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Review

Tourism Network in Urban Agglomerated Destinations: Implications for Sustainable Tourism Destination Development through a Critical Literature Review

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Abstract: This study analyzes tourism network in urban agglomerated destinations and puts forth implications for future sustainable development through a critical and extensive review of related literature. First of all, with a bibliometric analysis of 2670 selected articles from three research fields of urban tourism, urban agglomeration tourism and tourism destination network, we analyzed their respective research themes and classified them accordingly. Then, the study further investigates the role of tourism network in urban agglomerated destinations by identifying the differences and connections between urban agglomeration tourism and urban tourism. Finally, a basic architecture is established for the study of tourism networks in urban agglomerated destinations context. Study findings highlight that urban agglomeration tourism emphasizes the interconnectivity and social network relationships. However, research on the destination network of urban agglomerations is limited, especially from the tourism development perspectives. Therefore, the evolution process, structural effects, determinants and dynamic mechanisms of the tourism network in urban agglomerated destination are among the opportunities for future research. Moreover, the research architecture shows that the network relationship emerges as a new direction for the study of urban agglomeration system to better integrate and harness destinations' resources and thereby promote sustainable development in urban agglomerated areas.

Keywords: urban agglomeration tourism; tourism network; bibliometric analysis; sustainable destination; integrated development



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1. Introduction

Globalization increasingly weakens restrictions and trade barriers among regions [1], and thereby expedites the free flow of capital, technology, and services cross-border. This phenomenon is particularly substantial in the context of the global hospitality and tourism sector due to its inherent nature and allows the restructuring of numerous destinations in order to satisfy the growing and dynamic tourist demand. In this juncture, urban agglomeration has become a new form of contemporary urban development [2], which would become a key potential strategic support for future economic growth in the globalized and competitive world [3]. However, currently, there is a scarcity of research that examines the wide-ranging implications of urban agglomeration on sustainable tourism development.

Tourism has become one of the key sectors in urban economic development, and urban tourism has also become an instrumental component of urban development [4,5]. Due to the continued development of social economy, people's travel demands are more diversified and thrived, and the traffic conditions gradually become more convenient [6,7]. As a result, the tourism activities in urban vicinities and between cities are constantly evolving, and urban agglomeration tourism is progressively emerging. In fact, agglomeration, as a

typical form of urban development, has been treated as a mechanism that determines the development potential of cities [8]. Besides, concepts related to agglomeration, clustering, collaboration, and partnership are within the DNA of the tourism and hospitality sector as a single company or destination per se cannot successfully develop and deliver travel packages [9]. Essentially, urban tourism agglomeration improves the urbanization and informatization, enhances the connection between complementary tourism destinations, establishes economies of scale, and reduces internal transaction costs, and thereby promotes the development of resilient and sustainable tourism destinations [10,11].

Tourism destinations that stimulate and respond to other destinations form an extended network of tourism destinations (NTD). NTD is a geographical system connecting nodes (destinations) with links (routes between destinations) to boost joint development. The network structure is the set of these nodes and links. The destination network structure primarily focuses on three aspects: Nodes (destinations), routes (weight and path) and the interrelationship between nodes (destinations). The nodes are not simply connected together, but there are further interconnections. Different weights or paths between the same nodes will form a network structure with different functions. In the contemporary tourism and hospitality sector, the strength and core competitiveness of NTD cannot be overlooked [12]. In this vein, Merinero-Rodríguez and Pulido-Fernández [13] argued that relationships and collaborations had become crucial factors in developing tourism and one stream of research in relationships and collaborations in tourism strongly lies on tourism networks. In general destination research, network analysis provides theoretical and empirical evidence that the structure of networks determines destination development in several facets including promoting education [14], accelerating technological diffusion [15], and facilitating citizens' mobility [16]. Especially, Hong and Ma [10] highlighted that the structure of network influences the intensity of competition among destinations and market equilibrium.

