Crisis Management As A Form Of Tourism Policy Transformation: Review Of Tourism Resilience Research

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Abstract

Tourism is the most impact sector during the Covid-19 pandemic crisis, and this shows that there are still severe problems between theoretical and practical understanding in developing tourism as sustainable sector. Reviewing various references related to sustainable tourism, in the end, we come to understand that resilience is the basis for shaping tourism. The research was carried out utilizing 277 journals and 36 scientific documents with the main keywords 'tourism' and 'resilience' indexed by Scopus and Google Scholar. The databases were analyzed using the bibliometrics approach utilizing various computer software, especially VosViewer 1.16.8 and Publish or Perish 8. The main objective of this paper is to observe trends and study patterns of tourism resilience, especially understanding management and government adaptation strategies as potential future research. Based on this article, future research can be expected to deal with various threats in the tourism sector. The results showed that 62 keywords were most related to tourism resilience, which further grouped as five clusters of keywords, including 1) Tourism as a Socio-Ecological System; 2) Vulnerability of Tourism Destinations; 3) Sustainable Tourism Governance; 4) Risk-Based Tourism, and 5) Integrated Tourism. Tourism at least requires leaders who have innovation, collaborative communities, and adaptation patterns. Resilient tourism must utilize artificial intelligence, big data, media publications, news, and information. Tourism also requires strengthening the social system with the active involvement of various stakeholders. One of the exciting things in tourism resilience research as we advance is how to respond quickly as an early warning of a crisis with integrated control of various sectors, especially the government and society.

Keywords: Tourism resilience, crisis management, bibliometrics analysis, policy transformation, adaptive tourism, sustainable tourism

1. Introduction

Tourism is an absolute necessity in an open era with life dynamics that tend to be out of control. The need for tourism development is still focusing on the micro context prioritized at studies of optimization of services, while the way of improving the macroeconomy as a support for the national economy is still limited (Cahyadi & Newsome, 2021). At the Macro level, tourism is described as an economic sector that has a significant impact on fulfilling employment opportunities, transferring knowledge and technology across regions and countries, and as a way of ensuring the distribution of services in the form of cultural values and environmental utilization (Auster et al., 2020; Cheng & Xu, 2021; Hall, 2019). The

tourism sector is often a sector that triggers economic growth in sectors such as industry (Nugroho, 2020), trading (X. Zhang et al., 2022), transportation, and even food and agriculture (Wang et al., 2022; Wu et al., 2022; Yang et al., 2022), the failure to properly manage the tourism is often associated with an increase in the poverty rate (Yang et al., 2021).

During the Covid-19 Pandemic crisis, the collapse of tourism provided an understanding that the tourism was weak as a supporting sector for the national economy, so it was necessary to mitigate various possible threats. The connection between tourism and the socio-economic community can illustrate the need for resilience in tourism (Mattson, 2020). In particular, various problems, such as natural disasters, terrorism, and political conflicts, have significantly impacted tourism. Thailand 2011 suffered losses of up to three billion US dollars due to the closure of airport access during the flash floods (Noy, 2015). The big storm in 2017 in the Caribbean Islands caused losses of up to 741 million US $ due to the closure of the tourism sector. In Indonesia, the 2002 Bali bombings have affected a 3.5 percent increase in the unemployment rate, of which 22.6 percent of households experienced a decreased income (Pambudi et al., 2009).

Apart from the various crises in the tourism sector, there is still the potential for significant economic improvement (Budiyanti, 2020). The case of Bali-Indonesia can be a real example. The Indonesian Central Bureau of Statistics noted a significant increase in tourism in Bali despite the Bali bombing incident. The number of tourists coming to Indonesia in 2014 was 3.73 million, far more than in 2001 before the Bali bombing of 1.38 million people (Gurtner, 2016). Of course, this illustrates that there is an equilibrium point and the return of a problem after a conflict and unique control as one unit of the principle of resilience. The tourism sector can be accelerated through the Covid-19 pandemic positively as exclusive tourism prioritizes eco-friendly tourism prioritizing quality over quantity (Cahyadi & Newsome,

2021), thus providing benefits and being more sustainable.

Many studies state that tourism is not optimal due to low human resources, lack of political alignment, not yet considered the importance of tourism for the community, and lack of qualified facilities and infrastructure, resulting in low access to capital in the tourism sector, even recent studies also describe the inability see the socio-ecological system as an interaction between humans and nature as a whole in tourism. Various previous studies also illustrate that tourism is not optimal due to the lack of resilience, where the complexity of tourism has not been studied as a whole.

Tourism studies in times of crisis, especially in studies on the formation of resilient tourism, have been initiated. Research conducted on similar themes can be observed in the context of literature studies utilizing various Bibliometrics citations and visualizations with network structure studies so that there is an illustration of the connection between one theme and another (Jiang et al., 2019; Mair et al., 2016; Ritchie & Jiang, 2019). The research in this paper seeks to reconstruct similar research. However, it is focused on the macro context, primarily forming a study of tourism resilience as an integral part of national resilience, especially in its efforts to build optimal policies for the government. This study utilized 277 journals and 36 scientific documents with the keywords 'tourism' and 'resilience' contained/indexed by Scopus and Google Scholar. Through this paper, it is hoped that the following objectives will be achieved: first, to provide an overview and analysis of trends and patterns in the study of tourism resilience, especially related to critical points, main topics, and linkages across research; second, helping readers to understand more broadly the theme of tourism resilience research, especially concerning government adaptation management and strategies; thirdly, it is hoped that it can also assist in constructing a theoretical focus on tourism resilience studies

which tends to be complex and multidisciplinary.

2. Methods

Research using bibliometrics makes it possible to illustrate the analysis of various kinds of articles from various dimensions and approaches (van Raan, 2019; Xie et al., 2021). Topics of interest to researchers over a while can also be well illustrated (Hallinger & Kovačević, 2023; Marx et al., 2014). Until now, bibliometrics has often been used to analyze various references through a quantitative approach (Hiruy et al., 2019; Kokol et al., 2021; Olson & Pinto da Silva, 2021).

Various sources used in bibliometrics analysis are Web of Science, Scopus, Google Scholar, Microsoft Academic, Crossref, dan Dimensions (Halevi et al., 2017). Until now, analysis using Scopus data is still a favorite. Scopus data based is related to the broad reach of the study and the credibility of the data and information contained in 5,000 publishers and 21,950 journals. Scopus is also considered a source of accurate information containing various data and periodicals since the 1970s (Ritchie & Jiang, 2019). One source of data that is quite important and involves more authors is Google Scholar, where Google Scholar is a very familiar reference source and tends to be easily accessible without reducing the credibility of the information where the authors have been adequately verified (Halevi et al., 2017).

2.1 Data Collection

The primary data in this paper is recorded from the Scopus and Google Scholar databases retrieved through the Publish or Perish 8. The data is narrowed down through journal themes or scientific articles with titles containing the words 'resilience' and/or 'tourism'. Documents used as data are documents published from 1990 to 2022. Furthermore, the data and information obtained are reviewed manually

(utilizing the Mendeley Desktop version 1.19.8) to strengthen and ensure the relationship between titles, abstracts, and appropriate keywords with the initial theme set. In this research, we used 277 journals and 36 scientific documents.

2.2 Research methods

The VosViewer (version 1.6.18) quantifies and displays previously collected bibliometrics records. Blibiometrics analysis makes it possible to describe the relationship between keywords in the form of nodes in the form of a map. The node size is directly proportional to the number of keywords in the article. The visualization approach is based on distances between nodes. The keyword, therefore, short distances between nodes reveals a closer relationship between nodes (Gradus et al., 2017; van Eck & Waltman, 2010).

