

Hong Wang *Editor*

Report on the Development of Cruise Industry in China (2018)



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Editor

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Green Book on Cruise Industry



 Springer

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Foreword

2018 is the first year to implement the guiding principles of the 19th National Congress of the Communist Party of China, the 40th anniversary of the reform and opening-up policy, the key year for building a moderately prosperous society in an all-round way and implementing the 13th Five-year Plan, and an important year for accelerating the extension of the cruise industry chain in China. In the new era, our economy has changed from the high-speed growth to the high-quality development. It is now in the key period of upgrading the development mode, optimizing the economic structure and changing the growth momentum, providing an excellent development environment, new development opportunities, and motivation for the sound development of cruise economy in China.

After over ten years of rapid development, the cruise market in China has changed the world's cruise tourism map. The international cruise lines put the newest and the best cruise ships on the Chinese market, making it a growth pole to drive the world's cruise tourism market and an important aspect to deliver the Chinese culture and lifestyle and promote the tourism diplomacy. In order to give full play to the advantages of the cruise tourism market and enhance the economic effects of the cruise tourism, the transformation from the cruise tourism to the cruise industry has been launched across China, starting the strategic development path of the full industry chain, extending the cruise industry chain, promoting the design and building of domestic cruise ships and the building of local cruise ship fleets, improving the cruise-related industries, and continuously enhancing the economic effects and social effects of the cruise industry. With over ten years of development, the cruise industry of China has become increasingly important in making economic contributions to the global cruise industry, being an important engine leading the sustainable and sound development of the global cruise economy, and providing more confidence and support for the development of the world's cruise industry.

During the rapid development of the cruise industry in China, there are also many new problems and challenges. In terms of the design and building of cruise ships, despite the advantages in shipbuilding, there are still great difficulties.

For example, a complete industry supporting system has not yet been established and the localization rate of the supporting industries is low. In terms of the construction of the cruise ports, as the cruise market in China now enters a period of adjustment and the cruise ports choose to make investments in expansion one after another, the cruise market is downsized to some extent, which results in an increase in the vacancy rate of the cruise ports and reduction in the earning capacity. In terms of the cruise distribution channels, being “narrow and long”, there is a smaller number of distributors and lack of complete cruise ticket management platforms, the direct selling model of the cruise lines develops slowly, and there are obstacles for the foreign-funded cruise travel agencies to participate in the market distribution in China. In terms of the development of cruise routes, there are still policy bottlenecks in the open-sea cruise routes, offshore cruise routes, “multi-port call” routes, etc. In terms of the concentrated development, the cruise industry presents a low concentration degree, there is lack of sufficient industry factors, and the industrial cluster effect is not obvious.

In order to better reflect the current development situations and trends of the cruise industry in China and make systematic and in-depth study on the cruise market in China, Shanghai International Cruise Business Institute, a famous research institute for cruise industry, took the lead in organizing the preparation of the Green Book on Cruise Industry. It is the annual research report prepared based on the current development situations of the cruise industry. As the currently most authoritative research works on cruise economy, it has received high attention in the tourism academic circle at home and abroad and within the international cruise tourism industry and is highly evaluated and affirmed. Its research achievements will be an important theoretical basis for governments and enterprises to make policies and planning for the development of the cruise industry. It is my honor to work as the compiling consultant of the Green Book on Cruise Industry, and I am greatly gratified for the achievements of the Book.

In view of the latest trend of the cruise market development in China, the special topic “Special Articles for High-quality Tourism: Common Value and Government Management” is presented in the Green Book on Cruise Industry 2018, based on the previous versions, to discuss the quality development patterns and paths of the cruise tourism in China, the high-quality development mechanism of the cruise tourism under the background of global tourism as well as the cruise tourism market cultivation and standardization system in China, providing good reference value to better promote the high-quality development of the cruise market in China.

Here, I would like to express my sincere gratitude to the editors and staff behind the “Green Book on Cruise industry” for their hard work and to all the friends who have been paying close attention to, concerned about, and supported the development of the cruise industry. I hope that our colleagues could make persistent efforts to achieve the rapid and high-quality development of the cruise industry in China by providing better ideas and patterns and offering their wisdom and strength. At the same time, I hope that I can joint with all people within the industry in the

building of the local cruise industry in China to provide more comfortable, convenient, and pleasant cruise services, better meet consumers' needs and longing for a beautiful life, strive to revitalize the local cruise industry in China, and make due contributions.

Shanghai, China
June 2018

Qian Yongchang
Former Minister
of the Ministry of Transport
Chairman of China Communications
and Transportation Association

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Abstract

Report on the Development of the Cruise Industry in China 2018, an annual research report prepared by the cruise industry experts and scholars at home and abroad invited by Shanghai International Cruise Business Institute based on the current development situations of the international cruise industry, is an important part of the “X Book Series” of the Social Sciences Academic Press (China). The Green Book on Cruise Industry for this year is the 5th book of the series, consisting of five parts, i.e., “General Report”, “Special Articles for High-quality Tourism: Common Value and Government Management”, “The Industry”, “Policy Suggestions”, and “Appendix”, and it has richer and more perfect contents in comparison with the previous versions. Under the Book, the development environment of the cruise industry at home and abroad during 2017–2018 as well as the development situations, strategic paths, and future trends is analyzed in the form of the General Report, and the current development trend of the cruise industry in China is introduced based on the top ten hot topics. With the economic development trend from the high-speed growth to the high-quality development in China, the new topic “Special Articles for High-quality Tourism: Common Value and Government Management” is presented in the Book to discuss the quality development patterns and paths of the cruise tourism in China, the high-quality development mechanism of the cruise tourism as well as the cruise tourism market cultivation and standardization system, so as to better enhance the quality of the cruise market development in China. In Part III “The Cruise Industry” and Part IV “Policy Suggestions” under the Book, the whole picture of the cruise economy in China in the new era is presented, problems during the industrial development are analyzed, and corresponding policy suggestions are given.

Based on the review of the development achievements and problems of the cruise industry in China during 2017–2018, the General Report makes systematic and scientific forecast on the development in 2018. In the specific parts, the discussion is mainly based on the high-quality development of the cruise economy, the structure upgrading and optimization of the cruise industry, and the policy suggestions. In Part III “The Cruise Industry”, in-depth analysis is made on the cruise tourism integration, the Yangtze River Delta region tourism integration, the development patterns of the global cruise economic circle, the Oasis-class cruise ship design and

building, and the dynamic information system for the global cruise economy in the Internet era. In Part IV “Policy Suggestions”, constructive suggestions are given on the cruise port credit system construction, cruise port big data construction, cruise talent information base construction, etc; the responsibilities and obligations of the main parties during the development of the cruise industry are specified, and the management mechanism of each link is improved, so as to guarantee the steady and sound development of the cruise industry in China.

In 2018, the cruise market in China has slowed down the scale increase and entered a period of adjustment. However, due to the steady and sound economic development, upgrade of people’s consumption level, tourism prosperity and development, and other favorable factors, the cruise market in China is still full of development vitality and huge development potential. During the development of the cruise market in China, the cruise industry policy system and the cruise market cultivation system are being continuously improved and the cruise market governance system construction is being enhanced, providing solid foundation for the sound development of the cruise industry in China. On the whole, the cruise industry in China faces both development opportunities and challenges. Presently, in order to promote the further development of the cruise industry, there should be more investment in the cruise tourism market cultivation in China, the orderly development of the cruise tourism market competition in Shanghai should be promoted, favorable conditions for the development of the cruise inbound tourism should be created, and favorable policies on the development of new cruise routes should be obtained. In the future, the cruise industry chain of China will accelerate the extension, the cruise market will keep high-quality development, and the economic contribution will significantly improve, so as to strengthen its great influence in the world’s cruise economy map. The international cruise home port will strive to be among the world’s top three, with the international influence, competitiveness, and brand force being at the world-class level.

The publication of this book is the cooperation result of the government, industry, academics, research institutions, and enterprises. It has received guidance and support from all these organizations. Especially thanks Shanghai Wusongkou Investment (Group) Co., Ltd. for its full support for the publication of this book!

Keywords Annual research report • Development situation • Development trend • High quality

Introduction to the Main Editor

Wang Hong, Doctor of Business Administration from Shanghai Jiao Tong University and Postdoctoral Fellow of Applied Economics from Fudan University, is now Secretary of Baoshan District Committee of the Communist Party of China, Fellow of Shanghai International Cruise Business Institute, Doctoral Supervisor and Professor in Shanghai Jiao Tong University, enjoying the special allowance granted by the State Council, Deputy to the 10th, 11th, 12th, and 14th Shanghai Municipal People's Congress, and Candidate for "the New Century National Hundred Thousand-and-Ten Thousand Talents Project".

She has been serving as the Vice-Chairman of the Professional Education Steering Committee on Business Administration of Colleges and Universities, the Ministry of Education, for a long time, and she once served as the Vice-Chairman of the Professional Education Steering Committee on Management Science and Engineering of Colleges and Universities, the Ministry of Education. At present, she is one of the scholars listed in the New Century Talent Support Program of the Ministry of Education, Shanghai Dawn (*Shuguang*) Program, and Shanghai Dawn (*Shuguang*) Tracking Program, honored as the leading talent and excellent academic leader of Shanghai Municipality.

Taking the initiative to link up with the development of cruise industry at home and abroad, she has been innovatively exploring the connotation of the specialty "tourism management," taking the lead in starting the "cruise economy" bachelor's degree program and master's degree program, and serving as the academic leader in China. The "Innovative Practice For the Government-Industry-University-Institute-Customer-based Cultivation of Urgently Needed Talents for International Cruise Industry" project led by her won the National Second Prize for Teaching Achievements and Shanghai Special Prize for Teaching Achievements in 2014. She has also been paying attention to the direct transformation and popularization of scientific research achievement into productivity, and many of her achievements already have been transformed into the basis for the cruise lines and the governments to make decisions. She has successively organized several major projects of

National Social Science Foundation and national soft science projects, six major projects of National Development and Reform Commission (NDRC), and over 30 provincial and ministerial research projects, published over 70 monographs and papers, many of which have been included by EI and ISTP. More than 30 of her research achievements have been successively awarded, including the first prize of Shanghai for Governmental Decision-Making and Consultation Research Achievements, the second prize of Shanghai for Science and Technology Progress Award, the Excellent Award of Shanghai for Deng Xiaoping Theory Research and Publicity, the Excellent Award of Shanghai For Internal Discussion of Philosophy and Social Science, the first prize of Shanghai for Teaching Achievements, the first prize of Shanghai for Education and Scientific Research Achievements, and other provincial and ministerial awards.

She once served as the Executive Committee Member of the All-China Federation of Trade Union, Representative of the All-China Women's Federation, President of Shanghai University of Engineering Science, Vice-Chairman of Shanghai Federation of Trade Unions, Vice-Chairman of Shanghai Commercial Enterprise Management Association, Vice-Chairman of Shanghai Creative Industry Association, Vice-Chairman of Shanghai Science and Art Society, and Director of Shanghai International Cruise Business Institute.

Part I
General Report

Chapter 1

Research on the Development of the World's Cruise Industry During 2017–2018: Strong Demands Stimulate the Sustainable High Growth



Hong Wang, Jianyong Shi and Junqing Mei

Abstract In 2018, the global economic growth rate has been significantly improved, providing a good foundation for the development of the cruise industry. Cruise will continue to maintain a positive development trend in 2018, with 26.9 million passengers taking cruise, and is expected to reach 37.6 million in 2025. Cruise market concentration remained high, with 35.4% in the Caribbean and 15.8% in the Mediterranean in 2017, respectively. The trend of large-scale and mega-scale cruise construction is more obvious. The newly built cruise ships are basically over 100,000 gross ton, and there are 91 cruise ships under construction before 2026. Throughout the development of the global cruise industry, although North America's share in the global cruise market has declined, the advantage has been maintained for a long time, and due to the headquarters of cruise enterprises and the economy of the cruise home port has made greater economic contributions. The demand of European cruise market is stronger than that of North America, which makes it have a strong position and development potential in the development of cruise industry chain. Due to its good economic development situation and relatively stable international environment, Asia-Pacific has a strong potential for the development of the cruise market. In the future, the Asia-Pacific region will witness volatile growth in the process of maintaining a high-speed growth trend. China's cruise market has good basic conditions for development and good prospects for development.

Keywords Cruise industry chain · Emerging market · Economic contribution · Market prospect

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1 Analysis on the Development Environment for the Global Cruise Industry

1.1 *The Global Economy Is Recovering Steadily and the Economic Growth Is Strong*

In 2017, the global economic development tended to a good prospect, gradually realizing the profound adjustment after the economic crisis, with both the economic growth rate and the growth forecast being obviously improved. The economic entity and emerging market in the developed countries as well as the economic entity in developing countries had satisfactory economic growth and maintain sound development momentum.

According to the *World Economic Situation and Prospects 2018* issued by the United Nations, the world economy in 2017 realized a growth rate of 3%, which is the highest growth for the past seven years. In terms of the global economic development and growth situations, the economic growth rate in 2017 in over 2/3 of the countries surpassed that in 2016. The economic growth rate maintaining good development has become a common phenomenon. According to the data released by the International Monetary Fund (IMF), the global economic growth rate in 2017 reached 3.6%, which was the fastest growth in the past 10 years. Despite a certain difference in the growth rate between the two sets of data, it was shown that the world economy presented good development momentum, the growth rate of the international trade was obviously improved and the development of the global manufacturing industry was effectively promoted. China, as the largest developing country in the world, put forwards the “Belt and Road” Initiative, “International Cooperation on Production Capacity” Initiative, etc., which will play an important role in promoting the expansion of international cooperation space and fields. In the global economic development plate, South Asia and East Asia are the regions with the fastest growth rate and the most development potential and development vitality. In 2017, the growth rate of the gross domestic product (GDP) in South Asia and East Asia reached 6%, which was significantly higher than that in other regions in the world. As the world’s second largest economy, China contributed 1/3 of the world economy. The economic development in Asia area has had been closely related to the good economic growth trend, improvement in individual consumption capacity, increase in the total amount of exports as well as the loose macro-economic development policies in China. In 2018 and 2019, the economic development in Asia area will maintain good growth trend. The steady development is expected to stand at 5.8 and 5.9%, respectively.

1.2 The Global Economic Development Still Faces Many Risks

In 2017, the various risks of the global economic development had not been fundamentally addressed, and there was certain accumulation. Despite some improvement in the short term, there were still unfavorable conditions, such as the deterioration of the financial environment, changes in the international trade policies and strained geopolitical relation. For example, the quantitative easing policy as well as negative interest rate of the developed economy, such as Europe and Japan, still caused asset bubble; and, the Fed's shrinking balance sheet policy as well as raising interest rate policy might break the risk of asset bubble. For the global economic development, there were issues such as increase in the total debts and rise of protectionism. The economic imbalance has caused a series of problems. For example, the geopolitical conflicts, traditional and non-traditional security, etc. were highlighted. Moreover, there was still the problem of weak economic growth. Globally, the three major problems, i.e., the insufficient economic growth momentum, untimely economic governance and unbalanced development has not been satisfactorily solved yet; especially, the driving ability of the traditional economy to the world economy was reduced. Although the emerging technology appears continuously, a good economic growth point has not formed yet.

In 2018, the global economy and regional economy will maintain a good development trend. According to the *World Economic Situation and Prospects 2018*, the global economic growth rate in 2018 and 2019 will be basically stable at 3%. The economic growth in East Asian region in 2018 and 2019 is expected to stand at 5.7 and 5.6%, respectively. Since January 2018, large-scale tax reduction measures have been taken in the United States, which will promote the economic growth to a certain extent. From the perspective of global economic development, on the basis of moderate inflation and low interest rates, personal consumption is still an importance force to promote the economic growth. In 2018, there are trade disputes between China and the United States. On June 15, 2018, the US Government announced the list of commodities on which additional tariff would be imposed. For some commodities, the additional tariff is 25%. For some commodities, the additional tariff would be imposed from July 6, 2018. China responded immediately that there would be deflationary effect in China reducing resident consumption demand and purchasing capacity.

1.3 The Scale and Economic Contribution of Global Tourism Market Is Being Developed Sustainably

According to the *Report on World Tourism Economy Trends (2018)* issued by World Tourism Cities Federation (WTCF), the economic trend in major countries in the world gradually got better in 2017, the consumer confidence index (CCI) in various

Table 1 Development of global tourism in 2017–2018

Item			Estimated	Forecasted
	2015	2016	2017E	2018F
Total number of global tourists (Unit: 100 million)	104.5	111.2	118.8	126.7
Proportion of the total number of global tourists in population size	1.4	1.5	1.6	1.7
Gross revenue of global tourism (Unit: USD one trillion)	4.9	5.0	5.3	5.6
Proportion of the gross revenue of global tourism in GDP (%)	6.6	6.7	6.7	6.8
Growth rate of the total number of global tourists (%)	6.2	6.4	6.8	6.7
Growth rate of the gross revenue of global tourism (%)	−4.2	2.6	4.3	5.9
Growth rate of global GDP (%)	−5.5	3.1	3.5	3.6
Growth rate of the gross revenue of global tourism (%)	−4.2	2.6	4.3	5.9

Data source The Report on World Tourism Economy Trends (2018)

countries showed sustainable improvement, the tourism demand in various major economies increased steadily, and the infrastructure of transnational tourism was constantly improved. In 2017, the total number of global tourists increased rapidly and reached 11.88 billion, which showed a year-on-year growth of 6.8% and was 1.6 times of global population size. It is estimated that the growth rate of the number of global tourists in 2018 will slow down and will be 6.7%. The estimated total number of global tourists in 2018 will reach 12.67 billion and will be 1.7 times of global population size. The gross revenue of global tourism reached USD 5.3 trillion, which showed a year-on-year growth of 4.3 and was 6.7% of global GDP. The gross revenue of global tourism is expected to be USD 5.6 trillion.

The growth rate of global tourism has exceeded the economic growth rate for seven consecutive years; and the growth rate (4.6%) is higher than that in other industries, including manufacturing industry (4.2%), retail and wholesale (3.4%), agriculture, forestry and fisheries (2.6%) and financial services (2.5%), and is more than half higher than the overall economic growth rate in the world (3%) (Tables 1 and 2).

Generally speaking, European, American and Asia-Pacific markets account for 97.3% of the total number of global tourists, and the gross revenue of tourism in Europe region, America and Asia-Pacific regions accounts for 95.0% of the gross revenue of global tourism. In 2017, the total number of European tourists reached 1.769 billion, showing a growth of 2.1% over the previous year, and the gross revenue of tourism reached USD 1.63 trillion, showing a growth of 1.1% over the previous year. In 2018, the total number of tourists and the gross revenue of tourism in Europe region are expected to reach 1.806 billion and USD 1.67 trillion respectively, and

Table 2 Forecast of global share of major sectors of global tourism in 2018

	Asia-Pacific	America	Europe	Middle East	Africa
Share of the total number of tourists in 2018 (%)	68.0	15.1	14.3	1.4	1.2
Share of the gross revenue of tourism in 2018 (%)	34.0	31.0	30.1	2.9	2.0

Data source The Report on World Tourism Economy Trends (2018)

Table 3 Development and forecast of regional tourism market in the world

	Europe		Asia-Pacific		America	
	2017E	2018F	2017E	2018F	2017E	2018F
Total number of tourists (Unit: 100 million)	17.69	18.06	79.14	86.17	18.75	19.17
Growth rate of the total number of tourists (%)	2.1	2.1	9.4	8.9	1.9	2.2
Gross revenue of tourism	1.63	1.67	1.74	1.89	1.62	1.73
Growth rate of the gross revenue of tourism (%)	1.1	2.6	6.9	8.6	4.9	6.2

Data source The Report on World Tourism Economy Trends (2018)

the growth rate of the total number of tourists will remain unchanged from that in 2017, while the growth rate of the gross revenue of tourism will be 1.5% higher than that in 2017 and will be 2.6%. In 2017, the total number of tourists in Asia-Pacific region reached 7.914 billion, showing a growth of 9.4% over the previous year, and the gross revenue of tourism reached USD 1.74 trillion, showing a growth of 6.9% over the previous year. In 2018, the total number of tourists and the gross revenue of tourism in Asia-Pacific region are expected to reach 8.617 billion and USD 1.89 trillion respectively; compared with 2017, the growth rate of the total number of tourists in Asia-Pacific region will slow down and will be 8.9%, 0.8% lower than that in 2017, while the growth rate of the gross revenue of tourism will be 1.7% higher than that in 2017 and will be 8.6%. In 2017, the total number of tourists in American region reached 1.875 billion, showing a growth of 1.9% over the previous year; the gross revenue of tourism reached USD 1.62 trillion, showing a growth of 4.9% over the previous year. In 2018, the total number of tourists and the gross revenue of tourism in American region are expected to reach 1.917 billion and USD 1.73 trillion respectively; the growth rate of the total number of tourists will be higher than that in 2017 and will reach 2.2%; and the growth rate of the gross revenue of tourism will be 1.3% higher than that in 2017 and will be 6.2% (Table 3).

According to the global share of the total number of tourists and the gross revenue of tourism in major sectors around the world, the proportion of Europe decreased continuously: the market share decreased from 15.6 to 14.9% and the share of the gross revenue of tourism from 32.0 to 31.0%; the share of the number of tourists

Table 4 Top ten countries in the total number of global tourists and the gross revenue of global tourism in 2017

Ranking	Country	Total number of tourists (Unit: 100 million)	Country	Gross revenue of tourism (Unit: USD 100 billion)
1	China	45.3	U.S.	10.3
2	India	15.4	China	6.8
3	U.S.	12.5	Germany	3.8
4	Japan	3.2	U.K.	2.5
5	France	2.8	Japan	2.3
6	Indonesia	2.6	France	2.0
7	Spain	2.0	India	1.9
8	Brazil	1.8	Italy	1.7
9	Germany	1.7	Mexico	1.4
10	U.K.	1.6	Spain	1.3

Data source The Report on World Tourism Economy Trends (2018)

in American decreased from 16.5 to 15.8%, while the share of the gross revenue of tourism increased slightly from 30.7 to 30.9%; the share in Asia-Pacific region continued to rise significantly and increased to 1.6%, and the share of the gross revenue of tourism increased by 0.8% from 32.3 to 33.1%; The share of the Middle East decreased by 0.1%; the share of Africa remained the same.

In 2017, the total number of tourists in Asia-Pacific region reached 7.914 billion, showing a growth of 9.4% over the previous year, and the gross revenue of tourism reached USD 1.74 trillion, showing a growth of 6.9% over the previous year. In 2018, the total number of tourists and the gross revenue of tourism in Asia-Pacific region are expected to reach 8.617 billion and USD 1.89 trillion respectively; compared with 2017, the growth rate of the total number of tourists in Asia-Pacific region will slow down and will be 8.9%, 0.8% lower than that in 2017, while the growth rate of the gross revenue of tourism will be 1.7% higher than that in 2017 and will be 8.6% (Table 4).

In 2017, among the top 10 countries in global tourism, the total number of tourists received in America reached 1.25 billion, ranking 3rd in the world; the gross revenue of tourism reached USD 1.03 trillion, ranking first in the world. The total number of tourists received in Brazil reached 180 million, ranking eighth in the world; the gross revenue of tourism in Mexico reached USD 140 billion, ranking ninth in the world.

Among the top 10 countries in global tourism, the number of Asia-pacific countries was only next to the number of European countries. In 2017, the total number of tourists in China, India, Japan and Indonesia reached 4.53 billion, 1.54 billion, 320 million and 260 million and ranked first, second, fourth, and sixth in the list of the total number of tourists received nationwide respectively. In terms of the gross revenue

of tourism, the gross revenue of tourism of China, Japan and India ranked second, fifth, and seventh. The three countries became the fastest growing countries.

2 Analysis on the Development Trend of Global Cruise Market

2.1 The Scale of Global Cruise Market Is Being Increasing Rapidly

Cruise economy has greatly promoted the development of regional economy and has made more and more obvious contribution to regional tourism industry. According to the experience in the development of international cruise tourism, the development stage of international cruise tourism is divided into germination stage, growth stage and maturity stage. The initial stage of the development regional cruise tourism is mostly dominated by outbound tourism. The cruise tourism market gradually expands, the cruise products get richer and richer, and the pursuit of quantity is transformed to the pursuit of product quality. In the growth stage, cruise tourism changes from the domination of outbound tourism to the synchronization of outbound tourism and inbound tourism, but the scale of outbound tourism is greater than that of inbound tourism as a whole. In the maturity stage, the outbound cruise tourism and inbound cruise tourism develop synchronously, with the scale of outbound tourism basically equivalent to that of inbound tourism.

The global cruise market grows steadily. The scale of global cruise market in 2017 reached 25.80 million persons and was 4.5% higher than that (24.70 million) in 2016. From 2007 to 2017, the cruise market demand in the world increased from 15.67 million persons to 25.80 million persons, increased by 64.6%. According to the statistical data from Cruise Lines International Association (CLIA) and the latest report issued by CLIA, cruise tourism will keep positive developing situation and 26.90 million persons are expected to take a cruise ship in 2018. There will be an increase from the 25.80 million persons in 2017. Cruise industry has been vigorously developing for more than 30 years. The staggering growth of global market promoted the emergence of new destinations and resources. The impetus was North American demand first, and then the demand from Europe increased constantly; recently, the impetus has been emerging markets such as Australia and China. The demand is expected to be 37.60 million persons in 2025, indicating that international cruise market still has good development prospect and market potential (Fig. 1).

According to the transport capacity, bed numbers, days and nights, and distribution of the cruise ships, the popular tourist destinations in 2017 included: Caribbean (35.4%); Mediterranean (15.8%); other European regions except for Mediterranean (14.6%); Asian region (10.4%); Australia/New Zealand/the Pacific region (6.0%); Alaska region (4.3%); and, South America (2.1%) (Figs. 2 and 3).

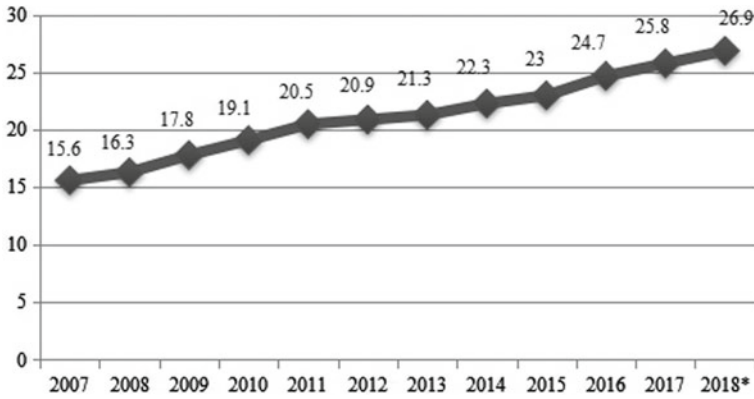


Fig. 1 Development of scale of global cruise market (Unit: one million persons). *Data source* Cruise Lines International Association

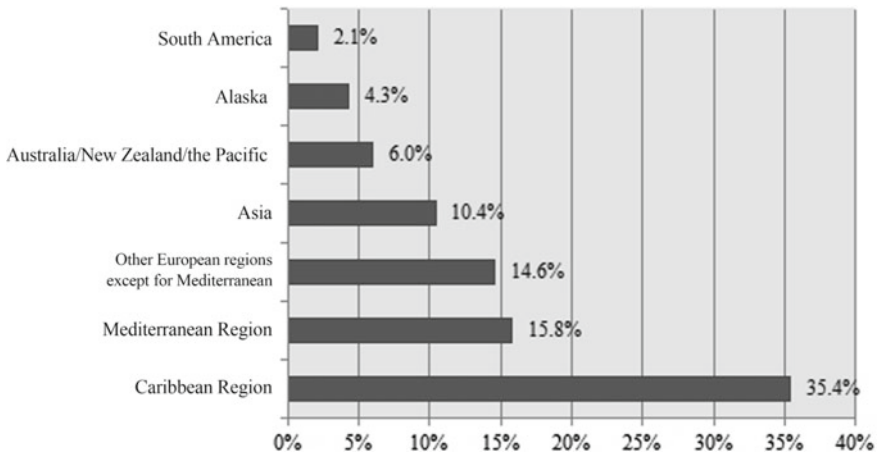


Fig. 2 Distribution of global cruise tourism destinations in 2017. *Data source* Cruise Lines International Association

Caribbean is the most developed region for cruise tourism in the world and the most important cruise tourism destination. From the comparison of cruise tourists and non-cruise tourists, it can be found that Caribbean is the most popular destination among tourists. Besides, cruise tourists have stronger preference for such cruise tourism destinations as Mexico, Alaska, Canada, Europe, Hawaii, and Bermuda and other countries or regions than non-cruise tourism.