Urban agglomeration in a tourism setting consists of all the tourism and hospitality sector elements, as a Mega-region, where each city is regarded as a tourist destination with its unique characteristics and resource potentials. The concept of urban agglomeration from a tourism destination perspective is rarely examined. Therefore, to bridge in the existing research gap, the current study aims to analyze the connections between urban agglomerations and tourism destination development by comprehensively reviewing literature related to urban agglomeration. Urban agglomeration is considered both at the micro-level (each city serving as a tourist destination), and at the macro-level where destinations are formed as a result of networks and several sub-destinations. In doing so, this study explains the crucial roles of urban agglomerations to the development of a holistic and competitive tourism destination where key destination stakeholders work towards a common goal by capitalizing on the existing implicit and explicit networks and partnerships. This study takes urban agglomeration tourism and the network of tourism destination as the research frontier and aims to investigate the characteristics of urban agglomeration tourism and proposes a basic architecture for the study of tourism network in the context of urban agglomerated destinations by thoroughly revisiting previous studies. The basic structure of the research on the tourism network of urban agglomerations does not only integrate multidisciplinary research into an organic system but also provides a benchmark for the subsequent research positioning of the tourism network of urban agglomerations. Finally, from the perspective of an increasingly expanding network of economies, this paper offers substantive implications for future sustainable development of integrated regional tourism.

The study conducts a bibliometric analysis of urban agglomeration tourism research and tourism destination network research, respectively to develop the width and depth of contemporary understanding of urban agglomeration tourism research and tourism destination network research. Specifically, the current research intends to:

(1) analyze the difference and connection between urban tourism and urban agglomeration tourism;

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(2) identify the themes and categories of current research on the network structure of tourist destinations;

- (3) investigate the role of network structure in urban agglomerated destinations and
- (4) propose a basic architecture for the study of tourism network in urban agglomerated destination, while discussing the significance of the sustainable and integrated development of Mega tourism cluster.

2. Literature Review

2.1. Urban Agglomeration Tourism

The concept of urban agglomeration (UA) evolved initially from Gottmann [17] as a term to signify a metropolitan environment. Afterwards, a variety of related terms such as conurbation [18], city-region [19,20], metropolitan area and mega-urban region [21] have been employed to explain the concept. The term "urban agglomeration" is coined by United Nation's Center for the human cluster to summarize concepts that connote the above-mentioned terminologies.

However, the concept of urban agglomeration has not been consistently defined. Different scholars have different understandings and tend to explain the term from different angles. As a result, in the past two decades, there have been several representative definitions. From an ecological point of view, scholars believe that the development of urban agglomerations is a self-organizing process, as well as a process of continuous integrated development: a new urban-rural integrated form [22]; new forms of regional integration development [23]; global city-region [20]; a highly integrated group of urban society, economy and culture [24]. From the perspective of quantitative identification, individuals or agencies have also adopted various approaches to define urban agglomerations, employing different criteria for defining them. The more common ones include five-criterion standard [25,26], six-criterion standard [27], seven-criterion standard [28] and nine-criterion standard [29]. The main elements considered are population count, size of city, commuting pattern and transportation network, economic development and common recognition. The difference reflects that the spatial identification of urban agglomerations is a complex and dynamic process. Any identification criteria should be adapted to the current socio-economic, and environmental conditions.

Finally, Fang and Yu [11] have examined the concept through a scholarly research that examines the evolution of the term urban agglomeration over the past 100 years. Their research discovers that various terms have been used for "urban agglomeration" by scholars at different stages of socioeconomic development. In sum, the organizational structure of future urban agglomerations from the sphere of the tourism and hospitality sector relies on hierarchical transportation and ecological networks, whose purposes predominantly focus on the importance of the coordinated development of the population, resources, environments, societies and economies of tourism destinations. Despite the concept of a tourist destination is relatively mature, urban agglomeration tourism is a relatively new and special type of regional tourism development endeavor characterized by numerous technological and infrastructural development projects. Compared with a single city, a strong urban agglomeration makes the overall system more stable and effective [30] and promotes cross-regional coordination and cooperation among different cities, organizations, and departments [31].

