

Airportlization: The Inevitable Choice of the Integration and Innovation of the exhibition Industry in the Age of Traffic Economy—Practical observation in China

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Abstract. The Internet revolution has had a significant impact on the global economy and society. Human beings are moving from the industrial age to information civilization. As one of the representatives of the new economic form in information civilization, the flow economy will become a new economic development model. Both the exhibition economy and the airport economy have the attributes of flow economy, and both of them are developing rapidly in China. They both are in a state of integration and development. The integration of exhibition economy and airport economy is based on the functional synergy of industrial chain integration, and the spatial integration of urban exhibition clusters and airport economic zones. Based on the theory of industrial chain integration, industrial integration and economic symbiosis, this paper puts forward the concept of the integration of exhibition economy and airport economy. We try to construct functional synergy model and spatial integration model, and propose the mechanism of industry chain sharing, co-governance and symbiosis and comprehensive cost-oriented mechanism. Finally, suggestions were made on the location selection of the airport exhibition industry, the exhibition industry and the airport industry linkage, and the regional competition and cooperation of the airport exhibition industry.

1. Introduction

With the acceleration of China's airport construction and the rapid development of the airport economy, the trend of urban MICE industry shifting to the airport economy zone is very obvious. Many cities' exhibition industry is facing spatial reconstruction. The re-layout of the exhibition industry in the airport economic zone will promote the integration of the exhibition economy and the airport economy. What this phenomenon means for the development of China's exhibition industry? We have noticed that the exhibition economy and the airport economy have one common attribute: creating flows. So, is traffic a key factor in integrating the exhibition economy with the airport economy? In the early 21st century, Zhou Z H (2002) and Sun X Y (2003, 2015) and other scholars studied the economic energy of central cities from the perspective of regional economic development, and studied the absorption and radiation of resource elements by various platforms. The concept of traffic economy and the idea of traffic economy as a new economic development model are proposed [1]-[3]. Several years later, Shi L P (2019) proposed a new definition of the flow economy [4]. The Internet revolution has had a significant impact on the global economy and society. Human beings are moving from the industrial age to information civilization. As one of the representatives of the new economic form in the era of information civilization, the flow economy will become a new economic development model. Based on the perspective of traffic



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economy, this paper proposes the concept and form of the integration of exhibition economy and airport economy, and discusses the mechanism of the integration of exhibition economy and airport economy. Finally, it summarizes the development status of China's airport exhibition industry and puts forward suggestions for promoting the development of integration and innovation.

2. Common attributes of traffic economy: the basic premise of the development of exhibition economy and airport economy

Based on the development of economic globalization and the rise of the digital economy, Chinese scholars have summarized and refined the flow economy, which is a new economic development model different from the development model of the stock economy in the industrial era. It refers to the economic development model that creates benefits in the economic field by relying on the flow, accumulation, reorganization, integration, processing and diffusion of production factors and resources such as information, goods, capital, talents and technology [5]. Different from the stock economy that focuses on potential production capacity, the core of the flow economy is to realize the impact on the economy through the accelerated flow of factors and resources, with the feature of light assets, decentralization, manufacturing service, economic digitalization and etc [5]. With the rapid spread of the Internet, the Internet revolution has had a tremendous impact on all aspects of the global economy and society [6], the flow economy is becoming a new theoretical analysis framework for understanding the modern economy. The exhibition economy and the airport economy have distinct traffic economic attributes, and the integration of the two in the era of traffic economy has an internal driving force.

2.1. Traffic economy and exhibition economy

Shi L P (2019) believes that the flow economy refers to the flow of economic elements such as information, goods, capital, talents and technology in a physical or virtual network formed by a space region (city), finally become an active economic power system. The core of the power system network has the role of "control and influence". Through the attraction, re-engineering, value-adding and radiation of economic factor flow, the economic elements flow efficiently throughout the economic network, and the scale of the factor flow is continuously expanded. Finally, the goal of optimal allocation of economic factors and sustainable development of the economic system is achieved. As a new economic form in the information age, the traffic economy has the basic characteristics of digitization, platformization, sharing and spatialization. Digitalization is the fundamental characteristic feature of the traffic economy. Platformization is the basic feature of the traffic economy and sharing. The characterization is the dynamic feature of the flow economy, and spatialization is the external feature of the flow economy [4].