3. Results and Discussion

3.1 Information on the development of tourism resilience publications

The change in the number of articles related to tourism resilience is quite interesting to observe as a form of dynamic global development patterns towards this theme. Studies like this have been described to explain how an article becomes a trend globally (C. Zhang et al., 2018). The publications of tourism resilience developed massively in 2020-2022 when the tourism sector was significantly affected by the Covid-19 pandemic. More than 130 articles in 2021, far more than in previous years, were below 20 reports each year. The theme of tourism resilience that We read in the database for the period 1990-2000 was only three articles each for 1995, 1999, and 2000. The period of gradual development of the number of articles on the tourism resilience theme began in 2005. The whole picture of the trend of publication development of the composition of tourism resilience can be observed in fig. 1 below.
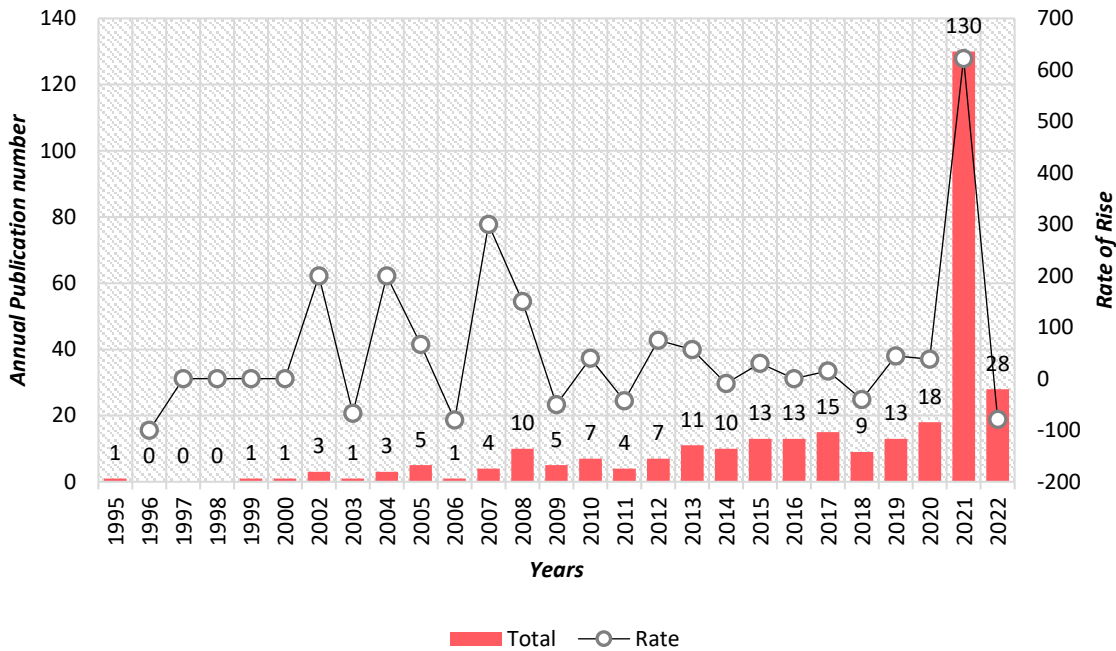
Figure 1 Number and trend of articles with the theme of tourism resilience for the period 1995-2022 (data source: Google Scholar and Scopus)

Through the number and percentage of trending articles on the theme of tourism resilience, the developmental periods of the reports can be grouped as follows:

1) Early Development Phase (1995-2004). In this phase, there were only ten articles on tourism resilience, and there was no significant increase in the number of pieces. The unique feature of this phase is the emergence of an increase in early 2000. On average, the increase in articles in this phase is 29% annually.

2) Fluctuative Increase Phase (2005-2014). This phase can be said to be a period where tourism resilience studies begin to experience a significant increase compared to the previous stage. The percentage increase in the number of articles in this phase reaches 50.7% per year. The number of articles with the theme of tourism resilience in these ten years reached 64 articles, far more than the previous period, which was only around ten pieces. However, the theme of tourism resilience does not

increase stably every year, which tends to fluctuate, with the three highest numbers of articles, respectively, in 2013 (11 articles), 2014 (10 articles), and 2008 (10 articles).

3) Stable Development Phase (2015-2019). Since 2015, studies on tourism resilience have increased, although not significantly. The number of articles published in this period is 63, the same as the previous period, although it only has a span of 5 years. Approximately 13 pieces with the same theme are published annually, which is relatively stable except for a decrease in 2018 with only nine articles. The percentage of article publications in this period was not as large as in the previous period and even tended to be low, only around 10%.

4) Dramatic Development Phase (2020-2022). In three years, articles with the theme of tourism resilience have increased significantly, especially in 2020, with 130 pieces. During this time, 176 articles were published or accounted for 56.2% of the total

published articles on the same theme in the 1995-2022 period. The average percentage increase in articles each year is 194% from the previous year.

3.2 Trends in Journals and Citations

The journal that has published the most studies on tourism resilience is Sustainability (Switzerland), with 21 articles, followed by the Journal of Sustainable Tourism, with 18 pieces, and Tourism Management (12 articles). The treemap graphic below provides a distribution of how the topic of tourism resilience is contained in various journals. These journals focus on environmental management and sustainable development themes to focus on tourism issues. There are 138 journals containing 277 articles with the theme of tourism resilience, whereas the average journal includes two pieces from 1995 to 2022.

Figure 2 Treemap comparison of the number of journals with the theme of tourism resilience for the period 1995-2022 (N; Number of Articles, C: Number of citations)

Table 1 below illustrates that journals that have tended to discuss tourism resilience for a long time are the Journal of Sustainable Tourism and Tourism Management. These two journals discuss the study of tourism resilience from the 1995-2004 period, with the peak of the number of articles on this theme occurring in the 2015-2019 period. Several journals focused on ecological management, such as Marine Policy, Ecology and Society, Ocean and Coastal Management, and Agricultural Systems.

It is known that the Journal of Sustainable Tourism is the journal with the most sources of citations, even though it only contains 18 articles. This contrast with the Journal Sustainability (Switzerland) which has 21 pieces that are only cited 182 times. The Journal of Sustainable Tourism also recorded the most citations per article, namely 1508 times cited with the article title "Pandemics, tourism, and global change: a rapid assessment of Covid-19" by Gössling, Stefan, et al. (Gössling et al., 2020). One of the journals is also widely cited (the Annals of Tourism Research), with six articles mentioned an average of 98 times. The Journal of Annals of Tourism Research exceeds the average number of citations per article in the Journal of Tourism Management, with an average of 92 citations per article (there are 12 and 1108 citations). In particular, the Journal of Business Research, which only published one piece on the theme of tourism resilience by

Sigala, Marianna with the title "Tourism and covid-19: Impacts and implications for advancing and resetting industry and research" was also recorded as having quite a lot of citations at 590 times (Sigala, 2020).

