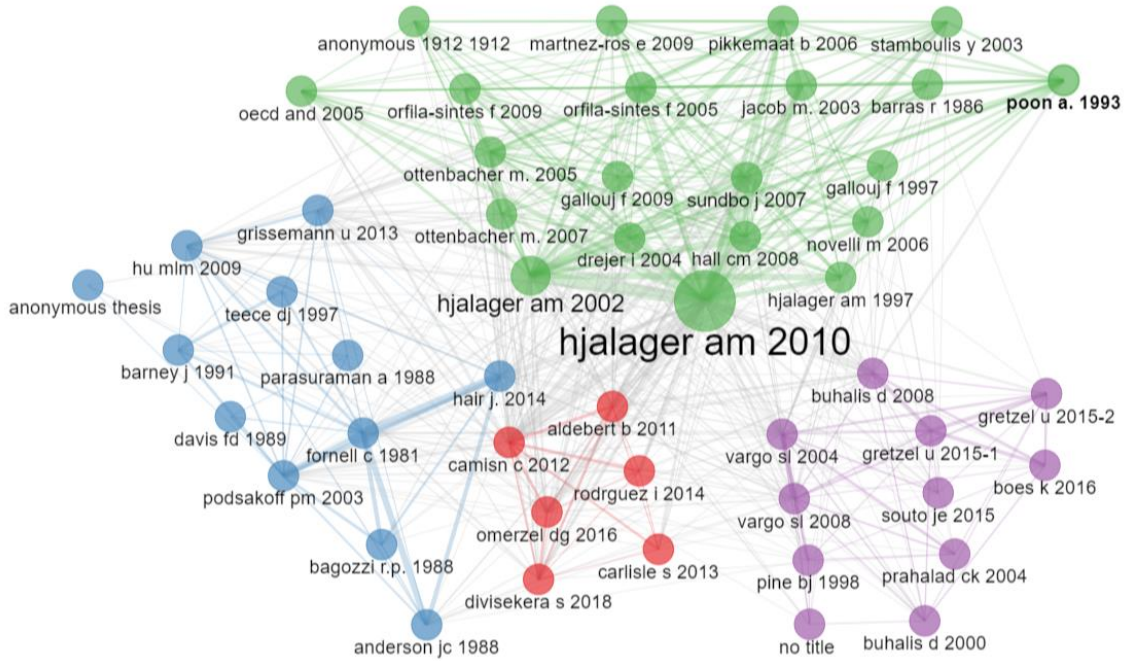
To be able to understand how authors, institutions, and countries have interacted with each other in scientific publications related to the concepts of “Tourism” and “Service Innovation” in the field of tourism, co-occurrence network, co-citation network, and collaboration network analysis have been run. When the Keywords Plus was chosen, 4 clusters have been created by Bibliometrix. Figure 3 shows the Co-occurrence Network (Keywords Plus). As seen in the figure below, management (in the purple cluster), performance (in the turquoise cluster), tourism (in the green cluster), and information-technology (in the red cluster) are the most eye-catching words. Others can be seen in the figure below.

Figure 3. Co-occurrence Network (Keywords Plus)



After running co-occurrence analysis, researcher has run co-citation network analysis by choosing “Papers”. As seen in Figure 4, 4 clusters have been created. 4 papers which are in the center of networks, Camisón and Monfort-Mir (2012) (the red cluster), Fornell (1981) (the turquoise cluster), Hjalager (2010) (the green cluster), and Buhalis and Law (2008) (the purple cluster). The others were shown below.

Figure 4. Co-citation Network (Papers)



For the network analysis, collaboration network analysis was run by choosing the countries. As seen in Figure 5, 7 clusters have been created which are pink, yellow, green, purple, turquoise, brown, and red. Pink and brown clusters which are out of the center have no network with the others. However, the other 5 clusters show us that there are relations with the other countries. China (the purple cluster) is in the center of the network of 5 clusters. The relationship among countries can be seen below in the figure.

Figure 5. Collaboration Network (Countries)

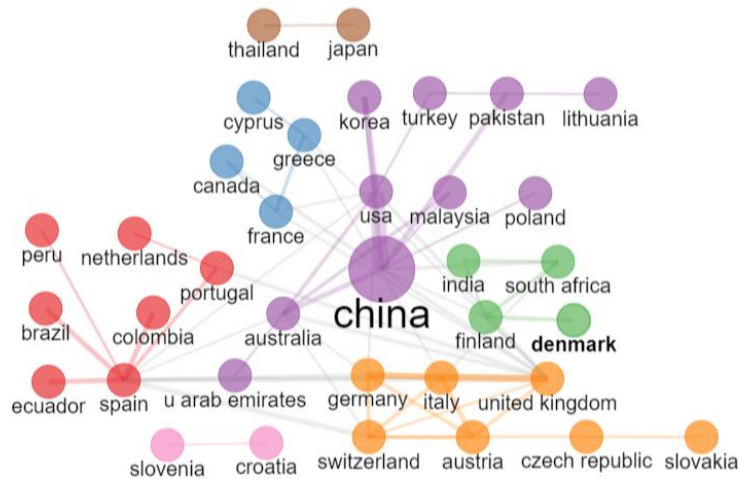
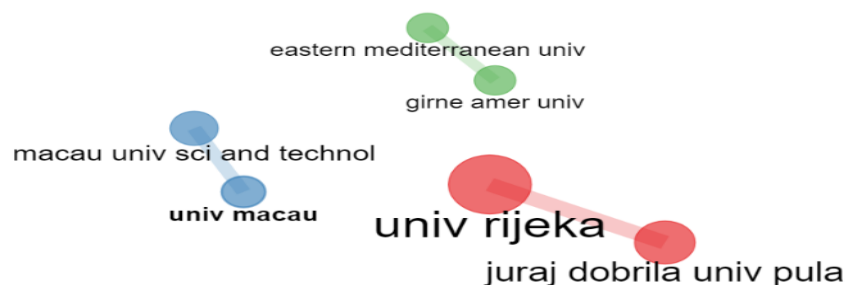