There are many expressions about the exhibition economy [7]. Based on the comprehensive form, process and results, the exhibition economy of this paper refers to a comprehensive economic phenomenon or platform formed by activities (such as conferences, exhibitions, festivals, performances, events, awards, incentive travels, etc). In order to complete the construction of the event platform, the event organizer needs to integrate many urban infrastructure and complementary product providers to provide product sets or service sets to themselves and multiple event participants. Therefore, during the event, on the one hand, product flow and service flow will be formed in the city. On the other hand, the platform attribute of the activity will lead to the inter-regional flow of the elements. The result of the superposition of the two will lead to the accumulation, integration, reorganization and diffusion of a large number of stream of people, logistics, capital flow and information flow, thus promoting the overall development of regional economy, society and culture. From the perspective of attributes, the exhibition industry is a "borderless, multi-scenario" platform industry.

2.2. Airport economy and airport economy area

In the early stages of the development of the aviation industry, the airport has a relatively simple function and links weakly with the city. With the advent of the aviation era, speed economy, traffic economy and quality economy have emerged around the world and become an important path for the development of advanced economy. Along with this process, the airport and the city have become more closely connected. The surrounding areas of the airport have gradually developed into airport metropolitan areas

(or aviation cities, aviation metropolises, etc.), making the airport economy a striking regional economy. The airport economy is an economic form that relies on airport facilities. Through air transportation or aviation manufacturing, the airport's industrial agglomeration effect is used to promote production factors such as capital, information, technology, and population to the surrounding areas of the airport. Eventually, an emerging regional economic form with different aviation clusters is formed [8]. The development of the airport economy brings about the flow of various factors such as people flow, logistics, capital flow, information flow and technology flow, and promotes the aggregation, reorganization and integration of various factors, thereby realizing the expansion of economic energy and promoting the rapid development of regional economy. It is one of the important representative forms of the flow economy [9].

The airport economic zone is the projection of the airport economy in the region and is the space carrier for the economic development of the airport. According to the definition of "Guiding Opinions of the National Development and Reform Commission and the Civil Aviation Administration on the Construction and Development of the Airport Economy Demonstration Zone", the Airport Economic Zone is based on aviation hubs and modern integrated transportation systems, providing products and services with high timeliness, high quality and high attachment. It is a special economic region formed by the agglomeration of the development of air transport industry, high-end manufacturing industry and modern service industry. It is an important carrier for the integration, mutual promotion and mutual promotion of civil aviation industry and regional economy [9]. Under the influence of the law of economic development and the active guidance of the government, the economic relationship between the airport economic zone and the surrounding areas has become increasingly close, and it has become a city functional zone characterized by the clustering of airport industries [10], John Kasarda called it Aerotropolis. Driven by the continuous upgrading of the airport economy, the airport economic zone has gradually moved from an aviation city to an aviation metropolis, as demonstrated by the case of Amsterdam Schiphol Aviation City in the Netherlands.

2.3. Integration of exhibition economy and airport economy

The exhibition industry is an ideal industry to undertake airport flow and transform into urban consumption. It is a rational choice to develop the exhibition industry in the airport metropolitan area. The airport exhibition industry is the result of the integration of exhibition economy and airport economy, and is the product of regional economic development. Chai J Y (2015) believes that as an important form of service economy, knowledge economy and agglomeration economy, the coordinated development of exhibition cluster economy and airport economy is the inevitable result of speed economy and flow economy development [11]. The integration of exhibition economy and airport economy does not mean the blurring, changing or disappearing of the boundary between exhibition industry and airport industry. The core connotation is mainly reflected in two aspects: First, the functional coordination based on the integration of the industrial chain, that is, the simplification of the overlapping industries in the exhibition industry and the airport industry; the second is the spatial integration of the urban exhibition area and the airport economic zone, that is, the reconstruction of the exhibition area in the airport economic zone. Therefore, the integration of exhibition economy and airport economy means that a city's exhibition industry chain is transferred from the downtown area to the airport economic zone, and embedded in the airport economic zone in the form of an exhibition industrial cluster, so that the exhibition industry chain and the aviation industry chain can share the space. Through the joint governance of "Exhibition-airport Composite Industry Chain", the symbiosis between the exhibition economy and the airport economy will be realized, thereby optimizing the regional economic structure and function, at the same time, promoting the regional economic integration development.