Table 1 Journal and publication period (at least three publications on the theme of tourism resilience)

Journal	Articles	Citations	1995-2004	2005-2014	2015-2019	2020-2022
Sustainability (Switzerland)	21	182			2	19
Journal of Sustainable Tourism	18	2166	1	4	7	6
Tourism Management	12	1108	1	1	6	4
Tourism Geographies	9	948			2	7
Current Issues in Tourism	8	273		2		6
Marine Policy	7	311		5	1	1
Ecology and Society	7	734	2	4		1
Journal of Environmental Management	6	230		2	2	2
International Journal of Disaster Risk Reduction	6	126			2	4
Annals of Tourism Research	6	589		2	1	3
Journal of Travel Research	5	106			1	4
International Journal of Contemporary Hospitality Management	5	47				5
Worldwide Hospitality and Tourism Themes	4	45			1	3
Ocean and Coastal Management	4	100		1	2	1
Geojournal of Tourism and Geosites	4	24				4
African Journal of Hospitality, Tourism and Leisure	4	61			1	3
Tourism Review International	3	54			2	1
Tourism Review	3	20				3
Tourism Recreation Research	3	149		1	1	1
Tourism Management Perspectives	3	105		1		2
PLoS ONE	3	163		2	1	
Journal of Tourism Futures	3	38			1	2
Journal of Hospitality and Tourism Management	3	76			1	2

Journal	Articles	Citations	1995-2004	2005-2014	2015-2019	2020-2022
Asia Pacific Journal of Tourism Research	3	63		1	1	1
Agricultural Systems	3	42				3

3.3 General Description of Keyword Research Connectivity

Keyword analysis makes it possible to provide an overview of what words appear frequently and how they relate to other words. The theme of tourism resilience is the basis for the keywords in this paper. The analysis results in this study make it possible to evaluate the trend of developing article topics in the 1995-2022 period. The number of keyword co-occurrences in the publication is 1106, where at least five keywords appear together in the title, abstract, or keyword list. This number was reduced to 131 after the creation of the thesaurus file. Sixty-two keywords met the threshold, and the results were grouped into 5 clusters (fig 3).
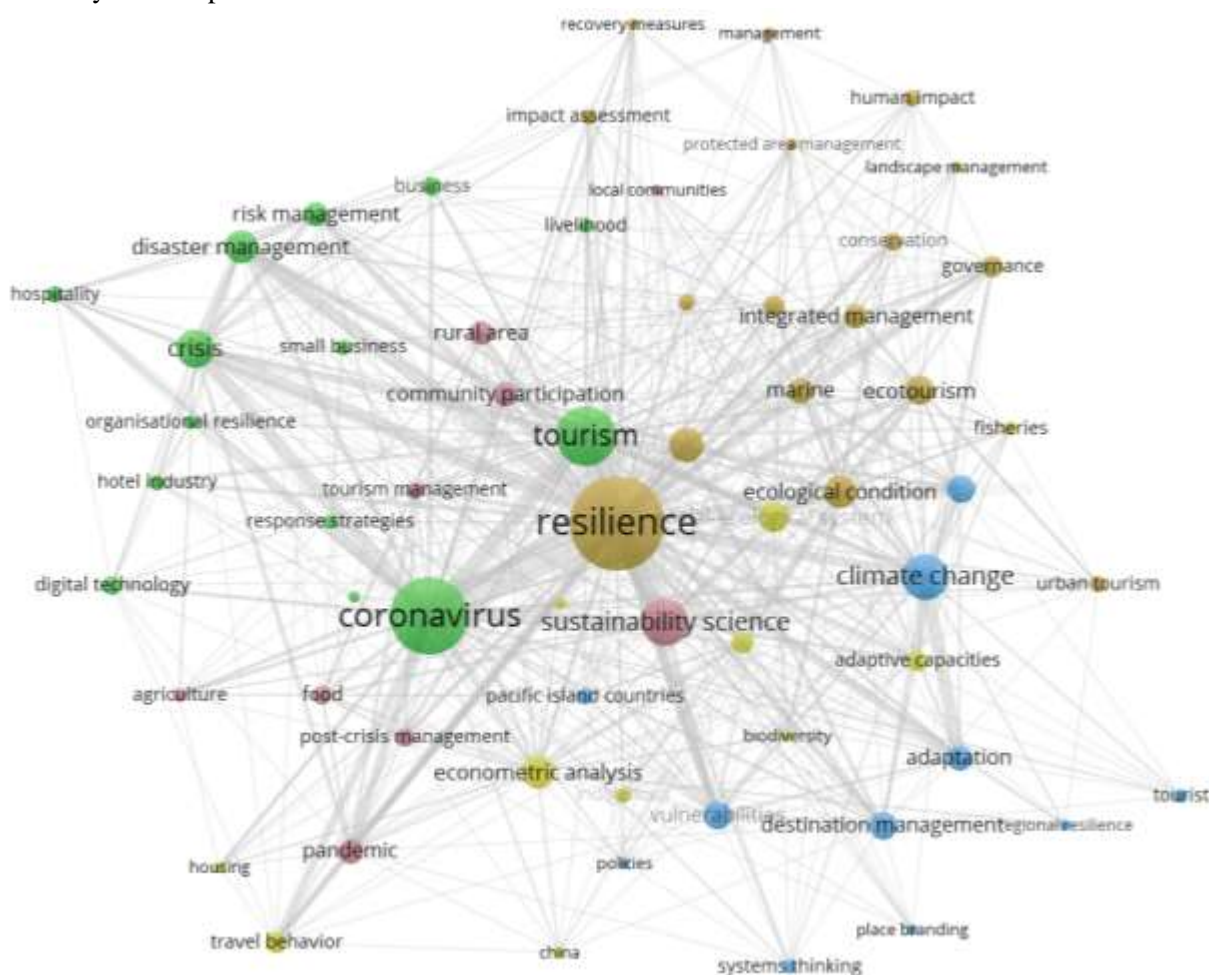

Figure 3 Network analysis map of the co-occurrence of the keywords 'Resilience' and 'Tourism' grouped into several clusters (Plot: VosViewer 1.16.8)

There are five clusters of co-occurrence analysis based on association strength. These clusters include; first, consisting of 17 items focused on policy-based governance and control efforts, where sustainable tourism and ecological conditions have the most occurrences, respectively 22 and 21 after the keyword 'resilience' is 94 times; secondly, this

cluster consists of 14 items discussing the linkages of crises, disasters, and risk management, apart from the words tourism and coronavirus, the words that appear the most are Crisis (26 times), Disaster Management (21 times), and Risk Management (14 times); third, this cluster contains 11 items that focus on efforts to protect ecosystems primarily related to climate change, this is indicated by the nodes that come out the most are climate change with 34 occurrences, destination management and vulnerabilities with 11 occurrences; fourth, the same as the previous cluster, there are 11 items arranged in it. Cluster four clarifies the

relationship between humans and nature in which economic interests are the primary basis, this is indicated by the most occurrences of the word econometric analysis with 21 appearances and social-ecological system with 19 appearances; fifth, this cluster contains nine keyword items that focus on sustainability studies with human involvement in efforts to achieve it, this is indicated by the most appearing keywords being sustainability science (35 times) and community participation (14 times). The whole picture of the results of the keyword cluster analysis can be observed in table 2 below.

Table 2 The relationship of keyword labels with the occurrence and number of relationships with other labels

Label	Cluster	Links	Total link strength	Occurrences	Averages Years of Publication
conservation	1	16	23	9	2017
ecological condition	1	28	58	21	2016
ecotourism	1	24	49	18	2017
governance	1	21	36	12	2018
human impact	1	11	15	8	2014
impact assessment	1	14	21	7	2018
integrated management	1	24	40	14	2017
landscape management	1	7	10	5	2013
management	1	9	11	5	2012
marine	1	24	39	15	2016
natural resource management	1	20	25	8	2016
protected area management	1	15	21	5	2017
recovery measures	1	11	19	5	2018
resilience	1	56	264	94	2018
social capital	1	23	33	11	2017
sustainable tourism	1	32	63	22	2019
urban tourism	1	13	17	8	2019
business	2	16	23	10	2020
coronavirus	2	47	173	72	2021
crisis	2	28	78	26	2019
digital technology	2	15	19	10	2021
disaster management	2	25	63	21	2019
hospitality	2	10	22	8	2021
hotel industry	2	13	21	7	2020

