



## 18 **1 Introduction**

19 Destinations serve as the primary environment for tourism activities, which differentiates  
20 tourist studies from other disciplines (Pike & Page, 2014). After nearly five decades of  
21 investigation, destination research has accumulated a wealth of research findings and formed a  
22 range of unique research themes and reasonings. In particular, destination research has  
23 expanded from tourism research into neighboring disciplines, such as economics, management,  
24 geography, sociology, and psychology (Benckendorff & Zehrer, 2013; Kim et al., 2018; Tribe,  
25 2004). This interdisciplinary convergence has given rise to a range of new research topics, such  
26 as destination image (Lam et al., 2020; Wong et al., 2021), destination governance (Fernandez-  
27 Tabales et al., 2017; Volgger & Pechlaner, 2014), destination marketing (Hays et al., 2013; Pike  
28 & Page, 2014), destination loyalty (Kuo et al., 2016; Yoon & Uysal, 2005), destination  
29 competitiveness (Abreu-Novais et al., 2016; Crouch, 2011), and destination branding  
30 (Chekalina et al., 2018; Qu et al., 2011).

31 Prior destination research reviews suffer from two fundamental limitations: fragmentation  
32 of research contents and a singularity of research methods (i.e., an emphasis on a singular  
33 qualitative or quantitative literature review technique, which may cause biases). The  
34 unprecedented growth of the tourism industry before the COVID-19 pandemic has fostered  
35 many sub-fields of destination scholarship, as mentioned above. Yet, despite the importance of  
36 these niche areas, they are rather fragmented without providing a coherent picture of the overall  
37 knowledge discerned from destination studies (McKercher & Tung, 2015). In other words,  
38 prior literature on destinations builds up the existing scholarship with a piecemeal approach,  
39 creating in-depth, profound, and complex destination knowledge from different perspectives

40 not connected on a higher level of understanding destinations. This issue is partially attributable  
41 to the complexity of destination stakeholders that build a destination (e.g., accommodation  
42 sector, airlines, DMOs) and the large number of disciplines involved in researching this topic.

43 A systematic literature review can better grasp the entirety of destination research and  
44 comprehensively understand the diverse research field. A literature review is a summary of  
45 existing knowledge and an outlook on future research directions (Hart, 1998; Webster &  
46 Watson, 2002). It is also an essential tool for managing the diversity of knowledge and  
47 discerning research areas (Tranfield et al., 2003). Moreover, it is an excellent resource for  
48 scholars new to the area and those from other fields. Hence, periodic literature reviews are  
49 critical (Denyer & Tranfield, 2006) to clarify how destination research topics are related to one  
50 other and how the current research findings induce the evolution of destination inquiries.

51 Most destination research reviews employ traditional qualitative analysis methods  
52 focusing on a limited time frame and studies (Fyall et al., 2012; Mair et al., 2016). Often, these  
53 qualitative literature reviews also include incompatible genres. For example, books or  
54 dissertations are not suitable for direct comparison with journal articles because of length and  
55 content coverage differences. Quantitative bibliometric analysis, including performance  
56 analysis (descriptive in nature to present total publications, average citations, or h-index, etc.)  
57 and science mapping (pertaining to intellectual interactions and structural connections studies  
58 focusing on techniques such as co-citation, co-word, and co-authorship analysis) necessitate a  
59 high level of accuracy (Donthu et al., 2021). In contrast, another advanced quantitative  
60 technique, meta-analysis, is confined to a small number of study subjects (Zhang et al., 2014).  
61 Although these periodic reviews play an important transitional role in the outlook of destination

62 literature, a more objective overview of existing research results can be achieved by combining  
63 quantitative analysis as a scientific knowledge mapping technique with traditional qualitative  
64 review analysis methods.

65 The knowledge of existing research themes in past research and key researchers in this  
66 field serve as important indications for the development of future studies (Crawford-Welch &  
67 McCleary, 1992; Ma & Law, 2009). Thus, this research attempts to answer the question: What  
68 are the major accomplishments and future directions of destination studies? It seeks to integrate  
69 a large body of destination research from both micro and macro levels to develop a  
70 comprehensive framework that unites destination studies, which were published piecemeal or  
71 in fragments. It further takes a leap forward by casting a research agenda for scholars and  
72 practitioners to navigate and surmount. We achieve these objectives first by offering an  
73 overview of the evolution of destination studies from 2000 to 2020. This was accomplished in  
74 three steps: 1) to reevaluate the existing reviews on destination research; 2) to perform a  
75 thorough examination of the destination studies to identify the core research topics, influential  
76 authors, thematical clusters, and structural changes; and 3) to compare the differences between  
77 existing reviews and the systematic bibliometric analysis of destination studies. Building upon  
78 our curated collection of literature, we then offer guidance for a future research agenda for  
79 destination inquiry by addressing circumstances that arise from five impending crises:  
80 ecological degradation, economic turmoil, social unrest, political dispute, and technology  
81 disruption.

## 82 **2 A critique review of three principal literature review methods**

83 Literature reviews have three basic types, namely, qualitative narrative, meta-analytic, and

84 systematic quantitative reviews (Donthu et al., 2021; Pickering & Byrne, 2014). Past reviews  
85 of destination research have largely relied on qualitative analysis techniques, which can provide  
86 more in-depth insight into a research topic and contextual background, particularly in emerging  
87 or complex topics. However, a limitation of this methodology is that such reviews are time-  
88 consuming, cover a narrower range of studies, and may lead to researcher bias casting doubt  
89 on their findings due to lack of transparency (Zupic & Čater, 2015). The exponential growth of  
90 literature and the complicated intertwining of research themes recognize the inadequacy of  
91 qualitative assessments in studying destinations. Meta-analysis-based literature reviews are  
92 highly influential, but they employ rigorous sample selection criteria (Bown & Sutton, 2010;  
93 Esteves et al., 2017; Pool, 2017). Hammersley (2001) argued that meta-analytic techniques are  
94 difficult to adapt to the social sciences, given that social sciences indulge in a wide variety of  
95 research subjects.

96 As a popular quantitative bibliometric approach, science mapping examining the  
97 relationships between intellectual connections and interactions could easily be applied in the  
98 social sciences (Cobo et al., 2011; Donthu et al., 2021). In particular, science mapping is a  
99 bibliometric method of literary analysis that can identify thematic topics, clusters, and trends  
100 over time by visualizing influential authors, articles, and topics in scientific networks (Brandes  
101 et al., 1999; Chen, 2017; van Raan, 2005). This technique assesses the development of  
102 knowledge domains and displays them comprehensively and transparently (Speel et al., 1999).  
103 To date, a few studies have been published in leading journals on topics such as the crisis  
104 management (Jiang et al., 2017), climate change (Fang et al., 2018), and hospitality service (Li  
105 et al., 2017). However, this approach has not been fully utilized in tourism research (Avila-

106 Robinson & Wakabayashi, 2018; Scott et al., 2008).

107 Each methodological approach for a systematic literature analysis has its strengths and  
108 weaknesses (Donthu et al., 2021). Therefore, Kim et al. (2018) suggested a mixed-method  
109 approach combining the advantages of qualitative and quantitative methods. However, this  
110 approach is seldom applied to literature reviews in tourism studies. Hence, to ensure that the  
111 literature review process is rigorous, a mixed methodology with pertinent qualitative  
112 narrative and quantitative bibliometric analyses is necessary to establish a robust and  
113 reasonable evolution process for destination studies.

### 114 **3. Review-on-review analysis: Twenty destination reviews**

115 Realizing the importance of reviews, the present study systematically retrieves and  
116 debriefs destinations reviews to understand the current progress of such reviews better. This  
117 study uses “destination” and “review,” “literature review,” “narrative review,” “meta-  
118 analysis,” “bibliometric analysis,” and “qualitative review” as the indexed keywords to  
119 identify reviews titled with these indexes across 2000 to 2020 from the Web of Science™  
120 Core Collection. Twenty destination reviews are collected and reviewed from social science  
121 citation index (SSCI) journals in the hospitality, leisure, sport, and tourism category (see  
122 Table 1).

123 The review-on-review approach reveals that qualitative narrative reviews dominate the  
124 research methods in destination research reviews. Meta-analysis reviews also exhibit  
125 enormous influence despite their restricted scope. The analysis further shows that in recent  
126 years, bibliometric analyses have gained popularity as a valuable method for navigating  
127 through the corpus of literature. All the review studies generate in-depth reflections on topics

128 such as destination image, destination marketing, destination governance, sustainable  
 129 development, destination crisis management, and others (see Table 1).

130 Table 1. A brief summary of destination review studies

No.	Authors	Year	Topics	Methods	Time frame	No. of papers	Times cited
1	Pike, S.	2002	destination image	Qualitative narrative reviews	1973-2000	142	568
2	Fyall, A.; Garrod, B.; Wang, Y.C.	2012	destination collaboration	Qualitative narrative reviews	1997-2012	not specified	134
3	Pike, S.; Page, S. J.	2014	destination marketing organizations and destination marketing	Qualitative narrative reviews	1973-2013	not specified	
4	Young, A. P.; Ulrike, G.	2007	destination marketing web sites	Qualitative meta-analysis	1997-2006	153	189
5	Zhang, H. M.; Fu, X. X.; Cai, L. P. A.; Lu, L.	2014	destination image and tourist loyalty	Meta-analysis	1998-2012	66	456
6	Le-Klahn, D. T.; Hall, C. M.	2015	transport at destinations	Qualitative narrative reviews	2000-2014	not specified	59
7	Mair, J.; Ritchie, B. W.; Walters, G.	2016	recovery strategies for tourist destinations	Qualitative narrative reviews	2000-2012	64	157
8	Yuzhanin, S.; Fisher, D.	2016	theory of planned behavior for predicting intentions to choose a travel destination	Qualitative narrative reviews	2004-2015	15	37
9	Parra-Lopez, E.; Martinez-Gonzalez, J. A.	2018	island destinations	Bibliometric and content analysis	1980-2016	949	16
10	Avila-Robinson, A.; Wakabayashi, N.	2018	destination management and marketing	Bibliometric analysis	2005-2016	2378	16
11	Shafiee, S.; Ghatari, A. R.; Hasanzadeh, A.; Jahanyan, S.	2019	sustainable smart tourism destinations	Systematic review	2000-2017	40	40
12	Picazo, P.; Moreno-Gil, S.	2019	projected image of tourism destinations on photographs	Qualitative narrative reviews	1996-2015	35	34
13	Wondirad, A.	2019	sustainable destination development	Meta-analysis	1993-2018	470	12

14	Perkins, R.; Khoo- Lattimore, C.; Arcodia, C.	2020	stakeholder collaboration towards regional destination branding	systematic narrative literature review	not specified	53	9
15	Yilmaz, Y.; Yilmaz, Y.	2020	destination image	Qualitative narrative reviews & descriptive statistical analysis	1999- 2019	47	4
16	Afshardoost, M.; Eshaghi, M. S.	2020	destination image and tourist behavioral intention	Meta-analysis	2010- 2019	87	38
17	Cronje, D.F.; du Plessis, E.	2020	destination competitiveness	Content- thematic analysis	1997- 2018	121	13
18	Werner, K.; Griese, K. M.; Bosse, C.	2021	slow events for sustainable destination development	Qualitative narrative reviews	1998- 2019	101	3
19	Duan, J. H.; Xie, C. W.; Morrison, A. M.	2021	tourism crises and impacts on destinations	Bibliometric and content analysis	1991- 2020	302	1
20	Bastidas- Manzano, A. B.; Sanchez- Fernandez, J.; Casado- Aranda, L. A.	2021	smart tourism destinations	Bibliometric analysis	2013- 2019	258	8

131

## 132 Destination Image

133 Destination image serves as a vital link between numerous subjects in destination reviews.

134 Pike (2002) presented the first comprehensive overview of destination image. According to his

135 study, the impact of destination image and visitation, segmentation, and image differences in

136 regions topped the popular research themes prior to 2000. Additionally, his analysis sheds light

137 on the substantial skewing of research viewpoints, with most research (80%) focusing on

138 visitors or consumers and only 2% on stakeholders in destination marketing, organization staff,

139 and local residents. Another influential review on destination image is from Zhang et al. (2014),

140 who explored the relationship between destination images and loyalty following a meta-

141 analysis approach. Afshardoost and Eshaghi (2020) further investigated the impact of  
142 destination images on other tourist behaviors (visit, recommendation, and revisit intentions)  
143 with the same approach. Both studies agreed that overall destination images have the most  
144 decisive influence on tourist behavior or behavioral intentions.