The exhibition economy has strong regional attributes and the characteristics of the flow economy. It has obvious trends of urban center orientation and traffic node orientation in urban location selection. When the city center and the traffic nodes are spatially inconsistent, the location choice of the exhibition economy depends on the results of the dynamic equilibrium between the two. When a city's airport economy rises, it will often include the exhibition economy, and the new exhibition venue will lead to the adjustment of the city's exhibition economy layout, which will have a turning impact on the

exhibition economy. The core of the city's exhibition industry will be transferred from the city center to the airport economic zone, and the exhibition economy zone will be rebuilt in the airport economic zone and integrated with the airport economy zone. From the perspective of industrial economics, the integration of exhibition economy and airport economy is a functional synergy process based on the integration of exhibition industry chain and aviation industry chain. From the perspective of regional economics, the integration of exhibition economy and airport economy is a phenomenon of spatial integration. From the perspective of system theory, the result of the integration of exhibition economy and airport economy is the optimization of regional economic system structure and the improvement of overall function.

3. Industry chain sharing, co-governance and symbiosis: the mechanism of the development of exhibition economy and airport economy integration

Industrial chain sharing means that when two or more industrial chains have a common industrial sector, these industrial sectors can serve more than two industrial chains through appropriate site selection, forming a composite industrial chain form and achieving operational efficiency. Since the exhibition economy and the aviation economy have commonalities in many aspects, the exhibition industry chain and the aviation industry chain are partially overlapped. When the exhibition economy and the aviation economy are geographically close, they can share the part of the industrial chain that overlaps, realize the integration of the exhibition industry chain and the aviation industry chain, that is, form a "exhibition-aviation" composite industrial chain, which not only avoids redundant construction but also improve the operational efficiency of their respective industrial chains. When the exhibition cluster is integrated with the airport economic zone, it can share the hospitality, retail, entertainment, catering, tourism, logistics and urban transportation sectors (figure 1). These industrial sectors belong to both the exhibition industry chain and the airport industry chain. At the same time, they are concentrated in the two platforms of exhibition venues and airports, which is the key to the "exhibition-aviation" composite industry chain. The manufacturing and service sectors in the airport industry chain can join the manufacturing and service sectors to participate in the exhibitions at the exhibition venues at a lower cost. The new information generated through the exhibitions can be spread in the airport industry chain and promote the industrial upgrading and innovation.

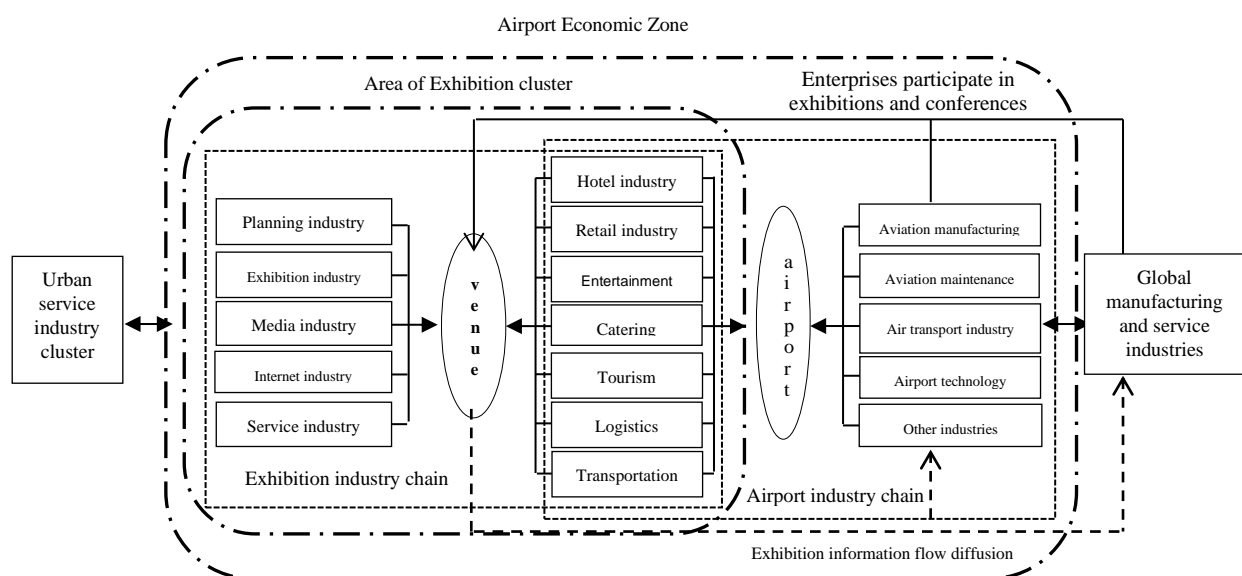


Figure 1. Schematic diagram of the fusion of symbiotic relationship in the exhibition-aviation-aviation composite industry chain