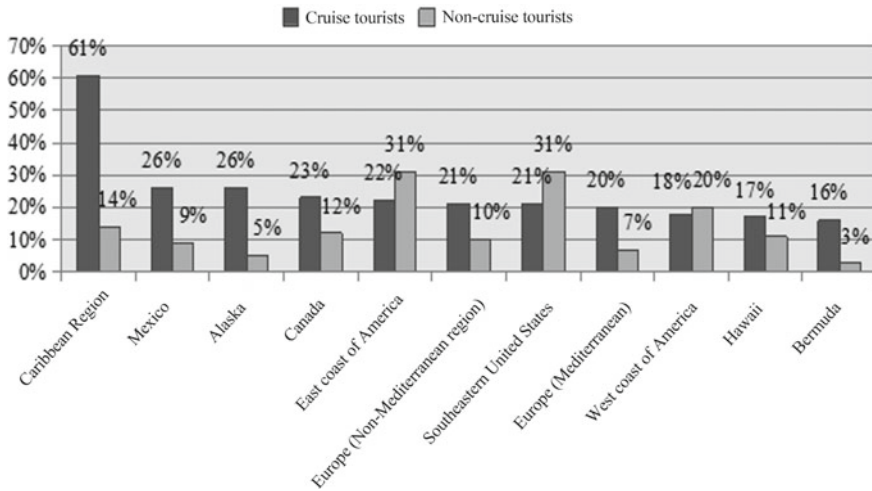


Fig. 3 The best destinations in the eyes of cruise tourists in the world. *Data source* Cruise Lines International Association

2.2 New Changes in the Global Cruise Travel Consumption Behaviors Occur

(1) Traveling with companions is becoming a remarkable feature of cruise tourism

The possibility for cruise tourists to travel with their friends, partners/companions or children is 40% higher than that for land tourists. Compared with 2016, more travelers were willing to spend time with their family on a vacation in 2017. It is the best to experience cruise tourism in a team. Cruise tourists have high satisfaction when traveling with others. From organized teams to friends, families, children, partners and spouses, traveling in a team is far more interesting than traveling alone. The cruise tourists who really enjoy traveling with others made 2017 the “Year of Friendship” for cruise tourists. The possibility for cruise tourists to carry spouses (+9%), partner (+6%), children under 18 (+7%) and friends (+6%) is higher than that for non-cruise tourists. More than three fourths (78%) of cruise tourists travel with their spouses, nearly one third (32%) of cruise tourists travel with their children, and almost one fourth (22%) of cruise tourists travel with friends (Fig. 4).

(2) The income level of tourists will directly affect the choice of cruise products

In terms of the effects of income on cruise tourism, when cruise is deemed as a preferable choice among vacation options, income does not play a major role. 66% of people with an income less than USD 100,000 are willing to choose a cruise tour rather than land tour, and 70% of people with an income above USD 200,000 are willing to travel by a cruise ship. Cruise tourists are still highly loyal to their

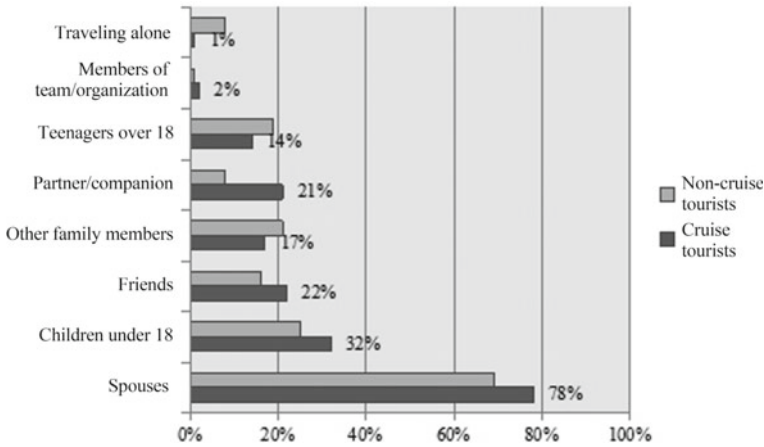


Fig. 4 Comparison of features of trips of international cruise tourists and non-cruise tourists. *Data source* Cruise Lines International Association

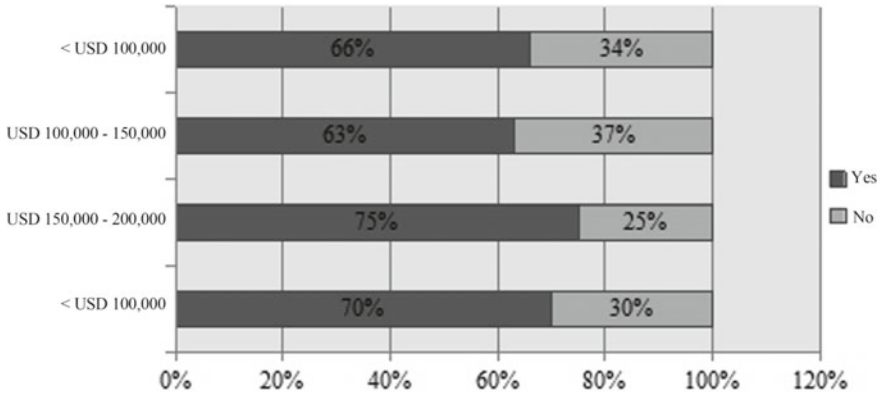


Fig. 5 Whether tourists in different income stages choose cruise tourism. *Data source* Cruise Lines International Association

preferred way of vacation. More than half of cruise tourists (58%) hold that a cruise tour is the best way for the vacation, and such a view remains unchanged. They are most satisfied with river cruise (81%) and sea cruise (73%), followed by hotels and resorts on land (62%). Nine in 10 persons say they “will probably or definitely” travel by cruise. Regardless of the income, everyone can enjoy cruise. Cruise is the most popular among travelers (75%) with an income between USD 150,000 and 200,000. However, 66% of people with an income below USD 100,000 believe cruise tour is a better way for the vacation. Only 70% of tourists with an income above USD 200,000 are in favor of a cruise tour. Therefore, income is not the threshold in cruise market (Fig. 5).

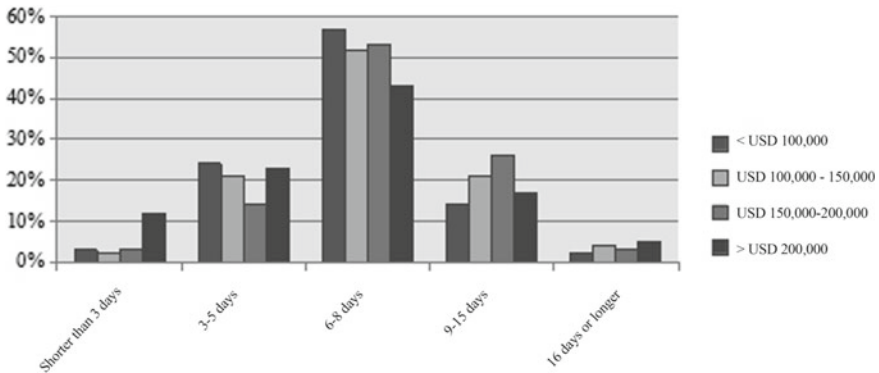


Fig. 6 Cruise routes chosen by tourists in different income stages. *Data source* Cruise Lines International Association

Although higher income is favorable for long time of cruise navigation, according to the statistics of last cruise trip, it can be found that 6–8 days’ trip is the most popular so far. Such trip arrangements account for 57% in tourists with an income below USD 100,000 and 43% in tourists with an income above USD 200,000. High-income tourists are most likely to take a short 3-day tour (12%) or a tour as long as 16 days (5%). There also are 3–5 days’ and 9–15 days’ cruise tours. The number of market visitors of last cruise trip is around 20%. About 24% of consumers with an income below USD 100,000 say their last cruise trip is that of three- to five-day and 14% hold that the last cruise trip is that of nine- to fifteen-day. On the contrary, 14% of people with an annual income of USD 200,000 say their last cruise trip is that of three- to five-day and 26% hold that the last cruise trip is that of nine- to fifteen-day (Fig. 6).

Cruise tourists with higher income are more likely to take advanced cruise, luxury cruise and river cruise. Suites and balconies are the most facilities in the eyes of all cruise tourists, but springs and salons are more important for tourists with higher income. Health clubs and gyms, however, are more important for tourists with lower income. The importance of famous chef for the population with an income between USD 150,000 and USD 200,000 (63%) is more than twice of that for population with higher or lower income, and is significantly higher than that (56%) of suits and balconies (Fig. 7).

(3) There are deviations between facility importance for tourists and usability

In terms of the usage of service facilities, an average of around 41% of cruise tourists show their interest in children services, including babysitting service and children and juvenile programs. Only 13% of tourists say they have actually used such services. Many services and activities are unexpectedly popular among tourists. Only 23% of cruise tourists say they want casinos and gambling, 24% want on-board shopping and duty free, 25% want swimming pool and massage bathtub, 26% are interested in specialty restaurant, 32% are interested in on-board recreational facil-

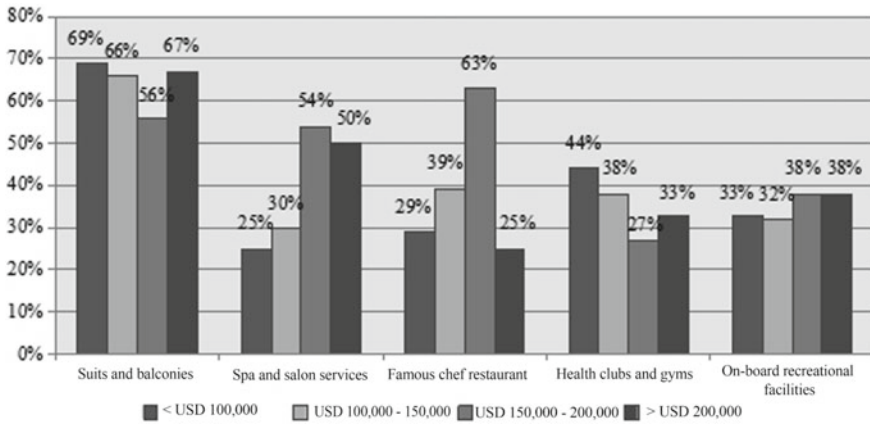


Fig. 7 Most concerned cruise facilities for tourists with different ranges of income. *Data source* Cruise Lines International Association

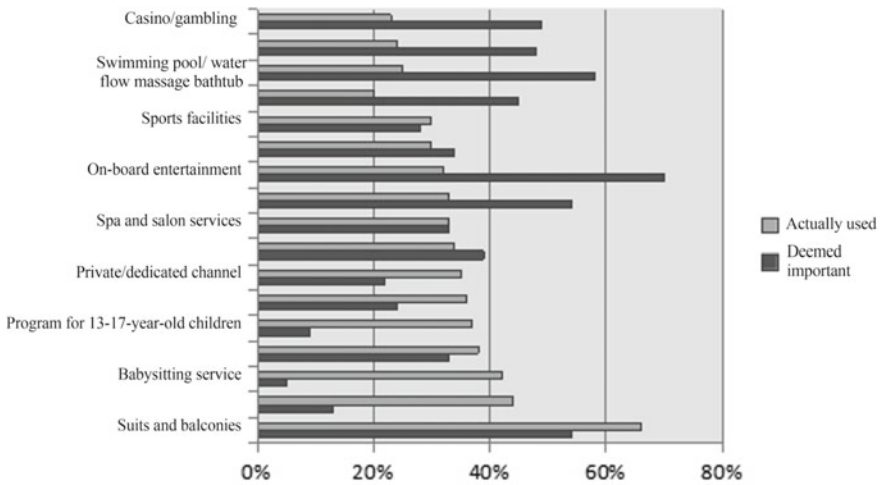


Fig. 8 Comparison of facilities that are deemed important and actually used by tourists. *Data source* Cruise Lines International Association

ities and 33% want celebrity/famous entertainment. 70% of cruise tourists actually participated in performances, music and comedy performances—almost twice of the tourists showing interest in such activities. In fact, on-board recreational facilities are the most commonly-used function on the whole cruise ship. Other facilities are also more popular than expected. Nearly half of tourists (49%) say they would go to on-board casino/gambling (+26% more than those with such hope), 48% buy things on board (+24%), 58% swim or relax in swimming pool or water flow massage bathtub (+33%), and 45% have meals in specialty restaurants (+19%) (Fig. 8).

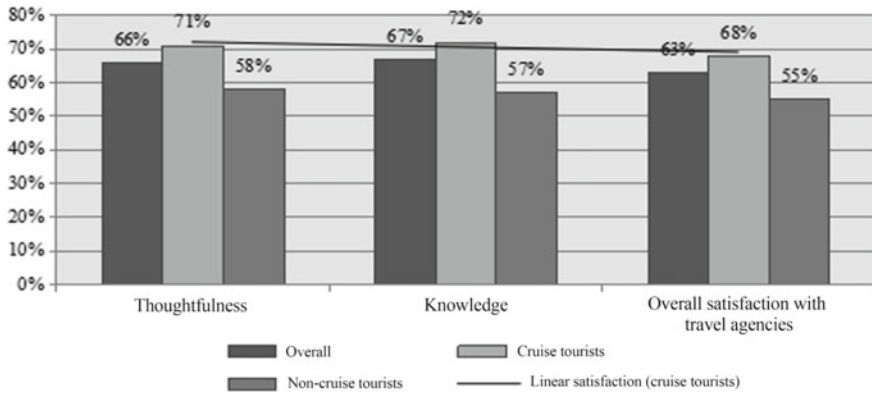


Fig. 9 Comparison of satisfaction with travel agencies between cruise tourists and non-cruise tourists. *Data source* Cruise Lines International Association

(4) Cruise tourists’ satisfaction with travel agencies is increasing

Compared with non-cruise tourists, cruise tourists are more satisfied with travel agencies. Their satisfaction with the thoughtfulness of travel agencies is as high as 71%, while the satisfaction of non-cruise tourists is 58%; the satisfaction of cruise tourists with the knowledge of travel agencies is 72%, while that of non-cruise tourists is 57%. In general, tourists are very satisfied with travel agencies. The satisfaction of cruise tourists with travel agencies is 68% and that of non-cruise tourists is 55% as a whole (Fig. 9).

In general, cruise tourists are more willing to seek help from travel agencies than non-cruise tourists. 37% of cruise tourists say they “always” resort to travel agents or “in most time”. By contrast, only 12% of non-cruise tourists are willing to turn to travel agencies. Non-cruise tourists are twice as likely not to resort to travel agencies. Only 34% of non-cruise tourists say they will “never” resort to travel agencies. Such trends explain the good business trends of travel agencies as mentioned in the cruise industry outlook of CLIA.

(5) Different tourists for cruise tourism have different motivations

For different actors, the original motivations for their action motivations are significantly different and may be affected by such factors as their background, experiences and the material and spiritual level they pursue. The motivations of actors are significantly correlated to their needs. Maslow’s hierarchy of needs indicated that there is a hierarchy of needs from low to high. The formation of the hierarchy of needs is affected by personal economic factor, spiritual pursuit, education background and other factors. Tourists’ inner desire is the inner driving force for their being eager to get rid of the daily trifles, work pressure and so on, and choosing to go to a tourist destination that can bring them physical and mental pleasure and ease. The “tensile force” is the outer force from the tourism destinations tourists want to go. The natu-

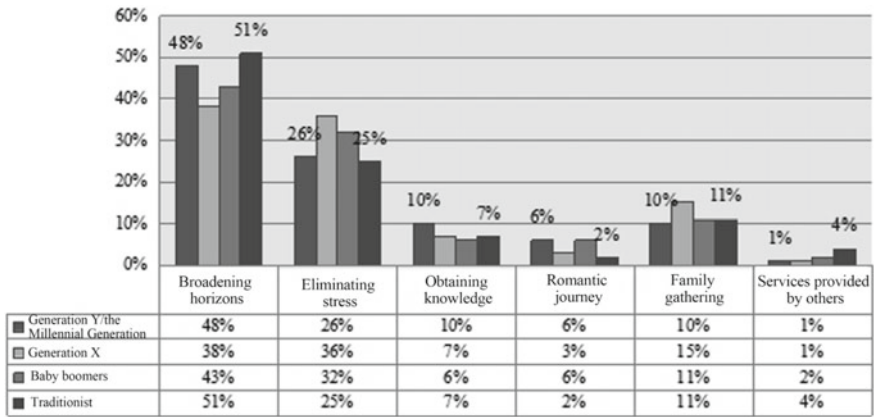


Fig. 10 Reasons for different age groups to participate in cruise tourism. *Data source* Cruise Lines International Association

ral tourism resource, humanistic tourism resources, recreational facilities and other parts of destinations are important parts of such outer “tensile force”.

In the hierarchy of tourism needs, some tourists travel simply for sightseeing, the purpose of which is relatively simple. Some tourists pursue comfortable life experience, as well as the pursuit of self, perception of life wisdom and spiritual sublimation. This directly reflects the different travel motivations of different travel participants. Tourists choose different ways of traveling in the end. This is also an important reason for the variety of tourism products and services. Tourism motivation is the intrinsic factor of tourism behavior. Cruise tour is a relatively closed travel mode. The motivation of tourists participating in cruise tourism is different from that of general travels. The motivations promoting tourists to participate in cruise tourism are not unique. Escaping from work or life stress, deepening affection, pursuing novel travel experience, expanding social hub and experiencing exotic culture will form the motivation for tourists to participate in cruise tourism. According to the study on the motivations of cruise tourism, the motivation to escape the current life and seek a relaxed mood plays a significant role. The propaganda promotion of cruise tourism information also plays an obvious role. For tourists who participate in cruise tourism for the first time, to experience novelty is an important psychological impetus (Fig. 10).

Among the travel motivations of cruise tourists, tourists of different ages have different motivations due to the effects of their growing environment and other aspects. In general, however, broadening horizons, increasing knowledge, pursuit of relaxation and elimination of life stress are the main travel motivations. This is also directly correlated to the leisure vacation characteristics of cruise tourism. Tourists can understand local enthusiasm and regional cultures in different countries and regions and can temporarily forget their troubles and relax in trips. Other motivations mainly include obtaining more knowledge, pursuing the romance of cruise tourism, gather-

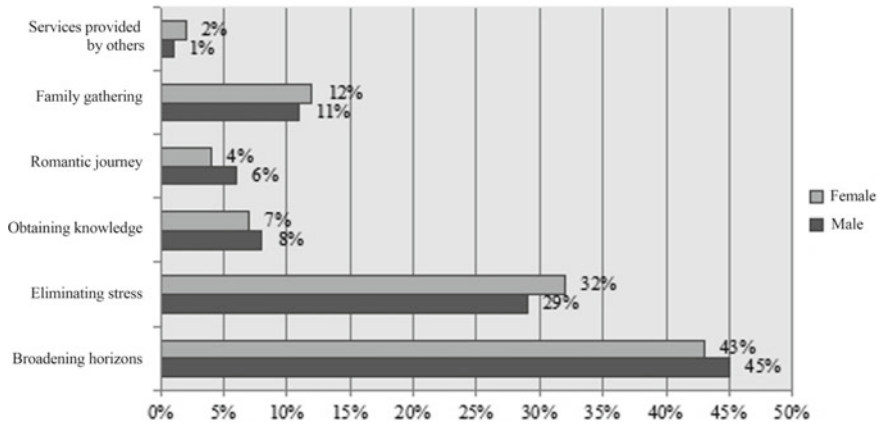


Fig. 11 Reasons for different genders to participate in cruise tourism. *Data source* Cruise Lines International Association

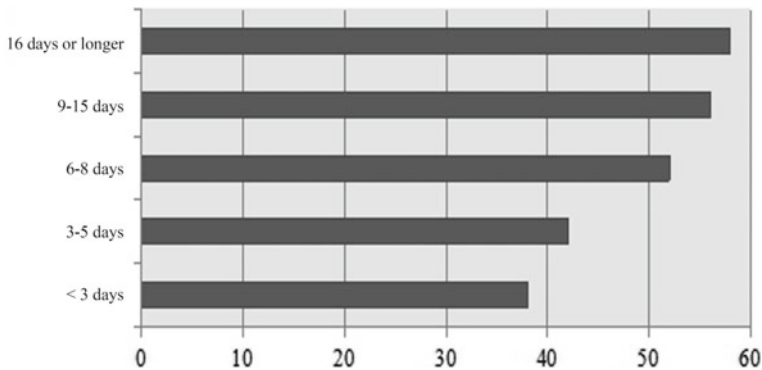


Fig. 12 Age group features of tourists on different voyages. *Data source* Cruise Lines International Association

ing with families via cruise tourism and experiencing high-quality services during cruise tourism.

Tourists of different gender also have different motivations for cruise tourism, but such motivations are basically significantly correlated to the features of cruise tourism products. Male tourists are more rational than female tourists and pay more attention to the knowledge acquisition and horizon broadening via cruise tourism. Female tourist, however, are more emotional and pay more attention to relieving stress by means of cruise tourism, pursuing romantic life, gathering with family members and better enjoy services provided by others (Fig. 11).

(6) Analysis on the factors influencing the duration of cruise tourism

See Fig. 12.

2.3 The Transport Capacity of Global Cruise Market Maintains the Trend of Continuous Growth

According to the global shipbuilding and the statistical data of Clarkson, as of late March, 2018, the order size held by global shipbuilding enterprises has been 3047 ships of 200.6 million dead weight ton, showing a year-on-year growth of 2.7% in terms of dead weight ton. In 2016, the order size held by global shipbuilding enterprises remained around 240 million dead weight ton, but showed a gradual downtrend as a whole. In 2017, the order size continued to decrease sharply and has increased since 2018. The number of global cruise ships in 2017 was 449. In 2018, 27 ocean cruise ships, river cruise ships and cruise ships for polar regions will be launched. In 2016, a total of 26 cruise ships were newly launched in global cruise market, including 9 ocean cruise ships and 17 river cruise ships. Cruise shipbuilding orders are scheduled to 2026. A total of 91 cruise ships are under construction before 2026. The total price of the order is USD 58 billion and the gross construction tonnage is 239,200 t. The number of cruise ships to be delivered in 2019 is 24 and is the most (Table 5).

Cruise ships are getting larger and huger obviously. The newly-built cruise ships are basically above 100,000 GT. Royal Caribbean cruise lines own four 220,000 t Oasis-class giant cruise ships: Oasis of the Seas, MS Allure of the Seas, and Harmony of the Seas and MS Symphony of the Seas. The standard capacity is above 5400 persons and the maximum capacity is above 6200 persons. Such cruise ships can be said to be “mobile marine cities” and have important hardware foundation for enriching the cruise facilities space and enhance the cruise tourism experience (Table 6).

Currently, the largest cruise ship in the world is the “Symphony of the Seas”, the gross tonnage of which reached 230,000, the number of guest rooms 2775, the standard capacity 5494 persons, the maximum capacity 6780 persons and the number of crew 2175. In June 2018, Royal Caribbean International announced in Shanghai that the cruise ship “Spectrum of the Seas” specially tailored for the Chinese market will go on its maiden voyage in Shanghai on June 6, 2019. Its gross tonnage is 168,000 t, the standard capacity 4246 persons and the maximum capacity 5622 persons (Table 7).

Royal Caribbean cruise “Spectrum of the Seas” will be deployed at Shanghai Cruise Home Port from June to December 2019, and at Hong Kong Cruise Home Port in December; the “Quantum of the Seas” will be deployed at Shanghai Cruise Home Port from January to May 2019, and at Tianjin Cruise Home Port during May–October; the “Voyager of the Seas” will be deployed at Hong Kong and Shenzhen cruise home ports from April to August 2019. In June 2018, MSC Mediterranean Cruise Group and STX French Shipyard signed an order to build a fifth “legendary” class cruise ship, which will be delivered in 2023. The “MSC Splendida” of MSC Cruises went on its maiden voyage at Shanghai Cruise Home Port on May 18, 2018. The gross tonnage is 138,000 t, the maximum capacity is 4363 persons, and the number of crew is 1370. The gross tonnage of the “Bellissima” of MSC Cruises is 171,000 t,

Table 5 Newly-built cruise ships in global market in 2018

Cruise lines	Cruise ship name	Construction cost (Unit: USD one million)	Tonnage (Unit: 10,000 GT)	Passenger volume (Unit: person)	Target market
Carnival Cruises	Horizon Cruise	780	13.5	4000	Europe/Caribbean
Royal Caribbean	MS Symphony of the Seas	1300	22.7	5400	Europe/Caribbean
MSC Cruises	MSC Seaview	950	15.4	4140	Europe
TUI Cruises	Mein Schiff 1	625	11.0	2900	Europe
Seabourn Cruise	Ovation	350	4.0	604	Global
Norwegian Cruise	Bliss	1100	16.4	4200	Alaska
Ponant Cruise	Le Clamplian	110	0.1	180	Global
Hurtigruten Cruise	Roald Amundsen	220	0.2	600	Europe
Scenic Cruises	Eclipc	175	1.65	228	Global
Celebrity Cruises	Edge	900	11.7	2900	Caribbean
Holland America	Nieuw Statendam	520	9.9	2660	Caribbean
AIDA Cruises	AIDInova	950	18.39	5000	Europe
Mystic Cruise	World Explorer	100	0.93	200	Global

Data source Cruise Lines International Association

and the maximum capacity is 5714 persons. It will be formally named and launched at Cruise Port of Southampton, England in March, 2019 and will be deployed for the Chinese market in the Spring of 2020. The cruise ship currently is the cruise ship with the greatest tonnage to be deployed at Chinese home port announced by MSC Cruises.

Table 6 Conditions of Royal Caribbean giant cruise ships

Cruise lines	Cruise ship name	Launching time	Aggregate tonnage	Standard capacity	Maximum passenger capacity
Royal Caribbean	Oasis of the Seas	2009	225,000	5492	6296
Royal Caribbean	Allure of the Seas	2010	225,000	5492	6296
Royal Caribbean	Harmony of the Seas	2016	227,000	5492	6360
Royal Caribbean	MS Symphony of the Seas	2018	230,000	5494	6780

Data source Royal Caribbean International

Table 7 Basic parameters of spectrum of the seas

Cruise ship name	Aggregate tonnage	Standard capacity	Maximum passenger capacity	Number of crew	Construction cost
Spectrum of the Seas	168,000	4246 persons	5622 persons	1551 persons	USD 1.25 billion
Total number of decks	Guest deck	Total width	Total length	Speed	Number of guest rooms
16	14	41 m	348 m	22 knot	2137 rooms

Data source Royal Caribbean International

2.4 The Economic Contribution of International Cruise Industry Has Been Constantly Improved

Cruise industry is featured with long industry chain and strong economic drive. The industry chain involves upstream cruise ship design and construction, parts supply chain management and other links, midstream cruise lines management and cruise operation management, capital operation and other links, and downstream cruise port services, cruise ship supply and other supporting services. Therefore, the industry chain has obvious advantage to regional economy. Cruise shipbuilding is called as the “crown jewels” in shipbuilding. The shipyards engaged in cruise shipbuilding are mainly distributed in Europe, such as Italy, German, Finland and France. There are important headquarters of international cruise lines and cruise port business in America. The direct economic contribution mainly comes from the purchase of the fuel, mechanical equipment, food, beverage and other goods and administrative support, advertising, cruise ticket distribution, transportation and other services provided to cruise lines. In Europe, in addition to the purchase of goods and

services brought by the operation of cruise lines, the construction and maintenance of cruise ships are more important. Europe is the most important construction and maintenance base for cruise ship in the world, has an absolute share of the global market and has been an important force for the development of cruise industry. The economic output contributed to Europe is relatively high.