145 Picazo and Moreno-Gil (2019) shifted their research focus from traditional tourist self-  
146 reporting destination images to objective images presented in photographs and summarize a  
147 systematic methodological framework for evaluating projected images. Yilmaz and Yilmaz  
148 (2020) further summarized factors that may affect the formation of a destination image from  
149 two stakeholder perspectives (tourist and destination) at critical moments (before and after the  
150 trip). Their investigations indicated that while tourism information is crucial for tourists  
151 forming an image of a destination prior to a journey, experiences have a greater impact on  
152 destination image construction following their trips. The impact of social media on a  
153 destination image is observed at every stage of the travel experience.

154

## 155 **Destination Marketing**

156 With the advent of destination marketing, Park and Gretzel (2007) reviewed 153 papers  
157 and provided an overview of factors that contribute to the effectiveness of destination  
158 marketing websites. Their work challenged the prevalent belief that marketing websites should  
159 focus on information dissemination, and it also called for increased attention to the overlooked  
160 persuasive power of information on potential visitors. They also urged future research to place  
161 a higher premium on consumer social engagement. Then, Pike and Page (2014) argued that  
162 destination marketing organizations sustain competitiveness by bridging adequate resources

163 management with marketing strategies, such as brand identity development, positioning,  
164 performance measurement, and tracking. Avila-Robinson and Wakabayashi (2018) further  
165 summarized 11 key clusters of destination marketing research, including “destination  
166 perception, tourist behavior and decision-making, destination competitiveness, destination  
167 organization, destination identity, destination branding, destination development, destination  
168 experience and innovation, ICT/social media-enabled marketing and management, and  
169 sustainable tourism and economics” (Avila-Robinson & Wakabayashi, 2018, pp. 105-106).  
170 Their work proposed that future destination research trends will be based on data-driven  
171 management, a better understanding of visitors, supply-side, mitigation and resilience, cross-  
172 domain integration, and aggregative ideas as an umbrella concept to integrate interactive  
173 concepts into a new one.

174

## 175 **Destination Governance**

176 According to Pike’s (2002) review, half of the destination governance articles have only  
177 studied one destination. To answer the call for multi-destination studies, Fyall et al. (2012)  
178 summarized strategies for collaboration among destinations from five theoretical viewpoints:  
179 resource, relationship, politics, process, and chaos theories. To optimize their collaborative  
180 strengths in extremely dynamic and chaotic situations, destinations need to make progress in  
181 all three dimensions of organic, mediated intra-destination, and mediated intra- and inter-  
182 destination collaboration. Perkins et al. (2020) remarked that when collaborating with  
183 different stakeholders and destinations, the miscommunication, power imbalance, and  
184 legitimacy of stakeholders may handicap successful destination collaboration. They

185 concluded that how collaborative branding can be realized is a question yet to be answered.  
186 In a literature review of destination competitiveness studies, Cronjé and du Plessis (2020)  
187 identified the 10 most often referenced competitiveness elements, including climate,  
188 information, shopping, environmental image, development, infrastructure, safety, quality of  
189 service, events, and activities. They proposed that the future trends in studying destination  
190 competitiveness are technology-enabled destination marketing management, aggregative  
191 ideas, domain interdependence, mitigation, and resilience.

192

### 193 **Sustainable Destination**

194 Together with competitiveness and collaboration management in destinations, studies of  
195 destination governance have also inspired new research trends in destination crisis management  
196 and sustainable development across countries. In Wondirad's (2019) review on sustainable  
197 tourism, most eco-tourism research is initiated in underdeveloped countries by a majority of  
198 scholars from affluent nations. Wondirad (2019) worried that these Western eco-tourism  
199 initiatives, which prioritize conservation above economic growth, could lead to a neocolonial  
200 ploy that, rather than promoting sustainable development, may exacerbate reliance. As a result,  
201 local engagement and indigenous knowledge must be encouraged to ensure balanced economic  
202 growth and resource protection without jeopardizing local culture. In particular, islands as a  
203 unique tourism resource are more vulnerable than other destinations to the negative impacts of  
204 tourism from economic, sociocultural, and environmental sustainability (Parra-López &  
205 Martínez-González, 2018).

206 In opposition to globalization, consumerism, and marketization, the Slow Movement

207 subverts the fast-paced consumption of products and services in favor of a more responsible  
208 and sustainable way of living (Dickinson et al., 2011). Werner et al. (2021) argued that  
209 destinations promoting slow cities and events derived from the Slow Movement may help  
210 maintain local traditions, strengthen social relationships, and gain information on sustainability.  
211 They believe a slow-induced sustainable environment can avoid unfamiliarity, confusion, and  
212 discomfort, thus eliminating stress and improving the well-being of the host society. In contrast  
213 to the observations made by Wondirad (2019), they bridged the gap between social and natural  
214 sustainability in their literature review. Shafiee et al. (2019) documented the intersection of  
215 smart tourism and sustainable development by examining its economic, environmental, social,  
216 and technical impacts on resident and visitor well-being, natural resource management, and the  
217 tourist experience. Hence, their approach includes all three pillars of sustainability: economy,  
218 environment, and society. Additionally, they explain the triggers, contexts, and intervening  
219 factors that result in the creation of this combination. Their review closes with a call for further  
220 research on the development of sustainable smart destinations.

221

## 222 **Destination Crisis Management**

223 Over the past two decades, tourism development has faced severe crises and challenges.  
224 Mair et al. (2016) dissected the reasons for the slow tourism recovery after disasters. They  
225 found that a lack of communication, media sensationalism, the ineffectiveness of marketing  
226 strategies, reactive disaster management strategies, severely damaged destination images, and  
227 long-term impacts of disasters on tourist behavior impact the recovery process in affected  
228 destinations. Duan et al. (2021) further observed that the majority of current research on

229 destination crisis management is event driven with an imprecise classification of crises. They  
230 examined the effect of the crisis on three scales, namely, micro, meso, and macro, and compiled  
231 a list of positive, negative, and interaction factors affecting destination crisis management. Both  
232 Mair et al. (2016) and Duan et al. (2021) agreed that crises might provide opportunities for  
233 future constructive destination development.

234

### 235 **Other Topics**

236 Destination review articles have also discussed destination resources, destination facility  
237 systems (Le-Klaehn & Hall, 2015), tourists' decision-making (Yuzhanin & Fisher, 2016), and  
238 smart tourism (Bastidas-Manzano et al., 2021). Transportation further plays a central role in  
239 facilitating tourism mobility (Le-Klaehn & Hall, 2015). However, transportation often  
240 pollutes the destination environment, and low-carbon tourism becomes essential. Le-Klahn  
241 and Hall (2015) examined public transport in urban and rural destinations and claimed that  
242 informing consumer decision-making and public transportation promotion are critical factors  
243 in developing public transportation.

244 Destination choice is also an integral ingredient of destination research. Yuzhanin and  
245 Fisher (2016) reexamined the predictive power of the theory of planned behavior on visitors,  
246 taking into account the contradicting findings of previous investigations. They presume a  
247 delay between intentions and actual behavior, which is the cause of the inconsistent outcomes  
248 (McKercher & Tse, 2012). They also argued that the link between intention and action is not  
249 linear in that a slew of other factors are also worth investigating. Another emerging topic is  
250 smart tourism destinations. With technology-based studies dominating this topic, Bastidas-

251 Manzano et al. (2021) argued that smart tourism destinations can shape tourist behavior  
252 through technology, thus culminating in sustainable destination development and the  
253 formation of smart cities. As it is still in its infancy, the debate over the concept of a smart  
254 destination continues (Bastidas-Manzano et al., 2021).

255       Reviews critically reflect that destination literature could be advanced and become more  
256 resilient (Mair et al., 2016), fair (Wondirad, 2019), sustainable (Khanra et al., 2021),  
257 aggregated (Avila-Robinson & Wakabayashi, 2018), and smart (Bastidas-Manzano et al.,  
258 2021). They also focus on some neglected vulnerable destinations and disadvantaged groups  
259 (Le-Klaehn & Hall, 2015; Parra-López & Martínez-González, 2018; Wondirad, 2019). While  
260 the topics covered in these review studies are critical components of destination research, the  
261 development and evolution of interconnections between them have received less attention.  
262 Hence, the present study conducted a more systematic examination of existing destination  
263 studies by comparing the content of previous reviews using bibliometric methodologies in the  
264 next section.

265

## 266 **4. Bibliometric analysis: 1,393 destination studies**

### 267 **4.1 Data collection**

268       A title reflects the originality of a research article, and audiences assume that the authors  
269 have been prudent in selecting the title and keywords for each paper (Whittaker, 1989). Hence,  
270 to focus on the originality of destination research, this study chose the title rather than keywords  
271 as the paper screening condition. The term *destination* also expresses different meanings in  
272 different spheres such as international trade, medicine, and logistics. To better focus on the

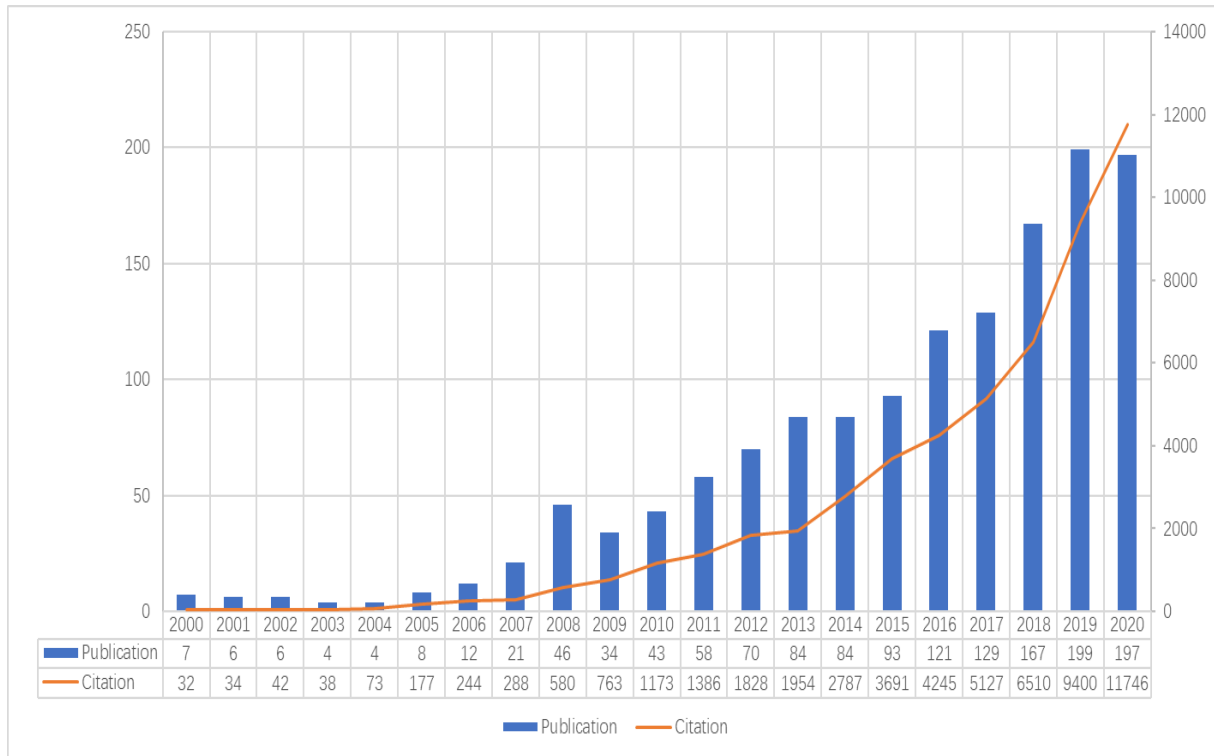
273 findings of destination research in tourism, this study used “destination” as the indexed  
274 keyword to identify relevant articles from 56 SSCI journals in the tourism category from 2000  
275 to 2020 in the Web of Science TM Core Collection, thus excluding the interferences from other  
276 fields.