When the exhibition industry chain and the aviation industry chain are integrated through sharing, it is inevitable that the two will jointly construct a new industrial chain governance structure. The characteristics of “dual-core structure” determine that the host institution and the exhibition venue are the two cores of the exhibition industry chain management, while the aviation industry chain is centered on the airport. Therefore, the host institution, exhibition venue and airport will become the core of “conference-airline”, the department which undertakes the functions of the management of the composite industry chain. In addition, as a result of sharing and co-governance, it will lead to regional integration and symbiosis between the exhibition economy and the airport economy. As a projection in space, industrial integration and industrial symbiosis will inevitably lead to the emergence of industrial integration and symbiosis in the region. The exhibition economy will be built in the airport economic zone in the form of a cluster area. On the one hand, the exhibition economy will become part of the airport economic zone and support its development. On the other hand, the spillover effect of the exhibition cluster will also have an impact on the city center. To support the development of the city's overall exhibition function and the development of the exhibition economy. The geographical integration of the exhibition economy and the airport economy will produce positive externalities and will have a positive impact on the regional economy and even the global economic development.

4. The lowest cost of comprehensive cost: the intrinsic motivation for the integration of exhibition economy and airport economy

The operating cost of the exhibition industry is one of the main factors restricting the location choice of the exhibition area, and it is one of the important mechanisms for the regional integration of the exhibition economy and the airport economy. On the one hand, the strong service integration characteristics of the exhibition industry have high requirements on the timeliness of service response, the cost, comfort and convenience of service content, and the accessibility of the city, leading to location selection as a near-city center orientation; On the other hand, the convergence of the people and logistics of the exhibition industry has made the exhibition industry put forward higher requirements for the global accessibility and timeliness of transportation, and it has obvious traffic hub orientation. The location selection of the exhibition area is near-airport orientation gradually. The final choice of a city's exhibition area is close to the city center or near the airport, depending on the comparison of the combined costs of the two. The comprehensive cost of the exhibition industry includes the operating costs of service providers (such as venues, organizers and various service providers), the explicit costs and hidden cost of the participants (such as in mobile, communication and information cluster area), infrastructure construction and operating costs, government regulatory and coordination costs, and government subsidies. The comprehensive cost of a region shows different spatial gravitational vectors for the exhibition industry. The location selection of the exhibition agglomeration area depends on the location of the minimum value after each vector is added. We represent the exhibition venues as the exhibition cluster area and exhibitor's direct participation cost as comprehensive cost, building the relationship among exhibition cluster area, urban service cluster (city center) and regional traffic nodes. In the case where the regional transportation node is separated from the urban service cluster area and the exhibition venue is built between the two, the exhibitor needs to pay the transportation cost of the business passenger from the regional transportation node to the urban service agglomeration area (a), the logistics cost of goods from regional transportation node to urban service agglomeration area (b) and business communication cost from urban service agglomeration area to exhibition venue (c). So, the total cost of the exhibitor is $A=a+b+c$; In the case where the regional transportation node is separated from the urban service agglomeration area, but the exhibition venue is built within the urban service agglomeration area, the direct participation cost of the exhibitor is $B=a+b$; In the case where the regional transportation node is separated from the urban service agglomeration area, and the exhibition venue is built at the regional transportation node, the direct participation cost of the exhibitor is $C=c$. Obviously, $A>B>C$, the construction of the exhibition and agglomeration area within the airport economic zone or the high-speed rail new city has the lowest comprehensive cost. So, establishing exhibition venues near the airport and high-speed rail has become a rational choice (figure 2). For example, Shenzhen is building the world's largest exhibition venue in Bao'an Airport District. Changsha City has built and put

into operation the Changsha International Convention and Exhibition Center in the high-speed rail new city.