According to the statistics of CLIA, a total of 132 million tourists and staff of cruise ship took onshore excursions around the world in 2016. Their direct expenditure in destinations and other resource markets amounted to USD 58.43 billion, including the direct expenditure of cruise lines for purchasing products and services to support their operation. The direct, indirect and induced outputs incurred by such expenditure amounted to USD 126.4 billion. 1033,100 employment positions and USD 41.21 billion were provided. The total output contribution in Europe was USD 50.09 billion. Such outputs contributed to the employment of 394,900 employees and paid USD 1.125 billion for such employees. The total output contribution of the United States was USD 49.37 billion, created 400,600 employment positions and paid USD 2.082 billion for such employees.

In 2017, as a gathering place for cruise ship operation and construction, Europe had a total of 212 cruise ships operated in European market. Only 75 cruise ships are not owned by cruise lines in non-European regions. As the cruise ships in Europe is large in number and high in quality of product supply, more and more tourists departed from Europe to take cruise ships. The number of cruise tourists at European home port reached 6.5 million in 2017. A great amount of tourist consumption and cruise ship maintenance and more cruise lines' choosing to build cruise ships in European shipyards made the economic contribution of European cruise industry improved greatly. In 2017, the economic contribution of European cruise industry reached €47.9 billion, among which, the expenses of cruise lines in European shipyard reached €5.6 billion, increased by 22.4% compared with 2015. By 2021, European shipyard will build 66 new cruises for cruise lines. The total value of such cruises will reach €29.4 billion. The rapid development of cruise market provided more employment opportunities. In 2017, the new employment positions provided by European cruise industry reached 43,000, making the total number of cruise operators reach 403,000. The economic contribution incurred by cruise tourists and crew reached €19.7 billion (Fig. 13).

In terms of the revenue of global cruise market in 2017, the revenue of Caribbean still ranked first in the world and accounted for 35.6%. Caribbean can be said to be the world's preferred destination for cruise tourism and the most attractive region in global cruise market, mainly covering the eastern Caribbean, the southern Caribbean, the western Caribbean and the Bahamas. The eastern Caribbean routes are basically scheduled for more than seven days and cover many islands, mainly including United States Virgin Islands, British virgin islands, Saint Martin, Antigua, Guadeloupe and Martinique. Mediterranean took up 15.5% and ranked second. As an intercontinental sea, the Mediterranean Sea has relatively calm sailing areas with zigzag coastline and many islands and is surrounded by many countries. The design of most routes is based on culture. The purpose of most tourists is to explore. The berthing destinations have distinct features. Mediterranean is the best choice for cruise trips in Europe. Its

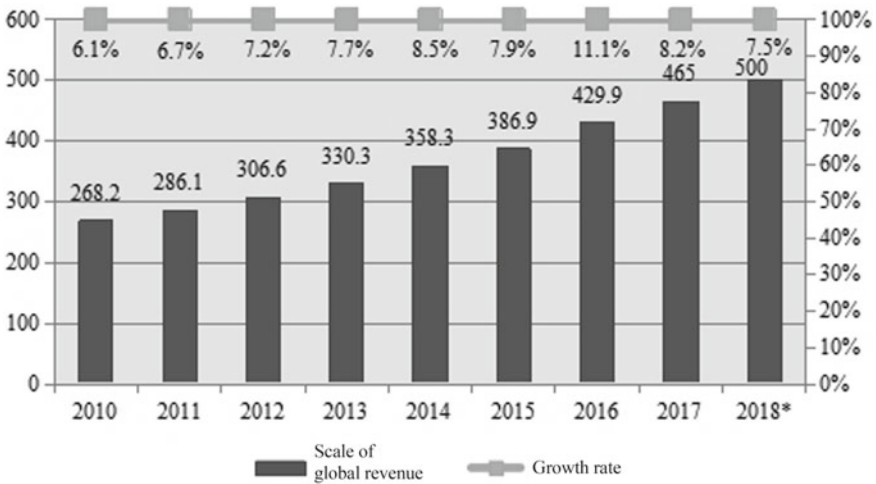


Fig. 13 Revenue scale of global cruise market (Unit: USD 100 million). *Data source* Cruise Lines International Association

cruise routes mainly cover the western Mediterranean and the eastern Mediterranean, attracting a large number of tourists from all over the world to the Mediterranean for cruise tourism. The revenue of European (except for Mediterranean) cruise market accounted for 11.5% and ranked third. The revenue of Asian cruise market accounted for 10.9% and ranked fourth. Asia is a rapidly developing emerging cruise market, especially with the improvement of income level and the increase of population size of China and India, and has the good cruise ship market development prospect, attracting more and more international cruise lines to develop new routes in Asia. The destinations in Southeast Asia region the most frequently visited by cruise ships are Malaysia, Singapore, and Thailand and so on. The regions in northeast Asia is known in the cruise industry as the Far East, which is mainly composed of China, Japan and Korea and is the most prosperous region of Asian cruise market (Fig. 14).

According to the change in year-on-year growth rate of the revenue of international regional cruise market in 2017, the growth rate of Mediterranean was 6%, but showed a downtrend. Its growth rate of market cruise was -11.9%. The growth rate of European regions except for Mediterranean was 7.4%. As an important emerging cruise market, Asian Cruise market had the highest growth rate in the world and was as high as 23%. The growth rate of Australia/New Zealand/the Pacific was 2.6%, and that of Alaska was 6.8%; South America decreased by 5.3%, while other regions in the world kept a growth rate of 6.5% (Fig. 15).

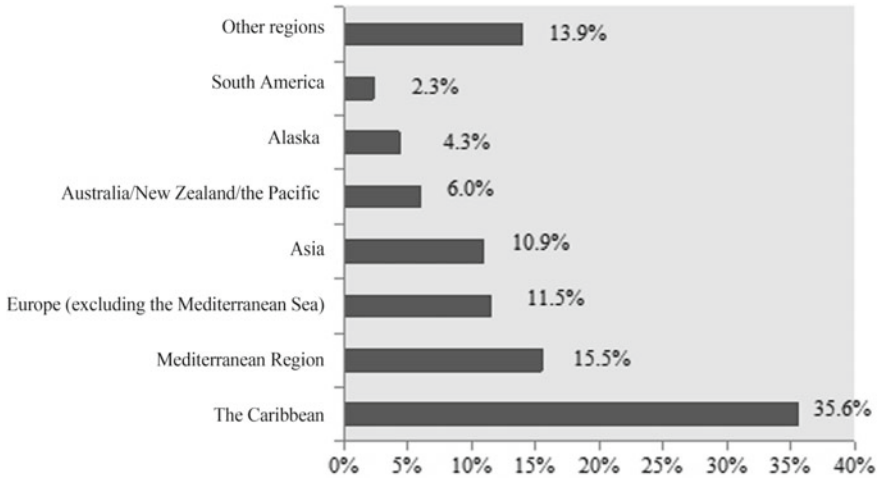


Fig. 14 Distribution of revenue share of global regional cruise market in 2017. *Data source* Bida Consulting

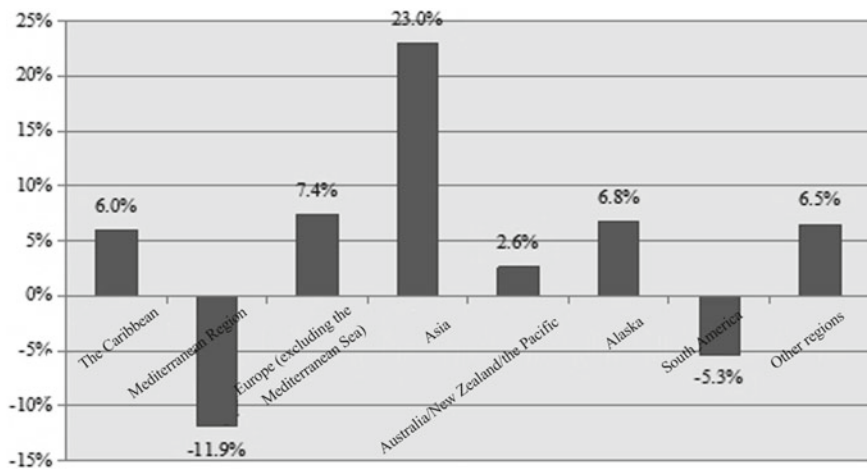


Fig. 15 Changes in year-on-year growth rate of revenue share of global regional cruise market in 2017. *Data source* Bida Consulting

2.5 The More Frequent Upgrade and Renovation of Cruise Ships Promotes the Development of Cruise Ship Maintenance Industry

According to the rules of the classification society and the practices of cruise lines, luxury cruise ships need special dock repair every five years and internal renovation

every 2–3 years. Lots of the materials currently used for cruise ship construction and maintenance in Europe come from China, which has a solid foundation in materials. There are 50 cruise ships need periodic dock repair and 80–100 cruise ships need internal renovation in the world every year. At present, the dock repair of the most cruise ships is completed in Shipyards in America and Europe. The shipyards in China have limited opportunities to build or repair cruise ships, but have great potential. All cruise lines are renovating their cruise ships. Royal Caribbean Line, for example, will invest USD 100 million and spend six weeks to renovate the *Mariner of the seas*. Costa Crociere SpA will update the SPA and fitness facilities on the *Costa Magica* cruise ship and add sauna rooms, bathing pools and hot spring areas.

3 Analysis on the Development Trend of Asia Cruise Industry

3.1 Asian Market Is Vibrant and Has Great Development Potential

According to the data of CLIA, the scale of Asian cruise market reached 4.24 million persons in 2017 and was 36.7% higher than the 3.10 million persons in 2016. The growth rate of global cruise market in 2017, however, was only 4.4%, and the growth rate of Asian market was 8.34 times of that of global cruise market. This is directly correlated to the good economic foundation of Asia. According to the *Asian Economic Outlook Index 2017*, the outlook index of Asian economy in 2017 reached 84.1, which was 38.7 higher than that in 2016, indicating that the growth of Asian economy in 2017 was slow but steady. The share of Asian economy in global economy is increasing constantly. According to the statistical data of the World Bank, Asian GDP accounted for 33.84% of global GDP and was higher than the 27.95% of North America and the 21.37% of Europe (Fig. 16).

In terms of the distribution of tourist source, China accounted for 67.8%, ranking first in Asia; Taiwan, China accounted for 7.6%; Singapore accounted for 6.4%; Japan accounted for 7.0%; Hong Kong, China accounted for 3.6%; India accounted for 3.9%; Malaysia accounted for 0.9%; Indonesia accounted for 0.8%; Korea accounted for 0.9%; Philippines accounted for 0.5%; Thailand accounted for 0.3%; Vietnam accounted for 0.1%. In 2017, China remained the largest cruise tourist source market, still led the development of Asian cruise market and became the most important market in Asian cruise market (Fig. 17).

According to the statistical data of CLIA, in 2017 the transport capacity of Asian cruise market was 66 cruise ships, and the number of cruise ship brands reached 35. In 2016, the transport capacity was 31, with four cruise ship brands increased. The number of cruise ships berthing at Asian cruise ports reached 7196 in 2017 and 5500 in 2016, showing a year-on-year growth of 30.8%. In terms of the size of cruise ships, among the 66 cruise ships, the number of mid-sized cruise ships increased

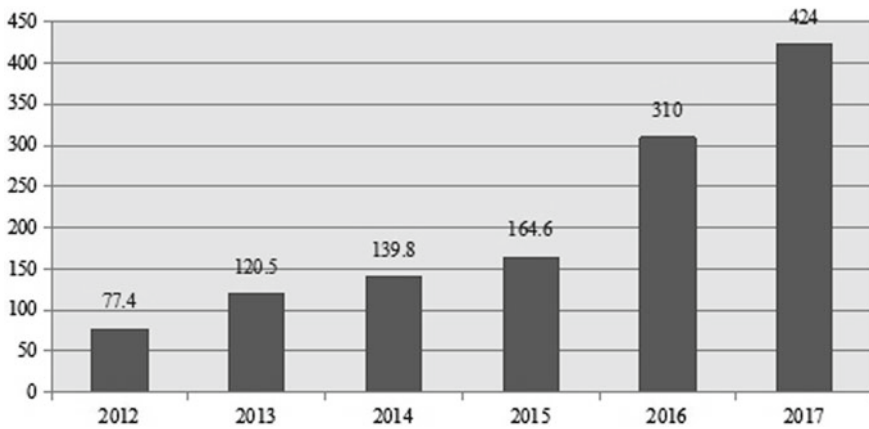


Fig. 16 Changes in number of tourists of asian cruise market (Unit: 10,000 persons). *Data source* Cruise Lines International Association

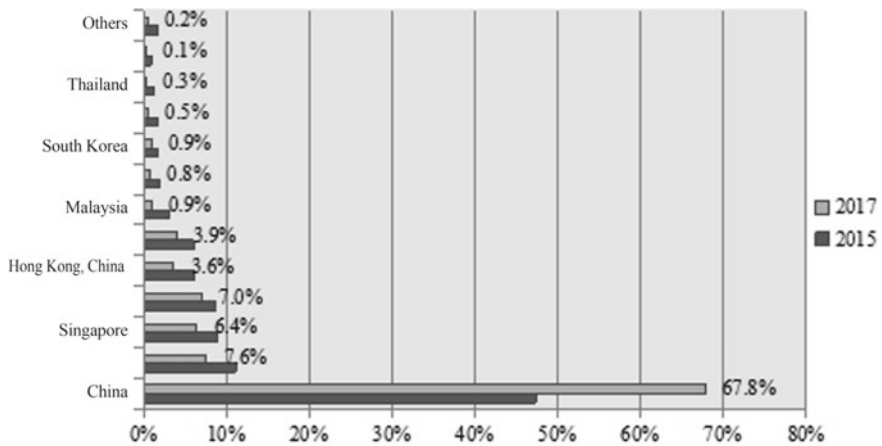


Fig. 17 Changes in tourist sources of Asian cruise market. *Data source* Cruise Lines International Association

the most and by 5. The number of mid-sized cruise ships was 26 and accounted for 40%. The number of giant cruise ships increased 3. The main Asian cruise lines were Oceania Cruises, Regent Seven Seas Cruises, Hapag-Lloyd Cruise, Holland America Cruise, AIDA Cruises, Azamara Club Cruises, Seabourn Cruises, Orion Expedition Cruises, Silversea Cruises, Crystal Cruises, Celebrity Cruises, Windstar Cruises, Silversea Expedition Cruises, Ponant Cruises, Princess Cruises, Royal Caribbean Cruises, Costa Cruises, Asuka Cruise and Star Cruises, etc. (Fig. 18).

The 4–6-night short routes were still the main routes and accounted for 52% of the total number of routes in 2017, and accounted for 48% in 2016, showing a year-on-year growth of 4%. The proportion of 2–3-night products was 31%, and was 32%

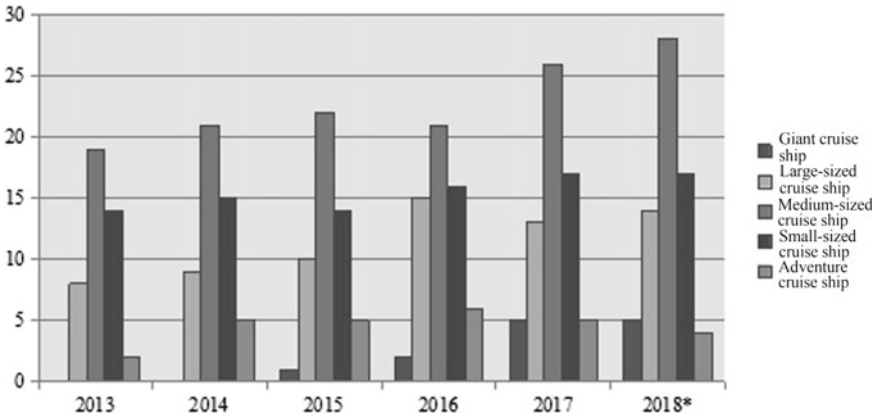


Fig. 18 Changes in size of cruise ship in Asian cruise market. *Data source* Cruise Lines International Association

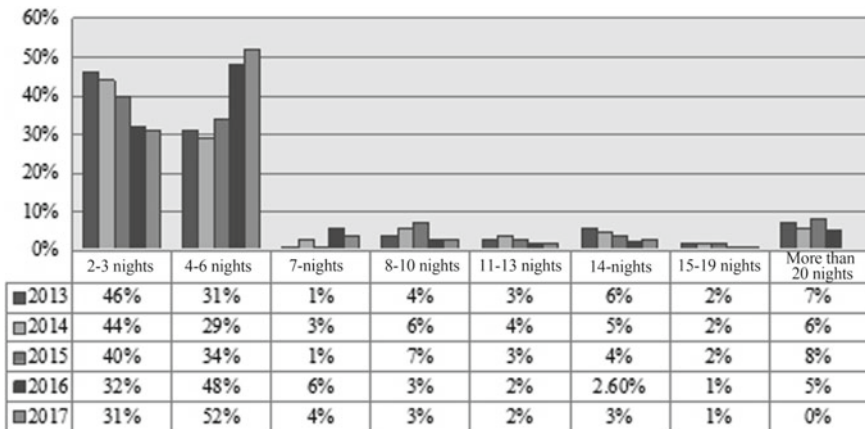


Fig. 19 Changes in products in Asian cruise market in 2017. *Data source* Cruise Lines International Association

in 2016, showing a decrease of 1%. Therefore, the 2–6-night products still account for an absolute proportion of 83%. Although many cruise lines tried to develop 7-day-6-night or even longer routes, the routes shorter than 6 nights were still the most important component. 7-night products only accounted for 4%, which was 2% lower than the 6% in 2016. Products longer than 8 nights only accounted for 15% (Fig. 19).

3.2 The Economic Contribution of Cruise Tourism to North Asia Gradually Turned Prominent

According to the data released by CLIA, the direct economic contribution of cruise tourism in the whole North Asia in 2016 included the direct expenditure of USD 3.23 billion, the value-added service expenditure of USD 1.51 billion and 23,697 full-time/part-time positions. The salary compensation for employees amounted to USD 754 million. For countries in North Asia, wholesale and retail trade, other services and government and financial and commercial services became the main direct beneficiary of cruise tourism expenditure. The three fields accounted for nearly 72% of the direct economic impacts of the whole region, including the direct expenditure of USD 2.34 billion, the added value of USD 1.18 billion and 19,252 full-time/part-time positions (the salary compensation for employees amounted to USD 5.944 million.) The expenses of directly benefited companies and their staff also bring indirect and induced economic contributions. Therefore, such impacts extended to the enterprises and consumers of each economy. Such impacts included the output of USD 3.98 billion, the added value of USD 1.72 billion and 27,934 full-time/part-time positions (the salary compensation for employees amounted to USD 7.496 million.) Compared with direct contributions, indirect and induced economic contributions were more diversified. Manufacturing industry, financial and business services and agriculture were the top three benefited fields. The three fields accounted for nearly 79% of the direct economic impacts of the whole region, including the output of USD 3.16 billion, the added value of USD 1.22 billion and 19,893 full-time/part-time positions (the salary compensation for employees amounted to USD 4.911 million.) According to the comprehensive consideration of direct, indirect and induced economic contributions, the total economic contributions of the three economies included the output of USD 7.21 billion, the added value of USD 3.23 billion and 51,631 full-time/part-time positions (the salary compensation for employees amounted to USD 1.5 billion) (Table 8).

The direct expenditure incurred by cruise tourism was analyzed in the following three aspects: the expenses of cruise lines, cruise passengers and cruise crew. In order to ensure the normal operation of cruise ships, cruise lines always purchase various food and services when berthing at ports, including food and drinks, hotel supplies, marine fuel and utilities. In addition, in order to ensure the cruise business in North Asia, cruise lines also need to purchase various services, including travel agency commissions, advertising and promotion expenses and the expenses for other professional and commercial services. The products bought by passengers usually include pre- and post-cruise vacations, shore excursions, souvenirs and other retail items; the products bought by crew include similar goods and services. The crew paid more attention to retail goods.

In terms of passenger expenses, total expenditure forecast of transit and overnight passengers classified by category and destination is obtained by multiplying the rate of expenditure (average expenditure per passenger) by the number of passenger visits to ports. In 2016, the average daily expenditure of each passenger at ports was USD

Table 8 Contributions of cruise tourism to countries in North Asia in 2016

Field	Output (Unit: USD one million)	Added value (Unit: USD one million)	Compensation (Unit: USD one million)	Employment figures (persons)
<i>Japan</i>				
Direct	1197.4	642.7	455.4	8669
Indirect and induced	961.3	499.8	287.4	6055
Total	2158.74	1142.50	742.75	14,724
<i>South Korea</i>				
Direct	199.8	106.0	76.2	1835
Indirect and induced	185.3	101.0	55.7	1302
Total	385.07	206.99	131.98	3137
<i>China</i>				
Direct	1831.5	764.9	222.8	13,193
Indirect and induced	2835.4	1116.5	406.5	20,577
Total	4666.9	1881.4	629.3	33,770
<i>North Asia (total)</i>				
Direct	3228.6	1513.6	754.5	23,697
Indirect and induced	3982.1	1717.3	749.6	27,934
Total	7210.7	3230.9	1504.1	51,631

Data source Cruise Lines International Association

295, the total expenditure of cruise passengers in North Asia amounted to USD 2.1 billion. The expenditure of transit passengers amounted to USD 1.24 billion. Every transit passenger expended an average of USD 556 on each port visit day. The expenditure for accommodation, transportation and shore excursions accounted for 55% of the total expenditure of transit passengers. Transportation expenditure included the domestic transport expenses to the port city and the local transport expenses in the port city. The total expenditures of transit and overnight passengers amounted to USD 854.2 million. Every transit passenger and overnight passenger expended an average of USD 175 on each port visit day. Therefore, in 2016, the expenditure of overnight passengers accounted for 41% of the total passenger expenditure; the number of overnight passengers who had paid port visits accounted for 69% of the total number of passengers who had paid port visits (Table 9).

As with passenger expenditure, the crew expenditure calculated by port and expenditure category is also derived from crew surveys. The crew expenditure forecast calculated by destinations and categories is obtained by multiplying the expenditure rate by the number of crew who had paid port visits. Among the 2964,512 cruise ship crew members who had paid port visits in North Asia, 43% of crew was expected to visit the destination city ashore. The total number of crew who had paid port visits was 1259,930. Food and clothing accounted for 37% of the gross expenditure of

Table 9 Expenditure of cruise tourists in North Asia in 2016

Category	Passenger expenditure (Unit: USD one million)			
	Transit	Transit/overnight	Total	Share (%)
Days of passengers' port visit	2,233,073	4,884,790	7,117,863	
Accommodation	371.55	0	371.55	17.7
Onshore visit	132.66	224.68	357.34	17.0
Diet	121.75	138.41	260.16	12.4
Local handicrafts and souvenirs	23.23	163.85	187.08	8.9
Transportation (excluding airline tickets)	181.31	0	181.31	8.6
Clothing	58.81	58.74	117.55	5.6
Taxi/ground transportation	45.29	56.01	101.30	4.8
Watch and jewelry	67.53	26.50	94.03	4.5
Entertainment/nightclub/casino	25.24	9.30	34.54	1.6
Other shopping	214.95	176.72	391.67	18.7
Total	1242.32	854.21	2096.53	
Average daily expenditure	556.33	174.87	294.54	

Data source Cruise Lines International Association

cruise port crew in North Asia. In 2016, the average expenditure of crew on each visit day to cruise destination was USD 87.

With regard to the expenditure of cruise lines, ship maintenance and fuel costs and travel agency commission accounted for 52% of the gross expenditure of members of CLIA in North Asia. Ship maintenance costs were the primary operation expenditure and amounted to USD 308.4 million, accounting for 30% of the gross expenditure of cruise lines. The next was fuel costs which amounted to USD 118.5 million. The travel agency commission of cruise lines was USD 1.031 million. There were other administrative expenses of USD 1.03 million at cruise ports in North Asia (Table 10).

The indirect contributions benefited from the breadth of economic fields of cruise tourism. Wholesale and retail trade benefited from high-level direct expenditure (USD 962.3 million). This field was also the prime beneficiary of employment and employment compensation and had created a total of 9315 positions and made a salary compensation of USD 3.017 million for employees. This was followed by other service and government fields, the direct expenditure of which was USD 6.939 million. Such fields created 6682 full-time and part-time positions and made a salary compensation of USD 1.178 million for employees. Financial and business services included various services from advertising agencies, travel agencies, lawyers to consultants and other professional services. This field benefited from a direct expenditure of USD 6.795 million and employed 3255 persons. The salary compensation for such manpower amounted to USD 1.75 million (Table 11).

Table 10 Expenditure of cruise lines in North Asia in 2016

Category	Expenditure (Unit: USD one million)	Share (%)
Ship maintenance	308.4	30.2
Fuel	118.5	11.6
Travel agency commission	103.1	10.1
Administrative expenses	103.0	10.1
Diet	96.8	9.5
Other operating expenses	96.8	9.5
Port charges	82.7	8.1
Advertising and promotion	81.8	8.0
Tourism	31.7	3.1
Total	1022.8	

Data source Cruise Lines International Association

Table 11 Direct contributions of cruise tourism in North Asia to different fields in 2016 (Unit: USD one million)

Field	Expenditure	Added value	Compensation	Employment
Agriculture	0	0	0	0
Manufacturing industry	523.7	152.8	88.5	2156
Construction industry	0	0	0	0
Wholesale and retail trade	962.3	604.2	301.7	9315
Transportation	369.3	181.7	71.5	2289
Financial and business services	679.5	291.2	174.9	3255
Other service and government departments	693.9	283.6	117.8	6682
Total	3228.6	1513.6	754.5	23,697

Data source Cruise Lines International Association

The indirect and induced contributions came from the activities in various fields in North Asian economies. Thus the direct cruise tourism expenditure of USD 3.2 billion created new output of USD 3.98 billion, added value of USD 1.72 billion, salary compensation of USD 7.496 million and 27,934 full-time/part-time positions. 75% of the benefit came from the indirect expenditure of directly benefited enterprises, the other 25% came from the household expenditure of directly benefited personnel. The indirect and induced benefits of manufacturing industry, financial and business services and agriculture accounted for nearly 79% of the economic benefits throughout North Asia (Table 12).

Table 12 Indirect and induced contributions of cruise tourism in North Asia to different fields in 2016 (Unit: USD one million)

Field	Expenditure	Added value	Compensation	Employment figures
Manufacturing industry	1835.8	495.9	188.6	7507
Financial and business services	724.5	487.6	204.0	5196
Wholesale and retail trade	258.4	125.3	75.7	1419
Other service and government departments	356.4	295.9	142.7	5675
Agriculture	599.6	235.5	98.5	7190
Transportation	182.7	65.0	32.3	657
Construction industry	24.7	12.1	7.8	290
Total	3982.1	1717.3	749.6	27,934

Data source Cruise Lines International Association

Table 13 Average expenditure of Japanese passengers and crew calculated by categories (Unit: Yen)

Item	Consuming group	
	Passenger	Crew
Retail shopping	21,599.9	1570.4
Onshore visit	16,394.1	201.2
Diet	13,601.4	1596.5
Transportation	8421.6	186.0
Accommodation	4270.6	0
Entertainment	1160.4	14.1
Others	17,936.1	1919.4
Sum	83,384.1	5487.5

Data source Cruise Lines International Association

According to the direct, indirect and induced contributions, cruise tourism created a total output of goods and services of USD 7.21 billion in North Asia in 2016. This output scale created 51,631 full-time and part-time employment opportunities. Such employment scale brought added value of USD 3.23 billion. The total amount of such employees engaged in such work reached USD 1.5 billion.

For the cruise tourism in Japan, the average expenditure of passengers after visiting destination ports in Japan was CNY 83,384, and that of crew was CNY 5500. Nearly 46% of passenger expenditure was retail shopping and shore excursions. 58% of crew expenditures were for purchasing food and retail shopping (Table 13).

To sum up, the direct economic contributions in wholesale and retail trade and other service and government fields accounted for nearly 51% of that of Chinese

Table 14 Direct economic contribution of Chinese cruise tourism in 2016

Field	Expenditure	Added value	Compensation	Employment figures
Agriculture	0	0	0	0
Manufacturing industry	1461.7	294.6	103.0	935
Construction industry	0	0	0	0
Wholesale and retail trade	3073.2	1955.2	512.6	4266
Transportation	1752.3	816.2	203.6	1485
Financial and business services	2714.7	758.6	315.5	2262
Other service and government departments	3158.9	1254.3	345.1	4245
Total	12,160.8	5078.8	1479.7	13,193

cruise tourism. The shore accommodation, transportation and retail goods consumption of passengers and crew and the port charges paid by cruise lines had imposed great impacts on such fields. Financial and business services accounted for 22% of the gross contributions (Table 14).