Figure 6 shows the Collaboration Network (Institutions). Collaboration network shows that there is no such relationship between universities. The 3 clusters show that there is only a one-to-one relationship between universities.

Figure 6. Collaboration Network (Institutions)



Conclusion and Discussion

This bibliometric study aims to understand what the trends in scientific publications on the concepts of “Tourism” and “Service Innovation” worldwide are and how authors, institutions, and countries have interacted with each other in scientific publications related to the concepts of “Tourism” and “Service Innovation” in the field of tourism. For this reason, main information about the collection, annual scientific production, and tree map analysis co-occurrence network, co-citation network, and collaboration network analysis have been run concurrently.

The discovery of the first study, which was published in 1998, and the increase in yearly scientific output that followed demonstrate the changing scholarly interest in and engagement with the ideas of "Tourism" and "Service Innovation". The dynamic nature of research in this field is highlighted by the 22.24% annual growth rate, which indicates consistent interest and relevance over time. The collaboration network analysis's worldwide distribution of authors, organizations, and nations shows how intertwined the fields of tourism and service innovation research are. China's key involvement in developing and contributing to the discourse is indicated by its central position within the collaborative network. The six institutions involved and the one-to-one interactions between them highlight the importance of promoting larger collaborative endeavors. In contrast to the current study, in their article of Kumar et al. (2023) conducted with the Scopus database, it is seen that the UK, USA, Sweden, and Australia stand out in the field of "business management" in the cooperation of countries. In addition, the review emphasized that most of the studies on service innovation focus on products, companies, and processes in the service sector. The corpus's majority of articles (471 items) suggests that in-depth and research-focused contributions are preferred. Only 174 single-authored publications out of 2054 authors' 2227 contributions point to the collaborative and multidisciplinary nature of this field's study. This pattern highlights the variety of viewpoints and areas of expertise that have contributed to the corpus of knowledge. Terms like "innovation", "tourism", and "service" are frequently used in titles, which is indicative of their importance in the topic at hand. The frequency with which keywords such as "management", "performance", "information technology", and "tourism" appear in Keywords Plus highlights the variety of perspectives that are investigated in this area. Understanding the topic focus and spotting new research trends require knowledge of this information. According to So et al.'s study (2023), the lexical network highlighted organizational and customer viewpoints on service design, process, and outcome, revealing the intellectual bent of the literature on service innovation. This knowledge framework was encapsulated in five clusters, which included technology service innovation, the central role of the customer, organizational drivers of service innovation, and organizational and customer outcomes of service innovation. For researchers looking for fundamental studies in this field, identifying important publications by authors such as Camisón and MonforMir (2012), Fornell (1981), Hjalager (2010), and Buhalis (2008) is a helpful resource. Future research

initiatives can benefit from the consistency and depth that come from recognizing and expanding upon the contributions of these authors.

Recommendations

The study that has been highlighted is multidisciplinary, which means that there is a good chance to promote cooperation between fields like management, information technology, and tourism. Encouragement of cross-disciplinary research may result in more creative solutions and comprehensive insights.

There is a chance to fortify international collaborations by building on China's pivotal role in the collaboration network. Encouraging collaborations between Chinese and international organizations could promote varied viewpoints and enhance the global comprehension of tourism and service innovation. Keywords like "management", "performance", and "information technology" are identified, indicating areas of interest that are changing. Scholars are urged to explore these themes further to identify new trends, obstacles, and possibilities at the nexus of service innovation and tourism. Even though research is usually done in collaboration, the presence of single-authored publications emphasizes individual contributions. Examining these single-authored works in further detail might turn up fresh viewpoints and ideas that enhance the body of literature. Owing to the constantly changing nature of the field, it can be beneficial to periodically do bibliometric analyses to monitor changing trends, spot new subjects, and evaluate the significance of key publications. By using an iterative process, researchers may stay up to date on advancements and continue to shape the field's direction.

Despite extensive research on the subject, there are still unanswered questions and opportunities for additional study. For instance, the potential for social media to promote service innovation in the tourism and travel industry has not received much attention. Moreover, additional investigation is required to ascertain the potential impact of service innovation on eco-friendly travel behaviors. Future research should look at how new technologies like blockchain and artificial intelligence are incorporated to support service innovation in the tourism and travel industry.

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