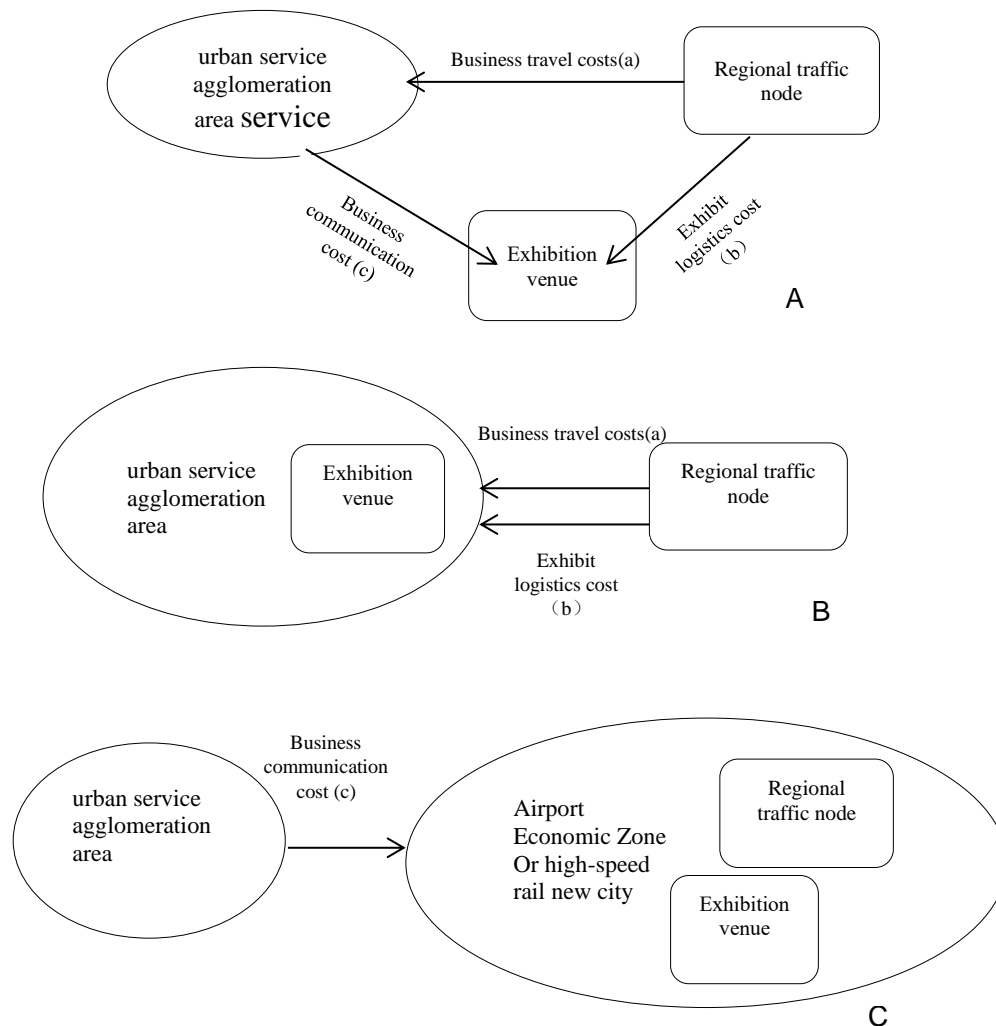


Figure 2. Schematic diagram of the spatial relationship model of the city's exhibition industry

5. Vigorously promote: a realistic portrayal of the innovation and development of China's exhibition economy and airport economy

According to the 2017 National Civil Transport Airport Layout Plan, China will form three world-class airport groups, 10 international hubs and 29 regional hubs in 2025. In recent years, China's airport economy has developed rapidly, mainly in the rapid advancement of the airport economy zone that bears the development of the airport economy. At present, the integration and development of the exhibition economy and the airport economy is very obvious. The exhibition industry, together with the airport transportation service industry, the logistics industry, the airport-based high-tech manufacturing industry, the headquarters economy, the aviation manufacturing industry and the science and technology research and development, have become the seven major industries of airport economy [10]. Most of the industrial layout of China's airport economic zone includes the exhibition industry. More than 80% of the international hub airports in the world have exhibition industry in the layout of the airport industry [11].

5.1. Development of China's airport economic zone

In recent years, the development of China's airport economic zone has been rapid, and the major airport economic zones are becoming an important growth point for urban development and a new support for regional economic and social development. According to statistics, by 2014, 62 cities have planned or

built 63 airport economic zones relying on 54 airports. The construction of the airport economic zone has been comprehensively promoted. On June 24, 2015, the National Development and Reform Commission and the Civil Aviation Administration of China jointly issued the “Guiding Opinions on the Construction and Development of the Airport Economic Demonstration Zone” (Development and Reform Zone [2015] No. 1473) to standardize the development of the airport economic zone. By March 2019, China had approved the establishment of 14 demonstration airport economic zone, including Zhengzhou, Beijing New Airport, Qingdao, Chongqing, Guangzhou, Shanghai Hongqiao, Chengdu, Changsha, Guiyang, Hangzhou, Ningbo, Xi'an, Capital Airport and Nanjing (table 1). The construction of the national-level airport economic demonstration zone have great significance in giving play to comparative advantages, tapping the potential of domestic demand growth, promoting industrial transformation and upgrading, enhancing the role of radiation, promoting the development of the civil aviation industry, optimizing China's economic development pattern, deepening the opening up and speeding up the transformation.