4 Analysis on the Development Trend of Global Cruise Industry

4.1 *The High Concentration of Global Cruise Market Will Be Gradually Weakened*

As there are the most cruise home ports in America and Florida is America's cruise hub, the number of tourists sent in Florida accounted for 56% of that in America. America's three largest cruise home ports, Port of Miami, Port Canaveral and Port Everglades, are located in Florida. The Port of Barcelona is the first choice of cruise home port in Europe and can hold nine cruise ships at the same time. According to the regional classification standard commonly used by cruise lines all over the world, the global cruise tourism area can be divided into 13 parts. The distribution of worldwide cruise routes is concentrated. The main areas of global cruise tourism activities are Caribbean, Europe, Mediterranean, Asia/South Pacific, Alaska and Mexico West Coast, etc. Caribbean and Europe/Mediterranean are the areas with the most intensive cruise travel activities. The number of cruise visits accounted for more than half of that in the world. Global cruise tourism market showed high

degree of oligopoly. Global cruise tourism market is mainly composed of three well-known cruise lines, i.e. Carnival Cruise Lines, Royal Caribbean International and Star Cruises, accounting for more than 80% of market share of global cruise tourism market. The global cruise tourist source areas are relatively concentrated. Modern cruise tourism originated from North America with developed economy, good water conditions and mature marine culture. Cruise tourism in North America has been developing for more than 50 years. A large number of cruise lines have been cultivated in the market, making North America the most developed and dynamic market area in the world, and also making North America the model area of global cruise tourism development. The US cruise market has always led the development of the world cruise tourism market. In recent years, the number of US tourists has accounted for about 50% of the total number of cruise passengers worldwide. The United Kingdom and Germany account for about 15%, and Australia, Italy and Canada together account for about 12%. The global cruise market is highly concentrated. About 90% of the world's cruise passengers come from the following 10 countries: the United States, Germany, Britain, Australia, Italy, Canada, China, France, Spain and Norway.

Alaska is a popular destination for Royal Caribbean International. The average number of stops is 41, significantly higher than that in the other 12 regions. Alaska ranks sixth in the number of cruise ports with 18, and has 748 stops in total. The average number of stops in Bahamas is significantly higher than that in the other 11 regions; and Bahamas is the most popular cruise tourist destination in North America. The average number of stops in ports is 25.

4.2 The Growth of Asian Cruise Market Still Has Good Potential

The number of passengers who choose to travel by luxury cruise ships keeps increasing. The annual compound growth rate of tourists in global cruise industry over the past two decades is about 6.55%. The rapid growth of the cruise market in Asia, especially the rapid rise of China's cruise tourism consumer market, the focus and core of the development of the global cruise industry continues to shift to the Chinese market, injecting new impetus into the future development of global cruise tourism.

The rapid growth of the global cruise market is mainly attributed to the development of the Asian market, which is an emerging and fast-growing section of the global cruise market. In 2016, the cruise carrying capacity in Asia increased by 38% from 2015, holding a proportion of 9.2% of the global cruise market. With the continuous improvement of the economic development level in the Asia, the middle class has begun to grow. The acceptance of short-distance tours and more frequent cruise tours by tourists in Asia has provided a favorable source of tourists for the development of cruise tourism in Asia. Meanwhile, Asia also has abundant tourism resources and many natural and excellent seaports. The continuous construction of ports along the

South Pacific Coast provides a material basis for the development of cruise tourism. In addition, the policy encouragement of relevant countries has provided the development of cruise tourism in Asia with strong motive power and guarantee. East Asia has always been at the edge of the global cruise market for a long time. Endowed with vast sea areas, rich and diverse tourism resources, obvious cultural diversity, and excellent port conditions, East Asia has the basic environment for developing cruise tourism industry. Thus there showed sound development momentum in recent years. The number of cruise tourists throughout Asia keeps growing. With the constant development of cruise economy, cruise lines will increase efforts to develop the East Asian market.

4.3 Short Supply in Global Cruise Shipbuilding Market Gets More Distinct

In the cruise shipbuilding industry, the design and construction of cruise ships is incomparable to the construction of ordinary ships. The technical barriers are very high. It requires a high degree of integration of high-end technologies and the collaborative support from shipbuilding industry, leisure and entertainment industry, high-star hotel design industry, catering industry, sports industry and other multiple related industries. European shipyards have a technological level of cruise shipbuilding that is in an absolute position in the world, form a mature and complete cruise shipbuilding supply chain, making them major suppliers of luxury cruise ships in the world and creating huge profits for shipbuilding enterprises.

Thanks to the sound development of cruise tourism, the demands of cruise lines in the world for different levels of luxury cruise ships has gradually increased, and the existing production capacity has been difficult to meet the needs of the market. At present, the orders of several major cruise manufacturing companies have been scheduled after 2026. More shipyards are needed to join the design and shipbuilding of international luxury cruise ships. Cruise shipbuilding requires strong support of huge amounts of funds. Western governments provide strong financial support for cruise shipbuilding enterprises. France, Germany and other countries have implemented a low-interest shipbuilding loan policy for cruise shipbuilding enterprises. In addition to strong financial support, cruise shipbuilding also needs strong product design and development ability, supply chain management ability, the ability to coordinate with various government departments and other abilities. The design and shipbuilding link at the upstream of cruise industry chain is costly, has long cycle and high requirements for funds and accounts for more than 1/5 of the economic benefits of the entire cruise industry. With the accelerated update of cruise ships and the expansion of the transport capacity of cruise lines, the demand for new cruise ships is increasing, and more and more new energy cruise ships need to be manufactured to promote the green development of cruise ships.

In order to promote the development of local cruise ship and give play to China's experience advantage and technical advantage in shipbuilding industry and give full play to the competitive advantages of Chinese shipbuilding enterprises, Chinese shipbuilding enterprises will also take part in cruise shipbuilding industry to promote the development of cruise ships with Chinese cultural elements, provide strong support for China to participate in the global cruise design and shipbuilding, and build a national cruise brand.

4.4 The Diversification Trend of the Consumption Demand of Global Cruise Market Is Obvious

Traveling with companions is becoming a remarkable feature of cruise tourism. The possibility for cruise tourists to travel with their friends, partners/companions or children is 40% higher than that for land tourists. From organized teams to friends, families, children, partners and spouses, traveling in a team is far more interesting than traveling alone. Cruise tourists with higher income are more likely to take advanced cruise, luxury cruise and river cruise. Suites and balconies are the most facilities in the eyes of all cruise tourists, but springs and salons are more important for tourists with higher income. Health clubs and gyms, however, are more important for tourists with lower income. On-board recreational facilities are the most commonly-used function on the whole cruise. Compared with non-cruise tourists, cruise tourists are more satisfied with travel agencies. In general, cruise tourists are more willing to seek help from travel agencies than non-cruise tourists. Such trends explain the good business trends of travel agencies as mentioned in the cruise industry outlook of CLIA. Cruise tourists are still highly loyal to their preferred way of vacation. More than half of cruise tourists (58%) hold that a cruise tour is the best way for the vacation, and such a view remains unchanged in the following few years. Income is not the threshold in cruise market. Although higher income is favorable for long time of cruise navigation, according to the statistics of last cruise trip, it can be found that six- to eight-day trip is the most popular so far.

Chapter 2

Study on Development of Chinese Cruise Industry in 2017–2018: Steady Operation, High Quality and Favorable Situation



Hong Wang, Xinliang Ye and Jianyong Shi

Abstract At present, China is in the crucial stage of building a well-off society in an all-round way and entering a new era of socialism with Chinese characteristics. China's cruise market has changed the world's cruise tourism landscape and become an important aspect of transmitting Chinese culture, lifestyle and promoting tourism diplomacy to the world. In order to enhance the economic effects of cruise tourism, cruise industry chain is extended everywhere, and the economic and social effects of cruise industry are constantly promoted. In the development of China's cruise market, the policy system of the cruise industry is constantly improving, providing a good business environment for the development of the cruise industry. After more than ten years of development, China's cruise market has been developing rapidly. Tourists' awareness of cruise tourism has been increasing. However, there are still many problems, such as higher vacancy rate of cruise ports, lower profitability, narrow and long distribution channels, slower development of direct selling mode, high-seas cruise routes, and so on. There are still policy bottlenecks and low concentration of cruise industry in offshore routes and "multi point affiliation" routes. Despite the reduction of cruise market size in 2018, China's cruise market is still full of vigor and great potential for development, mainly due to China's sound economy, the improvement of people's consumption level, the prosperity and development of tourism and other factors. In the future, China's cruise market will maintain a high-quality development direction, and is expected to become the world's largest cruise passenger market, with the world's top three international cruise home port, international influence, competitiveness, brand strength in the world's first-class level.

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Keywords New era · Cruise economy · High quality · New kinetic energy

1 Analysis on the Development Environment of Chinese Cruise Industry

1.1 The Macroeconomic Development Is Stable and the High-Quality Development Brings About a Good Start

At present, China's economic development is in a stage transforming from rapid growth to high-quality development and shows a steady growth trend as a whole. The reform and opening up and supply-side structural reform have been deepened constantly, the economic structure has been constantly optimized, the main economic indicators have maintained a good development trend, the economic strength has been significantly enhanced, the economic development has been more dynamic, and the contribution to global economic development has been continuously promoted. China's gross domestic product (GDP) reached CNY 82.71 trillion in 2017, showing a year-on-year growth of 6.9%; the annual per capita GDP reached CNY 59,660, showing a year-on-year growth of 6.3%. The tertiary industry has maintained a sound momentum of development, with an increase in output of CNY 42.7 trillion and a year-on-year increase of 8%. The proportion of the added value of the tertiary industry in the total GDP has increased to 51.6%, accounting for more than half of the total contributions. The contribution of final consumption to the growth of total GDP in the whole year is at a high level and nearly 60%. Domestic trade remained sound development momentum. The national total retail sales of social consumer goods in 2017 reached CNY 36.62 trillion, showing a year-on-year growth of 10.2%. The retail sales of urban consumer goods reached CNY 31.42 trillion, showing a year-on-year growth of 10%; the retail sales of rural goods reached CNY 32.6 trillion, showing a year-on-year growth of 10.2%. Foreign economy maintained a good growth momentum. In 2017, the total export-import volume of goods reached CNY 27.79 trillion, showing a year-on-year growth of 14%. The construction effect of "the Belt and Road" was obvious. The total export-import volume of countries along the Belt and Road reached CNY 7.37 trillion, showing a year-on-year growth of 17.8% (Fig. 1).

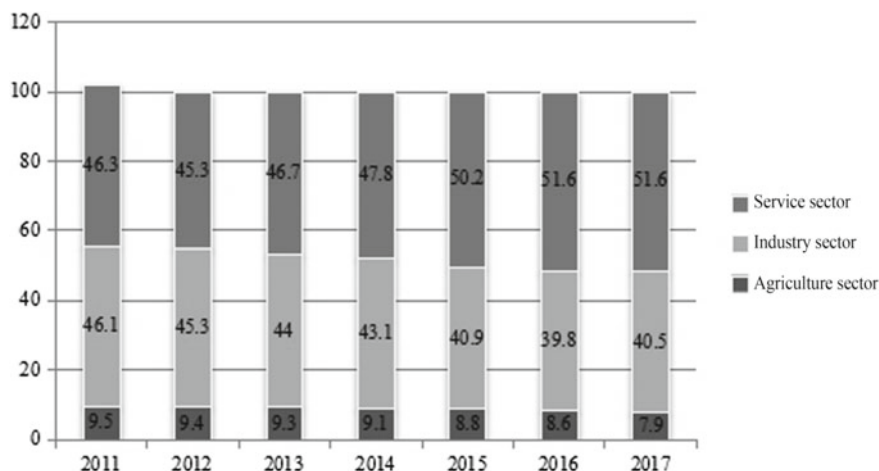


Fig. 1 Changes in proportion of tertiary industry to GDP in 2011–2017. *Data source* Statistical Bulletin of the State Statistics Bureau

1.2 The Growth of Residents' Consumption Capacity Has Been Driving the Growth of Cruise Market Scale

The development of cruise tourism market is directly related to the increase of residents' purchasing power. The improvement of consumption capacity will effectively promote the increase of market scale. In 2017, the per capita disposable income of Chinese residents reached CNY 25,900, showing a year-on-year growth of 9%; the median per capita disposable income of Chinese residents reached CNY 22,400, showing a year-on-year growth of 7.3%. The median per capita disposable income of urban residents reached CNY 33,800, showing a year-on-year growth of 7.2%. In 2017, the per capita disposable income of Chinese urban residents reached CNY 36,300, showing a year-on-year growth of 8.3%. It actually increased by 6.5% excluding the impact of price changes. The per capita disposable income of Chinese rural residents reached CNY 13,400, showing a year-on-year growth of 8.6%. According to the division of the five equal income groups of national residents, the per capita disposable income of people in the middle income group reached CNY 22,400, and that of people in the high income group reached CNY 64,900 (Fig. 2).

With the development of China's social economy, the per capita consumption expenditure of Chinese residents has greatly increased and reached CNY 18,300, showing a year-on-year growth of 7.1%. The per capita consumption expenditure of urban residents has reached CNY 24,400, showing a year-on-year growth of 5.9%; the per capita consumption expenditure of rural residents has reached CNY 10,900, showing a year-on-year growth of 8.1%. The Engel coefficient of Chinese residents reached 29.3%, showing a year-on-year decrease of 0.8%. The urban Engel coefficient reached 28.6%, was in a good development level and had a good promotion

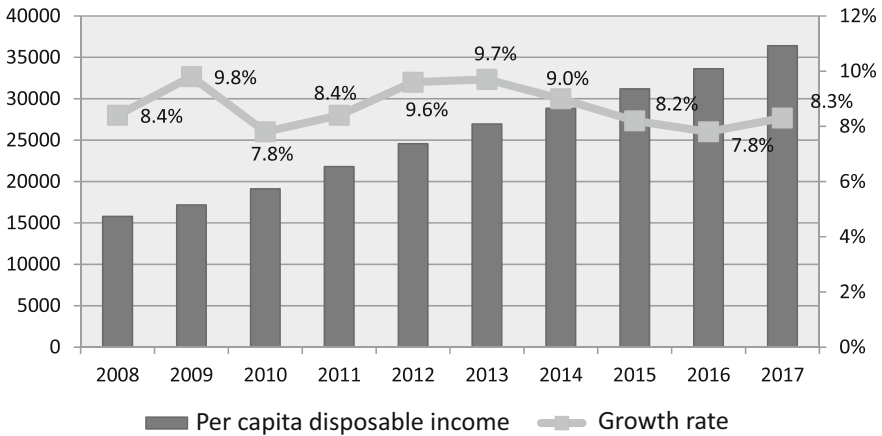


Fig. 2 Changes in per capita disposable income in China. *Data source* Statistical Bulletin of the State Statistics Bureau

effect on improving residents’ consumption ability. Among the indicators reflecting residents’ consumption ability, the per capita disposable income is an appropriate indicator. The increase of residents’ purchasing power will be conducive to the development of the existing tourism market and the development of the potential market.

1.3 The Healthy Development of Tourism Is Providing a Good Foundation for Cruise Tourism

Chinese tourism economy has been developed rapidly. The industrial pattern is improving day by day, and the market scale and quality are improved synchronously. China remains the world’s largest source of outbound tourists and the world’s fourth largest destination tourism host country. Tourism has been an important lifestyle of people. In 2017, the number of domestic tourists reached 5 billion, showing a year-on-year growth of 12.8%; the domestic tourism income reached CNY 4.5661 trillion, showing a year-on-year growth of 15.9%. In 2017, the average number of trips was 3.7 per person. Tourism has been an important indicator for measuring the modern living standards and people’s rigid need for happy life. In 2017, the comprehensive contributions of tourism were CNY 8.77 trillion. The contributions to national economy reached 11.04% and that to accommodation, catering, civil aviation and railway passenger transport exceeded 80%. A total of 28.25 million people were employed in tourism. A total of 80 million people were directly or indirectly employed in tourism. The comprehensive contribution of tourism to the society reached 10.28%.

In terms of outbound tourism, Chinese outbound tourism market reached 131 million tourists in 2017 and the expenses of outbound tourism USD 115.29 billion,

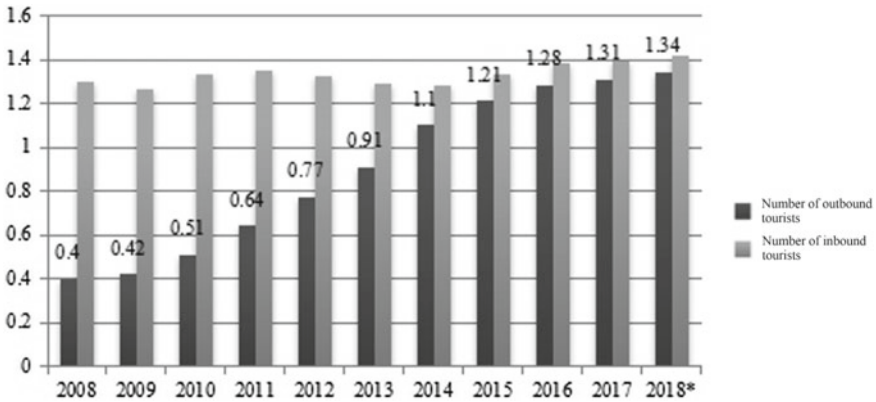


Fig. 3 Changes in China’s outbound tourism and inbound tourism. *Data source* China Port Association Cruise Terminal Branch

showing a year-on-year growth of 6.9% and 5.0% respectively. As of March 2018, China has officially launched group business in 129 outbound tourist destinations, including the republic of Sudan, Uruguay, Sao Tome and Principe and French New Caledonia in 2017. According to statistics, the number of China’s outbound travel agencies with business qualifications increased to 4442 in 2017, showing a year-on-year growth of 14.6%. The top 15 destinations for Chinese tourists in 2017 were Hong Kong, China, Macau, China, Thailand, Japan, Vietnam, South Korea, the United States, Taiwan, Malaysia, Singapore, Indonesia, Russia and Australia. The proportion of traveling abroad continued to increase and accounted for 33.3% of the total number of outbound trips in 2017 and was approximately 2% higher than the 31.24% in 2016 (Fig. 3).

With regard to the development of inbound tourism, in 2017, global international tourism showed a sustained growth trend, and emerging economies continued to make efforts. The total number of inbound tourists received worldwide in 2017 was 1.322 billion, showing a year-on-year growth of 7.00%. Europe, the Asia-Pacific and the Americas remained the world’s top three international tourist attractions. In 2017, the number of inbound tourists in the Asia-Pacific region increased by 5.8%, and the growth rate of inbound tourists in Europe and the Americas was 8.4 and 2.9% respectively. In 2017, China’s inbound tourism started to rise again. In 2017, China received 139,482,400 inbound tourists, showing a year-on-year growth of 0.80%. The total number reached a record high. The size and growth rate of the foreign inbound tourism market were 29,165,300 and 3.60% respectively, and the total number also reached a record high. Mainland (inland) China received 110,317,100 tourists from Hong Kong, Macao and Taiwan, making the total number a record high. In 2017, China’s foreign exchange income from inbound tourism reached USD 123.417 billion, showing a year-on-year growth of 2.90%, continuing to maintain a good momentum of steady growth. Foreign tourists consumed USD 69.547 billion, showing a year-on-year growth of 4.1%, continuing to maintain a good momentum

of steady growth. In 2017, Hong Kong, China, Macao, China and Taiwan, China remain the main force in the inbound tourism market of mainland China (inland), accounting for 79.09% of the total market share. In terms of inbound tourism market demand, the main purpose of travel is sightseeing and leisure vacation. There still are some shortcomings of inbound tourism services. The majority of inbound tourists are first-time visitors to China; the consumption level of inbound tourists is still low, the expenditure of more than 80% of inbound tourists is between USD 1001 and USD 5000.

The tourism market has great development potential. China's tourism revenue will reach CNY 5.98 trillion in 2018, with a year-on-year growth of 13%. Among them, the number of domestic tourists was 5.5 billion and the domestic tourism income was CNY 5.05 trillion, with an increase of 10.8 and 13% respectively; the number of inbound tourists was 142 million and the international tourism income was USD 127.3 billion, with an increase of 1.4 and 2.5% respectively; the number of outbound tourists was 134 million, with an increase of 4.5%; the investment completed was CNY 1.8 trillion, with an increase of 20%. By 2020, the total size of the tourism market will reach 6.7 billion tourists; the total investment in tourism will be CNY 2 trillion; the total tourism revenue will reach CNY 7 trillion; and the comprehensive contribution of tourism to the national economy will reach 12%. The objective of strong tourism country in the world will be achieved by 2040.

China's tourism status and international influence have increased greatly. Passivity has been changed to initiative. In 2017, China led the establishment of the world tourism alliance, becoming an important force in improving the global tourism governance system. China successfully hosted the first World Tourism Development Conference, Sino-Japan Friendly exchange conference, Sino-Japan-Korea tourism year activities such as tourism ministers' meeting, the 22nd plenary meeting of the United Nations World Tourism Organization (UNWTO), the seventh plenary session of the G20 tourism ministers' meeting and other grand meetings with stronger international influence, making the world better understand China's current situation and tourism development trend. The rapid development of China's tourism has made important contributions to the development of the world's tourism, effectively promoting the growth of the scale of global tourism economy and the scale of the sources of tourists. China has become an important force in changing the world tourism map.

Although the development of China's tourism has made brilliant achievements, there still are some problems and bottlenecks which mainly lie in the following aspects: the regional development of tourism is unbalanced; the supply of tourist products is insufficient; the travel civilization level remains to be improved; tourist products are not innovative enough; the leisure experience of outbound tourism is insufficient; the revisit rate of inbound tourists is relatively low. However, in general, China's tourism maintains a good growth situation and great development potential, adheres to advanced development concept, is one of the most important parts of the world's tourism development and has a strong impetus to the national economic growth, the comprehensive contribution of society and the growth of the global tourism economy.

China's tourism has developed very rapidly in recent years. The three major formats of tourism showed comprehensive prosperity. China ranked first in the scale of the sources of tourists of outbound tourism in world. China's cruise tourism market has also developed rapidly and has been the second largest cruise market in the world, and is expected to be the world's largest cruise tourist source market.

2 Analysis on the Development Trend of China's Cruise Industry Chain in 2017–2018

2.1 Analysis on the Development Trend of China's Cruise Market

2.1.1 The Growth of China's Cruise Market Is Slowing Down Momently, Which Is Conducive to Market Adjustment

According to the statistical data released by China Cruise & Yacht Industry Association (CCYIA), in 2017, China's 11 largest cruise ports, including Shanghai, Tianjin, Dalian, Qingdao, Zhoushan, Wenzhou, Xiamen, Guangzhou, Shenzhen, Haikou and Sanya, received 1181 cruise ships, showing a year-on-year growth of 17%. Among the cruise ships received, the number of home-port cruise ships reached 1098, showing a year-on-year growth of 18%; the number of visiting-port cruise ships remained unchanged from 2016 and was 83. With regard to the number of cruise tourists received, China's 11 largest cruise ports received a total of 4.954 million inbound and outbound tourists, showing a year-on-year growth of 18%. The number of home-port inbound and outbound Chinese tourists reached 4.2897 million. It was the first time to exceed two million since 2006. The number was 93% higher than that in 2015. The number of foreign cruise tourists reached 277,500, showing a year-on-year growth of 8%. Among China's top ten cruise ports, Shanghai Cruise Port received a total of 512 cruise ships, showing a year-on-year growth of 0.5% and accounting for 43.3% of the market share in China; the number of inbound and outbound tourists received was 2.978 million, showing a year-on-year growth of 2.9% and accounting for 60.1% of the total number in China; Tianjin Cruise Port received a total of 175 cruise ships, accounting for 14.8% of the market share in China; the number of inbound and outbound tourists received was 942,000, accounting for 19% of the total number in China; Guangzhou Cruise Port developed very rapidly and received a total of 122 cruise ships in 2017, accounting for 10% of the market share in China; the number of inbound and outbound tourists received was 403,000, accounting for 8% of the total number in China. Shenzhen Shekou International Cruise Home Port was put into operation on October 31, 2016 and has become an important driving force of South China cruise market and has maintained high growth rate. In 2017, the Port received 109 cruise ships and 189,000 inbound and outbound tourists. In 2017, only Shanghai, Tianjin, Guangzhou and Shenzhen cruise home ports received 100 or more

Table 1 Comprehensive statistics of China's major cruise ports in 2017

Cruise port	Number of cruise ships received in 2016	Number of cruise ships received in 2017	Year-on-year growth (%)	Number of tourists received in 2016	Number of tourists received in 2017	Year-on-year growth (%)
Shanghai	509	512	0.5	289.4	297.8	2.9
Tianjin	142	175	23	71.4	94.2	31
Sanya	25	12	-52	9.6	4	-58
Xiamen	79	77	-3	19.0	16.18	-22
Qingdao	52	63	21	8.9	10.94	27
Zhoushan	13	15	15	1.7	3.06	73
Dalian	27	31	15	6.4	6.9	6
Guangzhou	104	122	17	32.5	40.1	23
Haikou	41	33	-20	6.4	2.56	-60
Shenzhen	14	109	679	4.4	18.9	325
Yantai	4	0	-	0.5	0	-
Total	1010	1181	17	456.7	495.4	18

Data source China Cruise and Yacht Industry Association

cruise ships. Sanya, Zhoushan, Dalian, Haikou and Yantai cruise ship ports received less than 50 cruise ships and were faced with great operating pressure (Table 1).

In terms of China's four major cruise home ports, from January to June 2018, Shanghai Wusongkou International Cruise Terminal, the largest cruise home port in Asia-Pacific region, received a total of 188 cruise ships, showing a year-on-year decrease of 11% and accounting for 42% of the total number in China; the number of inbound and outbound tourists received was 1.283 million, showing a year-on-year growth of 7% and accounting for 56.1% of the total number in China. The number of home-port cruise ships was 182, showing a year-on-year decrease of 11%; the number of home-port inbound and outbound tourists was 1.257 million, showing a year-on-year growth of 8%. From January to June 2018, Tianjin International Cruise Home Port, the second largest cruise home port in China received 54 cruise ships, showing a year-on-year decrease of 40%; the number of inbound and outbound tourists reached 352,000, showing a year-on-year decrease of 14%; the number of home-port cruise ships received was 45, showing a year-on-year decrease of 43%; the number of visiting-port cruise ships received was 9, showing a year-on-year decrease of 18%. From January to June 2018, Guangzhou International Cruise Home Port, the third largest cruise home port in China received 51 cruise ships, showing a year-on-year decrease of 25%; the number of inbound and outbound tourists reached 245,600, showing a year-on-year growth of 24%; the Port was expected to exceed Tianjin International Cruise Home Port and become China's second largest cruise home port. From January to June 2018, Shenzhen Shekou International Cruise Home

Port, the fourth largest cruise home port in China received 50 cruise ships, showing a year-on-year increase of 100%; the number of inbound and outbound tourists reached 183,800, showing a year-on-year increase of 191%; the number of home-port cruise ships received was 49, showing a year-on-year increase of 96%; the number of home-port inbound and outbound tourists received was 183,700, showing a year-on-year increase of 191%. The Port became the international cruise home port that grows the fastest in China. From January to June 2018, Xiamen International Cruise Home Port, the fifth largest cruise home port in China received 41 cruise ships, showing a year-on-year decrease of 7%; the number of inbound and outbound tourists reached 134,800, showing a year-on-year increase of 69%; the number of home-port cruise ships received was 35, showing a year-on-year increase of 6%; the number of home-port inbound and outbound tourists received reached 116,500; the number of visiting-port cruise ships received was 6, showing a year-on-year decrease of 45%; the number of visiting-port inbound and outbound tourists received reached 18,200, showing a year-on-year growth of 21%. It can be seen that the total number of cruise ships berthing at China's five largest cruise home ports was 384, accounting for 86% of the total number in China; the number of outbound tourists received was 2.197 million, accounting for 96.1% of the total number in China. Therefore, the market is highly concentrated.