277 A total of 35 social science citation index (SSCI) journals have published papers with a  
278 title with destination from the hospitality, leisure, sport, and tourism category (see Table 2).  
279 According to the idea of the scientific revolution, Kuhn (2012) believed that the development  
280 of scholarship is a process in the new research findings that continuously challenge existing  
281 ones in a revolutionary way, thus leading to a rise and fall of scientific knowledge. To capture  
282 the evolution of destination literature, 21 years of continued growth in destination studies have  
283 been traced. Following the lead of Pike’s (2002) research, the retrieval time span of the relevant  
284 literature for the present work was from 2000 to 2020 (i.e., an update of the previous reviews  
285 from 1973 to 2000). Following the bibliometric analysis procedure proposed by Donthu et al.  
286 (2021), the present study first cleaned up the data corpus by deleting duplicate articles and  
287 articles with incomplete information. Then, synonymous keywords (e.g., destination image vs.  
288 destination images) were merged. Finally, 1,393 articles with 49,459 references were retrieved,  
289 and the data were imported into CiteSpace 5.8. R1 for further analysis. In addition, we also  
290 manually checked the titles of these 1393 manuscripts to ensure their representativeness and  
291 avoid misleading headlines, as mentioned in the third limitation.

292 In Figure 1, the publications on destination research before 2005 were sporadic. Since  
293 then, a substantial increase in publication was recorded in 2016 and reached a peak in 2019  
294 with 199 papers. The orange line shows the number of other studies that cited publications for

295 destination studies, ranging from zero to almost 12,000 times, thus acknowledging the  
 296 importance of destination studies.

297



298

299 Figure 1. Trends in the annual volume of articles and citation counts on Destination in SSCI-listed  
 300 journals from 2000 to 2020 (Total number of publications=1,393; Total number of citations =52,118)

301

302 Table 2. Publications on destination published in the category of “Hospitality, Leisure, Sport, and  
 303 Tourism” in WOS database (2000-2020)

No.	Journal name	Total citations	2020 JIF	JIF quartile	Number of publications on destination
1	Tourism Management	37,117	10.967	Q1	215
2	Journal of Travel Research	14,155	10.982	Q1	124
3	International Journal of Hospitality Management	17,219	9.237	Q1	7
4	Annals of Tourism Research	19,981	9.011	Q1	62
5	Journal of Sustainable Tourism	9,404	7.968	Q1	51
6	Journal of Travel & Tourism Marketing	6,308	7.564	Q1	122
7	Current Issues in Tourism	7,633	7.430	Q1	103
8	Journal of Hospitality Marketing & Management	2,826	7.022	Q1	9
9	Journal of Destination Marketing & Management	2,955	6.952	Q1	182

10	Tourism Geographies	3,605	6.640	Q1	28
11	Tourism Management Perspectives	3,902	6.586	Q1	59
12	Sport Management Review	3,265	6.577	Q2	2
13	International Journal of Contemporary Hospitality Management	10,376	6.514	Q2	22
14	Journal of Hospitality and Tourism Management	2,467	5.959	Q2	22
15	Tourism Review	2,072	5.947	Q2	25
16	Journal of Hospitality & Tourism Research	3,452	5.161	Q2	36
17	Tourism Economics	3,682	4.438	Q2	51
18	Scandinavian Journal of Hospitality and Tourism	1,653	4.392	Q2	17
19	Journal of Hospitality and Tourism Technology	970	4.260	Q2	7
20	International Journal of Tourism Research	4,600	3.791	Q2	80
21	Journal of Sport Management	3,610	3.691	Q2	3
22	Asia Pacific Journal of Tourism Research	2,843	3.677	Q3	83
23	Cornell Hospitality Quarterly	2,360	3.646	Q3	2
24	Journal of Vacation Marketing	2,244	3.525	Q3	41
25	Leisure Studies	2,682	2.949	Q3	2
26	International Journal of Sports Marketing & Sponsorship	947	2.938	Q3	3
27	Journal of Outdoor Recreation and Tourism-Research Planning and Management	818	2.803	Q3	4
28	Leisure Sciences	3,402	2.750	Q3	1
29	Sport Marketing Quarterly	1,146	2.722	Q3	2
30	Journal of Leisure Research	3,083	2.561	Q3	1
31	Information Technology & Tourism	527	2.449	Q4	4
32	Journal of Tourism and Cultural Change	702	2.041	Q4	11
33	Tourist Studies	1,041	1.904	Q4	9
34	Journal of Hospitality Leisure Sport & Tourism Education	661	1.762	Q4	2
35	Sport in Society	2,331	1.725	Q4	1
<b>Total publication on destination</b>					<b>1393</b>

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305

## 306 4.2 Data analysis methods

307 CiteSpace is one of the most widely used tools for science mapping research (Chen, 2006;  
308 Chen et al., 2010). After comparing nine different bibliometric analysis software, Cobo et al.  
309 (2011) concluded that CiteSpace is the optimum analytical tool, as it offers the most inclusive

310 set of tools for comprehensive research approaches to generate bibliometric networks.  
311 Bibliometric analysis in CiteSpace allows time to be visualized through color (Chen, 2014,  
312 2017), which compensates for the absence of direct human awareness of time. In other words,  
313 CiteSpace leverages time-slicing methods to create a time series of changing network models  
314 and then merges these distinct networks to generate a general view of destination genealogies  
315 that help researchers observe the evolution of destination literature.

316 The primary analysis methods used in CiteSpace include co-word analysis, co-author  
317 analysis, and co-citation analysis (Chen, 2014, 2017; Cobo et al., 2011). In recent years, this  
318 tool is also used to understand the intellectual impact of an article/author in a specific research  
319 area. Coauthorship analysis examines “the interactions among scholars in a research field”  
320 (Donthu et al., 2021, p. 290) and identifies distributions of highly cited authors in a specific  
321 area of study. This technique also allows for the mapping of collaborations through time,  
322 providing aspiring scholars with vital information for reaching out to and cooperating with  
323 established and emerging researchers in a research area. The co-word analysis presupposes that  
324 frequently occurring words that are often obtained from keywords have thematic links (Donthu  
325 et al., 2021). Co-word analysis may assist researchers in delving further into the substance of  
326 each theme cluster (Chang et al., 2015).

327 Co-citation analysis assumes that references cited together may be thematically analogous  
328 (Hjørland, 2013). It has been acknowledged to be a valuable tool for comprehending the  
329 existing scientific landscape (Ramos - Rodríguez & Ruíz - Navarro, 2004), as co-citation  
330 networks are a reflection of scientific knowledge’s cumulative nature, continuity, and legacy.  
331 Scholars employ co-citation analysis to gain insights into tourism and hospitality research (e.g.,  
332 Benckendorff & Zehrer, 2013; Li et al., 2017). Thematic clustering analysis extracted core  
333 knowledge modules by similar grouping studies from the destination research pool to provide  
334 insight into the associations between the different genealogies (Zupic & Čater, 2015). However,

335 some concepts and studies can be very general (e.g., methodological terms, such as structural  
336 equation modeling or studies tackling broad topics). As a result, they are difficult to identify to  
337 a particular thematic cluster (Donthu et al., 2021).

338 Cluster analysis provides a broad image of the major research fields, but the link  
339 between clusters remains unexplained. Min et al. (2021) analyzed 116 Nobel Prize-winning  
340 manuscripts across all disciplines and discovered that they had a greater number of linked  
341 network components, indicating boundary-spanning processes. Sebastian and Chen (2021)  
342 further develop a structural variation analysis technique by measuring the structural  
343 variations observable in a network of citing papers, based on the premise that connecting  
344 otherwise divergent clusters of knowledge is a key mechanism underlying transformative  
345 scientific discoveries (Chen et al., 2009). This study is the first study in tourism to introduce  
346 and perform a structural variation analysis (SVA) (Chen et al., 2009; Sebastian & Chen,  
347 2021) to complement traditional quantitative statistical indicators (such as citation counts, h-  
348 index, etc.) and to identify important studies that have been under cited. SVA explores the  
349 changes brought by new co-citations from one or more papers to the existing network (Chen,  
350 2012). It is a powerful tool for detecting the innovative potential of new works. It has also  
351 been used to measure the boundary-spanning influence of Nobel Prize-winning articles (Min  
352 et al., 2021; Sebastian & Chen, 2021), summarize the innovative works on COVID-19 (Chen,  
353 2020), and identify prospective information from science experts (Hou et al., 2020). To this  
354 end, the present study employs CiteSpace as an analytical tool for analyzing coauthorship,  
355 co-wording, co-citation, and structural variation analysis in the literature pertaining to  
356 destination research.

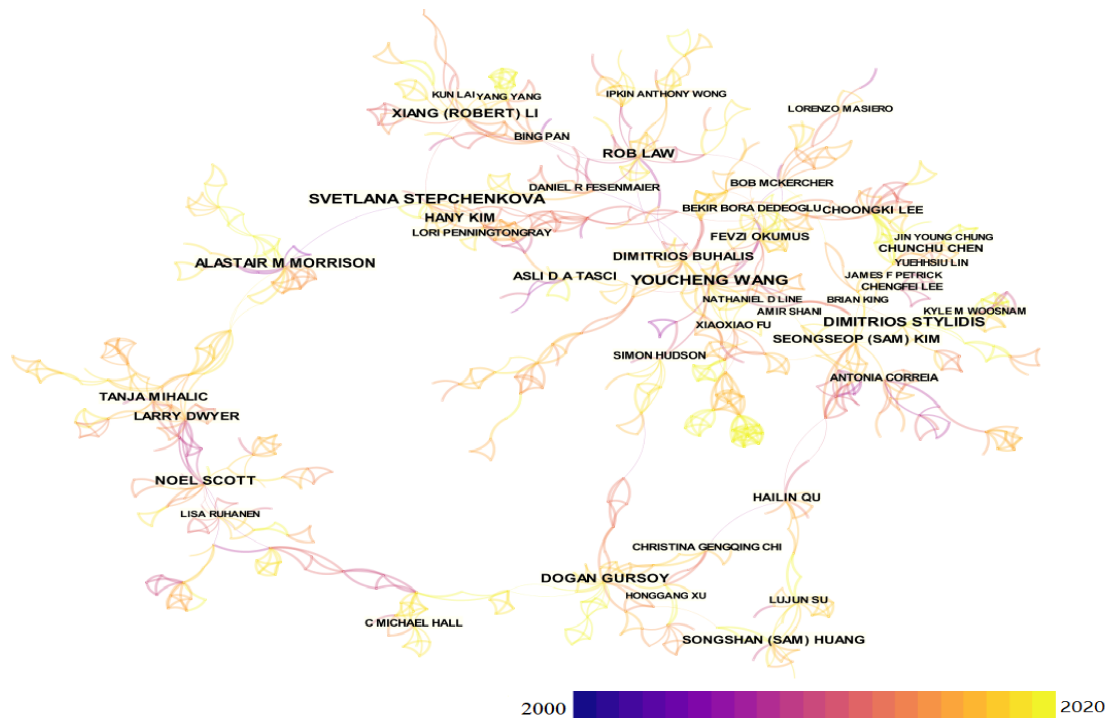
357

## 358 **5. Research findings of bibliometric analysis**

## 359 **5.1 Contributing scholar collaborations in destination studies**

360 Collaborations among academics have grown prevalent as methodological and  
361 theoretical complexity in research has increased (Acedo et al., 2006). As such, scholars who  
362 work collaboratively create an “invisible college” network (Crane, 1977). Collaborations  
363 among academics may contribute to increased clarity, diverse research methodologies, and  
364 deeper and more innovative insights (Tahamtan et al., 2016).