Table 1. Basic situation of the national-level airport demonstration zone (2019)

	City	Reply time	Area (square kilometers)
1	Zhengzhou	February 2013	415
2	Beijing (Capital Airport)	October 2016	150
3	Qingdao	October 2016	149
4	Chongqing	October 2016	147
5	Guangzhou	January 2017	135
6	Shanghai (Hongqiao)	January 2017	14
7	Chengdu	March 2017	100
8	Changsha	May 2017	140
9	Guiyang	May 2017	148
10	Hangzhou	May 2017	142
11	Ningbo	May 2018	82
12	Xi'an	May 2018	144
13	Beijing (Daxing)	February 2019	115.7
14	Nanjing	February 2019	81.8

5.2. Development of China's airport exhibition industry

At present, the trend of the integration of exhibition economy and airport economy is very obvious. The exhibition economy has become one of the most basic and important components of the airport economy. Of the top 10 cities in the 2017 China Urban Exhibition Industry Development Index, 9 cities are building or planning to build venues in the Airport Economic Zone. Among the 14 state-level airport demonstration zones, 10 demonstration zones have made clear plans for the development of the exhibition industry (Table 2). For example, the Demonstration Airport Economic Zone of Guiyang proposed to give full play to the effects of the agglomeration radiation of the airport, coordinate the optimization of factor resources, and foster the development of cultural tourism, business services, headquarters economy, airport exhibition, airport finance, aviation education and training, and health and creative industries. The airport will be associated with the derivative industry to create a cluster of integrated services in the airport. The airport exhibition industry should highlight the characteristics of specialization, branding and internationalization, and plan to build an ecological park (Garden Expo Park), an ecological civilization conference branch venue, a Baoneng big data center convention and exhibition city, a conference-type business hotel, a business center and so on, to enhance the functions of exhibition services, host international, national and regional exhibitions, trade fairs, product launches, various forums, special conferences and colorful cultural exhibitions in Guizhou. The Demonstration Airport Economic Zone of Hangzhou which has proposed to vigorously develop professional

exhibitions, aviation exhibitions and exhibition-related industries strengthens the infrastructure construction of exhibition venues and builds a trading market for navigation products. This zone also actively organizes large-scale air show activities focusing on new navigation materials, aircraft airborne equipment, key components and ground support equipment, and undertakes international famous brand product launch conferences, expositions and trade fairs to promote the internationalization, marketization, and professional development, as well as become a regional airport exhibition center. The industrial positioning of Xi'an Airport Economic Demonstration Zone is the Silk Road Traffic Trade Logistics Center, the International Aviation Service Industry and High-end Aviation Manufacturing Center, the International Exhibition and Cultural Innovation Center, and the Agricultural and Ecological Town Demonstration Center.

Table 2. Planning of the airport convention and exhibition industry in 10 national demonstration airport economic zones

	Name	Position	Spatial layout
1	airport economic Integrate experimental zone of Zhengzhou	1.International aviation logistics center 2. Modern industrial base led by aviation economy, 3.The Important gateway of opening up inland 4.Modern aviation city 5.Core growth pole of economic zone in central China	“one core leads three districts, two corridors connects three cores, two axes lines with three rings” The eastern airport trading area covers an area of 92.8 square kilometers which mainly consists of aviation exhibitions, high-end trade, technology research and development, aviation logistics, and innovative functional components industry ect.
2	demonstration airport economic zone of Beijing Daxing International Airport	1.The functional center of the international communication center 2.The national aviation science and technology innovation leading area 3.The Beijing-Tianjin-Hebei coordinated development demonstration zone.	Formulating aviation logistics area, technological innovation area and logistics support area in which supporting the construction of production and living service guarantee systems for air transport-related enterprises and appropriately developing aviation science and education, special finance, business exhibitions to build a comprehensive service support base. “One core, five districts and one belt”. The airport modern service area is located in the southern part of the core area with a total area of about 25 square kilometers. It mainly develops aviation finance industry such as financial leasing, offshore settlement, shipping insurance, trade financing, as well as exhibitions, headquarters, creation, fashion and other industries to create a modern airport business area.
3	demonstration airport economic zone of Jiaodong (Qingdao)	1.Regional aviation hub 2.High-end airport industry base, 3.Opening up and leading area 4.Modern ecological wisdom airport city	“one core and five districts”. The airport zone of exhibition covers an area of about 18 square kilometers, which mainly relies on the Yuelai Convention and
4	demonstration airport economic zone of Chongqing	1.Inland portal of opening up 2.Low-carbon humanities international airport metropolitan area	

