Research on the Cooperative Development Path of Tourism Supply Chain in Hong Kong-Zhuhai-Macao Region

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Abstract. With the rapid development of economic globalization and regional economic integration, regional collaboration has become the focus of widespread attention. Tourism supply chain collaboration is a new strategy and management model in the current tourism market competition. By discussing the necessity to explore collaborative innovation in the tourism supply chain of Hong Kong, Zhuhai and Macao, analyzing the problem of tourism synergy development in Hong Kong, Zhuhai and Macao, this paper proposes a development path with realistic operability.

Introduction

As an industry with strong compatibility and openness in national economy, tourism has become an important platform for the interconnection and cooperation of Hong Kong, Zhuhai and Macao. On February 18, 2019, the "Outline of the Planning of Taiwan District in Guangdong, Hong Kong and Macao" issued by the Central Committee of the Communist Party of China and the State Council proposed the construction of the leisure bay area, the beautiful bay area, humanities bay area and the health bay area, building a qualified Great Bay living area that is suitable for living, business and tourism. Therefore, the coordinated development of tourism within the bay area becomes an important proposition for developing qualified tourism industry. Zhuhai is adjacent to Hong Kong and Macao. With the completion of the Hong Kong-Zhuhai-Macao Bridge, Hong Kong, Zhuhai and Macao are interconnected. After nearly 40 years of regional cooperation, the three places have already established a certain tourism cooperation foundation.

Tourism supply chain collaboration is a brand-new strategy and management model in the current tourism market competition. It emphasizes cooperation among enterprises in the tourism supply chain to achieve information sharing and synergy in tourism product sales, production, and tourist services to reduce the cost of the tourism supply chain and improve the response speed of the tourism supply chain to the needs of tourists. In reality, each tourism supply chain enterprise is relatively independent and has its own interests, which leads to its low enthusiasm for participating in collaborative operations. Even if there is cooperation, the depth of information sharing and collaboration is not enough, resulting in poor synergy. In order to ensure the cooperation and common interests of tourism supply chain enterprises, it is necessary to establish a good trust relationship and information technology support between tourism enterprises. Furthermore, it requires a cooperative operation mechanism among tourism enterprises to ensure the effectiveness of cooperative operation of tourism enterprises.

Therefore, this paper explores, researches and plans for the collaborative innovation of the tourism supply chain in Hong Kong, Zhuhai and Macao, seeks to find out the breakthroughs in the coordinated development of tourism in Hong Kong, Zhuhai and Macao, and proposes path measures with realistic operability.
Literature Review

Tourism Supply Chain Theory

Since the reform and opening up, China's domestic tourism industry has developed rapidly with a wide coverage, but in general it is still in a state of low consumption, popularization, low level and medium and short distance tourism. The construction of tourism infrastructure and service facilities is developing rapidly, but it still cannot meet the requirements of the development speed of the domestic tourism market. With the development of the market economy and the further improvement of the people's income level, people's demand for tourism consumption is also growing. The status and role of domestic tourism in the national economy is particularly important [1]. Wang Weihe & Yang Yang believe that the problem of tourism is that the tourism industry's reception capacity does not match the tourism demand. The traditional tourism operation mode leads to a lack of coordination among tourism enterprises. Supply chain is an important model to effectively solve the coordination problem. They also propose the tourism supply chain should be built according to the needs of tourists, including the function network chain structure model of food, housing, travel, travel, purchase, entertainment suppliers and tourists [2]. The tourism supply chain is a multi-level supply chain that coordinates the quantity, quality and time of products and services between nodes in tourism economic activities, thereby reducing costs and improving the economic efficiency and overall competition of enterprises. More and more scholars pay attention to the operation mode of tourism supply chain, such as Adford built a tourism supply chain business model from the supply chain business process [3]. Marianna Sigala constructed a supply chain management implementation model, including information sharing, simultaneous decision-making and incentive integration, and conducted a detailed analysis of the relationship between the three factors [4]. Yang Dejin & Xu Hong, based on the analysis of the development status of Beijing-Tianjin-Hebei tourist attractions, put forward a model of cooperation and win-win in the supply chain of tourism scenic spots, and explore the strategies, modes, paths and countermeasures of regional tourism cooperation in Beijing-Tianjin-Hebei region [5].