2.2. Network of Tourist Destinations

Scott et al. [32] proposed that there are generally two research perspectives in network analysis of tourist destinations: the egocentric network approach from the perspective of individual actors and the whole network approach from the perspective of collective action. The egocentric network approach mainly analyzes the network connection of residents, entrepreneurs, immigrants and enterprises in tourist destinations. The whole network analysis, on the other hand, is mainly used to measure the relationship between the closed network structure composed of all the influential actors [33]. Zhang, Su & Zhang [34]

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divided the literature on network research of tourism destinations into two categories from the perspective of tourism supply and tourism demand. The network formed by the relationship, collaboration, cooperation, cooperation, and interaction among various tourism agencies and organizations belongs to the tourism supply network. The demand side of tourism network, in contrast, primarily focuses on tourist activity and flow [35]. The research contents of tourism supply network mainly include: destination cooperation network [36,37]; online network [38–40]; evolution of relational network [41,42]; influence of network structure [43–45]; and influencing factors of network structure [46–49]. The network contents of tourism demand mainly include: (1) the influence of network location of actors [50], (2) influence of regional attractor networks [16,51,52] and evolution [53], (3) the underlying mechanism of the formation of the relational network [35], and (4) the image network structure of tourism destination [54,55]. Academic literature on the network of tourist destinations is abundant. The interaction of the network and the evolution of the network structure have been attracting research attention increasingly. Scholars have also begun to discuss the formation mechanism and effect analysis of the network structure. However, still there is limited research on the potential mechanisms of the formation of the relationship network that facilitates the development of integrated and competitive tourist destinations in relation to the concept of urban agglomeration.

3. Research Methodology

3.1. Design

This study investigates the role of tourism network in urban agglomerated destinations and establishes a basic architecture for the study of tourism network in urban agglomerated destinations. A quantitative bibliometric tool was adopted to delineate the nexus between tourism network and urban agglomeration destination. The researchers use co-word analysis, which is one of the most commonly used tools in bibliometric analysis. Its basic principle is to describe the relevance between keywords by calculating the frequency of phrases or noun that appear simultaneously in a content. Figure 1 shows the research design involved.

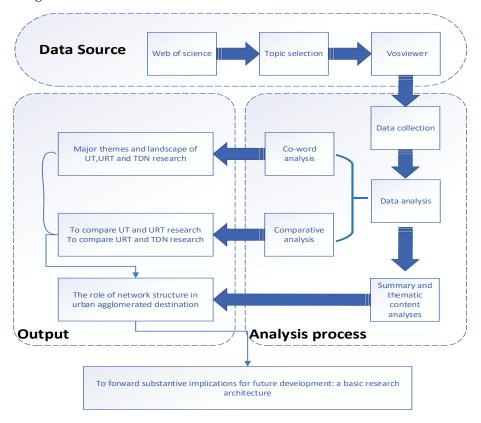


Figure 1. The research design.

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Web of science as a data source is the most robust and widely employed database for review research [56]. Software Vosviewe is adopted to analyze the data. The data analysis process involves three stages: data collection, data analysis, in-depth research and summary. In the process, two data analysis methods: co-word analysis and comparative analysis are utilized. Based on the classification and comparison of the research topics of urban tourism (UT), urban agglomeration tourism (URT) and tourism destination network (TDN) and the discussion among the concepts, the respective characteristics of UT and URT and the overlapping of URT and TDN research are expounded. Moreover, the role of tourism network in urban agglomerated destination is summarized. Finally, the researchers forwarded substantial theoretical and practical implications for the future development of a sustainable and integrated tourism destination based on the study findings.

3.2. Data Source

We have used three search categories: urban tourism, urban agglomeration tourism, and tourist destination network. Among them, an urban agglomeration is an inclusive term used to define highly integrated urban areas, and some other similar terms that are often used interchangeably. The most frequently used terms in previous urban agglomeration studies have been summarized by Fu, Fang and Melo [11,56,57]: city region, urban agglomeration, city cluster, city group, megalopolis being the most widely used terms. However, there are insufficient equivalents for urban agglomeration tourism, which are found through constant search and recurrent comparisons. Finally, three major terms are selected for bibliometric analysis. These are "urban agglomeration tourism", "city region tourism", and "metropolitan tourism". We have searched these keywords leading to the extraction of 39 articles for "urban agglomeration tourism", 285 articles for "city region tourism", and 130 articles for "metropolitan tourism". Finally, by removing repetitive articles, we extracted 425 articles to analyze the landscape of urban agglomeration tourism research. At the same time, we searched the keywords of "Urban tourism" and "Tourism destination network" in The Web of Science, and generated 1700 articles and 600 articles, respectively. Therefore, a total of 2725 articles were used as data sources in this research.