The number of cruise ships berthing at home ports decreased significantly. The number of tourists, however, increased to some extent mainly due to the launch of large cruise ships that have large capacity. From January to June 2018, the development of inbound cruise tourism decreased significantly. The number of visiting-port cruise ships decreased remarkably. The number of visiting-port cruise ships received in China was 45, showing a significant decrease from the 61 in 2017. Even Shanghai Port International Passenger Transport Center that receives the most visiting-port cruise ships in China received only 11 inbound cruise ships in the first half year; and the number was significantly lower than the 17 in 2017. Sanya Phoenix Island International Cruise Terminal was China's largest visiting port in China in 2017, but the port only received four visiting-port cruise ships in the first half year in 2018, showing a year-on-year decrease of 33% (Tables 2, 3 and 4).

2.1.2 Homeport Cruise Ships in China Has Entered a Period of Accelerated Updates

In 2017, there were 18 homeport cruise ships operating in the Chinese market. Although the Princess Cruises made some adjustments to its fleet deployment, it is still full of confidence in the development potential of cruise market in China. International cruise lines have put their world's latest luxury cruise ships into the Chinese market one after another to provide Chinese tourists with world-class cruise products and services, so as to accelerate the cultivation of cruise consumption culture of Chinese tourists, thus increasing the scale of cruise market in China. In 2017, the homeport cruise lines in China mainly included: the giants of international cruise lines operating in the Chinese market all the year around, Royal Caribbean Interna-

Table 2 Comprehensive statistics of China's cruise ports in the first half year of 2018

Port	Number of cruise ships in January–June 2017	Number of cruise ships in January–June 2018	Year-on-year growth (%)	Number of tourists in January–June 2017	Number of tourists in January–June 2018	Year-on-year growth (%)
Shanghai	244	201	−23	124.18	130.1	4.76
Tianjin	90	54	−40	4.10	35.2	−14
Sanya	6	17	183	2.00	1.33	−34
Xiamen	44	41	−7	7.96	13.4	69
Qingdao	34	13	−62	5.04	2.35	−53
Zhoushan	6	1	−83	0.62	0.069	−89
Dalian	15	19	27	2.67	2.98	12
Guangzhou	68	51	−25	19.76	24.56	24
Haikou	0	0	–	0	0	0
Shenzhen	25	50	100	6.32	18.38	191
Yantai	0	0	–	0	0	0
Total	532	447	−16	209.7	228.5	9

Data source CCYIA

tional, MSC Cruises, Costa Crociere S.p.A, Princess Cruises, and Genting Cruise Lines; new entrants, Norwegian Cruise Line and Sliversea Cruises; and three local cruise lines, SkySea Cruise Line, Bohai Cruises, and Diamond Cruises. Homeport cruise ships are mainly popular ones, covering Quantum of the Seas, Ovation of the Seas, Voyager of the Seas, Mariner of the Seas, Serena, Atlantic, Victoria, Fortuna, Lirica, Golden Era, Glory Sea, Chinese Taishan, Sapphire Princess, Majestic Princess, SuperStar Virgo, Genting Dream, Joy. Luxury cruise ships include Silver Shadow with a total tonnage of 1.8764 million gross tons, an average tonnage of 104,200 gross ton, an average standard passenger capacity of 2580, and an average maximum passenger capacity of 2934. For the homeport cruise ships operating in China, the average value of the maximum passenger capacity/standard passenger capacity is 1.13, the maximum value thereof is 1.28 from Costa Fortuna, and the minimum value thereof is 1. The smaller the value is, the more passengers in the lower berth and the fewer passengers in the upper berth there are, and the more comfortable the tourists feel. In terms of standard passenger capacity/crew number, the average value is 2.52, the maximum value is 3.44 from Glory Sea, and the minimum value is 1.29 from Silver Shadow, a luxury cruise ship. The smaller this value is, the more sophisticated the services are provided to tourists, so basically in the homeport cruise ships in China, a waiter will serve 2.5 tourists, at a relatively general level (Table 5).

In April 2017, “Sapphire Princess” of Princess Cruises withdrew from the Chinese market. In September 2017, “Mariner of the Seas” of Royal Caribbean International gave up the Chinese market temporarily and returned to the United States for Miami route. In 2018, the six-year-old Costa “Victoria” was temporarily absent from the

Table 3 Number of home-port and visiting-port cruise ships received in 2018

Port	Number of home-port cruise ships in January–June 2017	Number of home-port cruise ships in January–June 2018	Year-on-year growth (%)	Number of visiting-port cruise ships in January–June 2017	Number of visiting-port cruise ships in January–June 2018	Year-on-year growth (%)
Shanghai	219	184	−15.9	25	17	−32
Tianjin	79	45	−43	11	9	−18
Sanya	0	13	–	6	4	−33
Xiamen	33	35	6	11	6	−45
Qingdao	32	12	−63	2	1	−50
Zhoushan	3	0	−100	3	1	−67
Dalian	12	13	8	3	6	100
Guangzhou	68	51	−25	0	0	–
Haikou	0	0	–	0	0	–
Shenzhen	25	49	96	0	1	–
Yantai	0	0	–	0	0	–
Total	471	402	−15	61	45	−26

Data source China Port Association Cruise Terminal Branch

Chinese market. In 2018, MSC Lirica left the Chinese market for operation in the Mediterranean market. In September 2018, Majestic Princess will bid farewell to its home port in China and transfer to cruise market in Australia. It will sail to 16 destinations, including Fiji, New Zealand and Tasmania, with Sydney as its home port during the summer in the Southern Hemisphere from September 2018 to March 2019. In 2018, there are 16 homeport cruise ships in China, including Quantum of the Seas, Ovation of the Seas, Voyager of the Seas, Glory Sea, Serena, Atlantic, Fortuna, SuperStar Virgo, SuperStar Gemini, SuperStar Aquarius, Golden Era, Joy, Majestic Princess, Splendida, Chinese Taishan, and World Dream. “Quantum of the Seas” will travel to Singapore in 2019 and will make 34 voyages in six months from November 2019 to April 2020 with Marina Bay as its home port, including four nights, five nights and a few seven nights. Its main destinations include Kuala Lumpur, Phuket and Penang. “Ovation of the Seas” will be absent from Tianjin Home Port from May to September 2019, the “peak season” of cruise market in China, to deploy Alaska route in Seattle, USA. “Voyager of the Seas” will be back to Australia for operation of Sydney route from 2019 to 2020 (Table 6).

On May 18, 2018, MSC Splendida launched its maiden voyage at Shanghai Wusongkou International Cruise Terminal in China. It is the 20th large cruise ship with Wusongkou International Cruise Terminal as its home port. At the same time,

Table 4 Number of home-port and visiting-port cruise tourists received in 2018

Port	Number of home-port tourists in January–June 2017	Number of home-port tourists in January–June 2018	Year-on-year growth (%)	Number of visiting-port tourists in January–June 2017	Number of visiting-port tourists in January–June 2018	Year-on-year growth
Shanghai	118.9	126	5.9	5.79	4.08	−29
Tianjin	38.4	32.97	−14	2.64	2.27	−14
Sanya	0	0.68	−	2.00	0.64	−68
Xiamen	6.45	11.65	81	1.51	1.82	21
Qingdao	4.92	2.32	−53	0.11	0.03	−70
Zhoushan	0.132	0	−100	0.48	0.035	−93
Dalian	2.32	2.31	0	0.34	0.66	91
Guangzhou	19.76	24.56	24	0	0	−
Haikou	0	0	−	0	0	−
Shenzhen	6.32	18.37	191	0	0.0092	−
Yantai	0	0	−	0	0	−
Total	196.8	218.9	11	12.91	9.56	−26

Data source China Port Association Cruise Terminal Branch

Wusongkou International Cruise Terminal welcomed its 10 millionth inbound and outbound tourists. In 2018, “SuperStar Gemini” resumed its homeport route with Xiamen as its home port. On June 13, 2018, “SuperStar Aquarius” of Star Cruises, the pioneer in Asia-Pacific cruise industry, entered Qingdao and launched its maiden voyage. On May 18, 2019, “Venezia”, the first Costa cruise ship tailored for the Chinese market, will make its maiden voyage in China. On June 6, 2019, “Spectrum of the Seas”—the first cruise ship of the Quantum Ultra Class of Royal Caribbean International, will make its maiden voyage in Shanghai. By 2020, “Bellissima”, MSC Cruises’ future flagship of the new generation, will be officially named and make its maiden voyage in Southampton, UK in 2019, and will enter home ports in China in the spring of 2020 to set a new benchmark for homeport cruise ships in China (Table 7).

Table 5 Development of homeport cruise ships in China in 2017

Cruise ship name	Tonnage (Unit: 10,000 GT)	Standard capacity (persons)	Maximum passenger capacity (persons)	Maximum passenger capacity/standard passenger capacity	Crew	Standard passenger capacity/crew number
Quantum of the Seas	16.78	4180	4758	1.14	1285	3.25
Ovation of the Seas	16.78	4180	4758	1.14	1285	3.25
Voyager of the Seas	13.72	3114	3840	1.23	1185	2.63
Mariner of the Seas	13.72	3114	3840	1.23	1185	2.63
Serena	11.45	3780	3780	1.00	1100	3.44
Atlantica	8.56	2110	2680	1.27	920	2.29
Victoria	7.51	1928	2394	1.24	790	2.44
Fortuna	10.30	2720	3470	1.28	1027	2.65
Lirica	6.55	1560	1984	1.27	1000	1.56
Golden Era	7.15	1814	1814	1.00	846	2.14
Glory Sea	4.50	1329	1564	1.18	300	4.43
Chinese Taishan	2.43	927	1000	1.08	360	2.58
Sapphire Princess	11.58	2670	3100	1.16	1100	2.43
Majestic Princess	14.30	3560	4250	1.19	1350	2.64
SuperStar Virgo	7.53	1870	1960	1.05	1100	1.70
Genting Dream	15.13	3352	3352	1.00	2016	1.66
Joy	16.77	3850	3900	1.01	1651	2.33
Silver Shadow	2.82	382	382	1.00	295	1.29

Data sources Calculated by the authors

Table 6 Statistics of homeport cruise ships in cruise market in China in 2018

Homeport cruises in 2017	Maiden voyage in China	Changes in 2018	Entrants in 2018	Entrants in 2019	Entrants in 2020
Quantum of the seas	2015.06.25	Homeport operation	Splendida	Venezia	Bellissima
Ovation of the seas	2016.06.28	Homeport operation	SuperStar Gemini	Spectrum of the Seas	Others Undetermined
Voyager of the seas	2012.06.19	Homeport operation	SuperStar Aquarius	Others Undetermined	
Mariner of the seas	2013.06.18	<i>Absent from China</i>	World Dream		
Serena	2015.04.24	Homeport operation			
Atlantica	2013.07.04	Homeport operation			
Victoria	2012.05.18	<i>Absent from China</i>			
Fortuna	2016.04.24	Homeport operation			
Lirica	2016.05.04	<i>Absent from China</i>			
Golden Era	2015.05.15	Homeport operation			
Glory Sea	2016.03.18	Homeport operation			
Chinese Taishan	2014.08.16	Homeport operation			
Sapphire Princess	2014.05.21	<i>Absent from China</i>			
Majestic Princess	2017.07.11	Homeport operation			
SuperStar virgo	2014.07	Homeport operation			
Genting dream	2016.11.13	<i>Absent from China</i>			
Joy	2017.06.28	Homeport operation			
Silver shadow	2017.03.05	<i>Absent from China</i>			

Data source China Port Association Cruise Terminal Branch

Table 7 2018–2020 Homeport cruises distributed in the Chinese market

Cruise lines	Cruise ships	Tonnage (Unit: 10,000 GT)	Quantity of cabins	Passenger capacity	Maiden voyage in China
<i>Entrants in 2018</i>					
MSC Cruises	Splendida	13.79	1637	4363	2018.05.18
Star Cruises	SuperStar Aquarius	5.13	756	1511	–
	SuperStar Gemini	5.07	765	1530	–
Dream Cruises	World Dream	15.13	1686	3352	2017.11.19
<i>Entrants in 2019</i>					
Costa Cruises	Venezia	13.55	2116	5260	2019.5.18
Royal Caribbean	Spectrum of the Seas	16.8	2137	5622	2019.6.6
<i>Entrants in 2020</i>					
MSC Cruises	Bellissima	17.15	2250	5714	2020

Data sources Calculated by the authors

2.2 Cruise Port Facilities in China Have Been Improved Stage by Stage

2.2.1 The Distribution of Cruise Ports Is Basically Completed in China

According to the *Planning on Distribution of Coastal Cruise Ports in China* (2015), by 2030, the distribution with 2 and 3 cruise home ports as mainstay, port of departure as main part, and port of visit as supplement will be formed at the coastal area of China. In the distribution of port of departure, it is proposed to give priority to developing Dalian Port in Liaoning Coast, to take Tianjin Port as the port of departure of Tianjin and Hebei Coast, Qingdao Port and Yantai Port as the port of departure of Shandong Coast, Shanghai Port as the port of departure of Yangtze River Delta where Ningbo-Zhoushan Port are to be developed accordingly, Xiamen Port as the port of departure of South-East Coast, to give top priority to developing Shenzhen Port in Pearl River Delta where Guangzhou Port is to be developed accordingly, and to take Sanya Port as the port of departure of South-West Coast where Haikou Port and Beihai Port are to be developed accordingly. At present, there are 15 cruise ports in China, including eight cruise terminals. The eight cruise terminals include Shanghai Wusongkou International Cruise Terminal, Shanghai Port International Cruise Terminal, Tianjin International Cruise Home Port, Qingdao Cruise Home Port, China Merchants Shenzhen Shekou International Cruise Home Port, Sanya Phoenix Island International Cruise Terminal, Zhoushan Archipelago International Cruise Port, and

Xiamen International Tourist Pier. In addition, there are seven ports transformed from freight terminals, including Dalian Port International Cruise Center, Guangzhou Port International Cruise Home Port, Yantai Port, Xiuying Port, Wenzhou International Cruise Port, Fangcheng Port, and Beihai Port. There will be several new cruise ports under planning, including Dalian International Cruise Home Port, Guangzhou Nansha Cruise Home Port, Beihai International Cruise Port, Haikou South China Sea Pearl International Cruise Port, Xiamen International Cruise Home Port, Ningbo International Cruise Port, and Qinhuangdao International Cruise Port, most of which are targeted to Home Port.

There is one cruise port in Northeast China, that is, Dalian Port International Cruise Center, which will be reconstructed step by step to be Dalian International Cruise Home Port in the future, with its tourists mainly from the three provinces in Northeast China. There is only Tianjin International Cruise Home Port in North China, which is the second largest international cruise home port in China, with its tourists mainly from Beijing and Tianjin. East China is the most concentrated area of cruise ports in China, with seven cruise terminals, and several cruise ports including the largest international cruise home port in Asia-Pacific region, Shanghai Wusongkou International Cruise Terminal, Shanghai Port International Cruise Terminal, Qingdao Cruise Home Port, Zhoushan Archipelago International Cruise Port and Wenzhou International Cruise Port; moreover, Lianyungang and Yantai Port are also actively developing cruise economy. There is only Xiamen International Tourist Pier in Southeast China, which will be transformed into Xiamen International Cruise Home Port in the future. There are two international cruise home ports in South China, Guangzhou Port International Cruise Home Port and Shenzhen China Merchants Shekou International Cruise Home Port. There are two international cruise home ports in the South China Sea, Sanya Phoenix Island International Cruise Terminal and Haikou Xiuying Port. And there are two cruise ports in Southwest China, Fangcheng Port and Beihai International Cruise Port (Table 8).

2.2.2 The Service Level of Cruise Ports Continues to Be Improved

In recent years, in order to accelerate the development of cruise ports and improve service level of ports, many cruise ports have made transformations to enhance their accommodation capacity. The later construction of Shanghai Wusongkou International Cruise Terminal started on June 18, 2015, located at upstream side and downstream side of the existing construction. It was proposed to build a new terminal with a total length of 380 m at upstream section, a new terminal with a total length of 446 m at downstream section, a new approach bridge at downstream side, and a passenger terminal at both sides, so as to ensure that the total area of passenger terminal reaches 79,000 m². About 80,000 m² hydraulic architectures will be built and completed in July 2018. After completion, Wusongkou International Cruise Terminal will be able to berth two 150,000 GT cruise ships and two 230,000 GT cruise ships at the same time.

Table 8 Regional distribution of cruise ports in China

Region	Cruise port	Quantity of berth	Port orientation	Construction situation
Northeast China	International Cruise Center of Dalian Port	1	Home port	Under transformation
North China	Tianjin International Cruise Home Port	4	Home port	Completed
	Qinhuangdao International Cruise Port	—	Home port	Under Planning
East China	Shanghai Wusongkou International Cruise Terminal	4	Home port	Completed
	International Passenger Transportation Center of Shanghai Port	3	Visiting port	Completed
	Qingdao Cruise Home Port	3	Home port	Completed
	Zhoushan Islands International Cruise Terminal	1	Port of departure	Phase I completed
	Wenzhou International Cruise Terminal	1	Port of departure	Transformed
	Lianyungang Port International Passenger Transport Station	1	Port of departure	Completed
	Yantai Port	1	Port of departure	Completed

(continued)

Table 8 (continued)

Region	Cruise port	Quantity of berth	Port orientation	Construction situation
Southeast China	Xiamen International Cruise Center	1	Home port	Under transformation
	Fuzhou International Cruise Port	–	Home port	Under Planning
South China	International Cruise Home Port of Guangzhou Port	1	Home port	Transformed
	International Cruise Home Port of Shenzhen CMS Port	2	Home port	Completed
	Guangzhou Nansha Cruise Home Port	2	Home port	Under construction
South China Sea	Sanya Phoenix Island International Cruise Terminal	4	Visiting port	Under construction
	Xiuying Port of Haikou	1	Port of departure	Under transformation
	Haikou Nanhai Mingzhu International Cruise Terminal	2	Home port	Under Planning
	Ocean Flower Island Cruise Port	–	Visiting port	Under Planning
Southwest China	Fangcheng Port	1	Port of departure	Under transformation
	Beihai International Cruise Port	1	Port of departure	Under transformation

Data sources Calculated by the authors

Xiamen International Cruise Home Port launched a project on upgrading and transformation of its berths. This project was located in Dongdu Port Area, covering a shoreline of 1419 m. It was planned to build four berths, including No. 0–2 berths for cruise ships and No. 3 berth for 20,000-ton ro-ro ships. The total investment was expected to exceed CNY 500 million. In the next few years, Xiamen will invest tens of billions of Renminbi in building a new cruise home port. The shoreline length of home port will exceed 1400 m, capable of berthing 3 and 4 medium and large cruise ships at the same time, and berthing 220,000-ton world's large luxury cruise ships. Over 1000,000 m² construction are planned to realize synchronous development of “ships, ports and cities”. A new terminal building will be built for Xiamen International Cruise Home Port, which is specially designed for cruise services, including waiting area, customs clearance area, joint inspection area and office area about 50,000 m². After completion, its annual passenger throughput can reach 800,000 person times, greatly improving customs clearance and waiting conditions.

At present, Guangzhou Port Authority is preparing the *Cruise Terminals Planning of Guangzhou Port*, in which a cruise port distribution with “main and auxiliary combination” is proposed, that is, to give top priority to the construction of a large cruise terminal in Nansha in the near future, followed by the construction of medium cruise terminals in Huangpu and Panyu in the medium and long term according to the demand for cruise tourism market. Guangzhou has accelerated the construction of Nansha International Cruise Terminal. In November 2017, The project on Nansha Cruise Terminal kicked off. In Phase I, one 225,000 GT cruise berth, one 100,000 GT cruise berth and a 35,000 m² terminal will be built, with an annual through capacity of 750,000 to one million person times, striving to be completed and put into operation in 2020.

In recent years, Dalian Port has actively advanced the upgrading of hardware facilities of its cruise terminal. Before, Dalian Port has completed the renovation of the cruise waiting hall on F1, Reservoir No. 22, capable of meeting the needs of 3000 tourists for customs clearance, check-in, baggage check-in and waiting. In middle April 2018, Dalian Port further optimized and upgraded this cruise waiting hall. In regard to berth upgrading, Dalian Port had completed the renovation of the 150,000-ton cruise berths at Berth Nos. 10 and 11 in the port area at the end of last year, with the upgrading and renovation of Berth Nos. 8 and 9 being under construction. It is expected that by 2020, Dalian Port will further build a 38,000 m² international cruise center, with the through capacity reaching 10,000 person times.

2.2.3 The Cruise Ports Continue to Bring Service Innovation

In order to better improve port service experience and raise service level, major cruise ports continue to bring service innovation. In April 2017, Shanghai Wusongkou International Cruise Terminal began trial operation of “Bar Code for Speedy Cruise Customs Clearance”. Firstly, the 144-h visa-free transit policy and 15-day visa-free stay policy was implemented for international cruise tourist groups, so as to simplify the re-entry procedures for Chinese tourists after exit, with the average time

of customs clearance being decreased from 15 to 3 s, reaching the world leading level. Shanghai Wusongkou International Cruise Terminal has made great efforts to promote standardized construction. In November 2017, it successfully passed the certification of DNV GL and obtained the certificates of quality management system (QMS), environment management system (EMS), and occupational health and safety assessment series (OHSAS). On December 29, 2017, Shanghai International Cruise Tourism Service Center initiated trial operation of Hongqiao Hub Service Station of “High-speed Rail-Cruise Train”. The system of “online check-in and admission and boarding by ticket (boarding pass)” was comprehensively implemented in Shanghai. Royal Caribbean International, as a pilot company of the *Measures for the Implementation of Cruise Ticket System in Shanghai (Trial)*, tried the ticket system on December 15, 19 and 24, 2017 and scored initial success. Since March 31, 2018, Shanghai Port has fully implemented the system of admission and boarding by ticket, becoming the first port to pilot the cruise ticket system in an all-round way in China. The ticket system plays an important role in further improving the passengers’ boarding experience, strengthening terminal security and emergency handling. To raise berthing and departing punctuality rate of cruise ships, on August 31, 2017, the real cape-size vessels encountering test was carried out at the Yangtze estuary deep-water channel, with “two-way traffic” adopted for large cruise ships and heavy-load freight containers, effectively reducing the delay rate of cruise ships.

To improve tourists’ customs clearance experience, Tianjin, the second largest cruise home port in China, continues to bring policy innovations. In March 2017, Tianjin International Cruise Home Port officially opened nine automated channels, becoming the first open port with automated channels in Tianjin and even the entire northern cruise ports. The visa-free policy innovation provides a good opportunity for the inbound tourism development of Tianjin Cruise Home Port. From December 28, 2017, Tianjin International Cruise Home Port officially implemented visa-free transit policy for foreigners who hold international travel documents of 53 countries including Austria, Russia, the United States, Australia and South Korea and joint-way tickets to a third country (region) with date and seat being confirmed within 144 h. On June 25, 2018, Tianjin International Cruise Home Port initiated the new model of “boarding by ticket”, becoming the second pilot port for implementation of cruise ticket system in China after Shanghai Port.

2.3 The Design and Manufacture of Domestic Cruise Ships Are Being Accelerated

Building domestic cruise ships is an important part and key activity for extension of cruise industry chain in China. It can give full play to China’s advantages in shipbuilding on a global scale. To build localized domestic cruise ships and to organize local cruise fleets are important for mastering the dominant power of the world cruise industry. The current world cruise shipbuilding market is monopolized by European

cruise builders, mainly including the two major shipbuilding giants, Meyer Werft GmbH and Fincantieri S.p.A. Local shipbuilding enterprises in China continue to advance the exploration of the design and building of domestic luxury cruise ships. Moreover, relevant policies have been continuously issued to support cruise shipbuilding and industrial support funds for cruise design and building have also been continually given to speed up the goal of being “jewel in the crown” in shipbuilding industry, expected to make breakthroughs in the building technology of luxury cruise ships.

China State Shipbuilding Corporation (CSSC) has made great efforts to promote the design and building of domestic large cruise ships. From middle 2012, it began a study on involvement in the building of large cruise ships. In October 2015, it issued a joint declaration on the six-party cooperation in the cruise industry together with Baoshan District, China Investment Corporation (CIC), Lloyd’s Register of Shipping, Carnival Corporation, and Fincantieri S.p.A. In May 2016, CSSC established CSSC Cruise Technology Co., Ltd. by integrating its superior resources in cruise design and building; two months later, it concluded the *Joint Venture Agreement on General Contracting for Building Luxury Cruise Ships* with Fincantieri. In September 2016, CSSC, CIC, Carnival Corporation and Fincantieri concluded the *Letter of Intent for Building 2 + 2 New 133,500-ton Cruise Ships*. In February 2017, CSSC signed a memorandum of agreement (MOA) on building of the first domestic large cruise ship in China with Carnival Corporation and Fincantieri. According to the agreement, the cruise shipowner-based joint venture set up by CSSC and Carnival Corporation will order the first batch of 2 + 4 Vista class large luxury cruise ships from the cruise shipbuilding company co-funded by CSSC and Fincantieri to serve Chinese market specially. The first new cruise ship is expected to be delivered in 2023. In February 2018, Guangzhou Shipyard International Company Limited under CSSC and China Shipbuilding Trading Co., Ltd. concluded a contract for building 4 + 2 + 2 ships of 2500-passengers/3765 m-lane luxury cruise ro-ro vessels with Mediterranean Shipping Company (MSC) and MOBY of Onorato Shipping Corporation. The contracted luxury cruise ro-ro vessel is 229.5 m long and 32 m wide with 536 compartments, capable of accommodating 2500 passengers. Its cargo lane is 3765 m long and service speed is about 23.5 knots. It has been classified into Registro Italiano Navale (RINA). This vessel is environmentally friendly, with waste heat recovery system and reserved liquefied natural gas (LNG) as fuel. The first ro-ro vessel will be put into use in 2020. On June 28, 2018, Shanghai Waigaoqiao Shipbuilding Co., Ltd. intended to transfer its 43.4% equity of Cruise Technology to CSSC upon negotiation. After the transfer, CSSC will invest additional CNY 400 million to Cruise Technology and will hold 60.523% of shares, becoming the largest shareholder. CSSC Cruise Technology Co., Ltd. will be built into a cruise business platform of CSSC, responsible for cruise operation and supply chain investment.

China Merchants Industry Holdings Co., Ltd. (CMIH) has launched the design and building of polar adventure cruise ships in Haimen City, Jiangsu Province. On March 16, 2018, the commencement ceremony of polar adventure cruise ships and signing ceremony of the contract for building of No. 2 vessel kicked off at Jiangsu Haimen Shipbuilding Base. It acted as a pioneer in making breakthroughs in the

design and building of cruise ships in China and became the first enterprise to officially build its own cruise ships. The polar adventure cruise ship is the first vessel of polar adventure cruise series of CMIH and is also the first cruise ship built independently in China. It is the first vessel in the contract for building of 4 + 6 polar adventure cruise ships concluded between CMIH and Sunstone, and as expected, it will be delivered in August 2019. In the meantime, it leads to the creation of the first supporting industrial park for building of domestic luxury cruise ships in Haimen City, Nantong. China Merchants Heavy Industry Co., Ltd. (CMHI) will also turn to medium and large luxury cruise ships from polar adventure cruise ships step by step. It is expected that the first large luxury cruise ship “made in China” will also be deliverable in 2022. The basic design of Ulstein will be applied in the polar adventure cruise ship. The cruise ship is 104.3 m long and 18.2 m wide, with the design speed being 15.5 knots at least, which is classified into BV Classification Society. It is able to accommodate 254 people, including 160 passengers and 94 crew members, with electric propulsion and advanced control systems. In November, 2017, CMHI and Taihu International Cruise Co., Ltd. signed a framework agreement on cooperation of 2 + 2 luxury cruise ships. In February 2018, CMHI and Shanghai Shitian Cruise concluded the *Framework Agreement on Cooperation Project for New Luxury Cruise Ships* to carry out the cooperation for building of 1 + 1 + 2 luxury cruise ships. As the “heart” of a cruise ship, the power system features large system capacity, high degree of integration, high technical indexes and high design redundancy. It is the most advanced ship system in the world. In 2018, the high-tech vessel research project of MIIT, the *Research on Integration of Power System and Auxiliary System of Cruise Ship and Commissioning Technology*, demonstrated and declared by CSSC Marine Power Co., Ltd. (CMP) was approved. At present, this project has been officially launched, marking that CMP has begun its trip of luxury cruise ship “heart”. Following the strategic cooperation agreement on the 70,000-ton luxury cruise project with Wuchang Shipbuilding Industry Group Co., Ltd., Fujian Guohang Ocean Shipping (Group) Co., Ltd. (FGOS) conducted a strategic cooperation with CMIH on the 70,000 GT luxury cruise project. On July 8, 2018, CMIH and FGOS concluded the *Cooperation Framework Agreement on Luxury Cruise Project* to carry out comprehensive cooperation for the 70,000 GT luxury cruise project. On July 17, 2018, the State-owned Assets Supervision and Administration Commission of the State Council convened a mid-year meeting, proposing to build a platform to develop large cruise ships in a coordinated way in the second half of 2018.