Label	Cluster	Links	Total link strength	Occurrences	Averages Years of Publication
livelihood	2	15	19	6	2019
organisational resilience	2	12	17	6	2020
response strategies	2	13	16	6	2017
risk management	2	19	40	14	2018
service industry	2	10	11	5	2018
small business	2	14	14	7	2011
tourism	2	48	141	49	2017
adaptation	3	20	46	15	2016
climate change	3	37	94	34	2017
coastal studies	3	25	44	17	2015
destination management	3	21	38	17	2019
pacific island countries	3	15	19	8	2019
place branding	3	9	10	5	2016
policies	3	15	16	5	2016
regional resilience	3	7	10	5	2015
systems thinking	3	12	15	6	2019
tourist	3	8	10	6	2019
vulnerabilities	3	27	52	17	2016
adaptive capacities	4	22	36	11	2014
biodiversity	4	13	17	5	2010
china	4	11	13	5	2015
cultural ecosystem services	4	22	35	12	2018
econometric analysis	4	31	51	21	2017
fisheries	4	12	20	6	2015
housing	4	9	14	5	2021
indigenous	4	16	18	7	2014
social-ecological system	4	28	49	19	2016
thailand	4	14	16	5	2017
travel behavior	4	13	27	12	2021
agriculture	5	13	20	6	2020
community participation	5	29	40	14	2019
food	5	15	27	10	2020
local communities	5	11	13	5	2018
pandemic	5	22	48	15	2021
post-crisis management	5	14	23	10	2021
rural area	5	15	25	14	2017
sustainability science	5	39	94	35	2017
tourism management	5	20	33	9	2017

3.4 Cluster of Tourism Resilience Research

Cluster analysis is often used to overview how keywords relate to themes, especially latent semantic information, and overlap between

them (Hossain et al., 2011), Cluster analysis also makes it possible to represent the main terms appearing in an observed theme (Waltman et al., 2010). This paper seeks to combine various keyword items in certain groups so they can be easily observed and interpreted clearly. Figure 3 and table 2 have previously shown an analysis of the linkages between research keywords through a series of bibliometrics analyses. One of the exciting results is that there are five clusters of keywords that have a solid relationship with each other, especially concerning the number of occurrences and the frequency with which these themes are connected.

3.4.1 Cluster 1 (Sustainable Tourism Governance)

This first cluster is a cluster that appears with an average publication year of 2017, where various keywords are connected in the keyword 'resilience' as the primary link. The main essential keywords are sustainable tourism, ecological conditions, ecotourism, and other attractions institutions and integrated management (fig. 4). This is in line with the understanding that the tourism sector must understand how the tourism process operates from social, economic, institutional, and

ecological perspectives, which is very important for effective planning (Holladay & Powell, 2013). This becomes interesting when it is noticed that the tourism sector often mentions the importance of sustainable tourism but has not optimally involved various sectors as the key to its management (Butler, 2018).

At first, the concept of nature-based tourism became a serious challenge, where management that did not observe the main view of the ecological scientific approach was considered not to carry out the concept of sustainable tourism management (Tyler & Dangerfield, 1999). In the early era, the sustainable tourism study approach ultimately contained a lot of ecological-based studies and focused on human impacts on activities in nature (Cockerell & Jones, 2021; Cullen-Unsworth et al., 2014; Devlin, 2007; Furman et al., 2021; Jones, 2013; Kildow & McIlgorm, 2010; Ruckelshaus et al., 2013; Waltham & Sheaves, 2015). The study of sustainable tourism has received particular attention when increasing policies related to sustainable development goals play an essential role in various sectors, including tourism (Elías et al., 2005; Moriarty, 2012; Sánchez-Zamora et al., 2014; Scheyvens & Momsen, 2008).
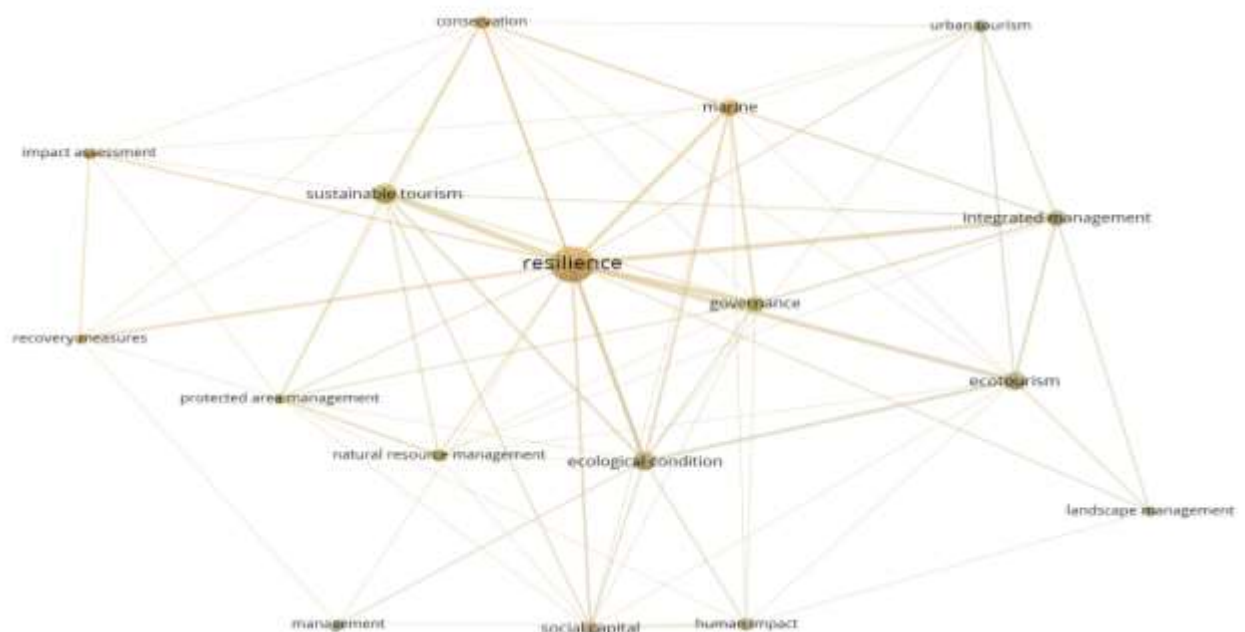

Figure 4 Cluster 1 with the trend of the theme 'Sustainable Tourism Governance'

3.4.2 Cluster 2 (Risk-Based Tourism)

The second cluster is a study that has arisen cumulatively due to the response to the emergence of the Covid-19 pandemic and its impact on the decline in the tourism sector. This cluster has an average year of publication that is relatively new, namely, 2018. The average year of this publication can illustrate that tourism studies (by observing various risks) have been studied for a long time but only received special attention when a pandemic emerged (figure 5). Risk-based tourism studies were initially focused on understanding how tourists can vacation safely, avoiding security risks that occur in a tourist destination (Coaffee & Rogers, 2008; Hunter-Jones et al., 2007), the development of the issue of climate change (Sovacool, 2012) and natural disasters (Hewitt-Dundas et al., 2019; Khew et al., 2015) make the concept of risk-based tourism even more complex. Risk-based tourism seeks an active managerial role in mitigating various threats that may arise (Brown et al., 2017; Ritchie & Jiang, 2019).