4. Analysis Results

4.1. The Themes of the Tourism Destination Network

Under the tourism destination network, we have extracted 600 sample articles involving 2995 keywords. Among all the co-occurred keywords, 242 meet the threshold. Figure 2 visualizes the frequency of co-occurred keywords through the size of the spots and the network cluster. Overall, there are six sub-clusters of high frequency of co-occurred keywords, that demonstrate the general landscape and themes of tourism destination network.

Overall, in addition to the three keywords tourism, destination, and network, management, government, collaboration, innovation, image and social network analysis are the most frequently occurring co-words. This indicates that under the theme of the tourism destination network, previous research predominantly focuses on destination image, management and governance, among others. Contemporary, social network analysis is the popular method of tourism destination network analysis. Through network analysis, it can be stated that innovation and cooperation are crucial forms of destination management and governance.

The blue spots and lines denote the first cluster, whose keywords concentrate on innovation and collaboration. The alliance is the main form of this relationship [58,59]. The purpose of the cooperation is achieved through the transformation of knowledge and other resources among companies or organizations [60]. Absorptive capacity, trust, and resources affect the nature of cooperation and the way how the network structure functions. The performance and competitiveness of companies or organizations also emerge as determinant research hotspots. At the same time, Figure 2 shows that the keyword innovation does not only connect the absorptive capacity, collaboration, competitiveness, trust, firms and organization, and so forth, within the cluster but also links the first cluster to other

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clusters. This shows that innovation has been at the heart of studying tourism destination, development and management, and, in fact, will continue to be vital in future studies too.

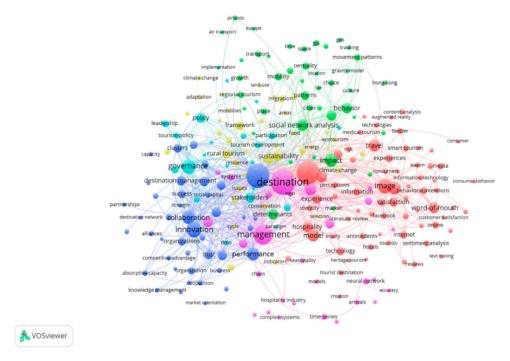


Figure 2. Cluster map of "tourism destination network" research.

The red spots indicate the second layer in the cluster, which investigates tourism destination network from social media and information technology perspectives. Scholars analyzed the tourist activity network and destination e-word-of-mouth network through the user-generated data. Twitter and Facebook are the major data sources. Destination image, visitor experience, satisfaction, loyalty, and behavioral intentions are the main research agendas in this cluster. It is worth noting that the keyword "model" appears frequently, and there are also more connecting lines, which also reveal that model building has been the main research approach in previous research.

The third research cluster is portrayed in green. One of its most outstanding features is its research method focusing on social network analysis (SNA). This section is distinctively concerned with network centrality of destination, visitor behavior and movement patterns, and network impact and determinants, particularly on high-speed rail, with the assistance of technologies such as GPS, AI, and GIS. The main body of research is mostly regional tourism or urban agglomeration tourism, and the geographical focus of this group is mainly China.

Cluster 4 (yellow spots) is concerned with the issues of sustainable tourism. It deals with destination resilience, climate change, land-use planning and policy issues, energy consumption, resource use and conservation practices, and the influence of politics, governance, and entrepreneurship on destination development and management. The actornetwork theory has been the basis of such research.

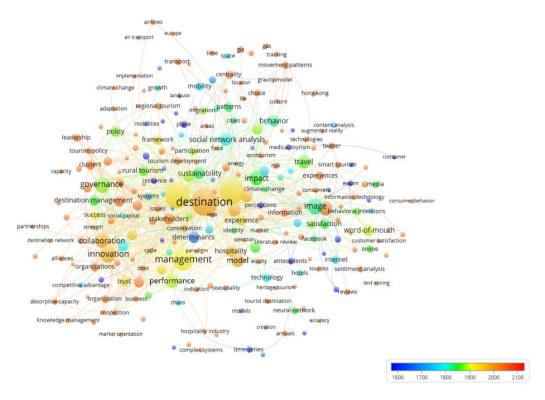
Cluster 5 (purple spots) distinctively concentrates on dynamic management and evolution processes of destinations. The auxiliary research methods and technologies largely involve big data, artificial intelligence neural networks, network analysis and statistical analysis. Tourism demand has been an important subject of research for this cluster.