Tourism Supply Chain Collaboration Theory

Supply chain collaboration is the management of collaborative operation of each node in the supply chain [6]. By establishing a "win-win" thinking, individuals in the entire supply chain are more intimate with mutual trust, synchronization and unity, improving the flexibility of the entire supply chain and the optimal value of the entire supply chain.

In the research of collaborative development under the perspective of tourism supply chain, scholars carefully analyze the basic meanings of tourism collaborative development and the conditions and obstacles of the collaborative development of regional tourism, deeply explore the methods and implementation paths of the collaborative development of regional tourism. and propose cooperative development model for regional tourism [7-9]. Wu Baijun pointed out that the traditional tourism supply chain operation cannot satisfy the customers' needs, and the overall tourism supply chain is inefficient [10], proposing that the tourism supply chain can work together to meet the needs of tourists and realize the effective operation of the tourism supply chain. With the rapid development of the network, information resource sharing has become an important means to create value and obtain competitive advantage in the service supply chain [11]. Based on the tourism supply chain collaborative operation system platform, the collaborative operation mechanism of tourism supply chain can enable the tourism enterprises at each node to understand the needs of tourists, reduce the blindness of tourism production, improve the response speed of the tourism market and the competitiveness and efficiency of the tourism supply chain. In the end, the needs of tourists and tourist companies at each node are most satisfied.

However, synergy requires multi-party cooperation, and the synergistic goals and criteria are difficult to define. It is difficult to measure and distribute synergies to produce corresponding results and benefits. Chen Gezhi, Liu Jingyan & Wang Yajun believe that the opportunistic behavior of tourism suppliers is an obstacle to the collaborative innovation of tourism supply chain, which greatly inhibits the enthusiasm of supply chain members to participate in collaborative innovation,
and challenges the enterprises’ capacity of governing supply chain [12]. Jiang Wei believes that in
the tourism activities, the information inconsistency in all links or the lag of information leads to an
increase in the waiting time for tourists, which will bring tourists dissatisfaction [13]. It can be seen
that, combined with the regional integration background of Hong Kong, Zhuhai and Macao, research and discussion on the problems existing in the coordinated development of tourism supply
chain will be conducive in better guiding the implementation of regional coordinated development
strategy.

Hong Kong-Zhuhai-Macao Regional Tourism Supply Chain Synergy Development Bottleneck

Institutional Constraints Form a Barrier to Tourism Cooperation

Zhuhai, Hong Kong and Macao are under the framework of "one country, two systems" and
implement two social systems. Two special administrative regions, two special economic zones, and
three free trade zones meet in various ways. Although Hong Kong and Macao have close economic
and trade relations with Zhuhai, coordination of tripartite interests is still handled in accordance
with international trade practices. The complete independence of the formulation of market and
economic development plans, the differences in civil rights and lifestyles, make internal policies
form separate market systems. If the tourists are still in the immigration control, the routes of Hong
Kong and Macao are also international routes rather than domestic routes. These aspects have
formed barriers to the facilitation of the tourism supply chain, the integration of tourism resources,
and the capital operation of enterprises on the chain, and have become the biggest constraint that
hinders the pleasant and convenient flow of tourists.

Regional Industry Barriers Lead to Inefficient Tourism Business Cooperation

Due to the economic characteristics of tourism, many local governments have developed tourism
as an effective means of improving their performance and local GDP, and it is easy to see their own
policies in tourism regional cooperation. Regardless of the systemic nature of the coordinated
development of tourism in the whole region, the characteristics of local tourism resources and the
needs of the tourism market, blind homogenous development, redundant construction and vicious
competition will affect the coordinated development of regional tourism as a whole. At the same
time, due to the differences in administrative divisions, the use of tourism resources in various
regions has become a system. It is difficult to organize authoritative overall tourism science
planning within the regional scope, which directly affects the formation of the regional overall
tourism product system. There is sometimes a deterioration in relationships between members of the
supply chain, and even a breakdown in the tourism supply chain. The phenomenon of mutual
resistance and ban on scenic spots, hotels and tour operators in the tourism industry is a reflection of
the difficulty in achieving collaborative innovation in the tourism supply chain.