Studies with this theme were increasingly discussed when the Covid-19 pandemic emerged, to which the tourism sector could not respond appropriately. The Covid-19 pandemic tends to be seen as an issue of accelerating multi-threat mitigation in the tourism sector, so a new approach is needed and replaces old ways that are considered to have failed (Cook & Jóhannsdóttir, 2021; Giuliani et al., 2021; Loehr & Becken, 2021). Various studies exploring the concept of tourism resilience by utilizing different new scientific and technological approaches continue to be a hallmark of studies in this approach (Badoc-Gonzales et al., 2021; Finzi et al., 2021; Nguyen et al., 2021). This theme continues to receive special attention, often associated with efforts to recover the tourism sector after the Covid-19 pandemic (Han et al., 2022; Kim et al., 2022).
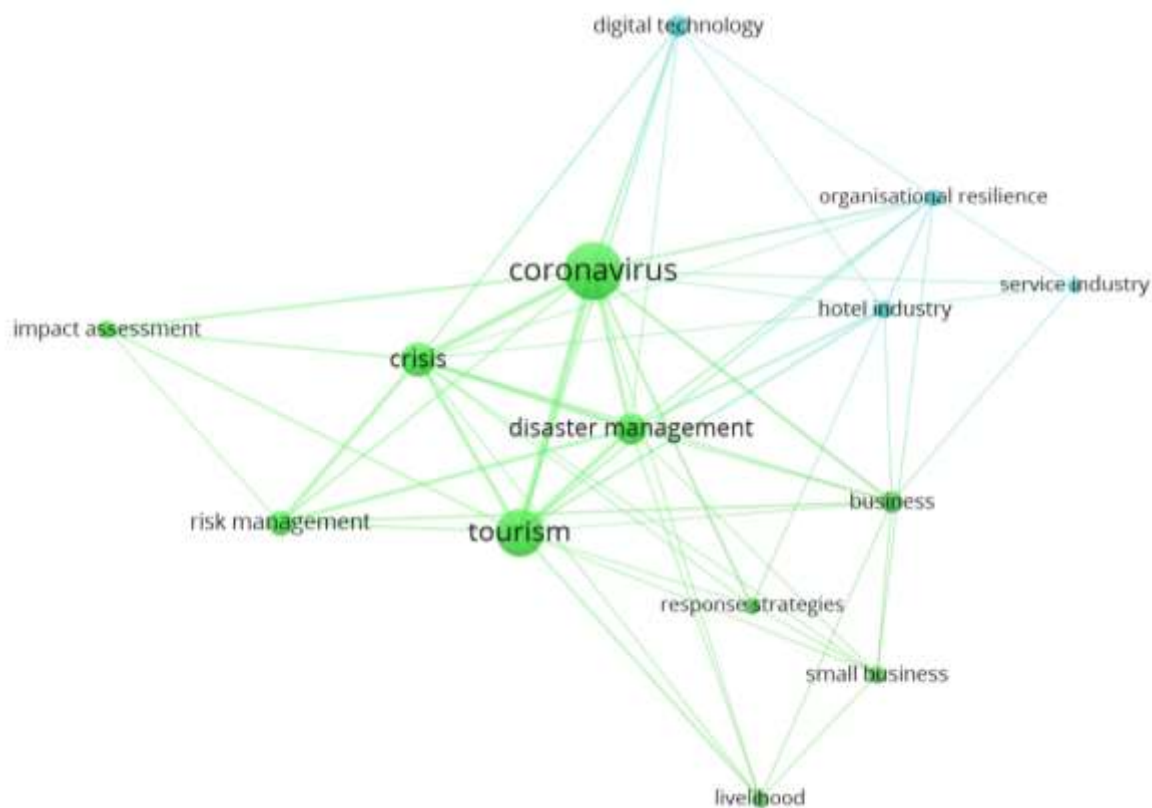

Figure 5 Cluster 2 with the theme of 'Risk-Based Tourism'

3.4.2 Cluster 3 (Vulnerability of Tourism Destinations)

The theme considered appropriate for this cluster is the vulnerability of tourist destinations; this study is relatively the same as cluster 1, which on average, in 2017 (fig. 6). Studies related to the vulnerability of goals tend to be focused on the issue of climate change as an integral part. This issue became important triggered by the 2012–2022 World Bank records regarding the potential for 'environmental degradation, pollution or overexploitation of natural resources to impede economic progress (World Bank, 2012), significantly impacting countries in the Pacific islands. This issue develops into population growth, environmental and resource management, and food security. This relationship requires an adaptive response, especially in the face of the growing social and spatial impacts of climate change and global warming (Heasman & Lang, 2004). This is reinforced by the study of Cheer and Lew

(2017) related to tourism with the complexity of the development of the modern world as various constituent elements such as business resilience, complex adaptive systems (CAS), ecological resilience, technical resilience, evolutionary resilience, rapid change, fast variables, slow change, slow variable, social capital, social resilience, and social-ecological system (SES).

Tourism According to climate change studies began to gain ground in early 2010 (Jopp et al., 2010, 2013), This theme developed to present theories that intersect between destination resilience and sustainable tourism (Alvarez et al., 2022; Andraz & Rodrigues, 2016; Calgaro et al., 2014; Hartman, 2021; Holladay, 2018). This study has received particular attention when supporting tourism managers and policymakers in developing more adaptive strategies in dealing with the vulnerability, increased risk, and uncertainty of crises and disasters (Bethune et al., 2022; Bhaskara & Filimonau, 2021; Cavallaro et al., 2021) .
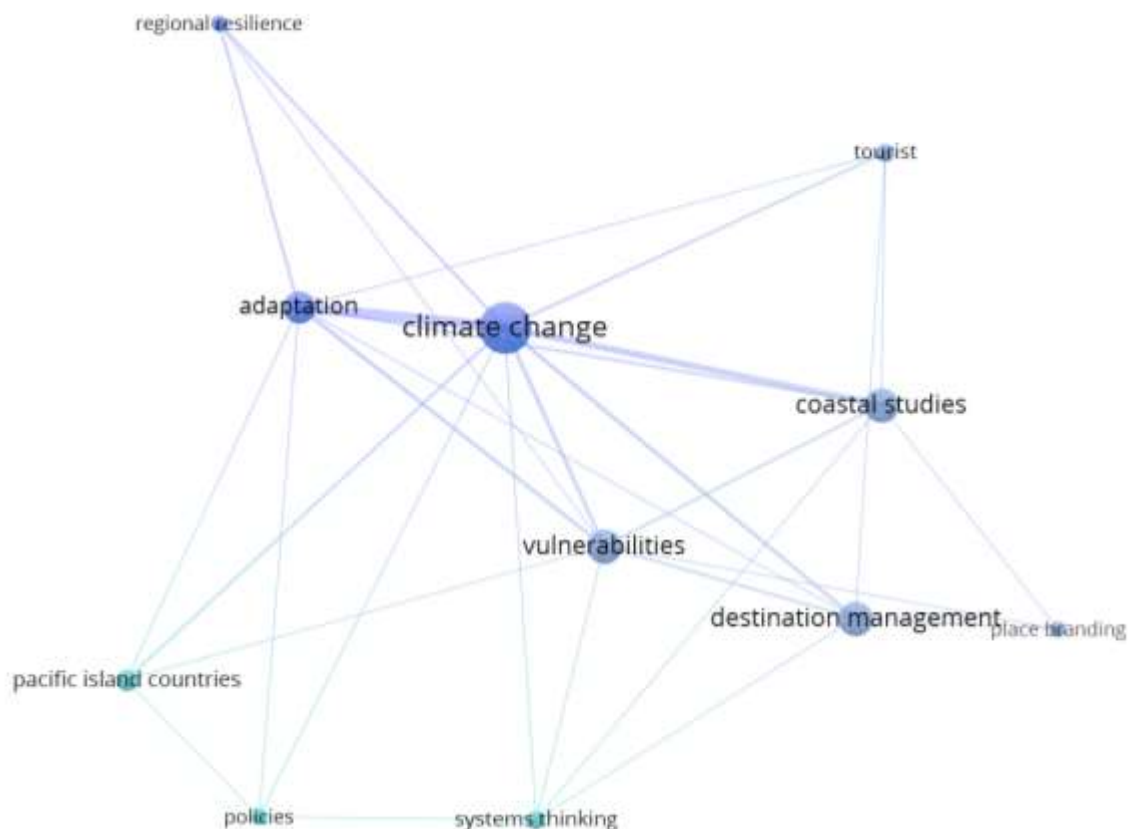
Figure 6 Cluster 3 with the tendency of the theme 'Vulnerability of Tourism Destinations'

3.4.3 Cluster 4 (Tourism as a Socio-Ecological System)

The fourth cluster has the most extended average publication year, namely 2016. This cluster has 11 keywords that are interconnected and form a unique theme (fig. 7). The keywords often appear in this cluster are econometric analysis and social-ecological system. These two keywords are related, where specific patterns of natural resource utilization (concept of ecosystem services) are associated with ecological sustainability and human welfare (Ayala & Manzano, 2014; Dann & Chambers, 2013; Dvarskas, 2017). Analysis of ecosystem services based on economics plays a vital role in understanding how tourism can work well (de Juan et al., 2017; de Luca et al., 2021). This is related to the negative impacts of human activities through tourism, which often affects damage the ecosystem (Allan et al., 2015; Frazier et al., 2012).