365 Results revealed that the coauthorship network for destination studies is largely  
366 fragmented. However, some robust coauthorship communities could be extracted (see Figure  
367 2). The results showed that Steven Pike (16 studies) from the Queensland University of  
368 Technology ranked at the top of the list, followed by Youcheng Wang (15 studies) from the  
369 University of Central Florida and Svetlana Stepchenkova (15 studies) from the University of  
370 Florida. More details on the contributing scholar collaborations are outlined in Figure 2. In  
371 addition, Table 3 presents coauthors who published five or more articles on the topic  
372 “destination.” Scholars with high centrality are leading critical collaboration networks (Li et  
373 al., 2017). The capacity of a node to transmit information across disconnected groupings of  
374 nodes is referred to as betweenness centrality (Donthu et al., 2021). Eight authors ranked first  
375 by sorting the betweenness centrality (0.04): Youcheng Wang, Svetlana Stepchenkova, Xiang  
376 (Robert) Li, Rob Law, Alastair Morrison, Dimitrios Buhalis, Seongseop (Sam) Kim, and Bing  
377 Pan.



378  
 379 Figure 2. Contributing co-author collaborations from 2000 to 2020 (number of co-authors is five or  
 380 more)  
 381

382 Table 3. Contributing co-authors (Top 50 in SSCI journals from 2000 to 2020)

No.	Author	Affiliation	Year	Publications
1	Steven Pike	Queensland University of Technology	2010	16
2	Youcheng Wang <sup>a</sup>	University of Central Florida	2007	15
3	Svetlana Stepchenkova <sup>a</sup>	University of Florida	2006	15
4	Dimitrios Styliadis	Middlesex University London	2015	13
5	Xiang (Robert) Li <sup>a</sup>	Temple University	2011	12
6	Noel Scott	University of the Sunshine Coast	2008	11
7	Rob Law <sup>a</sup>	University of Macau	2008	10
8	Alastair M. Morrison <sup>a</sup>	University of Greenwich	2006	10
9	Dogan Gursoy	Washington State University	2014	10
10	Heesup Han	Sejong University	2017	10
11	Pietro Beritelli	Universität St. Gallen	2011	10
12	Dimitrios Buhalis <sup>a</sup>	Bournemouth University	2008	9
13	Larry Dwyer	University of Technology Sydney	2009	9
14	Chris Ryan	University of Waikato	2010	9
15	Seongseop (Sam) Kim <sup>a</sup>	Hong Kong Polytechnic University	2015	8
16	Hany Kim	Pusan National University	2015	8
17	Songshan (Sam) Huang	Edith Cowan University	2010	8
18	Tanja Mihalic	University of Ljubljana	2008	8
19	Asli D. A. Tasci	University of Central Florida	2007	8
20	Hailin Qu	Oklahoma State University	2008	7
21	Choongki Lee	Kyung Hee University	2012	7
22	Fevzi Okumus	University of Central Florida	2007	7

23	Chunchu Chen	Washington State University	2012	7
24	Bing Pan <sup>a</sup>	Penn State University	2007	6
25	Daniel R. Fesenmaier	Modul University Vienna	2007	6
26	Lujun Su	Central South University	2017	6
27	Xiaoxiao Fu	University of Central Florida	2014	6
28	Lori Penningtongray	University of South Carolina	2010	6
29	Simon Hudson	University of South Carolina	2009	6
30	Christina Gengqing Chi	Washington State University	2008	6
31	Antonia Correia	University of Algarve	2008	6
32	Bob Mckercher	The Hong Kong Polytechnic University	2007	6
33	Filareti Kotsi	Zayed University	2016	6
34	C. Michael Hall	University of Canterbury	2015	6
35	Bekir Bora Dedeoglu	Nevsehir Hacı Bektas Veli University	2015	6
36	Susanne Becken	Griffith University	2013	6
37	Chengfei Lee	Shih Chien University	2009	6
38	Brian King	Hong Kong Polytechnic University	2016	5
39	James F. Petrick	Texas A&M University	2013	5
40	Honggang Xu	Sun Yat-sen University	2013	5
41	Lisa Ruhanen	The University of Queensland	2012	5
42	Amir Shani	Ben-Gurion University of the Negev	2010	5
43	Vikas Kumar	Indian Institute of Management, Sirmaur	2016	5
44	Hugues Seraphin	The University of Winchester	2016	5
45	Nathaniel D. Line	Florida State University	2014	5
46	Yang	Temple University	2013	5
47	Jin Young Chung	Incheon National University	2013	5
48	Ipkin Anthony Wong	Sun Yat-sen University	2013	5
49	Christian Laesser	University of St. Gallen	2013	5
50	Yuehhsiu Lin	National Kaohsiung University of Hospitality and Tourism	2012	5
51	Soocheong (Shawn) Jang	Purdue University	2012	5
52	Lorenzo Masiero	Hong Kong Polytechnic University	2012	5
53	Kun Lai	Sun Yat-sen University	2012	5
54	Sergio Morenogil	Universidad de Las Palmas de Gran Canaria	2011	5
55	Raija Komppula	University of Eastern Finland	2011	5
56	Guy Assaker	Lebanese American University	2011	5
57	Kyle M. Woosnam	University of Georgia	2010	5
58	Peter Nijkamp	Vrije University Amsterdam	2008	5
59	Hector San Martin	Universidad de Cantabria	2008	5
60	Chunghsien Lin	National Formosa University	2008	5

383 <sup>a</sup> Authors with high centrality

384

## 385 **5.2 Popular research topics in destination studies**

386 To capture influential research topics in destination studies, a co-word analysis based on  
387 the keywords listed in each article was performed. Results were presented in Figure 3, in which

388 different colors in the legend correspond to different time periods (Jiang et al., 2017). The  
389 brighter the yellow color of a term, the more active it was. The circles in Figure 3 represented  
390 keywords with a high degree of betweenness centrality. A thicker circle meant that the centrality  
391 in between was higher. Nodes with large betweenness centrality scores had a higher likelihood  
392 of identifying boundary-crossing potentials, thus leading to the discovery of revolutionary  
393 breakthroughs (Chen et al., 2009). The study results extracted a total of 560 keywords (g-  
394 index=25 per year), 21 of which had a betweenness centrality over 0.10 (see Table 4).

395 This result supported structural hole theory (Burt, 1992). Burt argued that if different  
396 nodes in a network are not connected, structural holes are generated, and gaps between nodes  
397 can identify these holes. In other words, structural holes suggest that researchers have the  
398 opportunity to fill gaps between information structures by publishing papers that link two nodes  
399 (Haythornthwaite, 1996). Papers that link unrelated concepts can be seen as bridges between  
400 the literature that play an essential strategic role in linking two different fields, which in turn  
401 may be co-cited by scholars from other areas of study (Jiang et al., 2017).

402 The results showed that the development of keywords mainly expanded the boundary by  
403 introducing key concepts from other disciplines, such as psychology, management, geography,  
404 sociology, and information science (Benckendorff & Zehrer, 2013; Kim et al., 2018; Tribe,  
405 2004). For instance, new concepts were created and widely used in the past two decades by  
406 connecting different fields, such as from customer choices to destination choice, marketing to  
407 destination marketing, branding to destination branding, and sustainability to sustainable  
408 tourism. In the future, the penetration of different disciplines into destination studies might  
409 generate more interdisciplinary concepts and ideas.

410



### 417 **5.3 Major thematic co-citation clusters**

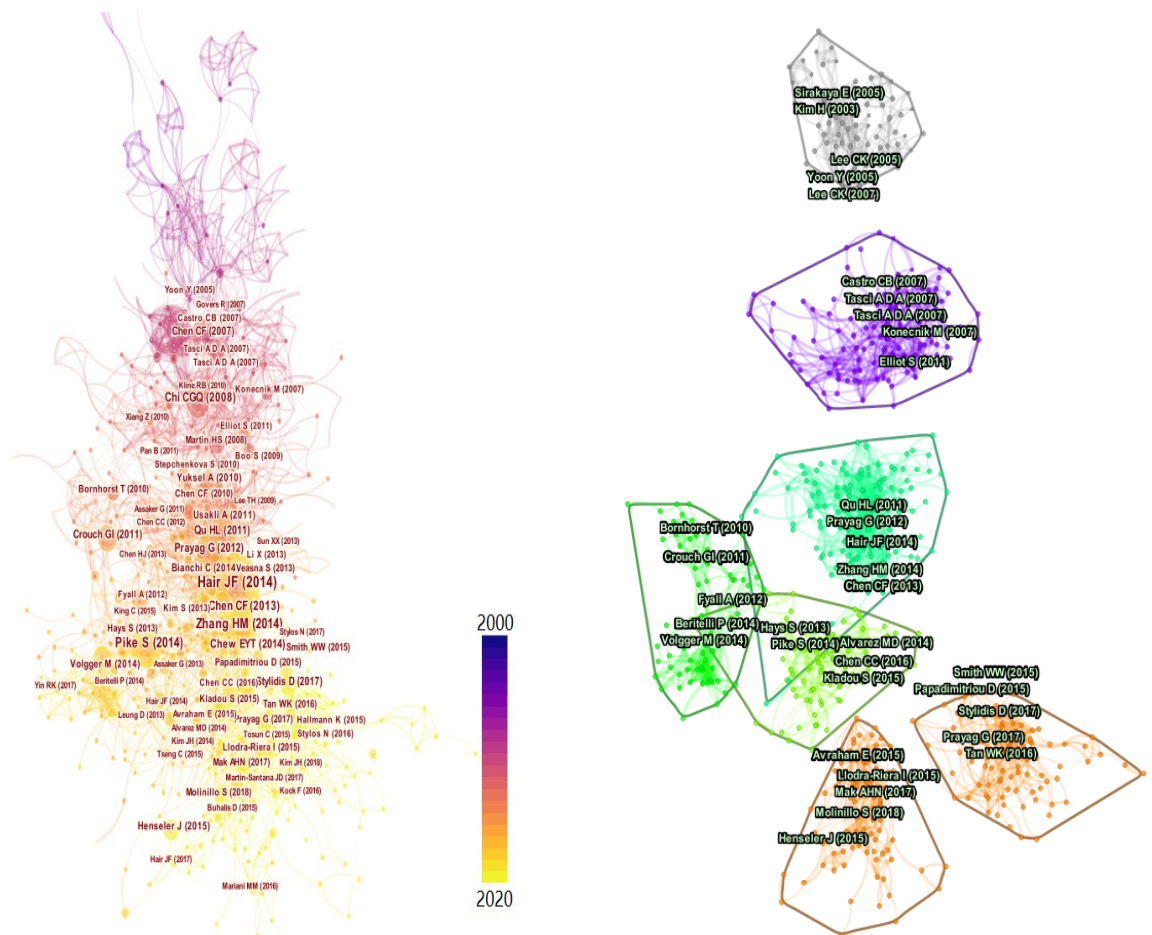
418 Journal articles serve as the frontiers of the knowledge revolution, and references listed in  
419 journal articles provide the knowledge base (Li et al., 2017). Figure 4a was drawn from papers  
420 published between 2000 and 2020, while Figure 4b reflected the largest seven clusters extracted  
421 from the landscape by performing and referring to the log-likelihood ratio (LLR) algorithm.  
422 LLR was first introduced by Dunning (1993) and has now become a popular measurement for  
423 lexical association strength (Chen, 2014). The clustering metrics showed a modularity Q value  
424 (an indicator to evaluate the modularity effect of the network, and values greater than 0.3 were  
425 considered significant) of 0.75, with each cluster having a silhouette value (an indicator to  
426 measure the effect of clustering) greater than 0.82, which exceeded the threshold range of 0.70  
427 (Chen, 2014, 2017). Thus, these values indicated adequate clustering results. The sigma scores,  
428 a composite indicator to calculate betweenness centrality and burstiness, were larger than 1.0,  
429 referring to boundary-spanning potential and abrupt changes of an article in the network  
430 structure. The higher the sigma score was, the more likely that the paper would be cited in the  
431 future (Jiang et al., 2017). Details of the clusters are shown in Table 5.