Unbalanced Development of Tourism Economy Makes It More Difficult to Coordinate and
Integrate Regional Tourism

There are significant differences in the level of tourism economic development between Hong
Kong, Zhuhai and Macao. Hong Kong and Macao, as international gateway cities and well-known
international tourist destinations, attract a large number of domestic and international tourists.
Tourism has always been the pillar industry of the two places and an important driving force for
economic development. Zhuhai has only begun to vigorously develop tourism in recent years and
started relatively late. The regional tourism economy formed by the three places is not balanced,
and there are gaps in the basic conditions of tourism development, the level of public services and
the degree of internationalization. Therefore, it is difficult to fully coordinate the interests, value
orientations, and policy measures in regional tourism coordination, which leads to an increase in
coordination costs and difficulties in cooperation.

488
Information Barriers Lead to Difficulties in Sharing Resources among Tourism Supply Chains

In the Internet era, traditional tourism has extended to the era of online travel, integrating industrial chain information through Internet, and realizing the sharing of big data information resources, but the synergy effect of big data on the tourism supply chain of the three places is relatively low. The main reasons are: first, due to the different characteristics of industries in the three places, the level of data resource construction is uneven, and the statistical caliber between the three places is different from the standard. Data is not compatible and data resources are wasted. Second, the tourism supply chain is composed of six elements: eating, living, traveling, traveling, purchasing, and entertainment. However, the specific industries to which each element belongs have their special characteristics of the industry. The economic status of each industry is also different. These objective or subjective industry differences have formed data barriers between industries, which has made information integration and collection difficult, and it is difficult to form a tourism economic network structure.

Hong Kong-Zhuhai-Macao Regional Tourism Supply Chain Coordinated Development Path

Constructing Synergy Goals and Guidelines of Tourism Supply Chain

The coordinated development of the tourism supply chain in the Hong Kong-Zhuhai-Macao region needs to break through institutional constraints and build a cooperative mechanism to formulate the coordinated development goals of the overall tourism industry in the Hong Kong-Zhuhai-Macao region. Establishing the tourism supply chain synergy goal actually stipulates the development direction of the tourism supply chain, the business focus and the interest of each node enterprise, in order to facilitate the coordinated development of regional tourism. The establishment of guidelines and norms for the coordinated operation of supply chains is the guarantee for effective synergy in the tourism supply chain. Through the establishment of a government-level coordination mechanism, tourism products and market mechanisms will be improved and innovated, the integrity of enterprises can be strengthened, quality assessment standards can be established, the principles and procedures will be improved, the rules of interest and risk distribution will be defined, providing overall guidance develop tourism for Hong Kong, Zhuhai and Macao.

Realize the Effective Integration and Utilization of Regional Tourism Resources

Tourism in Hong Kong, Zhuhai and Macao has rich resources and unique advantages, such as Hong Kong as the International Finance Center and the shopping paradise; Macao's well-developed gaming and entertainment industry; and Zhuhai's famous marine resources, hot spring resources, island. At the same time, the characteristics, levels, structure and level of the three places are different, especially the difference between domestic and foreign. In order to better promote the coordinated development of tourism quality, it is necessary to fully integrate tourism resources within the region, including the integration of tourism system funds, information, technology, manpower and other elements. By planning tourism themes, refining the essence of tourism, building a number of tourism distribution centers, and carrying out overall marketing promotion, a tourism brand in Hong Kong, Zhuhai and Macao can be established and an overall image of tourism development can be formed.

Establish Tourism Supply Chain Management Information System

Modern information network technology provides an advanced technology platform for information communication and business collaboration among enterprises in the supply chain. Supply chain collaboration is a complex system, and information technology that ensures the smooth flow of information is an important pillar to support supply chain coordination and monitoring all supply chain links. By establishing a tourism big data platform, we will maximize the integration of data, information, communication, meteorological, environmental protection, fire
protection and other related service information of scenic spots, hotels, travel agencies, OTA platforms, transportation and other tourism elements, and control the quality of tourism data from the source, to achieve data sharing and business collaboration across levels, geographies, systems, departments, and services. And through the e-commerce system to integrate the information and knowledge of the entire supply chain network, the implementation of supply chain knowledge management, so that the supply chain nodes can acquire, create, share and use knowledge to create more value.

**Conclusion**

With the completion of the Hong Kong-Zhuhai-Macao Bridge and the acceleration of the integration process of the Hong Kong-Zhuhai-Macao region, exploring the coordinated development path of the tourism supply chain in the Hong Kong-Zhuhai-Macao region will contribute to achieve an open, innovative and win-win situation of the regional tourism industry.

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**References**