Cluster 6 (emerald green) focuses on stakeholders, community, destination governance, and tourism policy. Stakeholder theory is the main theory employed to understand and explain the dynamics of tourism destination stakeholders.

Figure 3 adds a temporal frame to the network of keywords. The figure shows that most of the keywords are yellow and red, which indicates that the tourism destination

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network research has a good momentum of development as a whole. The more prominent one is cluster 1, concerning innovation and collaboration, which is still a burgeoning research theme. In addition, stakeholders, social media and sustainable development remain to be among the profound research hotspots in the contemporary tourism destination development and management.



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Figure 3. The temporal frame of "tourism destination network" research.

4.2. The Theme of Urban Tourism Research

Using "urban tourism" as a keyword, we retrieved 1700 articles. Figure 4 shows the network cluster and research typologies involved. Cluster 1 (red) focuses on the sustainable management of urban tourism from a macro perspective. Economic value and environmental impacts are the main research foci. Economic aspects primarily consider industrial efficiency and economic growth. The environmental dimension, on the other hand, involves air pollution, water, carrying capacity, land-use practices, and biodiversity conservation. The keyword "indicators" becomes more prominent, which unfolds that index evaluation methods have been often used in the evaluation of sustainable urban destination management. From a micro perspective, cluster 2 (green) is concerned with sustainable tourism research. Residents' attitudes, tourist satisfaction and community participation, are the three key points of sustainable tourism research. Balancing the interests of all stakeholders is underlined as an instrumental way to realize sustainable tourism. Cluster 3 (blue) focuses on smart tourism and spatial analysis of urban tourism. Big data and social media are the main advanced technologies. The fourth cluster is depicted in yellow, emphasizing the impact of urban growth and urban sprawl on tourism. In the fifth cluster, the link strength of three groups of keywords appears quite strong, all of which are above 7.5: tourism-politics (7.69), tourism-gentrification (8.49), and tourismheritage (9.14). Simultaneously, the average line strength of the entire network is 0.34. The uncontrolled growth of tourism brings about changes in communities, and the change should be conceived as a form of gentrification [61]. Heritage tourism has been an important part of urban tourism where various aspects such as gentrification tourism require a stern support of certain tourism policies and interventions from destination stakeholders.

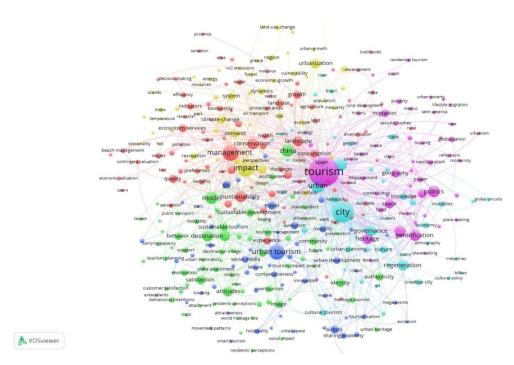


Figure 4. The cluster map of "urban tourism" research.

The last cluster that emerges in green is deals with urban planning and governance in urban tourism research, especially the impact of cultural tourism.

4.3. The Theme of Urban Agglomeration Tourism Research

600 articles were extracted under the theme of urban agglomeration tourism research involving 2523 key words. Figure 5 visualizes the network lusters.

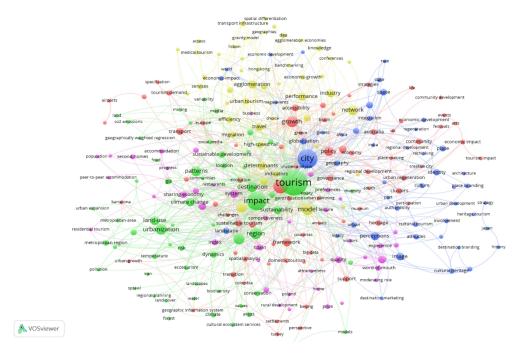


Figure 5. The cluster map of "urban agglomeration tourism" research.