432 Given the space constraints, a detailed investigation of all the clusters were not attainable.  
433 Instead, this study mainly focused on the largest seven clusters. Rather than selecting and  
434 reading publications based on one's preferences or accessibility to literature, the present study  
435 elaborated on the top five publications high in sigma scores from each cluster that were listed  
436 in Table 5. The whole approach was designed to avoid bias in the findings from the publication  
437 section.

438 The largest seven clusters were destination loyalty, destination image, destination  
439 digitalization, destination marketing, destination experience and recommendation, destination  
440 governance, and destination resources. These clusters represented 68% of all articles in this  
441 investigation. Notably, the overlaps in Figures 4a and 4b were caused by figures depicted from

442 a three-dimensional landscape in two dimensions.

443



444

445 Figure 4a (left). Mapping of the co-cited references from 2000 to 2020 (co-citation >10)

446 Figure 4b (right). The largest seven co-citation clusters

447

Table 5. Summary of indications on the seven largest clusters in the destination research

No.	Cluster label	Leading Author	Year	Methods	Google Scholar citation	Co-citation Frequencies	Centrality	Sigma	Theory
0	Destination loyalty	Hair, J. F.	2014	SEM	861	89	0.13	3.97	/
		Zhang, H. M.	2014	Meta-analysis	959	60	0.05	2.12	/
		Chen, C. F.	2013	SEM	667	35	0.05	1.84	brand relationship theory, attitude theory
		Prayag, G.	2012	SEM	1132	33	0.07	2.07	/
		Qu, H. L.	2011	SEM	1422	33	0.09	3.53	/
1	Destination image	Tasci, A. D. A.	2007	Qualitative literature review	1208	14	0.03	1.23	social judgment theory, information processing theory, theory of hierarchy of needs
		Castro, C. B.	2007	SEM	739	13	0.02	1.17	/
		Konecnik, M.	2007	SEM	1224	13	0	1.03	branding theory
		Elliot, S.	2011	SEM	342	13	0.01	1.05	place image theory
		Tasci, A. D. A.	2007	Qualitative literature review	692	13	0.02	1.14	the heuristic–systematic processing theory, the piecemeal and category-based theory, the consumer involvement theory, and the theory of self-image/destination image congruity
2	Destination digitalization	Henseler, J.	2015	SEM	9344	21	0.01	1	/
		Mak, A. H. N.	2017	Content analysis	184	17	0.01	1	/
		Molinillo, S.	2018	Experiment +PLS-SEM	188	15	0.03	1	destination image theory, the theory of reasoned action, and generational theory
		Llodra-Riera, I.	2015	EFA, CFA	237	15	0.01	1	/

		Avraham, E.	2015	Qualitative content analysis	270	14	0.03	1	the theory of image restoration
		Pike, S.	2014	Narrative analysis	818	50	0.02	1.38	the resource-based theory of competitive advantage, stakeholder theory, branding theory
3	Destination Marketing (promotion and disincentives)	Kladou, S.	2015	Content analysis	246	16	0.02	1.09	/
		Hays, S.	2013	Content analysis and semi-structured interviews	1037	16	0	1.01	/
		Chen, C. C.	2016	SEM	126	13	0.02	1	attitude theory
		Alvarez, M. D.	2014	SEM	272	11	0.03	1	/
		Stylidis, D.	2017	SEM	291	23	0.04	1.37	stakeholder theory, image formation theory
		Prayag, G.	2017	SEM	526	18	0.03	1	/
4	Destination experience and recommendation	Smith, W. W.	2015	Auto regressive modeling in time-varying process and content analysis	119	16	0.01	1.07	/
		Tan, W. K.	2016	SEM-PLS	176	16	0.01	1	Prentice's familiarity taxonomy
		Papadimitriou, D.	2015	SEM	241	16	0.02	1.13	/
5	Destination cooperation and success/governance	Crouch, G. I.	2011	The analytic hierarchy process (AHP)	899	25	0	1.02	destination competitiveness theory
		Volgger, M.	2014	SEM	305	21	0.02	1.13	/

		Bornhorst, T.	2010	Interviews	959	16	0.06	1.48	stakeholder theory, social exchange theory, attitude theory
		Fyall, A.	2012	Qualitative literature review	313	13	0.02	1.13	resource dependency, transactions cost, and social exchange theory
		Beritelli, P.	2014	Case studies	158	12	0.04	1.14	/
		Yoon, Y.	2005	SEM	4480	14	0.23	5.55	tourism destination loyalty theory, equity theory, norm theory
6	Destination resources	Sirakaya, E.	2005	Qualitative literature review	1175	8	0.05	1.23	the expected utility theory, prospect theory, regret theory, satisfying theory, the theory of reasoned action, theory of planned behavior, information-processing theory, choice-set models
		Lee, C. K.	2005	SEM	904	8	0.03	1.13	/
		Lee, C. K.	2007	SEM	874	7	0.02	1.08	/
		Kim, H.	2003	Experiment	1449	7	0.14	1.8	/

450

451

452       **Cluster #0: Destination loyalty** (silhouette value = 0.86) was the largest cluster  
453 containing 147 studies actively from 2007 to 2016. Loyal tourists were essential for destination  
454 development. This cluster discussed potential antecedents of tourist perception and loyalty,  
455 such as revisiting intention toward a destination. In particular, Prayag and Ryan (2012) reported  
456 that destination image, personal involvement, and place attachment were three major  
457 antecedents of tourists' loyalty, with satisfaction as the mediator. From the tourist-destination  
458 connection perspective, Chen and Phou (2013) acknowledged that destination loyalty is  
459 positively influenced by destination image and personality. Then, Qu et al. (2011) examined  
460 the mediating effect of the overall image on the path between different destination image  
461 associations and visitors' revisit and referral behavior. Zhang et al. (2014) further examined the  
462 relationship between destination images and loyalty by performing a meta-analysis on 66  
463 papers. Their results found that the overall image of the destination had the strongest effect on  
464 destination loyalty.

465       **Cluster #1: Destination image** (silhouette value = 0.86) was the second-largest cluster  
466 that contained 126 articles from 2004 to 2013. This cluster was dubbed destination image, with  
467 articles that studied its definitions, impacts, and derivative concepts. Tasci et al. (2007)  
468 criticized the academic community back then for being overly concerned with cognitive images,  
469 neglecting other elements of image composition, such as affective and conative. They proposed  
470 a systematic and interactive definition of the destination image. In the same year, Tasci and  
471 Gartner (2007) placed a broader emphasis on the impact of destination image and proposed a  
472 multi-layered model that connected destination capital, destination components, destination  
473 types, and consumer behavior. Then, Castro et al. (2007) assessed the impact of destination  
474 image on visitors' loyalty intentions among heterogeneous markets. Elliot et al. (2011) further  
475 surveyed consumers in three countries to compare differences between cognitive and affective  
476 images on product and destination receptivity. Their results showed that affective images had

477 a stronger influence on destination receptivity, while cognitive images cast a profound impact  
478 on product receptivity. Konecnik and Gartner (2007) validated that destination image was a  
479 vital element that constitutes destination equity and further proposed a measurement scale of  
480 consumer-based brand equity for a destination.

481 **Cluster #2: destination digitalization** (silhouette value = 0.88) incorporated 93 studies  
482 from 2012 to 2019. This cluster covered variables that contributed to the construction and  
483 reinvention of online destination perceptions. In contrast to conventional offline information  
484 sources in building a destination image, Llodrà-Riera et al. (2015) rested upon supply and  
485 demand perspectives and developed a scale including four online information source as  
486 induced, autonomous, opinion leaders, and UGC web. Molinillo et al. (2018) also mentioned  
487 the important role of online platforms in shaping and promoting a destination image. Their  
488 findings indicated that image formation differs according to the platform via which tourists  
489 obtained information. Avraham (2015) discussed how to rehabilitate a destination's image after  
490 being tarnished by an event like the Arab Spring and proposed three strategies: source, message,  
491 and audience. Mak (2017) further examined the similarities and discrepancies between tourist  
492 and national tourism organization-generated content. Tourist-generated content contained  
493 detailed information, and photos visually appealing were attractive to potential customers.

494 **Cluster #3: Destination marketing (promotion and disincentives)** (silhouette value =  
495 0.82) included 87 studies from 2011 to 2017. This cluster focused on destination marketing  
496 promotion and disincentives. Social media enabled destination organizations to reach a global  
497 audience on a lower budget. Hays et al. (2013) examined how DMOs in the 10 most visited  
498 countries by foreign visitors used social media and summarized three major strategies for  
499 marketing: post frequency, interactivity, and nature of the content. Pike and Page (2014)  
500 reviewed the literature on destination marketing across 40 years and proposed that destination  
501 marketing organizations sustain competitiveness by bridging effective resources management

502 with marketing strategies, such as brand identity development, positioning, performance  
503 measurement, and tracking. Kladou and Mavragani (2015) elaborated on online reviews of  
504 Istanbul on TripAdvisor to investigate how tourists construct their cognitive, affective, and  
505 conative images on social media. Disruptive events, especially political disputes, hurt  
506 destination promotion. In particular, Alvarez and Campo (2014) reflected on the conflicts  
507 between Israel and Turkey and found that political events engendered animosity among nations  
508 through affective rather than cognitive images. Chen et al. (2016) further argued that between  
509 two hostile places, the image perception of each other was negative. This negative image  
510 perception persisted even if diplomatic relations were eased over time.

511 **Cluster #4: Destination experience and recommendation** (silhouette value = 0.93)  
512 included 82 articles across 2013 and 2020. This cluster focused on the impact of destination  
513 experiences on tourist perception and recommendation behavior. Papadimitriou et al. (2015)  
514 claimed that destination personality was critical in comprehending destination image and  
515 destination recommendation. Tan and Wu (2016) tested the explanatory power of familiarity  
516 on destination image and travel intention. Their findings showed that experience familiarity  
517 was a critical sign for classifying tourists. Stylidis et al. (2017) parsed destination images from  
518 a whole perspective into components, as well as their effect on recommended intention. Their  
519 results acknowledged that affective images cast a greater influence on intention to recommend  
520 than cognitive ones. Prayag et al. (2017) also investigated the association among destination  
521 image, satisfaction, and recommended intention. Smith et al. (2015) deployed electronic  
522 gadgets to track experience changes in tourists over the course of a 14-day trip to Peru by 17  
523 tourists. This research established the dynamic nature of destination images and determined  
524 that the two critical moments influencing visitors' impressions were at the beginning and end  
525 of a trip.

526 **Cluster #5: Destination governance** (silhouette value = 0.95) contained 71 articles from

527 2008 to 2017. This cluster focused on the competitive and cooperative relationships among  
528 destinations. Crouch (2011, p. 7) argued the most critical indicators were core resources and  
529 attractors from five primary determinants of destination competitiveness: “supporting factors  
530 and resources, core resources and attractors, destination management, destination policy,  
531 planning and development.” Furthermore, Bornhorst et al. (2010) proposed that product and  
532 service offerings, tourist experience, location and accessibility, and community support were  
533 major contributors to the success of DMOs. Factors such as strong supplier partnerships, good  
534 administration of the organization, strategic planning, and the requirement for enough budget  
535 and staffing also contributed to their success. Meanwhile, Volgger and Pechlaner (2014)  
536 remarked that a strong correlation existed between the performance of destinations and the  
537 success of DMOs. Moreover, the capacity of a DMO to connect with other organizations  
538 boosted its power and acceptability, which further led to greater success. In the contrary, Fyall  
539 et al. (2012) argued that the cooperation between destinations could be divided into three types:  
540 organic, mediated intra-destinations, and mediated intra- and inter-destination. Five groups of  
541 theories focusing on resource, relationship, politics, process, and chaos were used to design  
542 collaboration facilitation strategies for each type of destination cooperation model. Beritelli et  
543 al. (2014) demystified destination management challenges, including shifting markets,  
544 transient supply networks, fickle actors, and inapproachable competitiveness and sustainability.  
545 By studying DMOs in Switzerland, their study also suggested four future directions in  
546 destination management, including more diversified strategies, synergetic combination  
547 capabilities, relationship management, and negotiated accountability.