2.4 Relevant Supporting Policies of Cruise Industry Is Being Perfected Step by Step

The cruise industry can drive regional economy greatly. It has strong economy driving capability and industry attractiveness. The national and local departments at all levels have issued a number of policies and measures to promote the development

of local cruise tourism, standardize the development of cruise tourism in China, and improve cruise industry chain in China, providing a lot of convenient conditions for the development of cruise industry. In the development process of cruise tourism in China, the healthy and stable development of cruise industry is inseparable from the support of policies. The exploration of policy innovation for new ways to develop cruise tourism has created a good environment for promoting the development of cruise tourism. The massive construction of new cruise home ports in China and the construction of related service infrastructure have also benefited from strong support of the government. The construction of new home ports has enhanced the service capacity and attractiveness of cruise ships, providing a good hardware foundation for regional cruise ships to exert their economic effects. In the *Guiding Opinions of the CPC Central Committee and State Council on Supporting Hainan to Deepen Reform and Opening-up in an All-round Way*, it is proposed to give support for Hainan to open transnational cruise tourism routes and for Sanya and other cruise ports to develop pilot routes on open seas so as to accelerate the development of Sanya into home port. In December 2017, Weihai City issued the *Opinions on the Financial Incentives for Development of International Cruise Tourism Industry* mainly for domestic and overseas cruise lines, cruise ports (terminals) operators and shipping agencies that provide cruise services. Since March 31, 2018, Shanghai Port has fully implemented the system of admission and boarding by tickets, becoming the first port in China to pilot cruise ticket system. The requirement for 72-h information declaration is more conducive to protecting the legitimate rights and interests of tourists. In order to better promote the development of cruise economy, in February 2018, Shanghai Baoshao District released the *Implementation Opinions on Accelerating the Cruise Economy Development of Baoshan District*, mainly giving supports in five aspects including building a headquarter base of cruise enterprises with global influence, constructing a cruise home port with global competitiveness, building a cruise economy development highland of the whole industry chain, promoting city-industry integration and joint development of port and region, so as to provide good support for optimizing the business environment of cruise economy of Baoshao. In April 2018, Guangzhou Municipal People's Government issued the *Notice on the Issuance of the Three-Year Action Plan for the Construction of Guangzhou International Shipping Center (2018–2020)* to encourage developing cruise tourism service industry such as cruise design, repair, supply, talent training, cruise tourism insurance, duty-free shopping and so on (Table 9).

In May 2018, Xiamen Sub-district Management Committee of China (Fujian) Pilot Free-Trade Zone issued the *Interim Measures for Promoting the Development of Cruise Supply and Service Industry in Xiamen Pilot Free-Trade Zone*, proposing to give 2% of the total value of domestic goods annually delivered to the cruises berthing in Xiamen Free Trade Zone as rewards, with a maximum subsidy of CNY one million per year for each enterprise. In order to promote the development of cruise industry in Nansha and strengthen policy guidance, in May 2018, Guangzhou Nansha District issued the *Supporting Measures of Guangzhou Nansha New District (Free-Trade Sub-district) for Promoting the Development of Cruise Industry*, proposing to subsidize new cruise lines for their establishment, cruise port (terminal) operators,

Table 9 Supportive policy on cruise industry newly launched in 2017–2018

Issuing department	Policy	Main contents
Ministry of Transport	<i>Implementation Plan for the Commitment to the Guiding Opinions of the CPC Central Committee and State Council on Supporting Hainan to Deepen Reform and Opening-up in an All-round Way</i>	It is specified to advance the construction of an international cruise home port in Sanya, support the construction of cruise material supply base and maintenance base that serve Sanya Cruise Home Port in terms of duty-free fuel, living materials and maintenance, and support cruise enterprises to focus on the routes in Southeast Asia, Hong Kong, Macao and Taiwan to develop and operate cruise route products involving Sanya and Haikou Cruise Port
The CPC Central Committee and State Council	<i>Guiding Opinions of the CPC Central Committee and State Council on Supporting Hainan to Deepen Reform and Opening-up in an All-round Way</i>	It is specified to give support for Hainan to open transnational cruise tourism routes and for Sanya and other cruise ports to develop pilot routes on open seas so as to accelerate the development of Sanya into home port
Shanghai Baoshan District	<i>Implementation Opinions on Accelerating the Cruise Economy Development of Baoshan District</i>	It is specified to give supports in five aspects including building a headquarter base of cruise enterprises with global influence, constructing a cruise home port with global competitiveness, building a cruise economy development highland of the whole industry chain, promoting city-industry integration and joint development of port and region, so as to provide good support for optimizing the business environment of cruise economy

(continued)

Table 9 (continued)

Issuing department	Policy	Main contents
Shanghai Administration for Industry & Commerce	<i>Opinions on Supporting the Development of Cruise Industry in Baoshan District</i>	The content covers the creation of a safe and secure cruise tourism consumption environment, the opening of a green channel for the protection of cruise consumers' rights, timely resolution of consumer disputes, safeguarding of the legitimate rights and interests of consumers and other measures
Weihai City	<i>Opinions on the Financial Incentives for Development of International Cruise Tourism Industry</i>	It is specified to financially encourage the establishment of cruise lines, departure from Weihai, calling at Weihai, cruise port (terminal) operators, cruise agencies and travel agencies
Guangzhou City	<i>Notice on the Issuance of the Three-Year Action Plan for the Construction of Guangzhou International Shipping Center (2018–2020)</i>	It is specified to encourage the development of cruise tourism service industry such as cruise design, repair, supply, talent training, cruise tourism insurance, duty-free shopping and so on
Xiamen Sub-district Management Committee of China (Fujian) Pilot Free-Trade Zone	<i>Interim Measures for Promoting the Development of Cruise Supply and Service Industry in Xiamen Pilot Free-Trade Zone</i>	It is specified to give 2% of the total value of domestic goods annually delivered to the cruise ships berthing in Xiamen Free Trade Zone as rewards, with a maximum subsidy of CNY one million per year for each enterprise
Guangzhou Nansha District	<i>Supporting Measures of Guangzhou Nansha New District (Free-Trade Sub-district) for Promoting the Development of Cruise Industry</i>	It is specified to subsidize new cruise lines for their establishment, cruise port (terminal) operators, and cruise organizations. It is made clear that one-time funding support of CNY 500,000–5 million shall be given to the cruise lines that are registered in Nansha District with independent legal personality and pay taxes in Nansha

(continued)

Table 9 (continued)

Issuing department	Policy	Main contents
Haikou City	<i>Measures for the Implementation of Financial Subsidies of Haikou City to Encourage the Development of Cruise Industry</i>	It is specified to give subsidies to cruise lines (or cruise chartering enterprises), cruise port operators and travel agencies that develop cruise business

and cruise organizations. It is made clear that one-time funding support of CNY 500,000 to 5 million shall be given to the cruise lines that are registered in Nansha District with independent legal personality and pay taxes in Nansha. In May 2018, in order to speed up the development of international cruise industry in Haikou, innovate the mode of foreign trade in services, and enhance the level of tourism internationalization, Haikou City issued the *Measures for the Implementation of Financial Subsidies of Haikou City to Encourage the Development of Cruise Industry*, proposing to give subsidies to cruise lines (or cruise chartering enterprises), cruise port operators and travel agencies that develop cruise business.

3 Analysis on the Dilemma and Problems Cruise Industry in China in 2018

3.1 The Investment in Cultivation of Cruise Tourism Market Needs to Be Increased in China

In the past years, the cruise culture was promoted at a slow pace. Most tourists focused on the onshore tour at the destination and attached too much importance to cost performance of cruise products instead of the essential attribute of the leisure on the ship itself, and they always considered luxury ships as a kind of relatively cost-saving and comfortable maritime means of traffic. It is not easy to convert Chinese cruise tourists' cognition of cruise tour. In the history of China's tourism, people always took natural, historical and cultural sceneries as the destination of a trip, especially scenic areas rated above Class A. Cruise tourism, however, is a product of the western culture, and it is hard for Chinese tourists to deeply understand and take it granted that a ship itself is a destination. Therefore, more efforts shall be made to publicize and popularize cruise tourism. Both cruise lines and travel agencies shall undertake the responsibility to popularize cruise culture. Once deeply understanding cruise tour, tourists will obtain higher "cost performance" from such a tour. At present, the cruise culture in China is developing. The market cognition of cruise tour and cruise brands is at a low level. The urgent need is to vigorously publicize and popularize

cruise tour and convey information about cruise tour to the public. To expand the cruise market, it is essential to improve the universality of cruise tourism and enable more people to know about, understand and be fond of this mode of outbound tour, which is the key to expand China's cruise market.

3.2 Cruise Route Is Relatively Single in China, not in Line with Diversified Market Demands

For the moment, restricted by location and revenue management and other factors, there are fewer options for cruise trips departing from China. The lack of options will, to some extent, damage the market attraction and reduce the willingness of existing cruise tourists to take more trips in the future, which is unfavorable for the sustainable and rapid growth of international cruise market. Among outbound cruise routes departing from China, those to Japan and South Korea occupy an important position. More than 95% outbound cruise ships departing from China are to Japan and South Korea. However, the cruise routes between Japan and South Korea are vulnerable to the influence of the political relations between China, Japan and South Korea. Once there is a change in international relations, it will have a greater impact on the development of the cruise market in China. Other destinations currently available are farther from China's cruise terminals. Such trips will take longer time and higher economic cost of tourists. Thus, China's cruise market needs to expand the range of operation and explore more cruise routes. Although there are abundant cruise port resources, coastline resources and featured tourism resources, it is difficult to effectively link up with them with cruise tourism. The cruise routes in offshore areas have not yet been developed. At present, the South China Sea route is only at the stage of exploration. Its abundant and unique marine resources have not been fully utilized. In this case, only a small market scale has been formed. The single "Japan-South Korea Route" not only limits the diversified demand choices of Chinese tourists, but also restricts the scale of cruise market in China to a certain extent, and weakens its ability to resist market risks.

3.3 The Standardization and Openness of Cruise Products Sales Market Need to Be Improved

At present, cruise lines have strong ability to select and control the chartering party. However, in a multi-level system, the insufficient management of the end of the sales chain results in low reliability of the sales platform. Once there is a problem in one of the links, there will be disputes. Moreover, the management of downstream retailers from various cruise lines is relatively inadequate, and ticket price and space are almost out of control, which greatly increases the risk coefficient of the entire sales

chain system. At present, cruise tickets adopt “futures transactions” rather than “spot transactions”, and tourists can only get tickets before they travel. However, cruise products are different from other commodities. Tourists spend a lot of time and money for preparation. Unavailable travel will cause losses to tourists, and then disputes appear easily. In the redundant cruise distribution links, there is a phenomenon that travel agencies may submit incomplete or untrue tourist information to cruise lines, which is mainly because the information is distorted during its level-by-level transmission or travel agencies provide false information for self-protection. In this case, it is hard for cruise lines to get personal information of tourists in time, with certain loopholes. And it is difficult for cruise lines to contact tourists in time when dealing with problems, being more passive in case of emergencies. According to the *Tourism Law*, travel agencies operating outbound package tourism products must have the qualification of outbound tourism before they operate and sale products, making the cruise distribution channels “narrow and long”, which is not conducive to the expansion of distribution channels.

3.4 The Development of Inbound Cruise Tourism Is Still Relatively Slow in China

Inbound tourism is given top priority in the tourism industry in China. Its development depends on the construction of good tourist destinations where a good brand image is to be formed to gain attraction. For the moment, the main development pattern of China’s international cruise tourism is that Chinese tourists take luxury cruise ships owned by foreign cruise lines to Japan and South Korea etc., and the number of foreign tourists to China by cruise ship is still few, that is, there are fewer inbound cruise ships to ports in China. With an annual growth rate about 10%, the growth rate of inbound tourism of China had been at a relatively high level between 1996 and 2005. However, it dropped sharply after 2006. There was even a negative growth witnessed for three years in a row from 2012 to 2014. In order to promote the development of inbound cruise tourism, the “144-h visa-free transit policy for Jiangsu, Zhejiang and Shanghai” and the “15-day visa-free stay policy for international cruise tourist groups” were implemented, but the development effect was barely satisfactory. It is proposed to extend the time limits for cruise transit and entry visas further, and even to implement a whole journey visa-free policy for inbound cruise tourism. For example, maybe tourists who enter China by air and then tour by cruise ship could be regarded as only entering China once. In addition, although there are abundant tourism resources in Shanghai and its neighboring regions, the lack of comprehensive integration brings about the lack of mature cruise destinations, so Shanghai is not that attractive to inbound cruise tourists.

3.5 The Economic Contribution of Cruise Industry in China Needs to Be Improved

During the development of international cruise tourism in China, foreign cruise lines play an important leading role in the cruise market, and are a part of the most profitable links in cruise industry chain of China. The main revenue sources include cruise ticket sales, tourists' consumption on board and at destination, and so on. The majority of the revenue finally gets to the headquarters of foreign cruise lines. At present, China is engaged in only a few profiting segments in the international cruise tourism and the profitability is weak. Most operation revenues are from berthing fees of cruise terminals, fees related to cruise ship provisioning, price spread of travel agencies, etc., at a relatively low level in comparison with revenues of international cruise lines. The berthing fee and service package fee have a relatively high proportion in the total operating revenue, while other related supporting businesses of cruise ports bring in money at a lower level due to their underdevelopment. In the midstream and upstream of cruise industry chain in China, cruise design, manufacture, maintenance and other links have not yet made significant breakthroughs. They are in urgent need of a greater degree of policy innovation and financial support. The cruise enterprise headquarters economy has not yet reached a larger scale, and the development of the cruise industry chain is still in its infancy. The local cruise brand SkySea Cruises will also withdraw from the Chinese market in September 2018. Without the cruise fleet operation capability, local cruise route products and an operation team, tourists' robust demand for domestic cruise tourism is difficult to satisfy. Furthermore, the local cruise tourism for coastal zone tourism resources has not been developed. The structural imbalance of cruise tourism demand and supply is outstanding. The pressure facing the development of local cruise brands is great, resulting that their local economic contribution is also at a low level.

4 Analysis on the Development Trend of Cruise Industry in China in 2018

4.1 High-Quality Cruise Products Are Becoming the Mainstream of Market Development

China's economy is changing from high-speed development to high-quality development. New and old kinetic energy conversion, supply-side reform deepening, and continuous consumption upgrading have brought about industrial structure upgrading and life quality upgrading, and forced leisure tourism quality to be upgraded. Cruise tourism is just one of the typical upgraded tourism products. From the perspective of the entire tourism industry, the tourism industry in China is no longer developing a single format business. Diversified and trans-boundary development has become the

main theme of various business formats. Personalized and high-quality products have become the focus of tourism enterprises. With the continuous increase of China's per capita wealth and the day-by-day growth of middle class, people become more demanding for the content and quality of leisure tourism, a representative for spiritual and cultural consumption in China. Therefore, making life better will also lead and promote the upgrading of China's fourth consumption structure. High-quality development has become the theme of our time. Cruise tourism should also adapt to such changes. The development of high-quality products shall be accelerated to better satisfy people's needs for a better life. Cruise tourism services are intangible. Cruise products are tangible. They jointly determine the core competitiveness of international cruise enterprises. They are also an extremely important "supply side". To continuously promote the upgrading of cruise products, Norwegian Cruise Line's "Joy" launched the concept of "First Class at Sea"; Royal Caribbean International made every effort to create the concept of "Luxury Mansion on the Sea", and MSC Cruises launched the concept of "Yacht in Ship". Even if travel agencies have powerful channels, its image and benefits will be greatly ruined and reduced if there is no high service quality and excellent cruise tourism products. With the rapid development of cruise tourism, there are more and more online and offline cruise tourism service agencies, developing many tourism products. It seems that there are many kinds and patterns of products, but the homogenization of products is serious and the tourism experience is less satisfactory. Simple duplication and price competition have become useful strategies for competing for customers. Therefore, high quality of cruise products has become the mainstream of market development and a treasured trick to enhance the competitiveness in the cruise market and the attractiveness of the brand.

4.2 The Extension of Various Sectors of the Cruise Industry Chain Will Be Gradually Accelerated

From the perspective of supply side, the international cruise industry chain basically consists of three links: The first one is the design and building of cruise ships (In this link, the core of the cruise design is to grasp and reflect the Western noble culture, and the focus of building includes luxuriousness, comfort and safety); the second is the operation of cruise ships (Cruise lines are capital-intensive enterprises, and they adopt international operation. They are reflectors of economic globalization.); the third is the supporting construction of the terminal area, including the construction of cruise terminals, supporting facilities in port areas and other related infrastructures. From the perspective of international experience, with its development, the cruise tourism can naturally form an interdependent industry chain. Unlike other industries, cruise tourism is not a single industry but an industrial cluster composed of multiple industries with diversity and compositeness. From the perspective of international experience, with its development, the cruise tourism can naturally form

an interdependent industry chain. Currently, China is in a period when its economy is transforming from rapid growth to high-quality growth. It is a strategic opportunity period for the transformation and upgrading of the industry. The cruise industry is a part with relatively rapid growth and higher added value in the tourism industry, including cruise design and building, cruise operation, cruise port operation and related supporting industries and service industries. Its combination with the industry chain is an effective way to improve the economic benefits of the cruise industry.

In the upstream of cruise industry chain, large luxury cruise ships are hailed worldwide as “the jewel on the crown of shipbuilding industry” in the field of civil shipbuilding. They are higher-tech than airplanes. There are many kinds of mechanical and electrical equipment and various devices with advanced performance installed on board. Their satellite navigation systems, environmental protection systems, and sea water desalination systems, etc. represent today’s cutting-edge technology in the world. CSSC has vigorously promoted the building of large domestic cruise ships, and CSSC Cruise Technology will be built into a cruise business platform of CSSC in June 2018, responsible for cruise operation and supply chain investment etc. In March 2018, CMHI (Jiangsu) held a commencement ceremony for building of polar adventure cruise ships, opening a new era of domestic cruise ships for polar adventure.

In the midstream of cruise industry chain, China currently attracts and gathers a number of internationally renowned cruise lines such as Royal Caribbean International, Costa Crociere S.p.A, Norwegian Cruise Line, MSC Cruises, Princess Cruises, Star Cruises, Viking Cruises, etc. Some cruise lines have settled in Baoshan, Shanghai, including Costa Crociere Cruise Ship Management Company, MSC Cruise Ship Management Company, SkySea Holding International Ltd. and Taihu Cruises. Baoshan has successfully introduced more than 50 cruise enterprises, and the “cruise lines headquarters economy” has gradually become prominent. At present, among Chinese-funded cruise brands, there are cruise ships such as “Golden Era” registered in Malta, Bohai Cruises’ “Chinese Taishan” registered in Panama, Diamond Cruise International’s “Glory Sea” registered in the Bahamas. In terms of building local cruise brands, CSSC, CIC and Carnival Corporation have established a joint venture “CSSC Carnival Cruise Lines” to create the first world-class domestic cruise brand in China. China Merchants Shekou Holdings and Carnival Corporation signed a memorandum of cooperation to co-fund a shipping company, and Carnival Corporation and China Merchants Group will jointly create the first Chinese cruise brand that specializes in serving the Chinese market and owns and operates cruise products independently.

In the downstream of cruise industry chain, there is a need to further upgrade the cruise service, improve the capacity of serving for national strategies, optimize the cruise service supply, raise the supply quality, perfect the supporting facilities, enhance the satisfaction of the cruise service objects, refine the function layout of cruise port areas and surrounding regions, and better tourists’ experience of centralization of food, accommodation, transportation, travel, shopping and entertainment. For example, Shanghai is speeding up the development of the entire cruise industry chain by establishing a supporting industry platform for cruise ship manufactur-

ing, a public platform for cruise ticket sales, an allocation and distribution platform for cruise supply, and a commercial service platform for cruise tourism. Through establishing platforms, the radiation capacity of cruise services will be improved. The agglomeration development of the cruise service industry is to be promoted by optimizing the cruise economy business environment.

4.3 The Reception Capacity of Cruise Ports in China Will Be Further Enhanced

In terms of international cruise ports, coastal cities in China have established international cruise ports or reconstructed existing freight terminals one after another to gain the ability of berthing international cruise ships. At present, there are 15 cruise ports in China, including eight cruise terminals. At present, there are eight cruise terminals in China, including Shanghai Wusongkou International Cruise Terminal, Shanghai Port International Cruise Terminal, Tianjin International Cruise Home Port, Qingdao Cruise Home Port, China Merchants Shenzhen Shekou International Cruise Home Port, Sanya Phoenix Island International Cruise Terminal, Zhoushan Archipelago International Cruise Port, Xiamen International Cruise Center, etc. International cruise terminals have been built in cities such as Tianjin, Dalian in North China, Qingdao, Yantai, Shanghai and Zhoushan in East China, Xiamen and Fuzhou in Southeast China, and large-scale international cruise terminals have been built in cities such as Guangzhou, Shenzhen, Sanya and Haikou in South China. Furthermore, the construction of international cruise terminals in Beihai, Guangxi in Southwest China has also begun. Most cruise terminals are oriented as international cruise home ports, with related services carried out actively, leading to an obvious trend of homogenization. At present, the construction and planning of international cruise terminals are mostly implemented by local governments and enterprises independently. They didn't take the national situation into consideration, resulting in a large number of idle cruise ports and poor profitability. It is expected to achieve the coordinated development between the cruise home ports and the visiting ports during the development of international cruise ports so as to further improve the overall planning level of cruise ports.

4.4 The Cruise Market Distribution Mode in China Will Be Further Innovated

Compared with the US market, the revisiting rate in Chinese market is relatively low. In the US market, 80% of tourists will take the cruise again. While in China, the revisiting rate probably should be around 15%, which means that 85% of tourists are taking cruise ships for the first time. I believe there are many reasons. Firstly, China is

an emerging cruise market. Secondly, the itinerary is relatively monotonous, mainly focusing on four-night or five-night Japan-South Korean cruise products, which also leads to a decrease in revisiting rate. Another important reason is that cruise vacation is still a new way for people to spend their holidays in China, not as a way of life as the United States or Europe. At present, the cruise market in China is dominated by wholesales, featuring chartering mode. In fact, the chartering mode is only a phenomenon, the substantive problem lies in that Chinese market is a team market rather than a FIT market compared with the US market. There are so many levels in current sales model that getting information to the end consumers is actually much more difficult than FIT model of overseas fleet. New opportunities will be brought to the cruise industry in this digital age. Online bookings, official flagship stores and on-board Alipay consumption have also become the priority of cruise lines in 2018. In fact, more and more tourists will make reservations on the mobile phone or on the Internet. According to incomplete statistics, 70% of tourists currently book their tickets online and 30% of them book their tickets through the traditional travel agency, and this proportion will be decreasing. We firstly encourage advance booking, which helps to raise prices. Besides, we will provide real-time booking information for revenue management and pricing. Full communication with tourists is also quite necessary. In the process of communication, their experience of cruise products can be enhanced so as to optimize our profit margin and increase repurchase rate. In addition to the changes in consumers, another big change in China lies in the development of digitalization, such as digital payment, which can be said to be incomparable with other countries in the world. Therefore, the products we offered must conform to the new lifestyle and must meet the needs and challenges of the growing new middle class of China.

5 Suggestions on Promoting the Deepening Development of Cruise Industry in China

5.1 Investments in the Cultivation of Cruise Tourism Market in China Should Be Increased

Firstly, the publicity of cruise culture should be strengthened, including: intensifying the publicity of public media, encouraging the publicity of cruise culture in various public channels and platforms, and supporting the setting up of cruise columns in radio, television, newspapers, magazines, the Internet and other media channels, as well as the production of a series of public service announcements on cruise culture, and cruise-themed film and television works; strengthening the integration of industry communication channels and resources, promoting cooperation with railways, airlines, star-rated hotels and other units, and intensifying precision marketing promotion; providing financial support for hosting or participating in major domestic and international tourism exhibitions and cruise-themed festivals.

Secondly, the development of cruise tourist market in mainland China should be support, including: encouraging cruise lines and agencies to develop cruise tourist market in mainland China, support to establish a joint-way and collaboration mechanism for the airlines and railways in Shanghai, and advancing the orderly development of “cruise + aviation”, “cruise + railway”, “cruise + interprovincial bus” and other “other+” in order to provide tourists with more convenient transportation conditions; asking the government departments at all levels for issuance of relevant policies to encourage and support cruise lines and agencies to cultivate and developing tourists market from overseas and other provinces and cities.

Thirdly, the social influence of important cruise festivals should be enhanced, including: increasing the support for important cruise featured brand activities to further improve the social visibility and influence of Shanghai Cruise Tourism Festival and other activities that promote cruise culture communication; continuing to give full play to Shanghai’s influence and resource advantages in the Asia-Pacific cruise market and striving for a permanent presence of cruise-related conferences with greater international influence in Shanghai, such as Seatrade Asia Pacific Cruise Congress, so as to enhance its engagement in international cruise economic cooperation and competition.

Fourthly, the development of local cruise brands should be supported, including: highlighting the building of local cruise ships, supporting the development of associated industrial park of CSSC Cruises and improving the supporting system for building of cruise industry; actively calling for the issuance of special policies to support the development of local cruise brands from the national ministries and commissions, for low interest and discounts and preferential taxes and fees for the purchase of cruise ships, for the establishment of a special life limit system for mandatory scrapping of cruise, for the release of nationality restrictions on the crews of local cruises, and for the operation of inland and offshore routes for local cruises; Combine the basic development sources of China and Shanghai and the policy orientation of cruise industry in China and Shanghai to gather global superior resources and give full play to local innovation advantages of Shanghai, accelerate the organization of local cruise fleets and give priority support to the building of local cruise brand; Exert the policy and capital advantages of Shanghai in promoting the building of domestic cruise ships, and facilitate the building of local luxury cruise ships and master its own intellectual property rights.

5.2 The Well-Ordered and Competitive Development of Cruise Tourism Market in Shanghai Should Be Accelerated

Firstly, the supervision of the cruise tourism market should be strengthened. We should strengthen the supervision and management of related institutions operating cruise tourism products to ensure an orderly development of product sales channels;

incorporate the sales of cruise tourism products into Shanghai tourism industry management and integrity construction system for implementation of blacklist system; establish a regular mechanism of joint law enforcement among all departments and conference, to crack down on illegal space retention and other acts that disrupt the healthy development of the cruise market.

Secondly, support should be provided for building a cruise ticket management platform. We should implement the pilot tasks of ticketing system of the Ministry of Transport in an all-round way, and establish a public cruise ticket management platform with supervision and service functions such as certification and inquiry; research and establish a mechanism for the admission, evaluation, punishment and withdrawal of a ticket sales agent based on the management system.

Thirdly, cruise ticket control mechanism should be perfected. We should require cruise lines to establish an admission system and a supervision system for ticket sales agencies to specify their ranks and standards and carry out rating, registration, certification, assessment and supervision to authorized agencies, and grant high-ranking ones the right to issue tickets; encourage cruise lines to establish a management and control mechanism of ticket information, and improve the ticket refund & change system.

Fourthly, cruise lines should be encouraged to develop direct selling model. We should encourage cruise lines and their sales agencies to explore the distribution models of direct selling and retailing in line with the characteristics of cruise market in China and to develop boutique onshore routes for cruise tourism; allow cruise lines to sell cruise tourism related service products provided by other qualified enterprises on their sales platforms.