Cluster 1 (red) is the largest of the five categories, with regional tourism growth and regional development as the principal research subject focusing on urban policies and gov-

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ernance. Scholars have studied transport, tourism accessibility, community development policy, urban planning, urban regeneration and the events of mega-city areas. The main research methods used are spatial analysis, network analysis and cluster analysis, involving big data and GIS technology. The geographical scope is quite extensive, including China, Australia, Greece, the UK, Colombia, Europe, Latin America, Barcelona, Brazil, South Africa, and South Korea, among others.

Cluster 2 (green) deals with the impact of regional tourism on the environment such as urban tourism research focusing on air pollution, water, carrying capacity, and land-use and biodiversity conservation with special emphasis on the spatial agglomeration effect [62]. Cluster 3 focuses on the keyword city, urban development and regional development in terms of city image and destination brands. Cluster 4 (yellow) deals with the agglomeration problem of regional tourism, which includes agglomeration economies, spatial differences, productivity, competition, network and determinants. High-speed rail, as a representative of the current transportation, affects the tourism mode of urban agglomerations and has been an attractive research topic. The last small cluster 5 (purple) studies customer satisfaction and loyalty of urban agglomeration tourism from a destination marketing aspect.

5. Discussion

Even though previous scholars shed light on the general themes of tourism destination networks, urban tourism and urban agglomeration tourism, they, however, fail to adequately explain urban agglomeration tourism and the role of tourism networks in urban agglomerated destinations. Therefore, a comparative analysis has been proposed to supplement this gap in the current literature through a comprehensive bibliometric analysis.

The discussion is organized progressively in three major stages: (1) comparing and analyzing the differences and connections between urban tourism and urban agglomeration tourism; (2) connecting urban agglomeration tourism and tourism destination network with the clarification of the overlaps and differences; and (3) finally, proposing a future research avenue for tourism network in urban agglomerated destination.

5.1. Comparative Analysis

5.1.1. Urban Tourism and Urban Agglomeration Tourism

Table 1 lists the research typology and major features of urban tourism and urban agglomeration tourism.

Urban tourism generally takes a single city as the main research area, focusing on the analysis of the relationship between the tourism system and the various subsystems of the city, with the aim to realize sustainable tourism and smart tourism development [63]. It does not only emphasize the balance between economic value and environmental impact at the macro-level [5], but also underlines the importance of balancing the interests of all stakeholders at the micro-level [64]. At the same time, through advanced technologies such as information technology, GIS, GPS, social media, and big data, spatial-temporal analysis (STA) has been conducted to solve the problems of overtourism and sustainable tourism planning in urban tourism, and thereby foster urban smart tourism development [65,66]

Urban agglomeration tourism stresses the importance of interconnectivity and integration. Urban agglomeration strives to break through the administrative boundaries, guide the rational planning of resources, build a tourism network [67], bring about agglomeration development of the tourism industry [68,69], promote inter-city spatial relations [6,70] and advance competition and cooperation relations among key destination actors [71]. Research on regional tourism spatial networks has also become thematic.

Table 1. The research typology and major features of urban tourism and urban agglomeration tourism.

Research Topic	Research Typology	Main Features	
Urban tourism	Sustainable tourism management	Emphasizes the balance of economic value and environmental impact on the macro level, and emphasizes the balance of interests of all stakeholders on the micro level	Characterized by a single city, it pays attention to the interaction between the tourism system and the city's subsystems, and its impact on urban spatial development
	Smart tourism	Use advanced technologies such as information technology, social media, and big data to conduct time-space analysis to solve the problems of over tourism and tourism planning in urban tourism	
	Impact of urban growth and sprawl on tourism	Impact of urbanization	
	Urban tourism planning and governance	Focus on cultural tourism	
	Gentrification tourism, heritage tourism	Emphasize policy support	
Urban agglomeration tourism	Regional tourism growth and regional development	Focus on urban policy and governance, and the geographic area and research methods involved in the research are relatively rich	Emphasizing spatial agglomeration effect, tourism agglomeration is the focus of the research, mainly related to the tourism spatial effects of urban agglomerations and competition and cooperation. Spatial analysis, network analysis, cluster analysis are the main research methods
	The impact of regional tourism on the environment	Emphasize spatial agglomeration effect	
	Overall regional image and destination brand	Overall image shaping and image consistency	
	Research on regional tourism agglomeration	Analyze the tourism space and competition and cooperation of urban agglomeration	
	Customer satisfaction and loyalty in regional tourism	Mainly in a single area, and there are too many studies in a single city	