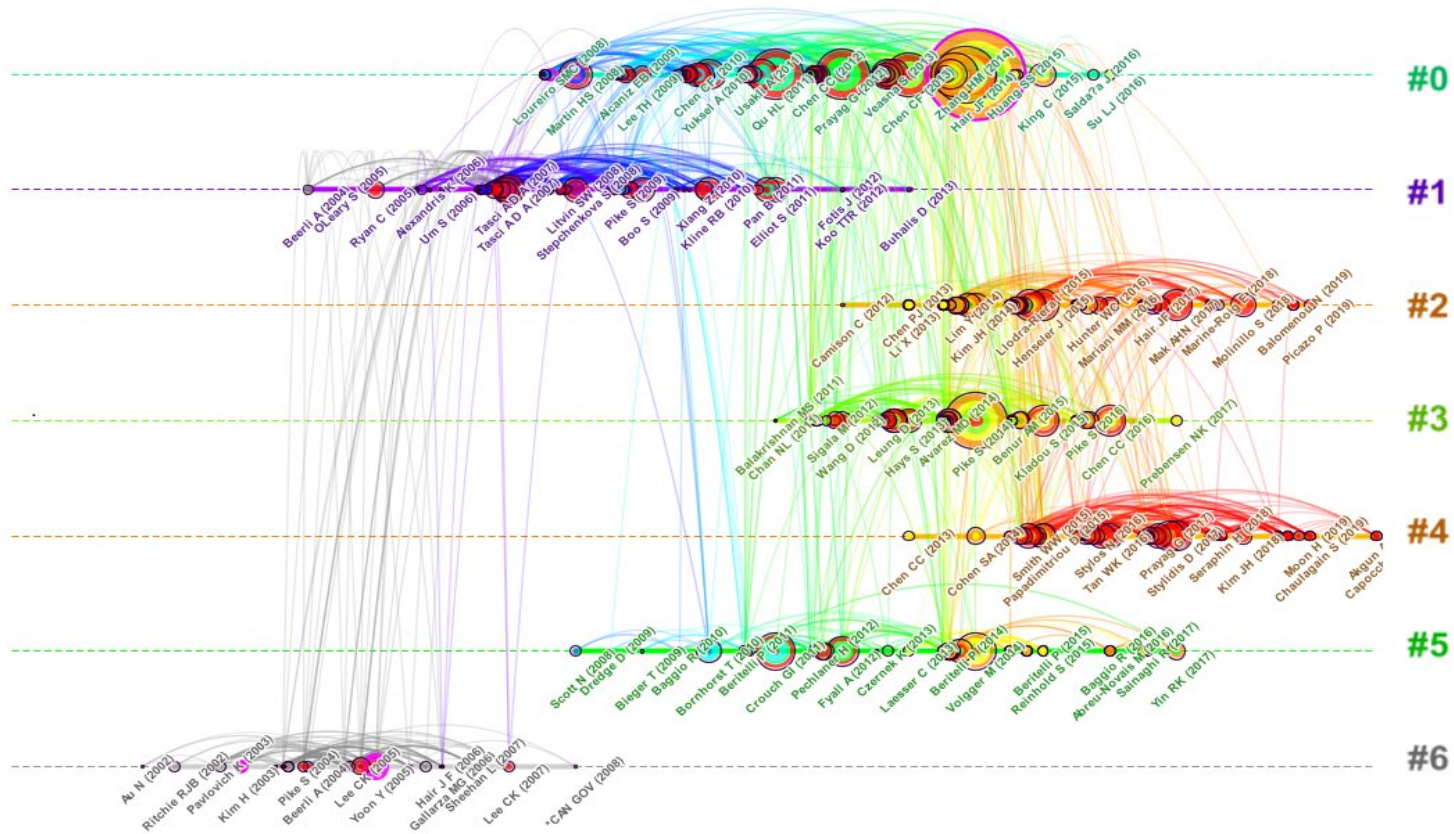
548 **Cluster #6: Destination resources** (silhouette value = 0.89) contained 70 articles from  
549 2002 to 2008. This cluster mainly assessed how influential events and tourism offerings  
550 attracted tourists. Through a qualitative examination of the tourist decision-making literature,  
551 Sirakaya and Woodside (2005) reflected and provided building-block ideas for developing

552 meaningful theories of tourist decision-making as information-processing theory, grand models  
553 of consumer decision-making, foundational travel decision models, and behavioral and choice-  
554 set approaches to decision making in tourism. Yoon and Uysal (2005) established a model  
555 demonstrating that push motivation had a favorable influence on tourist satisfaction and  
556 destination loyalty. Kim and Richardson (2003) illustrated that showing motion pictures of a  
557 place to visitors improved their image perception, empathy, and willingness to travel to that  
558 destination. Using the World Cup as an example, Lee et al. (2005) explored the impact of  
559 destination image (including attractiveness, comfort, value for money, and exoticism) on  
560 experiences (service quality and affect), which subsequently influenced satisfaction,  
561 destination recommendation and revisit intentions. Lee et al. (2005) clarified the functional,  
562 emotional, and total value of demilitarized zone tourism. According to their research, the  
563 perceived value of demilitarized zone tourism had a favorable impact on destination  
564 satisfaction and willingness to recommend.

565       Following the recommendation of the literature (Chen, 2017), this research performed a  
566 timeline analysis by mapping the two most influential publications each year onto the timeline  
567 better to depict the evolutionary history of these seven clusters. The results are shown in Figure  
568 5. The connecting lines indicated knowledge spillover between different clusters. For example,  
569 the trend of studies on destination resources (cluster 6) and destination (cluster 1) was decaying.  
570 However, they were critical in fostering the growth of destination image studies (cluster 1). By  
571 contrast, studies on destination digitalization (Clusters 2) or destination experience and  
572 recommendation (Clusters 4) were booming.

573

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020



574  
575 Figure 5. Timeline analysis results of the largest seven co-citation clusters

576

#### 577 **5.4 Structural variation analysis**

578 The SVA indicators track transformational and incremental changes generated by one or  
579 more publications; with no changes, the value of indicators would remain zero. The SVA  
580 indicators revealed that in the co-cited knowledge structure, 113 articles had induced a  
581 substantial change. Table 6 presents the top three articles with the greatest changes to the whole  
582 modularity, clusters, and centrality. Among them, Prayag and Ryan (2011) topped most SVA  
583 indicators, thus suggesting that their publication had the most substantial spillover influence  
584 on destination research.

585 The H metric was a composite expression of three established SVA metrics (i.e.,  $\Delta M$ , CL,  
586 and  $C_{KL}$ ). The  $\Delta M = 92.38$  calibrated the relative changes of new information that Prayag and  
587 Ryan's (2011) article brought to the baseline network. The Centrality Divergence ( $C_{KL}$ ) = 0.32  
588 assessed the structural changes caused by Prayag and Ryan's (2011) article on the betweenness  
589 centrality distribution of existing nodes from the baseline model. The Cluster Linkage (CL)  
590 metric = -0.74 captured the changes in the overall structure by bridging different clusters.  
591 Within clusters ( $\alpha$ ) = 1 and the between clusters ( $\beta$ ) = 0.89 were additional indicators that  
592 captured new links brought by Prayag and Ryan's (2011) study to within- and between-cluster  
593 baseline. Entropy = 1.33 was a measure of whether the cited articles were from various clusters  
594 or whether the main stem was from one cluster. If  $E = 0$ , an article cited literature from the  
595 same cluster. According to the SVA metrics, Lam et al. (2020) and Afshardoost and Eshaghi  
596 (2020) also produced substantial changes to the existing knowledge structure in destination  
597 studies despite their co-citations frequencies being relatively low.

598 SVA focuses on how to develop future research avenues by bridging existing gaps, as  
599 contrasted to co-citation analysis, which emphasizes prior research contributions. Prayag and  
600 Ryan (2011) examine what factors, including the effect of nationality, play a part in attracting

601 tourists to Mauritius by using qualitative research methods, and their findings connect the link  
 602 between guest country background (cluster 5) and revisit intentions (cluster 1). Studies from  
 603 Lam et al. (2020) and Afshardoost and Eshaghi (2020) try to examine visitor experience and  
 604 behavior intentions from a digital viewpoint and then connect the dots between destination  
 605 digitalization (Cluster 2) and destination experiences and recommendations (Cluster 4).  
 606

Table 6. The SVA scores of the top three structural variation papers

No.	Leading author	Year	Harmonic	$\Delta$ Modularity	$\Delta$ Cluster linkage	$\Delta$ Centrality divergence	$\alpha$	$\beta$	Entropy	Frequencies
1	Prayag, G.	2011	1.64	92.38	-0.74	0.32	1.00	0.89	1.33	153
2	Lam, J. M. S.	2020	0.15	92.41	-3.16	0.05	0.50	1.00	1.01	4
3	Afshardoost, M.	2020	0.10	95.45	0.06	0.07	0.50	1.00	1.22	22

607

## 608 **5.5 Evolution of Destination Research**

609 The evolution of the intellectual structure of destination research consists of two parts, as  
 610 Figure 5 shows. The first is the convergence of a thematic cluster from articles over time, and  
 611 the second is a co-evolutionary pattern supported between clusters. Internal and external forces  
 612 mainly influence the evolution of research topics. Kuhn (1962) first proposed the idea of *the*  
 613 *Structure of Scientific Revolutions* to analyze the evolution of the knowledge structure from  
 614 internal forces. In particular, he assumes new research is building on and challenging the  
 615 existing knowledge, thus forming a revolution process, with a continuous cyclical process  
 616 creating the rise and fall of scientific insights. As for external forces, Fuchs (1993) further  
 617 argues from a sociological perspective that the evolution of scientific knowledge is driven by  
 618 the social environment, including the interdependence of scientists/research institutions and the  
 619 uncertainty of research directions. Chen (2006) highlights that major external social events also  
 620 influence fluctuations in the literature.

621 Changes in destination scholarship are reflected in the evaluation of different topics over

622 time. In particular, the destination resource cluster (#6) gained prominence in the early days  
623 (i.e., 2002–2008) and is reflected in a rapid stage of destination development beyond natural  
624 resources through the improvisation of special events and other tourism products that cater  
625 synthetically to an increase of tourist demand. Pull appeals available from a place thus help to  
626 promote destination image, favorable touristic perceptions, and decision making (Kim &  
627 Morrision, 2005). Destination image (#1) (i.e., 2004–2013), thus follows suit to focus  
628 specifically on destination image creation, projection, and perception, primarily from the  
629 tourist cognition to an affective lens with particular emphasis on defining its scope, definition,  
630 and impact on tourists' behavioral intention (Pike, 2002; Zhang et al., 2014). Destination  
631 loyalty (#0) (i.e., 2007–2016) has gained the most academic attention as an indicator for  
632 evaluating a destination's offering and tourists' further responses (Prayag & Ryan, 2012). To  
633 attract more tourists, destination governance (#5) (e.g., 2008–2017) has shifted from focusing  
634 on individual competitiveness to exploring multiple collaborations facing global challenges  
635 (Fyall et al., 2012).