Tourism at the beginning of the study was inseparable from how it generates economic value for a country (Palaskasy et al., 2014). Like a crisis in the ecological system, the financial crisis has had a significant impact on the tourism sector (Cave & Dredge, 2020; Chiriko, 2021; Stevenson et al., 2017), However, rural areas with ecological strength tend to be more resilient than urban areas (Giannakis & Bruggeman, 2017; Sánchez-Zamora et al., 2014). his study developed rapidly when it combined with a bottom-up approach that focuses on the response of people's behavior in estimating the total economic impact of the crisis (Lasso & Dahles, 2018; Rose et al., 2009; Secco et al., 2019), as well as with the role of understanding tourist habits (Dvarskas, 2017; Lasso & Dahles, 2018; Secco et al., 2019). Studies with this theme are currently often focused on the tourism sector (including tourists) in China (Hu et al., 2021; Liu et al., 2022; Zeng et al., 2005) and in Thailand (Bennett et al., 2014; Nitivattananon & Srinonil, 2019; Smith & Henderson, 2008).
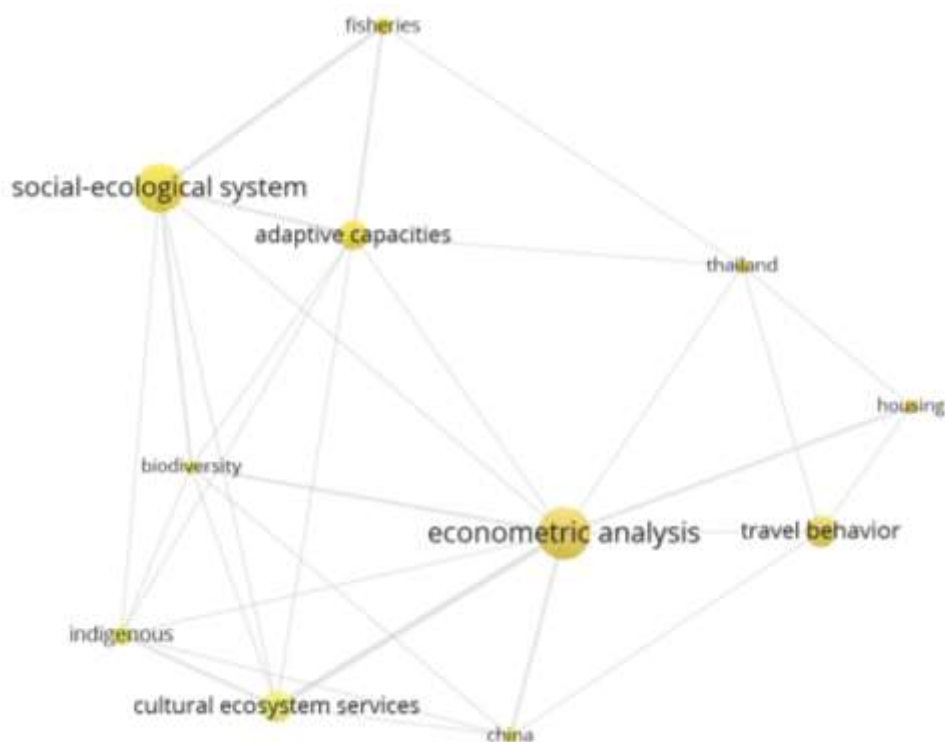
Figure 7 Cluster 4 with the tendency of the theme 'Tourism as a Socio-Ecological System'

3.4.4   Cluster 5 (Integrated Tourism)

The fifth cluster in this study is composed of 9 keywords and is a cluster that tends to appear recently, where the average publication is 2019. This cluster has a strong relationship with the previous groups, where the primary approach in building this cluster is research. Sustainability (figure 8). This cluster is closely related to cluster 2, but the primary trend in this cluster is efforts to solve crisis problems, especially recovery responses (Daniels & Tichaawa, 2021; Galanakis et al., 2022; Jin et al., 2022; Smith Johnson et al., 2022). One of the essential points in post-crisis recovery is seeking an integrated cross-sectoral approach rooted in scientific studies on sustainability (Adams et al., 2021; Kim et al., 2022; Spanaki et al., 2021).

The formulation of efforts to ensure that tourism can be maintained for a long time without a severe environmental impact is often the subject of serious debate (Casagrandi & Rinaldi, 2002). Such a study eventually gives birth to a conception of the theme that emphasizes complexity, where the integration of various factors such as ecology, society, and economics is the primary driver of landscape changes and dynamics (Lacitignola et al., 2007; Tyrrell & Johnston, 2008; Weaver, 2017). The context of this study gives birth to how the adaptation of the tourism sector not only ensures that the needs of the industry are met but also ensures that the industry has an impact on changes in the social system as a whole (Hanazaki et al., 2013; Sidali et al., 2015).

The context of the study with this theme can be said to be the future of sustainable tourism studies, where the involvement of various actors and the impact of tourism on more comprehensive economic and social improvement can become the primary basis for the study. Even so, studies like this have been prepared for a long time, and there are 'claims' that have been practically implemented. Still, the crisis of the Covid-19 pandemic provides an honest answer that the sustainability and involvement of various parties in ensuring the tourism sector run well can be said to be not optimal. Once again, the Covid-19 pandemic also explains how vulnerable the world community is, which is currently very dependent on the service sector as an icon of a sustainable economy.
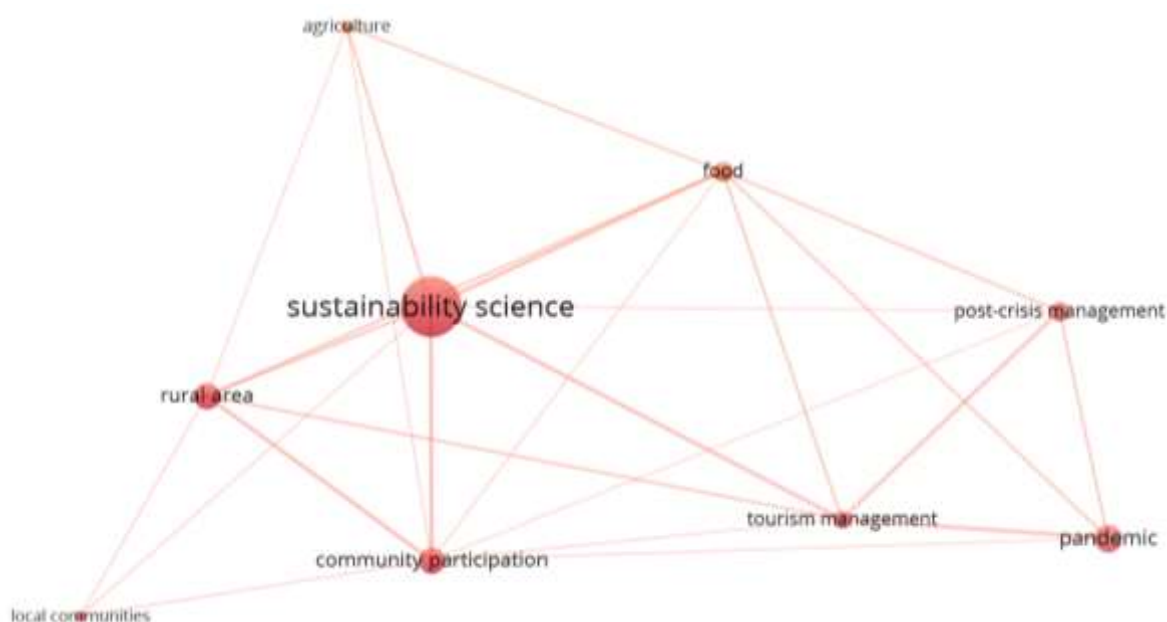