In general, urban agglomeration tourism research is based on urban agglomeration and urban tourism research, where cities are the center of gravity for such studies. With the development of urban agglomeration and the continuous deepening of urban tourism products development, the spatial effect between cities has increased, showing the characteristics of urban agglomeration tourism. Urban agglomeration tourism is the strengthening of general urban tourism in the spatial dimension. Therefore, the phenomenon of urban agglomeration tourism is mainly manifested in the rational allocation of resources to promote the development of urban tourism products, solidify the interaction of urban space, and form an integrated development of regional tourism.

5.1.2. Urban Agglomeration Tourism and Tourism Destination Network

It can be inferred from the previous study that urban agglomeration tourism and tourism destination network deal with individual research objectives. Nevertheless, there are overlaps, and connections and it is plausible to summarize them into three research realms namely: (1) destination management, (2) policy and governance, and (3) tourism networks.

Destination management realm: Both are concerned with tourism competition and cooperation. The difference is that urban agglomeration tourism research focuses on the

status quo, process, mechanism, pattern impact and countermeasures of urban tourism cooperation [72] where the research approach is more qualitative, lacking the network perspective. However, tourism destination network research focuses on various cooperative networks of destinations [36,37], and analyzes the coopetitive (competitive-cooperative) relations among destinations with social networks. The overall image and brand are one of the main contents of urban agglomeration tourism research. The relationship between tourism events and regional tourism images and brands, as well as the perception and attitude of tourists, are the main research agendas [73]. The research frontiers of tourism destination network focus on the dynamic management and evolution process of the destination [41,74], and tourism destination image network also has been drawing researchers' attention [54,75].

Policy and governance realm: Urban agglomeration tourism research provides landuse, supporting facilities, and ecological environment guarantees for urban tourism development, emphasizing urban policies and governance [76,77]. Tourism destination network research accentuates destination policy rather than urban policy. It provides policy support for destination development by analyzing the significance of network creation among destination residents, DMOs, and companies [78,79].

Tourism network realm: From a broader perspective, the research on tourism destination networks intends to achieve corresponding research goals through network analysis. This subdivision emphasizes more on the network structure, based on the descriptive analysis of the destination network structure, discusses the evolution of the network [53], the influence of the structure [45,58] and its determinants [49]. Urban agglomeration tourism research pays more attention to the agglomeration economy and spatial correlation which is specifically manifested in the spatial structure of tourist destinations and tourist behavior [6,80]. However, it is mostly based on the descriptive analysis of network structure characteristics and patterns.

In summary, currently, there is limited research on tourism network in the urban agglomerated destination. The role of network structure in urban agglomeration tourism is still only on a descriptive analysis stage. As far as urban agglomerations are concerned, the network structure makes the urban agglomeration system more stable, efficient, and competent [81], as well as guides the formulation of comprehensive public policies, land use planning, and promotes coordination and cooperation between different administrative departments. In relation to tourism destination network studies, the evolution process, structural effects, determinants and dynamic mechanisms of the urban agglomerated destination network structure are among the relevant thematic areas of future research (see Figure 6).

5.2. Basic Architecture of Tourism Network in Urban Agglomerated Destination Research

The network structure provides ideas for exploring various issues of cooperation, trust, interdependence, interaction, conflict of interest, leaders and stakeholders in the complex tourism system [82]. Network relationship has become a new course of urban agglomeration tourism research. Figure 7 shows a basic architecture for the research of destination tourism network in urban agglomerations based on the previous analysis, results and discussion. Based on the theory of urban tourism and destination network, the urban agglomeration tourism network is constructed through resource allocation, and the network structure is adjusted to make the urban agglomeration system a more holistic, stable and efficient, as well as realize the sustainable development of regional tourism. Therefore, the evolution process, structural effects, determinants (especially intrinsic factors) and dynamic mechanisms of network structure in the urban agglomerated destination also provide with opportunities for future research.