636 Technology and social media advancements continue shaping and reshaping perceptions  
637 and communication; and this is reflected in the emergence of three research themes in  
638 destination studies: destination marketing, destination digitalization, and destination  
639 experience & recommendation. Destination marketing (#3) (e.g., 2011–2017) can be an  
640 effective approach to attracting tourists, but it later also can be employed to propagate aversion  
641 through social media (Alvarez & Campo, 2014; Luo & Zhai, 2017). How destination resources,  
642 destination images, and tourist behavior are presented and transmitted online has also inspired  
643 new research avenues such as destination digitalization (#2) (e.g., 2012–2019) and destination  
644 experience and recommendation (#4) (e.g., 2013–2020). Academics also have explored how to  
645 rehabilitate images tainted by societal unrest (Avraham, 2015). In sum, the evolution of  
646 research topics has been built on academic reflection, advancement, and adaptation to external

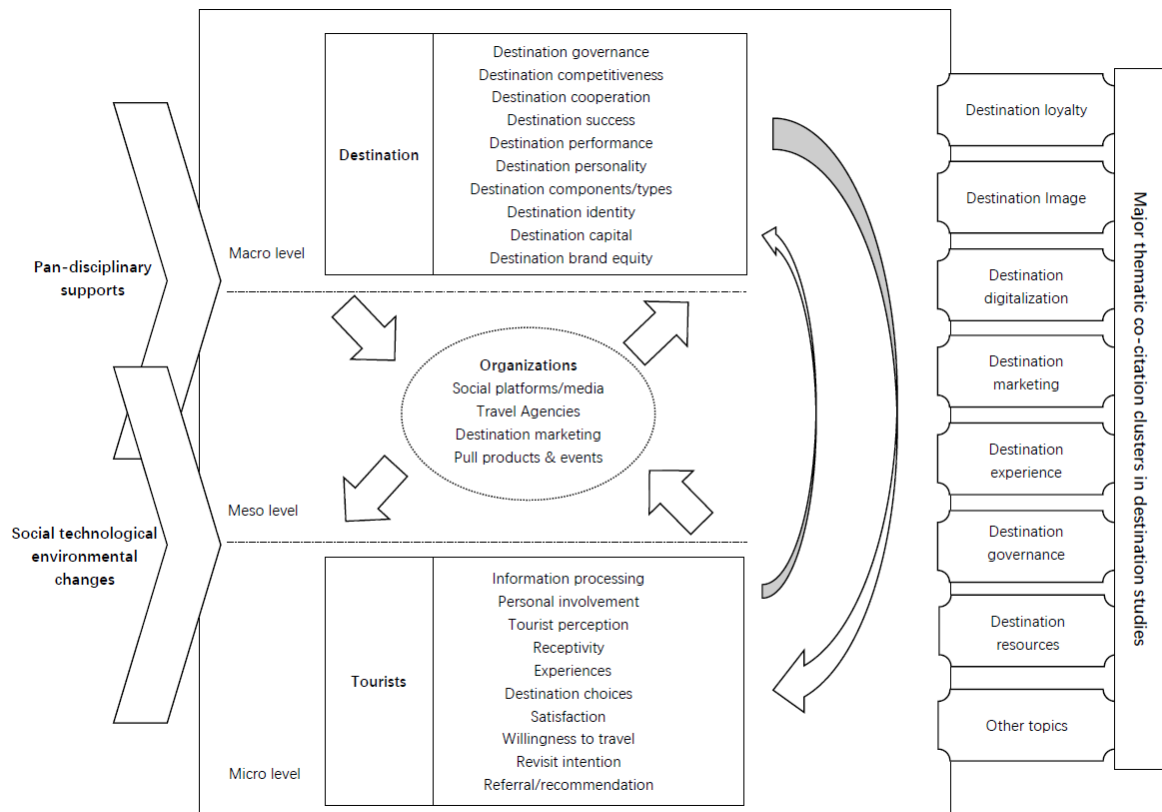
647 changes.

648         The present study further extracted and summarized variables from the selected studies  
649 into a framework to make the co-citation analysis results more recognizable (see Figure 6). The  
650 growth of the destination research corpus has advanced from the support of pan-disciplinary  
651 and socio-technical environment changes. Existing literature has focused on the micro-tourist,  
652 meso-organizational, and macro-destination management levels. Currently, the most studied  
653 research topics concern tourist engagement, perception, experience, satisfaction, decision-  
654 making, and response behaviors. The theoretical lens has transitioned from rational (e.g., theory  
655 of planned behavior, theory of reasoned action, information processing theory, the hierarchy  
656 of needs theory, the expected utility theory) to irrational (e.g., prospect theory, regret theory,  
657 satisfaction theory, familiarity taxonomy, choice set models, involvement theory). Other  
658 systematic and integrated approaches such as attitude theory, self-image/destination image  
659 congruence theory, the heuristic-systematic processing theory, generational theory, and the  
660 piecemeal and category-based theory were observed. The theoretical underpinnings of  
661 destination research also touch upon brand (e.g., branding theory, equity theory), social factors  
662 (e.g., stakeholder theory, social judgment theory, social exchange theory, norm theory), and  
663 place (e.g., resource dependency, image theory, destination competitiveness theory).

664         On one hand, tourism is a pan-disciplinary field of study (Weaver, 2022). On the other  
665 hand, tourism is supported by a wide range of academic views and impacted by changes from  
666 geopolitical, environmental, and socio-technological settings. These two strands of forces  
667 jointly influence macro (i.e., destination), meso (i.e., organization), and micro (i.e., tourist)  
668 level inquiries. Macro-management can sway micro-level tourists' behaviors. At the same time,  
669 tourists' voices and decisions could ultimately be served as messages for DMOs and operators  
670 to reframe their strategies and tourism products (as shown by the two curved arrows in the  
671 framework). For instance, mismanaged destinations could cause social unrest (e.g., crime, riots,

672 and deterioration of service and infrastructure) (Avraham, 2015; Luo & Zhai, 2017; Yu et al.,  
673 2020), hence alienating tourists from visiting the place, which in turn exacerbates further social  
674 chaos.

675 At the meso-organizational level, practitioners of macro policies and management may  
676 exert a more direct impact on micro-level decisions and experiences (Chiappa, 2013). Tourism  
677 organizations create fashionable trends through improvisations that could lure tourists in the  
678 millions. They form competitive forces (Fong et al., 2021) that could on one hand fulfill DMOs'  
679 mission in supplying resources and fulfill their marketing role in conjuring favorable  
680 destination images for tourists. On the other hand, these forces collectively improve tourists'  
681 experience, while offering reasons for them to patronize the place again (i.e., loyalty). The  
682 advent of smart technology and prevalence of social media further facilitate the role of tourism  
683 organizations in connecting destinations and tourists. For instance, online travel agencies (e.g.,  
684 Expedia, C-trip, and Trip Advisor) serve as travel ambassadors, as they not only galvanize  
685 tourist interest, but they also deliver endless opportunities for knowledge sharing among  
686 destinations, operators, and tourists (Edwards et al., 2017). The framework thus offers a means  
687 to integrate destination research streams and individual inquires that have been isolated for  
688 years to create a more coherent picture of destination management.



689

690 Figure 6. Research Framework

691

692

693 **6 Conclusion**

694 This study concludes that destination research is a critical branch of tourism research  
 695 because it considers multiple stakeholder groups, discusses macro-level governance issues,  
 696 meso-organizational, and micro-level tourist perception and behavior, and analyzes destination  
 697 resources and marketing to ensure a sustainable and smart future. Literature reviews serve as  
 698 cornerstones for advancing the corpus of existing knowledge. The present work first  
 699 reevaluates destination reviews to provide an overview of the progress of destination studies  
 700 and then employs bibliometric analysis to visualize the results of co-authorships, popular topics,  
 701 thematic clusters, and structural variances in destination studies to glean in-depth knowledge  
 702 of the evolutionary process of the body of literature.

703 **6.1 Discussion on findings of review-on-reviews and bibliometric analysis**

704 Koseoglu et al. (2022) likewise propose that mixed approaches can provide rich and

705 exhaustive coverage of the relevant topic. In particular, CiteSpace provides a more cutting-  
706 edge and broader view of research topics. Qualitative reviews offer a more profound reflection  
707 on the issues that existed at a particular time period. Accordingly, the integration of both  
708 methods offers greater breadth and depth of the review. Congruent evidence is observed in the  
709 findings of the qualitative review-on-reviews and the quantitative bibliometric analysis. In  
710 particular, some of the largest specialties summarized by the bibliometric analysis have been  
711 examined by existing reviews, such as destination loyalty (Zhang et al., 2014), destination  
712 image (Pike, 2002; Zhang et al., 2014), destination marketing (Pike & Page, 2014), destination  
713 experience and recommendation (Afshardoost & Eshaghi, 2020), and destination governance  
714 and crisis management (Cronjé & du Plessis, 2020; Fyall et al., 2012; Mair et al., 2016).

715 In addition, findings from both methods indicate that destination studies merit more  
716 theoretical support. Theories at the destination level are primarily concerned with resources,  
717 branding, and stakeholders. Few studies, however, have addressed the distinctions between  
718 destinations and brands, and hence, it would be a challenge for practitioners to manage  
719 destinations from the brand management point of view without considering the difference  
720 between the two. Moreover, recent studies have revealed that, like regular customers, tourists  
721 frequently exhibit irrationality (Jung & Kim, 2016). In other words, presuming individuals are  
722 rational and forecasting their behaviors may be utopian and can result in inaccurate conclusions.  
723 Most studies of tourist behavior focus on the economic rewards of tourist choices, overlooking  
724 the destructive potential of sabotage behavior on the environment and the non-economic  
725 benefits of tourist behavior. In particular, Goh et al. (2017) indicate that the planned behavior  
726 hypothesis has failed to explain tourists' ecologically destructive behavior adequately. Further,  
727 tourists as civic ambassadors are becoming victims and losing their rights to travel in regional  
728 or national disrupts/sanctions (Seyfi et al., 2022).

729 The distinction lies in that review articles seldom explore the interconnections and

730 evolutionary processes between knowledge clusters. Findings of the bibliometric analysis  
731 present an iterative process of rising in destination digitalization, destination experience, and  
732 recommendation studies, and falling in destination resources and destination image studies. In  
733 particular, the present study is the first to introduce SVA techniques to visualize details in how  
734 studies bridge thematic clusters and advance existing literature networks.

735 Differences also reside in the fact that some topics in review studies are understudied in  
736 general. In other words, valuable topics, such as sustainable or smart destinations, deserve more  
737 attention in the future. Although destination digitalization and smart destination may seem alike,  
738 they are indeed different concepts. According to the bibliometric results, destination  
739 digitalization studies are more akin to digital projections of destinations. In contrast, “the core  
740 idea of the smart destination concept is the use of ICTs that provide relevant and personalized  
741 information to all stakeholders” (Cimbaljević et al., 2019, p. 2472). Considering the sensitivity  
742 and adaptative nature of smart destination management via ICTs (Kontogianni & Alepis, 2020),  
743 they can move beyond the crisis event-driven management style (Duan et al., 2021) and  
744 improve risk management at the destination level. Smart tourism destinations could also  
745 contribute to sustainable development (Shafiee et al., 2019).

746

## 747 **6.2 Research agenda**

748 Looking beyond existing research topics, destination scholars still face profound  
749 challenges that are worth investigating. Uysal et al. (2016, p. 244) summarized several threats  
750 encountered in tourism development, including “economic instability, recession and stagnation,  
751 social unrest, war/terrorism, information technology, and social media, environmental and  
752 sustainability issues, distribution of tourism benefits, and non-economic value of tourism.”  
753 These nuances are embodied within destination studies. Based upon the findings of the review-  
754 on-review and bibliometric analyses, the present study adopts the five external environmental

755 factors – political, ecological or environmental, economic, social, and technological – that are  
756 commonly outlined as tools used for situational analysis for future strategic purpose (Gadekar  
757 et al., 2022). We believe that these five macro aspects pose major challenges to destination  
758 management and hence, create opportunities for new destination scholarship that can  
759 accommodate adversities from global threats.