Figure 8 Cluster 5 with the theme 'Tourism as a Socio-Ecological System'

3.5 Construction of Theoretical Framework

The results of the bibliometrics analysis with the formation of various research keyword clusters above have illustrated that the study of tourism is related to resilience in principle but is closely related to the approach to sustainable development. However, the emergence of the Covid-19 pandemic shows that the implementation of this study tends to be weak, as seen in the tourism sector as the sector most vulnerable to a decline (Noorashid & Chin,

2021). The tourism sector requires a resilient approach and efforts to change in response to emerging crises (Sharma et al., 2021). This is in line with the findings of the bibliometrics analysis where the research themes are arranged based on five clusters in the following order; 1) Tourism as a Socio-Ecological System; 2) Vulnerability of Tourism Destinations; 3) Sustainable Tourism Governance; 4) Risk-Based Tourism, and 5) Integrated Tourism (fig. 9).

Figure 9 Tourism Resilience Assessment Development Framework

The urgency of sustainable tourism development has become an integral part of national policy. Since the end of the second world war, the global economy has developed rapidly, especially utilizing the tourism sector as the leading accelerator. This indicates the emergence of tourism as a new phenomenon in social and economic conditions (Collins & Autino, 2010). Tourism is an integrated economic improvement and development system for a particular area, especially with significant natural and cultural resource potential. Tourism emerged in a changing world of VUCA (volatility, uncertainty, complexity, and ambiguity). On this occasion, policies in managing tourism finally needed to undergo a fundamental transformation. Theoretically, the study of tourism with a

transformative approach is in line with the pattern of study of adaptation and sustainable development, although it is often not considered that way.

The rise and fall of the tourism sector can be observed in internal and external threats. In such a context, tourism can be assumed to have a value of its vulnerability (Espiner et al., 2017). Resistance to tourism growth in some groups of society can occur when tourism is perceived as harming the natural and social environment. Tourism development can also threaten other regions or countries, so often, a country/region develops a strategy to destroy state/regional tourism, known as a tourism war. This tourism war can take the form of a cultural invasion, black campaigns, and the spread of false information. Other threats in tourism can

also be seen from economic ups and downs, political conflicts, ideological conflicts, natural disasters, health disasters, and others. So that

the conception of tourism requires the correct pattern of leadership (Prayag, 2018).
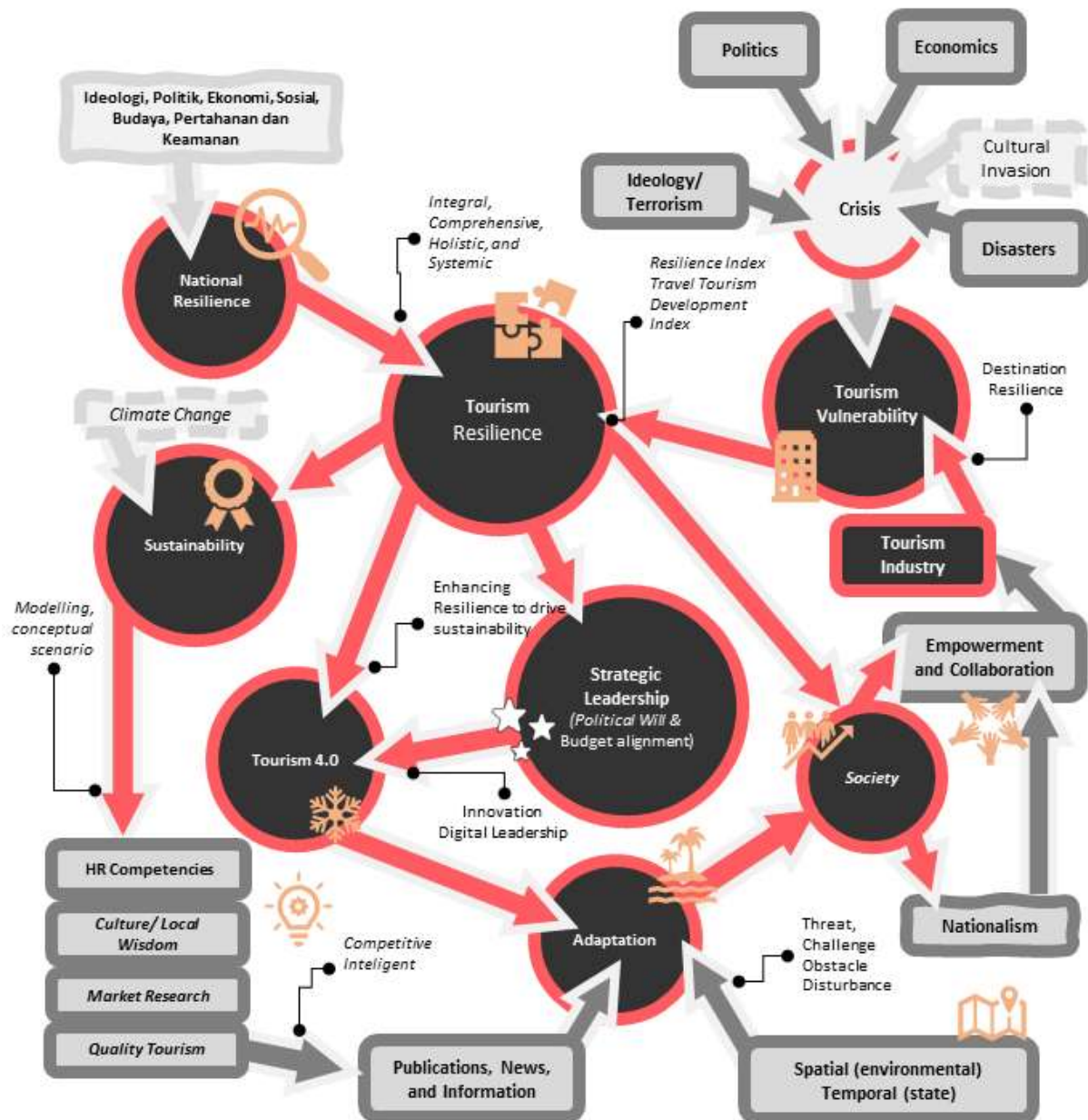

Figure 10 Theoretical Framework of the Complexity of the Theme of Tourism Resilience

Tourism development requires leaders who have innovation, collaborative communities, and adaptation patterns (Bird & Mendenhall, 2016; Salim et al., 2021; Therrien et al., 2019). Leaders who have innovation are strategic leaders with the ability to utilize various existing resources to produce the proper steps in achieving the vision and mission as well as the threats that arise. Strategic leaders control the digital world and utilize existing

information and technology media in this era. The current development of tourism also comes with the development of technology 4.0. Tourism should ideally be built by strategic leaders utilizing artificial intelligence, big data, media publications, news, and information so that it can compete in a measurable way (Samara et al., 2020; Xiang et al., 2021).