		<p>3. Airport area of high-end manufacturing cluster</p> <p>4. Airport area of international trade center</p> <p>5. Innovation-driven leading area</p>	<p>Exhibition City focusing on the development of exhibitions and related industries.</p>
5	Demonstration airport economic zone of Changsha	<p>1. An integrated transportation hub for the Yangtze River Economic Belt</p> <p>2. An innovate development economic highland of inland opening up</p> <p>3. High-end gathering development zone of airport industry</p> <p>4. A green eco-smart aviation city</p>	<p>“One axis, two cores and three groups”,</p> <p>“one axis” refers to “air and railway linkage development axis” which is to expand conference and exhibition, headquarters economy, innovative creativity, modern logistics, cultural media and other functions in the air and railway transportation corridor to realize integrate development; Railway new town group is located in the southwest of the demonstration area, which actively develops modern industries such as trade fairs, cultural creativity, cross-border e-commerce, new logistics and other modern industries.</p>
6	demonstration airport economic zones of Guiyang	<p>1. The important gateway to the opening up of the western inland areas</p> <p>2. The southwest airlines passenger and cargo hub</p> <p>3. The characteristic high-end airport industry base</p> <p>4. The intelligent ecological demonstration zone.</p>	<p>“One core and four districts”</p> <p>The southeast area is the Gujiao Airport Conference and Leisure Integrated Zone with an area of 30 square kilometers which mainly relies on the advantages of Guiyang’s health industry whose core mission is to develop health, wellness, leisure, tourism as well as ecological pension and meeting holiday.</p> <p>“One heart and five districts”</p> <p>One heart is Hangzhou Xiaoshan International Airport.</p>
7	demonstration airport economic zones of Hangzhou	<p>1. Global cross-border electricity trademark</p> <p>2. Asia-Pacific international aviation hub</p> <p>3. The national airport industry highland</p> <p>4. Ecological smart aviation city</p>	<p>Five districts formulating the development of the airport exhibition industry are airport harbor, airport modern service Industry, airport advanced manufacturing, urban function and ecological function.</p>
8	demonstration airport economic zone of Xi’an	<p>1. International aviation hub</p> <p>2. Airport industrial cluster</p> <p>3. Inland new highland of reforming and opening up</p> <p>4. Ecological livable airport city.</p>	<p>“One core, two hearts, two rings, four districts”</p> <p>The two hearts include the aviation headquarters office center and the business convention center</p>
9	demonstration airport economic zone of capital airport	<p>1. The national economic transformation airport demonstration zone</p> <p>2. The national key opening up area</p>	<p>“one port and four districts” are the capital airport, the aviation logistics and port trade zone, the airport industry and urban comprehensive service zone, the airport business and emerging industrial zone, and</p>

		3.The functional core area of the International networking center	the ecological function zone. This airport economic zone is studying the construction of new exhibition venues.
		4.The capital ecologically livable internationalization pilot area	
10	demonstration airport economic zones of Nanjing	To build a worldwide aviation hub as well as international, modern, ecological, and intelligent airport economy demonstration zone.	Nanjing Airport Convention and Exhibition Town will be put into operation in 2020

6. Suggestions on promoting the development of exhibition economy and airport economy integration and innovation

6.1. Carefully select the location of airport convention and exhibition industry.

The exhibition industry, together with the airport transportation service industry, the logistics industry, the airport-based high-tech manufacturing industry, the headquarters economy, the aviation manufacturing industry and the science and technology research and development, have become the seven major industries of airport economy. According to the standard of airspace directivity, the convention and exhibition industry belongs to the industry with weak directivity. In the classification of Airport Industrial Park, Exhibition Industrial Park is a subsidiary of Airport Industrial Park. The airport economic zone consists of the airport area (range of 1 km around the airport), the immediate vicinity of the airport area (range of 1-5 km around the airport), the adjacent area of the airport (range of 5-10 km around the airport), and the surrounding radiation zone (range of 10-30 km around the airport), which location should be selected for the convention and exhibition area is critical to the development of the airport exhibition industry, and it involves the relationship between the airport economic zone and the city center. Generally speaking, it is more appropriate for the exhibition cluster area to be located between the airport and the city center near the transportation node close to the airport area.