5.3 Favorable Conditions for the Growth of Inbound Cruise Tourism Should Be Provided

Firstly, building destinations of cruise tourism. Having nearly 50% of the global cruise destinations, the United States remains the world's largest cruise destination. To build China's cruise destinations, we need to compare domestic cruise cities with international cruise destinations, in order to identify our strengths and weaknesses. We should effectively integrate tourism resources to speed up the development of cruise destinations; enhance advertising for cruise cities around China to build attractive international brands as cruise tourism destinations; and to facilitate a unique development mode featuring "air-to-water linkage" and "water-to-water linkage". With the help of domestic and foreign tourism promotion conferences and exhibitions, we should make more efforts to advertise Shanghai cruise tourism to the world. For example, Shanghai could grasp the historical opportunity for vigorously promoting the integration of tourism in the Yangtze River Delta, and leverage this region's advantages such as rich tourism resources, convenient transportation, developed economy and preferential policies, in order to push forward the develop-

ment of inbound cruise tourism and increase tourism consumption, making greater contribution to cruise economy.

Secondly, we should make greater efforts to promote China's cruise tourism to the world. Cruise cities where preferential policies (such as 144-h visa-free transit and 15-day visa-free entry for international cruise tour group) are implemented should take the advantageous opportunity to attract international tourists to China by cruise ships. We should explore possible incentives for international cruise lines and foreign travel agencies who constantly organize foreign tourists for inbound tourism, and optimize favorable policies to further ease transfer at Shanghai Port for international guests, so as to nurture the growth of the cruise inbound tourism market.

Thirdly, we should offer better tourist service. We should, in accordance with the all-for-one tourism concept and the standards of international cruise tourism services, comprehensively improve the infrastructure of cruise tourism, optimize short-distance service at cruise ports, make transportation to the port more convenient, improve the facilities in the cruise port area, and enhance customer experience at the port. Additionally, we should ensure more efficient cooperation among the departments at the cruise port, promote innovations in the customs clearance system and model of the cruise port, and comprehensively promote the general application of advanced technologies, such as face recognition, to reach higher clearance efficiency. We should try to expand the coverage of the 144-h visa-free transit policy and the activity area for visa-exempted international cruise tour groups.

5.4 Policies that Are Conducive to the Development of New Cruise Routes Should Be Applied

We should apply to competent national ministries and commissions for favorable policies and incentives to create new cruise routes, especially long-distance routes; develop multi-port routes starting from Shanghai, and multi-destination routes involving Hong Kong, Macao, Taiwan and overseas ports; strengthen cooperation with foreign port cities to promote the development of multi-country multi-home-port cruise routes running with regularly scheduled cruise ships; and with necessary conditions, try to create destination-free cruise routes and routes to surrounding islands. We should continue to deepen the implementation of policies for "multi-port call" and routes involving Hong Kong and Macao; and try to change the current operation-after-approval system to operation-after-filing system. We should actively promote the development of "marine + river" cruise tourism by encouraging interaction between Shanghai cruise tourism and the upper-end aquatic tourism of cities along Yangtze River and in Yangtze River sub-region; explore and establish cruise routes covering the middle and lower reaches of the Yangtze River; and actively develop the tourism products combining marine and river transportation.

Chapter 3

Top 10 Hot Topics in the Development of China's Cruise Industry in 2017–2018



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Abstract The hot topics about development of China's cruise industry in 2017–2018 involve home port development, industrial policy, shipbuilding, meetings on cruise ships, government support, service upgrades and many other aspects, including: Wusongkou remains the world's fourth largest cruise home port by receiving more than 10 million visitors in a year; development of the cruise industry receives strong support from relevant policies; building process of domestic luxury cruise ships is accelerated to help build a large platform for collaborative development of cruise ships; new policies for cruise ship supplies are published for building an international cruise material distribution center; high-end domestic and international meetings have been held on cruise ships to explore innovative models of the international cruise industry; international cruise lines have adjusted their global development strategy to push healthy and sustainable development of China's cruise market; competent national government agencies have organized intensive researches about the cruise industry to facilitate the healthy development of China's cruise industry; the cruise

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lines are trying to build brands of international cruise tourism to help upgrade the cruise service industry chain; Shanghai has fully implemented the cruise ticket system and built a ticket platform to expand distribution channels; and the world's first themed cruise ship is born to promote the differential development of cruise products.

Keywords Cruise industry · Policy innovation · Mode innovation · Industrial upgrading

In the report of the 19th CPC National Congress, General Secretary Xi Jinping pointed out that socialism with Chinese characteristics has entered a new era. As a high-end sector of tourism industry, cruise tourism has increasingly become an important part of people's well-being. This is the fact also in line with the trend for upgrading the tourism consumption structure. Chinese people today have more diversified and multi-factored needs for a better life. Their longing for a happy life is a great force that drives China's cruise tourism industry to maintain rapid growth. In the development of China's cruise industry, many hot events have drawn industry-wide attention. Generally speaking, hot events are landmarks and milestones which have essential practical value and far-reaching impact on better promoting the development of the cruise industry.

In order to better understand the impact of hot events on the industrial development and takeaways for the future development, Shanghai International Cruise Business Institute has, with the joint effort of experts from the domestic and international cruise industry and academia, selected ten typical and influential hot events happened recently based on the development of China's cruise industry. The selection has been completed by using modern information technology after in-depth discussion of insights from the domestic and international cruise industry and academia. By describing and studying these events, we have deeply analyzed the rules, causes and results in order to provide better suggestions for promoting healthy and rapid development of China's cruise industry.

1 Wusongkou Remains the World's Fourth Largest Cruise Home Port by Receiving More Than 10 Million Visitors in a Year

1.1 Hot Event

On May 18, 2018, carrying more than 3400 passengers, MSC Splendida berthed at Shanghai Wusongkou International Cruise Terminal (WICT), a port renowned as "Eye of the East". Mrs. Ruth Arendt from Germany was lucky to be the 10 millionth passengers. As the 20th large cruise ship taking WICT as its home port, MSC Splendida will take its maiden voyage in China with 4000 passengers embarking on a five-day marine trip to and from Hakata, Japan. On July 13, 2018, the new passenger

terminal building at WICT will be put into trial operation, waiting for the arrival of three large cruise ships, namely, Majestic Princess, Norwegian Joy, and MSC Splendida. The number of inbound and outbound tourists will reach 21,000 on that day. This is the first time ever for a Chinese cruise ship port to see more than 20,000 inbound and outbound tourists in a day. At present, WICT has 2 new docks, as well as platforms, approach trestles, passenger terminal buildings and corridors, including a new hydraulic platform with an area of about 82,000 m², a new approach trestle of 620 m long, and two new passenger terminal buildings and corridors with an area of about 55,000 m². Over the extended coastline with total length of 1600 m, two 150,000-ton docks and two 220,000-ton docks have been built. When in operation, these facilities connecting water and land will enable WICT to host four ships at the same time, receiving 800–1000 international cruise ships and 6 million tourists annually.

1.2 Comments on the Event

As a “world-class business card” of Baoshan, WICT was officially put into operation on October 15, 2011. After leaving Singapore behind and becoming Asia’s largest cruise home port in 2014, WICT replaced Barcelona and became the world’s fourth largest cruise home port in 2016. Over the past six years, WICT has received more than 1600 cruise ships, and more than 10 million inbound/outbound tourists. In 2017, WICT received 466 cruise ships and nearly 3 million tourists, accounting for 40 and 58.8% respectively of the total in China. More than 80% cruise tourists in the Yangtze River Delta chose to depart from WICT, driving China to be the world’s second largest source of tourists after the United States. Currently, China has boosted its under-developed tourism industry and been striding on the road to become a country with big and strong tourism industry. Thanks to the strong push from the government and the market, China’s cruise tourism industry has nurtured a good market from the scratch. The cruise market is growing bigger and is expected to become a strong market with global influence. In addition, tourism diplomacy has also gained steadily progress. In the critical period when China’s cruise market has entered the stage featuring innovation-driven development and industrial restructuring, China’s cruise industry has embraced yet another golden era.

1.3 Important Enlightenment

We should align with the standards of world-class cruise home port, and try our best to build a global brand in the cruise industry. We should stay in line with the highest and best international standards, further enhance “Shanghai Cruise Service”, strengthen our capacity to serve the national strategies, offer better cruise services and improve the quality of supply, so as to help it become a hallmark and synonym of “quality service” for domestic and international cruise tourism. We should improve supporting facilities and enhance customer experience. By taking follow-

up construction projects of the cruise port as an opportunity, we should promote the development of a joyful, intelligent, and green terminal in an all-round way, building it as a model featuring mutual benefit, and strive to improve on-site and off-site facilities, so as to demonstrate substantial improvements with good image and great supporting facilities. We should take China International Import Expo as a major opportunity to leverage the huge tourist base of cruise home port, and to interface with this one-stop trading platform featuring “6 days + 365 days” service mode, providing year-round display, trading, service and other functions, to make Shanghai a more attractive and competitive cruise home port with brilliant brands for cruise shopping and consumption. We should establish national cruise port service standard and take the lead for trial. Drawing support from “Asia-Pacific Cruise Port Service Standard Alliance” platform, we should continue to lead the development of service standards for Asian cruise ports and fully launch the “International Health Port” program. Relying on the platform, we should enhance the influence of the cruise service function; We should make innovations in supervision system, so as to improve the leading edge of our cruise service. With the function of entry-exit inspection and quarantine system being combined with the customs function, we should take this opportunity to further deepen cooperation with customs and other departments, coordinate and enhance the cooperation among departments at the cruise port, deepen local supervision mechanism, and take the lead in building a model port for better service.

2 The Development of the Cruise Industry Receives Strong Support from Relevant Policies Published Across China

2.1 Hot Event

On July 25, 2018, the Ministry of Transport issued a plan for the implementation of *Guiding Opinions of the CPC Central Committee and the State Council on Supporting Hainan in Comprehensively Deepening Reform and Opening Up*, which proposed to build an international cruise home port in Sanya. The document is to guide Hainan to prepare an overall development plan for Sanya as a cruise home port, and to support the construction of supply base of duty-free oil, daily supplies and other cruise materials and maintenance base for Sanya cruise home port; support Hainan to develop service systems for exhibiting cruise ship designs, talent training and other matters; guide Hainan to introduce preferential policies to bring together cruise ship elements, attracting cruise-related companies to register in Sanya; support the development of new cruise route and the growth of Chinese cruise lines, so as to give full play to Hainan’s geographical and resource advantages, and support cruise lines to develop and operate cruise products involving Sanya and Haikou, while focusing on routes to Southeast Asia ports, Hong Kong, Macao and Taiwan. Approved by the Ministry of Transport, the depth of deep-water channel at Yangtze estuary has been increased from 80 to 90 m since January 1, 2018; Shanghai Maritime Safety Administration issued *Measures for Administration of Navigation Safety of the Deep*

Water Channel at Yangtze River Estuary (Trial), which has been in effect since January 15, 2018. In February 2018, Baoshan issued *Implementation Opinions on Accelerating the Development of Baoshan Cruise Economy*, in which it is specified that an annual fund of not less than CNY 100 million shall be allocated for three years since 2018, i.e. not less than CNY 300 million in the first round. On May 31, 2018, Xiamen Administrative Committee of Fujian Free Trade Zone issued *Interim Measures for Promoting the Development of the Cruise Supplies Industry in Xiamen Pilot Free Trade Zone* to reward companies engaged in cruise supply. In May 2018, Nansha District of Guangzhou issued *Measures for Supporting the Development of the Cruise Industry in Nansha District (Free Trade Zone)* (draft for comments), allowing a one-time subsidy up to CNY 5 million. In May 2018, Haikou issued *Measures for the Implementation of the Financial Subsidy for the Development of the Cruise Industry in Haikou*, also allowing a one-time subsidy up to CNY 5 million.

2.2 Comments on the Event

The continual growth of China's cruise market is closely related to the increasing demand for recreation tourism and the prosperity of the tourism industry. In 2017, the outbound tourists of China reached 133 million, maintaining the largest origin of tourists in the world. In the cruise outbound tourism market, China is the second largest origin of tourists in the world. China's cruise industry experienced major reforms and innovations this year, with the achievements far beyond the anticipation years ago. This is closely related to the strong support from national policies, vigorous promotion by industry associations, market development by cruise lines, rapid development of tourism industry, product innovation by travel service providers, intelligence of academia, education of talents in colleges, and upgrading of consumption structure in the tourism market. The cruise industry can enjoy better growth only with the help of preferential national policies.

2.3 Important Enlightenment

China is gaining greater share in the world cruise economy as the world's largest tourist source and tourism consumption country. However, the capacity of China's cruise market has declined. It is necessary to actively promote the rational deployment of the cruise fleet and continuously develop new cruise routes. We should strengthen the brand-oriented operation of cruise products by drawing out multi-level and diversified strategies for product/brand development according to the needs of the Chinese cruise market. As innovation is the driving source of enhancing the attractiveness of cruise products, we must develop diversified cruise products to boost the development of "cruise +" industry. With the international cruise economy entering into "China Era", China needs to deepen its reform and innovation especially in inter-

national cruise tourism cooperation, customs clearances procedures, cruise financial product innovation and tourist consumption promotion, so as to create favorable conditions for continual healthy development and reform of China's cruise industry. As numerous international cruise lines are busy contending for Chinese market, such keywords as "localized cruise ship", "local cruise line", "local cruise tourism", "China-customized cruise ship" and "off-shore cruise tour" have been popular ones in the cruise industry, and the international influence and market share of China's local cruise ships will rise gradually.

3 New Policies for Cruise Ship Supplies Are Published to Facilitate the Building of an International Cruise Material Distribution Center

3.1 Hot Event

Xiamen Customs is the first one in China to create the "container-in, bulk-out" mode for bonded cruise supplies. On July 16, 2018, totally 27 containers of large parasols, beer and other imported materials weighing 2.1 tons were quickly supplied to cruise SuperStar Gemini, marking the official launch of this new distribution mode for bonded goods at Xiamen Customs. This mode is China's first try in its booming cruise economy. In simple term, "container-in, bulk-out" mode requires procurement, as per the cruise operation schedule, of a certain amount of bonded ship supplies in advance, which are stored in bonded warehouses of the bonded port area after declaration, and then supplied to respective ships according to the actual demand of each voyage. Shanghai WICT has created a new mode in China for distribution of supplies to international cruise ships. This "quarantine only, no inspection" mode greatly increases the efficiency of supply. With the support of customs, inspection and quarantine authorities, the terminal has restarted direct supply operation for transit of international containers. In 2017, WICT supplied goods of totally 76 international containers to 20 ships, with a total value of USD 4.25 million, including more than 2000 varieties of goods. The annual supply for cruise ships exceeded CNY 400 million. From January to June 2018, totally 64 containers were transferred to 30 ships, with a value of USD 2.45 million.

3.2 Comments on the Event

Cruise supply is an essential part in the normal operation of the cruise ship. However, instead of being included in the management system for trade clearance, cruise supply is still completed by following regulations for ordinary freighter ships, according to China's current policy. This results in cumbersome process of trade clearance, export tax rebate, and international transshipment. As goods are stored in bonded warehouse before deliver to the cruise ship, their price contains relatively high tax, which makes

them less competitive in the international market. The ship supply business generally includes global bulk procurement by the shipping company, who transport the goods in containers to the bonded warehouse at the port before delivering them to a berthed cruise ship. Containers are transported to the cruise terminal for unpacking and loading on the day when the ship berths. Loading of contained goods will be under the supervision of local customs, inspection and quarantine authority and the terminal operator to create a “through loading” mode for the goods from imported containers to cruise ships. Under the innovative supervision modes of “import-and-supply” and “bonded warehouse-to-ship supply”, the food that needs to be directly transferred to a certain cruise ship after entry will only be quarantined without inspection if they meet the regulatory requirements. This not only simplifies inspection and quarantine procedures for supply of bonded food, but also enables one-stop operation of customs and inspection authorities by taking advantage of the bonded warehouse in the special customs supervision area. With supplies loaded onboard through “a fast channel”, the efficiency of the materials supply for cruise ships is significantly improved and the cost for customs clearance is significantly reduced. Cruise lines ceaselessly increase the transport capacity in Chinese market. More and more cruise ships operate homed at Chinese ports. However, the quantity of locally purchased materials is limited and it is not convenient to supply ships with the materials from abroad, which adversely affect the operation of ships and restricts the arrangement of routes. The perfection of the materials supply for cruise ships at home ports can ensure normal operation of the ships, facilitate route planning and help cruise lines to generally arrange their logistics and lower their cost.

3.3 Important Enlightenment

While innovative ship supply supervision process is in urgent need, the current modes of “import-and-supply” and “bonded warehouse-to-ship supply” are a positive innovation to the original cruise supply model. We suggest extending Free Trade Zone policies to fully cover the cruise port area to ensure the supply of cruise materials, as well as spare parts for maintenance of cruise ships, providing favorable development conditions for the extension of the cruise industry chain. If cruise lines locally purchase materials for ships, suppliers cannot enjoy the export tax rebate policy, leading the lack of price competitiveness between goods directly purchased in China and those purchased through “global procurement and distribution”, severely affecting the enthusiasm of cruise lines to conduct local purchase. We also suggest building bonded areas and warehouses for cruise ships, establishing a special approval process and supervision method particularly for cruise ships to simplify the procedure and promote the development of China's cruise supply industry. At present, China has adopted a strict approval process for cruise supply companies, which are also the beneficiary of tax rebate policy. It is recommended to allow local cruise lines to run their own cruise supply business in order to improve the revenue of cruise lines, especially Chinese cruise lines.

4 High-End Domestic and International Meetings Are Held on Cruise Ships to Facilitate Innovative Models of the International Cruise Industry

4.1 Hot Event

On November 1–3, 2017, with the theme of “Meeting the Belt and Road”, 2017 Seatrade Cruise Asia was held in Baoshan, Shanghai. Thanks to the unique insights for the industry and a lot of information released, this international event was highly praised by guests and attracted tremendous attention from the industry. The conference had grown bigger. More than 1000 delegates participated in the three-day event, including 193 executives from more than 20 cruise brands and more than 50 VIP speakers. The degree of internationalization had further improved. The overseas participants were from 34 countries and regions including the United States, Norway and Italy. During the conference, the International Cruise Talent Education Alliance and the International Cruise Research Institutes Alliance were established. From October 23–25, with the theme of “Taste, Quality, Brand”, 2018 Seatrade Cruise Asia will be held in Baoshan District. On December 1, 2017, the 2nd China International Cruise Ship Repair Forum and Global Cruise Shipbuilding Supporting Supplier Conference was held at Lake Meilan International Convention Center, Shanghai, to celebrate the founding of China Cruise Supporting Industry Alliance, and unveil China Cruise Supporting Industry Research Base. On November 6, 2017, the 12th China Cruise Shipping Conference and International Cruises Expo was held in Sanya, Hainan. As scheduled, on November 1–3, the 13th China Cruise Shipping Conference and International Cruises Expo (CCS13) will be held at Shenzhen, a home port in South China, under the theme of “New Era, New Features, and New Layout”.

4.2 Comments on the Event

In 2017, China’s cruise industry had maintained the market as the second largest one in the world, and one of the fastest growing cruise markets. China’s cruise industry has played a more important role in the world, and has become a powerful engine for the development of the world’s cruise industry. Because of the ceaselessly increased influence of Chinese cruise industry, the global influence of the international and domestic conferences relating to Chinese cruise industry is manifested ceaselessly. The international and domestic cruise conferences held in various Chinese places in 2017 attracted more and more attention from the world, with ever increasing influence, which has reflected the rising status of Chinese cruise industry in the world. The development of Chinese cruise industry benefits from strong intellectual support. To maintain a rapid, healthy and sustainable development momentum of China’s cruise industry, and invigorate it to compete with European and American

cruise markets, in 2017, a range of international or domestic conferences were held at many places to discuss topics on the development of China's cruise industry under various themes, and explore rules suitable for China's cruise industry.

4.3 Important Enlightenment

International and domestic conferences related to the cruise industry have provided a platform for the China's cruise industry to seek for international exchange and cooperation, and further strengthened cooperation in the international cruise industry. On the conference platform, China's cruise industry is able to have its voice heard, so as to enhance its international influence, expand international exchange and cooperation, and get closer to the international cruise market. As cruise industry is obviously about international business, China's cruise industry will enhance its global competitiveness and influence only by further strengthening international cooperation and achieving a win-win situation. The above-mentioned conferences attracted the experts from not only the cruise industry, but also other relevant industries. Cruise has strong industry relevance, and its integrative development with other industries is a main approach to extending the value chain of cruise industry and increasing its contribution to national economy. By encouraging industrial collaboration, China's cruise industry can not only improve its own performance, but also cast its effect on other industries through industrial linkages, so as to strengthen the influence of the cruise industry on the primary, secondary and tertiary industries, and make more contribution to the regional economy. In its development, China's cruise industry is facing a unique market environment and supply and demand structure, which ask for further research.

5 International Cruise Lines Adjust Their Global Development Strategy to Push the Healthy and Sustainable Development of China's Cruise Market

5.1 Hot Event

In 2018, international cruise lines in China gradually made strategic adjustments, which allowed for the upgrade of China's home port cruises. According to Royal Caribbean International's strategic route adjustments for its operation in 2019 and 2020 in April 2018, Quantum of the Seas will be assigned to Singapore in 2019, taking Marina Bay as home port from November 2019 to April 2020. It will take 34 voyages in these six months, including 4-night, 5-night and a few 7-night voyages mainly heading to Kuala Lumpur, Phuket and Penang. Ovation of the Seas will leave Tianjin for Seattle in May–September 2019 to deploy Alaska routes, USA. “Voyager

of the Seas” will be back to Australia for operation of Sydney route from 2019 to 2020. On March 20, 2018, Ctrip and Royal Caribbean International announced the closure of their local joint venture, SkySea Cruise Line. SkySea Golden Era was acquired by TUI Cruises and renamed as Marella Explorer 2. On May 27, 2018, they launched “Love with SkySea” program in Shanghai as the farewell. After the last voyage to Fukuoka, Japan, on August 29, the operation in China will end on September 2. According to 2019–2020 plan of Norwegian Cruise Line announced on July 18, 2018, Norwegian Joy is about to leave China for operation of Alaska route in April 2019. At the beginning of summer 2020, Norwegian Spirit will come to China for seasonal operation.

5.2 Comments on the Event

In recent years, China has overtaken Germany and become the world’s second largest source of cruise tourists. Seeing this momentum, cruise lines are rushing to take more shares in the market, assigning new and big ships to China, such as Norwegian Joy, Majestic Princess, and Genting Dream. As a local cruise brand in China, Sky-Sea Cruise Line has provided valuable experience for the development of China’s domestic cruise industry, and has cultivated a local cruise operation team, although it has withdrawn from China after three years of operation. By deploying large and innovatively-designed cruise ships to China’s home ports, internationally renowned cruise lines have caught the curious eye of domestic tourists. Given the huge development potential of the Chinese market, the competition of different cruise brands is conducive to the development of the entire industry. However, it is necessary to continuously improve the awareness and knowledge of Chinese tourists on cruise tourism. With the explosive growth of cruise tourism in Asia, we are seeing more and more routes and themes. While China’s cruise market has been growing drastically over the past few years, and attracted great stake from the world’s cruise giants, the price started to fall because the large supply was too much for the demand. Although Norwegian Joy and Majestic Princess are large cruise ships tailored specifically for China, they also choose to withdraw from the Chinese market. We have seen short-term and staged development of China’s cruise market, which will be full of vitality and attractiveness in the future.

5.3 Important Enlightenment

Shanghai has attracted many international cruise lines over the past few years, leaving fierce competition in the East China market and giving rise to problems such as homogeneous products and low-price competition. At the same time, with the constant development of the cruise market, tourists have increasingly deeper understanding of cruise tourism and multi-layer and further demands for the experience

on cruise ships. Under this background, the development of Shanghai cruise market is entering a new stage and truly differentiated and diversified cruise products are urgently demanded. How to develop in a healthy and orderly way and prevent homogenization and the low price problem has become a notable challenge in the fierce market competition. Currently, China's cruise market is experiencing rapid growth, facing many inevitable problems, and is restricted by simplistic cruise route pattern. In the future, cruise lines and travel agencies may conduct precise positioning of tourists and differential operation, offering products of high end, middle end and low end and winning tourists with personalized service rather than lower prices. As large and new ships enter the Chinese market, bringing more joyful experiences to tourists in their journey, they will change their old perception of cruise ships as a vehicle to a destination of recreation. It can be foreseen that the east China market, represented by Shanghai, will still gather the most deluxe and novel cruise ships in Chinese market in the future. As the less competitive cruise lines transfer to north China and south China markets, east China market will get out of the price war and maintain a certain ticket price level, which will be beneficial to the healthy development of cruise market. As more market potential being exploited, the industry will have a broader deployment area and provide more product options. The formation of a new industrial pattern will promote the sound and sustainable development of China's cruise market.

6 Brands of International Cruise Tourism Are Built to Help Upgrade the Cruise Service Industry Chain

6.1 Hot Event

Promoting the upgrade of cruise tourism services has become an important way to build market brands. In 2017, Xiamen launched an advertising model combining "cruise + destination". By enriching the content of marine tourism and round-the-island tours, the new model enabled the cruise industry to fully upgrade Xiamen tourism. We should promote the development of comprehensive service and support bases at cruise home ports, and try to start in 2018, so as to integrate such functions as procurement/warehousing/distribution of cruise supplies, crew service, cruise hotel service, sales/exhibition of products together, comprehensively enhancing the supporting role of the home port. Shekou Cruise Center of Shenzhen has partnered with Cathay Pacific and launched the "Sea-Air Cooperation" program to provide better service, which allows customizable intermodal services for passengers from the Pearl River Delta to and from the Hong Kong International Airport. On March 30, 2017, Shanghai Cruise Center launched the "High-speed Rail to Cruise Express" to expand the boundary of cruise tourism services, facilitate the operation of "Quick Clearance Cruise Barcode" program, increase the collaborative management efficiency of cruise port units, make customs clearance more convenient, and enable the cruise ports to

give faster response to safety warnings Furthermore, Suning Group and Ctrip have established Laox at Wusongkou Int'l Cruise Port, making it the first cross-border trading platform in China that allows users to placed orders within China and grab their delivery outside the border.

6.2 *Comments on the Event*

As a high-end sector of tourism industry, cruise tourism has increasingly become an important part of people's well-being. This is the fact also in line with the trend for upgrading the tourism consumption structure. Chinese people today have more diversified and multi-factored needs for a better life. Their longing for a happy life is a great force that drives China's cruise tourism industry to maintain rapid growth. As the essential foundation and a key part in the development of cruise tourism, the cruise port plays a fundamental role is therefore an irreplaceable foundation for enhancing tourist experience and creating a new symbol of Baoshan. In the process of building a moderately prosperous society in an all-round way, especially in the decisive stage, and after we have built a moderately prosperous society, people's buying power and demand for a better life will be much stronger, allowing them to pursuit high-end needs for leisure and great tours. The market should provide high-level products and services; and cruise tourism will also become the choice of a large part of tourists. Development of tourism should "always be centered on people", according to the *Tourism Development Plan for the 13th Five-year Plan Period*, "tourism industry should promote the all-round development of people, and be 'an industry for happiness' that enhances the quality of people's life." We could establish national cruise port service standards and be the first pilot zone; and with the help of Asia-Pacific Cruise Port Service Standard Alliance, we could lead the development of service standards for Asian cruise ports.

6.3 *Important Enlightenment*

In the future, we will establish a sound cruise culture advertising and promotion system, and promote China's international cruise tourism to the world with the help of domestic and international tourism promotion conferences and exhibitions. We should: strengthen cooperation and exchange with other Asian cruise port cities, introduce China's cruise tourism products to the rest of the world, and build global cruise tourism brands; enhance advertising for cruise destinations around China to make China's international brands more attractive; and accelerate the development of cruise destinations, including building more attractive international cruise destinations, linking cruise tourism to other quality tourism resources by designing special products and unique routes, so as to attract more foreign tourists.