### 760 *Ecological degradation*

761 Tourism destinations have been developed at the expense of the environment (Liu et al.,  
762 2022). The frequency and severity of natural catastrophes have increased at an alarming rate  
763 due to climate change (Tan et al., 2021). At the time of writing, we have witnessed a record  
764 high temperature and drought in Europe and many parts of the world, while other destinations  
765 are facing unprecedented tornadoes and thunderstorms in December. These extenuating  
766 circumstances, on one hand, challenge the seasonality of tourism, making it difficult for  
767 destinations and tourists to plan and engage in normal travel activities. On the other hand, it  
768 induces environmental plights and hassles that prevent tourists from taking pleasure trips in  
769 certain areas during specific time periods.

770 Prior to the COVID-19 pandemic, tourism was responsible for 8% of the world's  
771 anthropogenic greenhouse gas emissions (Lenzen et al., 2018). As a major contributor to  
772 environmental deterioration, the tourism industry must take a greater initiative to go beyond  
773 taken-for-granted sustainable measures to embark on new avenues that can reduce its carbon  
774 footprint and emissions as well as to place the 4R (i.e., refuse, reduce, reuse, and recycle)  
775 principles at center stage. These issues necessitate new challenges that require destinations to  
776 take initiatives beyond the normal course of actions in governance, resource planning and  
777 allocation, and to prioritize environmental protection to save the planet and hence, the tourism  
778 industry. They could also hint at new approaches for destinations to seek greater collaboration  
779 not only among industries and stakeholders within a specific jurisdiction, but also among

780 regional and global partners to design and reinforce more ambitious sustainable development  
781 goals. Yet, there are many questions that remain largely unanswered: How could we nurture  
782 ecological collaborations among destinations? How could we better leverage technology and  
783 innovation to reduce carbon footprints and promote the 4Rs? How could we save destinations  
784 that are in danger of vanishing due to rises in sea level and extreme weather? Should we demote  
785 tourism for the sake of environmental longevity? What happens if this is just the incubation of  
786 a bigger ecological catastrophe, and what are some plausible remedies and plans that could  
787 sustain tourism and the planet? What is the socio-emotional cost for depletion of natural  
788 resources?

### 789 *Economic turmoil*

790 The tourism industry experienced an acute loss of up to US\$4.5 trillion in 2020 due to  
791 the COVID-19 outbreak (WTTC, 2021). These economic issues coupled with record high oil  
792 and gas prices, inflation, and depreciation of currency have created global economic turmoil at  
793 the time of writing. Deterioration of economic conditions render as signs for escalating tension  
794 over recession and hence, decline in tourism activity with a direct impact on destinations  
795 worldwide.

796 While economic shrinkage is a temporary phenomenon for most nations and territories,  
797 developing and underdeveloped regions may face permanent hardship, as some of them are  
798 highly dependent on tourism. In fact, jurisdictions where tourism is the primary source of  
799 foreign exchange earnings, such as Sri Lanka, have been affected particularly hard. The country  
800 has called for national bankruptcy as the global tourism plight has inflicted damage on the  
801 nation's financial bottom line (Athas et al., 2022). Accordingly, there are many questions that  
802 have yet to be answered. How to mitigate the effects of declining tourism income on local  
803 economies in tourism dependent destinations? What happens when destinations go bankrupt  
804 and how can these places be saved? Would tourists still visit bankrupted cities given that these

805 places may be reluctant to host tourists in comfort (due to deterioration of tourism  
806 infrastructure)? Are there any alternative transportation and travel modes that could reduce  
807 travel cost? How could destinations prepare to be less vulnerable to threats from economic  
808 downturn?

### 809 *Social unrest*

810 As we are moving into the third year of the COVID pandemic, we have witnessed a  
811 large discrepancy between developed and underdeveloped countries in terms of vaccine  
812 distribution and medical coverage (Singh & Chattu, 2021). The huge disparity between these  
813 two markets creates unprecedented polarity in the travel industry; while tourism in the  
814 developed economies is recovering with acute demand (Huang et al., 2021), tourism in most  
815 undeveloped regions is still experiencing the worst downturn ever without any sign of  
816 rejuvenation. These destinations could be considered as at-risk markets that are overly reliant  
817 on one or a few source markets (McKercher & Mak, 2020) as well as heavily dependent on  
818 tourism as the main source of income. Sooner or later, these markets will follow suit and may  
819 go bankrupt, similar to the case of Sri Lanka. At the meantime, destinations are facing a  
820 dilemma whether to freely open their national borders; with the risk that new variants of  
821 COVID and other pathogenic viruses (e.g., Monkeypox) could escalate to a new health crisis,  
822 or that mobility could be restricted by the imposition of visa, vaccine, nucleic acid test, and  
823 quarantine measures, at the price of alienating tourists at large.

824 On the other hand, humanitarian crises in African nations not only have cast devastating  
825 impacts to each of their own countries, but they have brought chaos to neighboring and  
826 European nations. On the other hand, the living-cost crisis in Europe due to double-digit  
827 inflation, for example, has led to massive strikes in major tourism cities, leading to blockage  
828 of mobility and travel facilities. Notwithstanding the preliminary exploration of previous  
829 studies on destination image rehabilitation (Avraham, 2015; Mair et al., 2016), questions of

830 how and how long it will take a destination to rebuild their destination image remain largely  
831 unanswered. Other questions include: What are the long-term impacts to a destination that  
832 experiences a social crisis? What are the roles of different stakeholders (e.g., government,  
833 residents, tourists, and industry operators) in the crisis and image recovery process? How could  
834 tourism (re)build the social fabric and facilitate solidarity among different interest groups?  
835 What is the optimal solution to resolve the mobility versus pathogenic risk dilemma? Should  
836 we revise Butler's tourist area lifecycle to reflect the COVID variant lifecycle?

### 837 **Political disputes**

838         Discrepancies in political ideologies have sparked major confrontations within and  
839 among nations. People are reluctant to travel to a hostile environment when tourists' lives are  
840 in jeopardy. Accordingly, civil wars have torn apart countries such as Myanmar, Sudan, Syria,  
841 Yemen, Iraq, Ethiopia, and Nigeria, impeding tourism development in these areas. Yet,  
842 international conflicts have also escalated in developed and developing economies, such as the  
843 war in the Ukraine (Ero & Atwood, 2022).

844         Seyfi et al. (2022) have recently reviewed the dichotomy between pro- and anti-political  
845 sanctions and argued, from the perspective of SDG development initiatives, that political  
846 confrontation should not affect the fundamental rights of civil exchange, including the right to  
847 free mobility. However, as tension among global powers escalates over time, tourism can often  
848 be utilized as a means for sanction and other political agendas (Cheng et al., 2016). For example,  
849 some European Union members are calling to ban Russian tourists. However, destination  
850 research still lacks knowledge answering questions pertinent to such new geopolitical  
851 developments and policy. Future research may seek to address questions such as: How do  
852 destinations respond to political disputes? How do diplomatic frictions affect tourist destination  
853 image, choice, and loyalty? How should tourists, operators, and destinations deal with  
854 sanctions and other political constraints? Would visiting countries that have conflicting

855 political views bring dire consequences to tourists?

## 856 **Technological disruption**

857 Innovations are often meant to be disruptive to existing taken-for-granted business  
858 models. The advent of share accommodation has disrupted the hotel industry and has redefined  
859 the relationship between host and guest (Cheng, 2016). Artificial intelligence and robotic  
860 service have changed the course of customer service and human interaction (Xiong et al., 2021).  
861 Virtual tourism provides an alternative travel experience via cyberspace. For example,  
862 Airbnb's Online Experience takes it a step forward by injecting endless hedonic and restorative  
863 potential through a high density of social interactivity similar to benefits reaped from the  
864 corporeal travel counterpart (Wong et al., 2022). Web 5.0 allows tourists to reclaim their own  
865 data (e.g., user-generated contents) and to seek greater control on their identities. It further  
866 affords emotional-sensing applications and hence, creates an emotive sensory Web in the  
867 virtual space (Lv et al., 2020). Metaverse travel takes imagination to a different level to embody  
868 a wide range of virtual-reality experiences in a fantasy world (Park & Kim, 2022). It creates  
869 unprecedented and unlimited new destinations, attractions, events, theme parks, and more.

870 However, technologies are not always an antidote to problems of the tourism business,  
871 as they could be both an experience facilitator and inhibitor (Yu et al., 2018). Likewise,  
872 technologies can bring exceptional solutions to operators, but they could also deter business  
873 value and expose destinations to new threats such as cyber-attacks, data theft, technical  
874 disruptions and more (Gadekar et al., 2022). Accordingly, advancement of technology opens  
875 new research avenues with new questions for destination studies to be answered: Does using  
876 more technology make a destination and its tourists smarter? How could technology improve  
877 destination sustainability? How should DMOs and operators capitalize on the metaverse to  
878 promote destination/tourism products and market appeals? How can tourism products and  
879 tourist experiences be transferred into non-fungible tokens that can be traded in cyberspace?

880 What are the potential perils of smart tourism and destinations? Would hyperreality and alter  
881 reality be a replacement for genuine authenticity in a destination?

882 We believe that the aforementioned questions open a new forum of discussion on  
883 destination research. Answering these queries may lead to development of new knowledge  
884 pertinent to a more sustainable tourism ecosystem along with betterment of destination  
885 management. Accordingly, this inquiry sets forth a future research agenda to seek greater  
886 endeavors in addressing the research void pertinent to different environmental forces. On one  
887 hand, these external factors pose opportunities for DMOs and operators to better manage  
888 attractions and resorts. On the other hand, they impose threats that could weaken the status quo  
889 of the tourism ecosystem. The COVID pandemic has proved that most destinations are not  
890 prepared for mega disruption. Acute environmental changes impose adversity to DMOs,  
891 suppliers, and decision makers; and they should actively seek solutions with new knowledge  
892 that could effectively prepare for, respond to, and overcome challenges that lie ahead.  
893 Integrating different streams of destination inquiries thus emerges at the forefront of nascent  
894 tourism scholarship, with practical implication for stakeholders.

895 Future research could focus on the challenges and conflicts facing destination  
896 development and build advanced and resilient systems. Additionally, Shneider (2009)  
897 contended that expanding and improving the corpus of scientific knowledge requires  
898 investigating novel phenomena, methodologies, technical instruments, and the spillover effects  
899 on the growth of other disciplines. Destinations undergo rapid and complicated changes.  
900 However, current research methods still suffer from many limitations. Basic statistical analysis  
901 alone may not be adequate to solve complex problems in destination management. Additionally,  
902 cross-sectional data analysis methods are time sensitive and may fail to deal with the dynamic  
903 changing nature of destination management, thus casting doubt on their practical implications.  
904 This study proposes that future research should incorporate more mixed approaches to be

905 commensurate the evolving nature of destinations.

906

### 907 **6.3 Research limitations**

908       The research limitations of this study are threefold. First, the bibliometric analysis relies  
909 on a well-established database, such as the Web of Science core collection, where data for this  
910 study has been extracted. As a leading citation database, Web of Science provides information  
911 on all citing and cited references of an article for advanced analysis, such as co-citation and  
912 structural variation analysis, using the program CiteSpace. Timeframe selection also has a  
913 nonnegligible effect on the construction of the literature base. If a different time span has been  
914 used (for instance, 10 or 50 years), this boundary-spanning effect of the broker studies with  
915 high SVA scores should also be altered. These questions should be addressed by subsequent  
916 research. Future research could broaden the filtering criteria to include non-SSCI journals and  
917 disciplines other than tourism. Another limitation of this study is that articles published in  
918 languages other than English are not collected and analyzed. Future studies might gather and  
919 evaluate destination studies published in various languages and publications for analysis to  
920 improve the construction of the body of knowledge. Third, a title reflects the originality of a  
921 research article (Whittaker, 1989). Thus, this study assumes that authors were circumspect in  
922 naming their papers. However, the limited number of words in a title does not always convey  
923 the entire essence of an article. Thus, the results of subsequent bibliometric analysis may be  
924 compromised because of imprecise wording or misleading headlines (Donthu et al., 2021). For  
925 example, this study does not include research that examines destinations but uses a different  
926 term in their titles. Future research should focus on developing more advanced and rigorous  
927 algorithms to deal with such problems.

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