Besides developing future leaders, tourism also requires strengthening the social system. Strengthening the social system can be interpreted as an active effort by the government and society, as well as various other tourism stakeholders, to collaborate. Tourism requires community empowerment to achieve resilience actively. Between each party requires active collaboration and cooperation. Furthermore, tourism requires active research and development to find new things that can be added value and further strengthen defense. Moreover, tourism development involves a pattern of adaptation, where adaptation can observe changing environmental spatial conditions, the transformation that follows changing time conditions (circumstances), and adaptation that can ensure tourism's recovery and growth process can run well. Tourism resilience can at least be described in the schematic in Figure 10.

3.6 Future Research

Cochrane's research in 2010 illustrates that the distribution of tourism studies is extensive, covering social, economic, and ecological dimensions (Cochrane, 2010). Research by Cheer and Lew (2017) also links tourism to the complexity of the development of the modern world (Cheer & Lew, 2017). Holladay 2018 explained that to build tourism resilience and sustainability, it is necessary to understand the interaction of social, economic, and institutional systems to ecological variables (Holladay, 2018). Furthermore, it requires an understanding of the relationship between humans and nature in the context of tourism to have resilience in dealing with crises, especially natural disasters. This context is known as 'resilience' (Brown et al., 2017; Fabry & Zeghni, 2019; Tiernan et al., 2019) Observing the concept of Indonesia's national resilience has been developed optimally by following various aspects ranging from geography, natural wealth, demography, ideology, politics, economy, socio-culture, and defense and security (Hanita, 2020), hen basically the

complexity of tourism as resilience is possible to simplify so that the most optimal shape can be observed.

Tourism research is related to the study of tourism destinations, tourism management, public communication, and government policies. The tourism issue, which is complex and involves various aspects, cannot be separated from the study of resilience and sustainability. The conception of resilience in the socio-political economy can be drawn from broad research on national resilience. For this reason, the study of national resilience becomes the leading grand theory for establishing the concept of tourism resilience. The multidisciplinary context of tourism also allows for a more specific approach, such as management science, especially in dealing with crises. The study of national resilience can be specifically narrowed down to a development theory approach. Linking crisis management with development theory results in a systems-based approach and collaborative governance. In the final context, the strategy, a form of early warning system study, is the primary basis of the research output.

Theoretically (das sollen), it can be said that tourism resilience is an epistemological form of national resilience studies that is specific to social, economic, political, and natural resource conditions. It needs to be said that, in fact (das sein), tourism resilience cannot be described in a simple context involving factors that tend to be general and abstract. The characteristics of the issues or problems that form the basis of the emerging tourism crisis need to be understood more massively and comprehensively. For this reason, the gap between fulfilling an ideal tourism resilience study needs to be understood further, where comprehensive tourism resilience can be used as a basis (milestone) for a political policy strategy for making decisions to resolve tourism problems in the future. As for the description of future research potential, it can be observed in Figure 11 below.
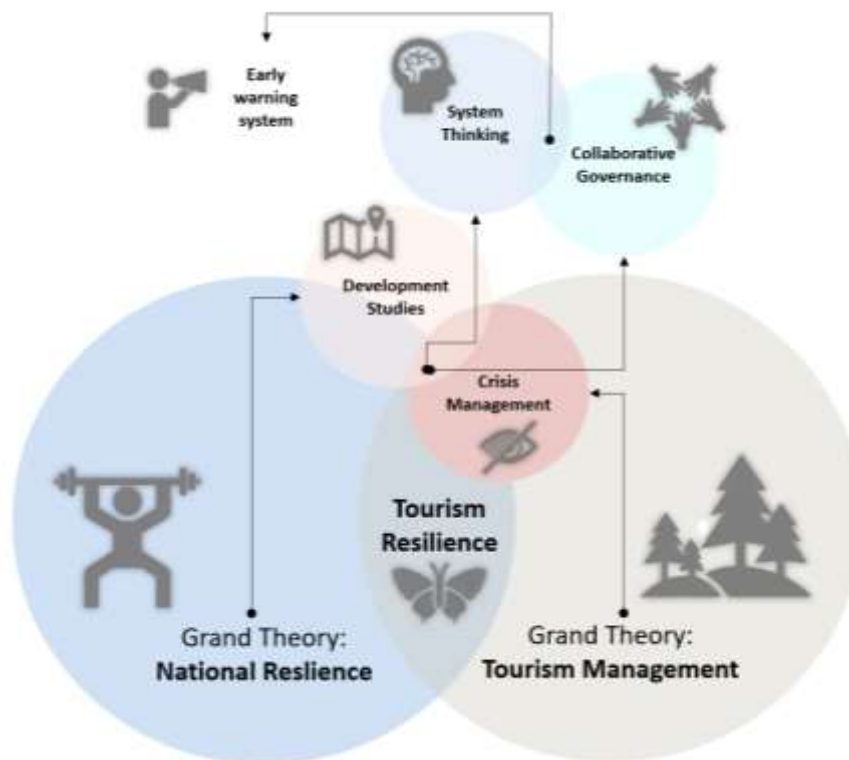
Figure 11 Research Potential of Tourism Resilience

4.   Conclusions

As a particular study involving various factors, tourism resilience has been carried out a lot but tends not to be comprehensive and applies broadly at a more macro level. Blibiometrics analysis with the VosViewer 1.6.18 application, which was carried out using 277 journals and 36 scientific documents with the main keywords 'tourism' and 'resilience' by Scopus and Google Scholar data based, explains that the high number of studies related to the theme of tourism resilience emerged mainly during the Covid pandemic -19 occurred, namely in the 2020-2022 timeframe. Specifically, the theme of tourism resilience has been carried out a lot but from the perspective of environmental management science. The Journal of Sustainable Tourism is a source of articles that consistently explain tourism resilience. However, the journal that explains tourism resilience the most is Sustainability (Switzerland) which contains various articles with this theme in the 2015-2022.

Tourism resilience research trends, the findings of the bibliometrics analysis, can be arranged with research themes based on five clusters in the following order; 1) Tourism as a Socio-Ecological System; 2) Vulnerability of Tourism Destinations; 3) Sustainable Tourism Governance; 4) Risk-Based Tourism, and 5) Integrated Tourism. The tourism resilience study still tends to contain issues of sustainable development and adaptation to climate change. Special studies prioritizing elements of tourism are still minimal, primarily focusing on resolving and mitigating a crisis. Reflections on sustainability have long been prepared, and there are 'claims' that this has been practically implemented. Still, the Covid-19 pandemic crisis has provided an honest answer that the sustainability and involvement of various parties in ensuring the tourism sector runs well can be said to be not optimal. Once again, the Covid-19 pandemic also explains how vulnerable the world community is, which is currently very dependent on the service sector as an icon of a sustainable economy.

In the theme of government management and strategy, tourism requires leaders with innovation, community orientation, and adaptation patterns. The current development of tourism also comes with the development of technology 4.0. Tourism should ideally be developed as studies of strategic leaders utilizing artificial intelligence, big data, media publications, news, and information. In terms of digital leadership, tourism resilience can compete measurably. Besides strategic leadership, tourism also requires strengthening the social system as an active integration of the government and society, as well as various other tourism stakeholders.

The theoretical construction of tourism resilience studies which tends to be complex and multidisciplinary creates opportunities for studies to simplify it in the future. The tourism issue, which is complex and involves various aspects, cannot be separated from the study of sustainability. The conception of resilience in the socio-political economy can be drawn from a broad survey of national resilience. For this reason, the study of national resilience has become the leading grand theory for developing tourism resilience. The multidisciplinary context of tourism also allows for a more specific approach, such as management science, especially in dealing with crises. One of the exciting things in crisis management that needs to be deepened is how to respond quickly as an early warning of trouble that is correctly controlled by various sectors, especially the government and society.

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