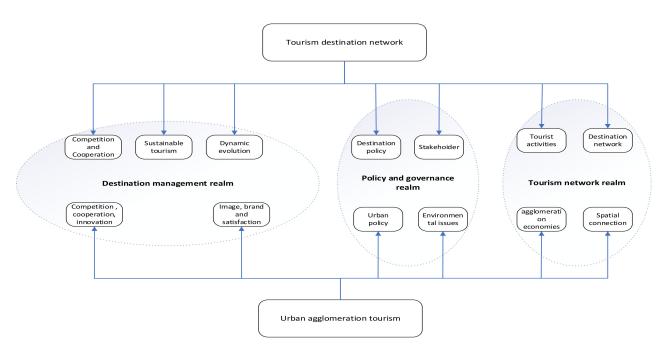


Figure 6. The overlaps, connections and differences between tourism destination network and urban agglomeration tourism research.

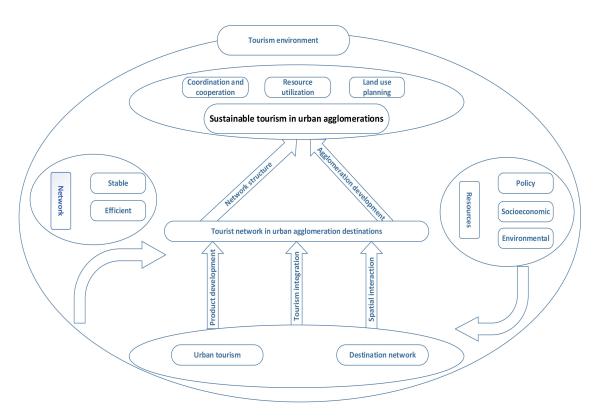


Figure 7. The basic architecture of tourism network in urban agglomerated destination research.

6. Conclusions

Given the contemporary tourism and hospitality sector is profoundly swayed by stakeholder collaboration, partnerships and networking as well as big data and smart tourism, the development of an integrated and sustainable tourism destination, especially

in urban settings requires the agglomeration of key tourism actors and industries. To this end, by adopting a bibliometric analysis of urban tourism, urban agglomeration tourism, and tourism destination network research, this study examines the tourism network in urban agglomerated destinations and casts new light on the differences, connections, and overlaps among the three. First, co-word analysis is used to delineate the research themes and explore categories involved in each concept. Then, through a comparative analysis of the research themes, the study summarizes the traits of urban agglomeration tourism relative to general urban tourism and analyzes the application of network analysis methods in urban agglomeration tourism research context. Finally, the basic architecture of the tourism network in urban agglomerated destination research is presented for future transdisciplinary research.

The current study enables us to critically understand the previous research focus of urban agglomeration destination network structure, urban agglomeration destinations conceptual development and it also provides a new perspective on the relationship between destinations social network, which is a quantitative analysis from the aspect of structuralism. Social networks are generally not random but have certain predesigned structures. By analyzing the network structure, it is possible to bring direct benefits to the organization's relationship management. Furthermore, the establishment of the basic architecture of tourism network in urban agglomerated destinations, implies future research directions, helps to understand the role of network structure in the sustainable development of Mega-regional tourism, and provides realistic guidance for the wise use of resources in urban agglomerated destinations to further develop and unleash the full potentials of tourism destinations.

Author Contributions: H.H. has worked on the conceptual development of the manuscript, developed the original draft of the manuscript, acquired data and provided the resources for the research. A.W. has designed the manuscript title, worked on the conceptual development of the manuscript, made several rounds of critical reviews and proofreads, and provided overall guidance in the preparation of the manuscript. All authors have read and agreed to the published version of the manuscript.

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Data Availability Statement: Publicly available datasets were analyzed in this study. This data can be found here: www.webofknowledge.com.

Conflicts of Interest: The authors declare no conflict of interest.

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