6.2. Promote the linkage between the convention and exhibition industry and the airport industry.

The structure of the "Exhibition-Aviation" composite industry chain shows that the hospitality, retail, entertainment, catering, tourism, logistics, and urban transportation sectors are not only an important part of the airport economic zone, but also a part of the exhibition industry chain. The development of the airport exhibition industry is not only manifested in the newly-built exhibition venues, but also means the reconstruction of the exhibition industry chain. Many convention and exhibition professional service agencies and most reception service agencies will gather around the exhibition venues as they are constructed. Relying solely on convention venues and lacking many spatially close supporting services, the development of the convention and exhibition industry will face huge obstacles. However, how to configure the service industry in the Airport Economic Zone to serve the convention and exhibition industry and other Airport industries simultaneously involves multi-party games, and it needs to balance issues such as project planning, serving people, and construction timing. In addition, the development of the convention and exhibition industry places higher requirements on infrastructure, public services and policy support. In the development process of the airport exhibition industry, it is also necessary to follow up comprehensively.

6.3. Implement the two-wheel drive strategy of the city's convention and exhibition industry with the new venues in the Airport Economic Zone and the existing venues in the city center.

The airport economy is an economic development model that appears when the regional economy reaches a certain stage. Usually, it is later than the development of the city's convention and exhibition industry. The development of the integration of the convention and exhibition economy and the airport

economy begins with the construction of new convention and exhibition venues, which usually exceed the existing venues, which usually means that at least two convention and exhibition areas will appear in a city. One is an old convention and exhibition area formed by the original venues in the city center, and the other is an airport convention and exhibition area with the new venue. In the case where the exhibition resources are not developed simultaneously, a zero-sum game may occur. Therefore, it is necessary to properly handle the relationship between the old convention and exhibition area and the airport exhibition cluster area. In larger cities, a two-wheel drive strategy can be adopted, that is, the small and medium-sized consumer exhibitions, cultural and creative exhibitions are mainly developed in the city center, which mainly serves the city. While the Airport Convention and Exhibition Area mainly develops large and medium-sized trade shows and professional exhibitions, which mainly focuses on industrial exhibitions and mainly serving regional economic development, and is committed to promoting industrial upgrading and innovation.

6.4. Promote the competitive development of the airport exhibition industry.

The economic development of airport is positively related to the level of urban economic development. Coexisting several airspace economic zones in areas with high levels of economic development is a common regional economic phenomenon. In the Guangdong-Hong Kong-Macao Greater Bay Area, Hong Kong, Guangzhou, and Shenzhen are all committed to developing the convention and exhibition industry. In addition to the construction of the Shenzhen Convention and Exhibition New City, Guangzhou also plans to build new venues in the Baiyun Airport Economic Zone in Huadu District. In order to avoid homogeneous competition in the airport exhibition industry, the future development of the exhibition industry in the three places should adopt a co-competition strategy at the regional level and carry out "Competitive Cooperation" or "cooperative competition". In the context of open markets and strict supervision, competition is encouraged in terms of project quality, business support, and business environment. At the same time, cooperation in project operations, funding, human resources, evaluation, and industry associations is encouraged. On the one hand, the exhibition economy of Guangdong-Hong Kong-Macao Greater Bay Area is enlarged through competition; on the other hand, the market share is promoted through cooperation to promote the healthy development of the regional exhibition economy.

6.5. Speed up the training of professionals for conventions and exhibitions.

The economic development of airport is positively related to the level of urban economic development. Coexisting several airspace economic zones in areas with high levels of economic development is a common regional economic phenomenon. In the Guangdong-Hong Kong-Macao Greater Bay Area, Hong Kong, Guangzhou, and Shenzhen are all committed to developing the convention and exhibition industry. In addition to the construction of the Shenzhen Convention and Exhibition New City, Guangzhou also plans to build new venues in the Baiyun Airport Economic Zone in Huadu District. In order to avoid homogeneous competition in the airport exhibition industry, the future development of the exhibition industry in the three places should adopt a co-competition strategy at the regional level and carry out "Competitive Cooperation" or "cooperative competition". In the context of open markets and strict supervision, competition is encouraged in terms of project quality, business support, and business environment. At the same time, cooperation in project operations, funding, human resources, evaluation, and industry associations is encouraged. On the one hand, the exhibition economy of Guangdong-Hong Kong-Macao Greater Bay Area is enlarged through competition; on the other hand, the market share is promoted through cooperation to promote the healthy development of the regional exhibition economy.

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