7 The Governmental Departments Make Intensive Research on the Cruise Industry to Promote the Sound Development of Cruise Industry in China

7.1 Hot Event

The Chinese government increasingly values the development of cruise industry and increases attention to the development of cruise economy. On Jun. 2, 2017, the joint research group of the National Tourism Administration, Office of the Central Leading Group for Safeguarding Maritime Rights and Interests, Ministry of Transport, and Department of Development Planning of the National Development and Reform Commission, etc. conducted centralized research at Sanya Phoenix Island International Cruise Terminal. On Oct. 23, 2017, Deng Haiguang, Vice Governor of Guangdong, led a team to research the development situation of Nansha cruise tourism, and inspected China Communications Construction Cruise Culture Exhibition Center. On Aug. 1, 2018, Fan Jinlong, Member of the Standing Committee of the CPC Jiangsu Provincial Committee and Executive Vice Governor of Jiangsu, specially visited CMHI (Jiangsu) to research the progress of the luxury cruise shipbuilding project. On Sep. 4, 2017, Yu Guangzhou, the Minister of General Administration of Customs, led a team to research Shanghai Wusongkou International Cruise Terminal. In December 2017, Ying Yong, Deputy Secretary of the CPC Shanghai Committee and Mayor of Shanghai, researched Wusongkou International Cruise Terminal in Baoshan District, pointing out that the cruise economy is a new engine for Baoshan development, and overall planning for the upstream, midstream, and downstream industries should be strengthened, to build high-energy cruise economy industrial chain. In April 2018, Li Qiang, Secretary of the CPC Shanghai Committee, researched Wusongkou International Cruise Terminal, to inspect the priority maritime services for cruise ships and intelligent measures to facilitate citizens' outbound and inbound customs clearance, and listen to situation of the Terminal's construction and operation as well as the cruise industry development, and he proposed that the Terminal should be constructed into a world-class home port, act more actively, and strive to promote the Shanghai brand in the cruise ship area.

7.2 Comments on the Event

The intensive investigations made on the cruise industry by leaders from the national ministries and commissions and provincial governments show the increased attention to the cruise industry development. Cruise tourism has great development potential as an emerging way of travelling, and plays an increasingly important role in the process of driving economic growth and accelerating consumption transformation and upgrading. The economic leading effect of cruise home ports is so strong that many

coastal port cities have competed to carry out cruise port construction, thus promoting the cruise industry development. To better develop cruise tourism and enhance the cruise industry, the national ministries and commissions and local governments have introduced a series of relevant policies for tourism reform, cruise transport industry development, and tourism equipment manufacturing development, etc. to offer support. National policies and regulations embody the top-level design, guiding the cruise industry development of the country; while local policies and regulations are operable and supplement the national policies, promoting the overall development in different regions. Goals of relevant policies for the cruise industry have increasingly become diversified, and certainly, some of those policies still need further refining.

7.3 Important Enlightenment

The intensive investigations made on the cruise industry by leaders from the national ministries and commissions and provincial governments lay a solid foundation for the making of relevant policies of cruise industry. The extensive release of favorable policies for cruise industry at both national and local levels has dramatically driven the rapid development and ensured the sustainable and healthy development of the industry. However, the following issues should be paid attention to during future policy making: firstly, supportive policies for inbound cruise tourism shall be actively developed. Currently, the domestic inbound tourism market is not performing well. It is high time that inbound tourism was promoted by international cruise ships to change this situation. In order to make China a real tourism country, it is the development direction of cruise industry to develop inbound tourism through cruise tourism. Relevant policies need to extend to the whole cruise industry chain, and corresponding supporting policies shall offer support needed by development of each link. Currently, the national and local policies of China mainly focus on the midstream and downstream cruise industry, and those policies need to extend to upstream industry chain subsequently, and China needs to introduce further supplementary policies to encourage the development of cruise shipbuilding industry. Building, purchase, lease, and operation of cruise ships require huge funds and security from developed financial service system, and the port infrastructure construction also needs substantial financial support, etc.

8 Pilot Work and Trial Implementation of Cruise Ticket System Are Carried Out in China, and Relevant Ticket Platform Is Set up to Broaden the Distribution Channel

8.1 Hot Event

Since Mar. 31, 2018, Port of Shanghai has comprehensively carried out port entry and boarding upon ticket, making it the first port conducting comprehensive pilot work of cruise ticket system in China. As required by the port regulator, cruise lines and their agents (including travel agencies) shall uniformly print and issue the “quick customs clearance authentication codes”, and inform passengers to enter port, be cleared by the customs, and go on board upon such code, boarding pass, and valid certificate. Cruise ship and passenger information 72 h declaration system is implemented. Cruise lines and their entrusted shipping agencies shall, 72 h prior to cruise ship’s setting sail, stop sales of cruise tickets, and declare relevant information to China (Shanghai) International Trade Single Window platform truthfully as required. Arriving passenger boarding pass and identity examination mechanism is implemented. Shanghai Cruise Terminal comprehensively implements the arriving passenger boarding pass and identity examination mechanism: passengers shall present boarding pass and valid certificate after arriving at port, and the cruise port shall clear passengers upon manual examination or fast examination through “quick customs clearance authentication code”. From Apr. 1, 2018 to Dec. 31, 2018, A long-term mechanism is required to be formed, and relevant management provisions on Shanghai cruise ticket system, etc. are required to be introduced. Since Jun. 25, 2018, Royal Caribbean International has comprehensively conducted trial implementation of the cruise ticket system for the Ovation *of the Seas* operated at Tianjin International Cruise Home Port.

8.2 Comments on the Event

The cruise ticket system will boost the travel experience of tourists. Moreover, the 72 h information declaration system, port entry system upon ticket, and the supporting passenger security check system, etc. will greatly enhance the security capability of Port of Shanghai. After conduct of the pilot work of the ticket system, a brand-new “online check-in” system has been designed for tourists to complete check-in in advance according to the booking information and reserved mobile No. In addition, the credit card and cruise card binding that needed to be completed at the terminal in the past can now be completed during online check-in, which is expected to take only 6–8 min for the whole process. Tourists who complete online check-in may then print “ticket” by themselves. After implementation of “port entry and boarding upon ticket”, cruise cards will no longer be issued at terminal, but directly inserted in

card slots of cruise rooms. “Cruise ticket” is like a contract proof between tourist and cruise line that can further define rights, obligations, and responsibility boundary of cruise line, travel agency, terminal, and tourist, and help maintain legitimate rights and interests of the parties; tourists can have the proof for right safeguarding once they have any dispute with the cruise line, so that their legitimate rights and interests can be better guaranteed. Shanghai International Cruise Tourism Service Center has started using the “port entry and examination system upon ticket”, to achieve real-time monitoring of port entry data, statistics and analysis of traffic by hour, emergency dispatch control, and other port and terminal control functions. It was also revealed that the port’s customs clearance integration might be hopefully realized with the implementation of the cruise ticket system.

8.3 Important Enlightenment

China’s cruise market has now entered the stage of in-depth market expansion and product iteration. As the Chinese cruise market has just emerged for a short time and it is not mature enough, for the incomplete marketing system and information management, cruise lines have limited contact to Chinese market, they will still rely on middlemen for market expansion, and the chartered boat model will continue to be the main marketing model. With the further development of Chinese cruise industry, however, other marketing models will be tried as well. In the second decade of cruise industry development, how to innovate in cruise products and avoid homogenization and low-price competition, how to extend the channels to the inland and expand the passenger sources, and how to establish new partnerships besides the chartered boat model have become the bottleneck and common concerns of cruise industry. Under this background, channel providers and middlemen have strengthened communication, and there have been frequent forums and conferences about cruise channel distribution to discuss the future channels of Chinese cruise industry. They will reduce the proportion of wholly chartered ships, continue to develop small and medium-sized customers, and flexibly adopt cooperation modes including chartering, half chartering, resale of bought-out cabins in a large quantity, and resale of bought-out cabins in a small quantity. Constructing a broader and more efficient channel sales system will still be the main strategy for cruise lines’ marketing in China. Chinese cruise market has a huge space. With the ceaselessly increased supply, the market needs to be arranged more rapidly, and the marketing and channels need to be diversified. Cruise lines should realize further allocation and coordination with large agencies and underwriters, so as to achieve balance in the most efficient way and drive the market together. Under the circumstance of guaranteeing fast destocking to recover costs through chartering, etc., cruise lines may expand sales of single tickets, increase proportion of direct selling, increase profitability, and conduct differentiation and adaptive positioning.

9 Domestic Luxury Cruise Shipbuilding Is Accelerated, and a Coordinated Development Platform for Large Cruise Ships Is Built

9.1 Hot Event

An important direction in promoting the transformation and upgrading of China's ship industry is to promote domestic cruise shipbuilding. On Jul. 17, 2018, State-owned Assets Supervision and Administration Commission of the State Council held a video conference with persons in charge of central enterprises and local state-owned assets supervision and administration commissions, which summed up the work of the first half of 2018, and arranged key tasks in the second half, clearly proposing to build a coordinated development platform for large cruise ships in the second half of 2018. On Jul. 31, 2018, CSSC held the Cruise Industry Development Leading Group Meeting, and announced the Decision of CSSC "On Adjusting Cruise Industry Development Leading Group and Setting Up Project Administrative Command Line for '2 + 4 Large Cruise Ships Project'". CSSC Chairman Lei Fanpei proposed to: firstly, accelerate improvement and operation of relevant entities of cruise project; secondly, accelerate rallying support from the national and local governments; thirdly, accelerate negotiation and signing of 2 + 4 large cruise shipbuilding contract; fourthly, accelerate conducting adaptive transformation of cruise ships and accomplishing preparations before shipbuilding.

9.2 Comments on the Event

Promoting domestic large cruise shipbuilding is a necessary requirement for implementing relevant national strategy and meeting people's demand for a better life. In 2016, the first cruise industry fund of CNY 30 billion in China was set up in Baoshan, and China's first international cruise industrial park: Shanghai CSSC International Cruise Industrial Park was also settled in Baoshan, to provide cruise shipbuilding with professional supporting services. In September 2016, CSSC, China Investment Corporation, Carnival Corporation & plc, Fincantieri, CSSC Cruise Technology Development Co., Ltd., and Shanghai Waigaoqiao Shipbuilding Co., Ltd. jointly signed the MOA for the building of 2 + 2 large luxury cruise ships with 133,500 gross tons, which would be built by the cruise shipbuilding joint venture of CSSC and Fincantieri, and be launched in 2023 and 2024. Cruise shipbuilding is a necessary requirement for promoting the transformation and upgrading of China's ship industry, and is of great and far-reaching significance especially to the transformation development of

CSSC; it will be conducive to driving CSSC's ship and ocean business to transform and upgrade and to promoting CSSC to optimize industrial structure and transform towards mid- to high-end industry, and will produce combined driving effect for the high-quality development of CSSC.

9.3 Important Enlightenment

Luxury cruise shipbuilding is one of the issues that China's shipbuilding industry has not solved. At present, the global luxury cruise shipbuilding mainly concentrates in the two European builders: Italian Fincantieri and German Meyer Werft that account for over 90% market share of the global medium and large cruise shipbuilding. The large cruise shipbuilding centers are mainly in the Europe, with annual capacity of 7–8 ships, while the annual cruise ship demand is 15, about twice of the supply, showing quite high supply-demand imbalance. Accelerating achievement of the local design and building of cruise ships will help achieve the strategic target of local design and building of large cruise ships, help upgrading and innovation of "Made in China", and bring growth of the whole industrial chain. The waiting list has already extended to 2027. As the cruise tourism market of China is in the ascendant, the imbalance in supply and demand for cruise ships creates even eager demands for local cruise ships. In a context that supportive services need upgrade and the state encourages the introduction of high-end equipment for transformation, carries out the supply-side reform and upgrades tourism consumption, more and more opportunities rise for the investment in cruised ship operation, building of local cruise ships and local supportive services focusing on incremental demands of the domestic cruise industry. There is a prospective market. Faced with major opportunities brought by rapid development of Chinese and Asia-Pacific markets and significant increment of cruise ship demands, China needs to speed up the pace of localized building of large-sized cruise ships.

10 The World's First Cartoon Theme Cruise Ship Is Built, Promoting the Differential Development of Cruise Products

10.1 Hot Event

Cruise ship thematization is an important means to improve the cruise product differentiation, and an important basis to increase market segment competitiveness. On Jan. 25, 2018, the Cartoon Network of the global media giant Turner Asia Pacific announced that it would cooperate with the cruise management company: Oceanic Group to launch a cruise ship themed by popular Cartoon Network characters, which

would be the first Cartoon Network-branded cruise ship and named Cartoon Network Wave, and would satisfy personalized tourism through the experience of story-telling. It is similar to Disney cruise ships' integration of Disney culture. It will start its maiden voyage at the end of 2018 with Singapore as the home port, and its passenger cabin will have 11 floors to hold 2000 tourists. According to the released information, this ship was inspired by some iconic shows, such as *Adventure Time*, *Powerpuff Girls*, *ben10* and *We Bare Bears*. This ship will initiate the "world's first immersive type vacation at sea" where fans will experience familiar scenes on land in the 800 theme rooms and suites, as well as restaurants, cafes, and bars. And, such experience will bring various kinds of entertainment, activity, and recreation functions, including retail and dining options. This cartoon cruise ship will produce revolutionary changes to the cruise travels in Asia-Pacific region, and stands for a new path for Turner to integrate cartoon into life.

10.2 Comments on the Event

Cartoon Network Wave will departure to 13 hot tourist destinations of Asia-Pacific region, including Singapore, Malaysia, Thailand, mainland China, Hong Kong, Taiwan, South Korea, Japan, and Australia, etc. The arrival of this cartoon cruise ship reflects the quality development trend of cruise tourism. Promoting the immersive cruise tourism development will better satisfy the demand of the parent-child market segment of China, and bring more product options to cruise ship. This wholly cartoon theme cruise ship project is also an important attempt of the Cartoon Network under Turner to use cartoon characters in the Chinese market, so as to meet the rapidly growing Chinese cruise tourism market and cartoon character application demand. During the trip, the cruise ship facilities will not be separated from each other, each family will be able to experience familiar scenes with cartoon immersion, and parents will be able to share stories of love and bravery with children through cartoon characters both generations are familiar with. Chinese tourists will have the chance to meet cartoon stars in *We Bare Bears* and *Powerpuff Girls* of Cartoon Network as well as *Tuzki* under its parent company: Turner, and experience a special parent-child trip at sea.

10.3 Important Enlightenment

Emerging cruise fleets must implement differentiation strategies to achieve development, and such differentiation shall not only reflect in the characteristic cultural elements of cruise ships in hardware design, and cultural characteristics in cruise product services, but also in differentiated characteristics in route planning and design. The arrival of this theme cruise ship brings a cool breeze to the Chinese cruise market and shows differentiation in cruise product, and will especially provide a good product

option for the parent-child market. However, in my opinion, there are also some issues. Firstly, the Chinese name, “凯威号”, is too “Chinese”, and lacks an international temperament; name is the most important foundation for forming a market brand, and above all, shall be easy to remember and form resonance in the market, and in my opinion, the above name is deficient in this aspect because it easily makes people remember the theme cruise, but not the brand name. Secondly, Cartoon Network is quite famous, but not so in the Chinese market, not so to the children, in which case, they will not easily generate strong interest, affecting repeat purchase rate. Thirdly, what’s the most important for a theme cruise is the theme, namely, IP (intellectual property), which is the biggest selling point, requiring continuing to keep tourists feeling the freshness.

Part II
Special Articles on High-Quality Tourism:
Common Value and Government
Governance

Chapter 4

Research on Mechanism for High-Quality Development of Cruise Tourism Under the All-for-One Tourism Background



Jianyong Shi, Ling Qiu and Xinliang Ye

Abstract General Secretary Xi Jinping mentioned in the Report at the 19th CPC National Congress that as socialism with Chinese characteristics has entered a new era, China's economy has been transitioning from a phase of rapid growth to a stage of high-quality development, and the principal contradiction facing Chinese society has evolved; what we now face is the contradiction between unbalanced and inadequate development and the people's ever-growing needs for a better life. As a high-end tourism format for leisure and vacations, cruise tourism has become the fastest-growing part of the international tourism that continues to grow with 8% compound annual growth rate, and will maintain good development prospects in the future. China has become the world's second largest cruise tourist market within just a decade under the circumstance of extremely low penetration, and cruise tourism has gradually become an important part of the better life of people. Under the background of new era, it's necessary to stick to the new development ideas, promote coordinated development of cruise tourism and all-for-one tourism, accelerate the all-for-one development of cruise tourism, and promote cruise tourism to shift from rapid growth to high -quality development.

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1 Introduction

At present, China has shifted from a country short of tourism to a big tourism country and tourism power, and China's cruise tourism has grown from nothing under the strong impetus of the government and market and gradually shifted towards a big cruise market and strong market with global influence. Ranking first among global outbound tourist source countries and fourth among global inbound tourism host countries, China is striding forward to a tourism power, and tourism has become a strategic pillar industry of the national economy and a happiness industry closely linked with the people. In 2016 Summer Davos, the brand-new concept of the "five happiness industries" of tourism, culture, sports, health and old-age care was first proposed by Premier Li Keqiang, with the tourism ranking first among the five happiness industries. Cruise tourism, a high-end business format of the tourism, increasingly becomes an important aspect of people's pursuit of a happy life, which is in line with the general trend of tourism consumption upgrade (Wang et al. 2017). China ranks second in the world in terms of cruise tourist number in global cruise market, and Shanghai has become a cruise home port that is the largest in Asia-Pacific region and fourth largest in the world, with status largely rising in global cruise industry structure. China's cruise tourism economy has been growing rapidly in recent years, with cruise industry structure being gradually improved, and quality of cruise tourism market enhanced synchronously. To better satisfy people's growing needs for a better tourism life, it's necessary to develop quality tourism to continue to increase effective supply and high-quality service of tourism, and cruise tourism is an important aspect thereof. To develop cruise tourism, it's necessary to strengthen the combination of cruise tourism and all-for-one tourism, treat certain areas as complete cruise tourism destinations, make cruise tourism a superior industry, strengthen planning and unified layout, optimize public service supply, boost city-industry integration, strengthen integrated management, and continue to enhance the modern, intensive, quality, and international levels of cruise tourism, so as to better satisfy cruise tourism consumption needs and promote benign interaction and integration of cruise tourism development and urban development.

2 New Development Situations of the Cruise Tourism in China

2.1 *Shifting from Rapid Growth to High-Quality Development*

From the perspective of the development experience of the international cruise tourism, the development phases of the international cruise tourism can be divided into germination, growth, and maturity phases (Wang et al. 2016). The initial stage of the development regional cruise tourism is mostly dominated by outbound tourism. The cruise tourism market gradually expands, the cruise products get richer and richer, and the pursuit of quantity is transformed to the pursuit of product quality. In the growth stage, cruise tourism changes from the domination of outbound tourism to the synchronization of outbound tourism and inbound tourism, but the scale of outbound tourism is greater than that of inbound tourism as a whole. In the maturity stage, the outbound cruise tourism and inbound cruise tourism develop synchronously, with the scale of outbound tourism basically equivalent to that of inbound tourism. From 2006 to 2017, the total voyages of cruise ships received by China reached 5807, wherein, 3720 were from home ports, and 2087 were from ports of call; visits of outbound and inbound tourists received reached 18.13 million, with 14.82 million via home ports, and 3.3072 million via ports of call. Voyages received by China's home ports maintained the growth trend, from 18 in 2006 to 1098 in 2017, increasing by 60 times. Voyages received by China's ports of call maintained a high number from 2006 to 2010, however, it showed a declining trend from 2011: declined to 71 in 2013, and continued to decline after the brief growth in 2014, and reached 83 in 2017.

In January-June 2018, the number of ships berthed on China's cruise ports showed a clear downtrend; The voyages of cruise ships received by China reached 447, with a year-on-year decrease of 16%, with visits of outbound and inbound tourists received reaching 2.285 million, with a year-on-year growth of by 9%, wherein, voyages of cruise ships from home ports received reached 402, with a year-on-year decrease of 15%, and that from ports of call received reached 45, with a year-on-year decrease of 26%, and visits of tourists from ports of call received reached 95,600, with a year-on-year decrease of 26% (Table 1).

The market demands for cruise tourism will continue to increase in China, as the income level of urban and rural residents are increasing steadily, the consumption structure continues to speed up upgrading, the people's health level is largely improved, the paid leave system is gradually implemented, the holiday system is constantly improved, and the people's demands for leisure and vacation rapidly are increasing in China (Ye et al. 2014). Tourism has been established as a "happiness industry" that becomes an important area for benefiting and important content of improving people's livelihood.

Table 1 Development and changes of China’s cruise market in 2006–2017

	Cruise ships from home ports ship-time	Tourists via home ports (10,000 persons)	Growth rate (%)	Cruise ships from ports of call ship-time	Tourists via ports of call (10,000 persons)
2006	18	1.8	–	304	36.51
2007	11	3.2	78	336	34.73
2008	28	5.7	78	318	43
2009	40	10.3	81	219	24.08
2010	79	22.2	156	215	25.88
2011	110	18.8	–15.30	162	29.05
2012	169	41.22	119.20	106	24.47
2013	335	102.4	148.40	71	17.75
2014	366	147.9	44.40	100	24.47
2015	539	222.4	50.40	90	25.6
2016	927	428.9	93	83	27.76
2017	1098	478	11.40	83	17.42
Total	3720	1482.82	77	2087	330.72

Data source China port association cruise terminal branch

2.2 Decline of Cruise Market Gains Leading to Decline of Cruise Transport Capacity

As the cruise market shows oversupply in China, the drawbacks of chartering mode become prominent, and the cruise market prices decline clearly; even in summer, the peak tourist season, cruise market prices decline because of increased price competition caused by increased market supply. The decline of the market gains causes many cruise lines to start to adjust their strategic layout, to send cruise ships to the Mediterranean or Alaska market. The average penetration of the cruise market in China is far lower than the international level, compared to the market penetration of countries with developed cruise industry in the world (Ye and Sun 2007). According to data of the Cruise Lines International Association (CLIA), the average market penetration is about 3.2% in North America, that is about 2% in the Europe, but that is only about 0.15% in China; the cruise market penetration in Shanghai has yet exceeded 1% so far, with low repeat purchase rate, despite the fact that Shanghai Cruise Terminal has developed into the cruise home port that is the largest in Asia and fourth largest in the world. Compared with the US market, the revisiting rate in Chinese market is relatively low. In the US market, 80% of tourists will take the cruise again. While in China, the revisiting rate probably should be around 15%, which means that 85% of tourists are taking cruise ships for the first time (Fig. 1).

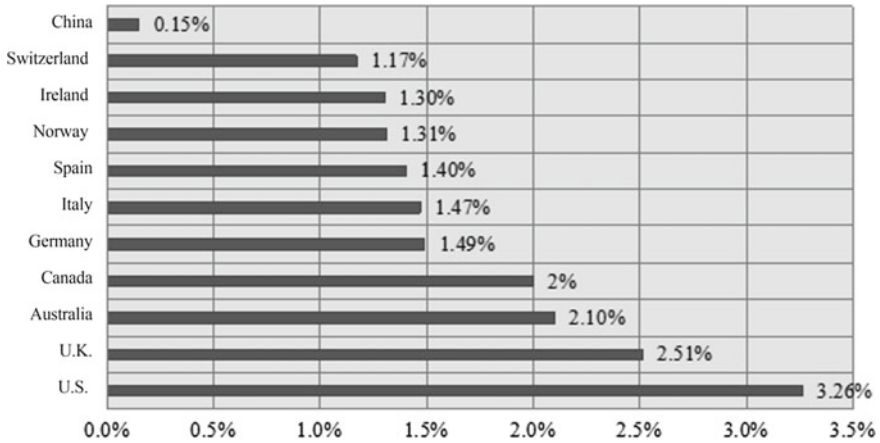


Fig. 1 Comparison diagram of market penetration of global cruise industry in 2018. *Data source* Cruise lines international association

There are 16 cruise ships at home ports of China in 2018, 2 less than the 18 in 2017. In 2018, Royal Caribbean Cruises has launched *Quantum of the Seas*, *Ovation of the Seas*, and *Voyager of the Seas*; MSC Cruises has launched *Splendida*; Costa Crociere has launched *Serena*, *Atlantica*, and *Fortuna*; Star Cruises has launched *SuperStar Virgo*, *Superstar Gemini*, and *Superstar Aquarius*; Norwegian Cruise Line has launched *Joy*; Princess Cruises has launched *Majestic Princess*; Dream Cruises has launched *World Dream*; Diamond Cruise has launched *Brilliant Of The Seas*; Bohai Cruise has launched Chinese *Taishan*; while, SkySea Cruise Line’s *Golden Era* will fully withdraw from the Chinese market in September 2018. In March 2018, Costa Crociere’s *Victoria* launched the Mediterranean route, and MSC’s *Lirica* headed for the Mediterranean; from September 2018, *Majestic Princess* will be operated in the Australian cruise market, with Sydney as the home port in summer from September 2018 to March 2019. Even the *Joy* of Norwegian Cruise Line tailored for the Chinese market will join Norwegian *Bliss*, etc. from April 2019 to start the Alaska route together (Table 2).

2.3 Economic Contributions of Cruise Tourism at a Low Level

Consumption of cruise tourists, crew, and cruise lines, operation expenses of cruise fleets, as well as cruise shipbuilding and maintenance, etc. are main sources of direct economic contribution of the cruise industry. From the perspective of market, foreign cruise lines dominate Shanghai cruise market, insufficient cultivation of cruise market leads to insufficient market penetration, imbalance of supply and demand,

Table 2 Development and changes of the cruise market in China in 2018

Cruise lines	Cruise ships	Change	Aggregate tonnage	Standard capacity	Market layout
Royal Caribbean	Quantum of the seas	Routine	16.78	4180	Shanghai
	Ovation of the seas	Routine	16.78	4180	Tianjin/Hong Kong
	Voyager of the seas	Routine	13.8	3284	Shenzhen/Hong Kong
MSC Cruises	Splendida	Addition	13.8	3274	Shanghai
Costa Cruises	Serena	Routine	11.45	3780	Shanghai
	Atlantica	Routine	8.56	2680	Shanghai/Shenzhen
	Fortuna	Routine	10.3	3470	Qingdao/Dalian
Star Cruises	SuperStar Virgo	Routine	7.53	1804	Shanghai/Shenzhen/Qingdao
	SuperStar Gemini	Addition	5.07	1532	Xiamen/Qingdao/Haikou
	SuperStar Aquarius	Addition	5.13	1511	Qingdao
SkySea Cruises	Golden Era	Routine	7.24	1814	Shanghai/Xiamen/Shenzhen
Norwegian Cruise	Joy	Routine	16.77	3850	Shanghai/Tianjin
Princess Cruises	Majestic Princess	Routine	14.3	3560	Shanghai
Diamond Cruise	Splendida	Routine	2.45	1200	Haikou/Lianyungang
Bohai Cruise	Chinese Taishan	Routine	2.45	1200	Sanya/Dalian
Dream Cruises	World Dream	Addition	15.13	3352	Guangzhou/Hong Kong

Data sources Calculated by the authors

structural imbalance of outbound and inbound tourism, strong substitutability of cruise products, and most direct economic income such as ticket income, ship consumption, and destination shopping flowing abroad; operating income of cruise ports includes cruise berthing, site leasing, and cruise supply, etc., wherein, berthing fee income accounts for the major part, for example, the berthing fee income of Shanghai Wusongkou International Cruise Terminal all accounted for about 70% of the operating income in 2015–2017. The midstream and upstream cruise industry chain, including cruise ship design, building, and maintenance, etc., is less developed, with supporting industries still in the initial stage (Ye and Sun 2007). From the perspective of cruise fleet operation, Shanghai has yet successfully built a local cruise fleet; devel-

opment of the local cruise industry under single ship mode has entered the bottleneck period, which is difficult to make high economic contribution to the locality.

The development of the cruise home port economy needs to be linked up with the all-for-one tourism development idea: it's necessary to start from the overall situation of area economic development, unify cruise tourism development planning, integrate various quality resources, form a converging force of all-for-one tourism development and cruise tourism development, advance "cruise plus", promote cruise tourism industry integration and city-industry integration development, to better drive cruise economic contributions, and achieve mutual promotion and improvement of economic benefits, social development benefits, and ecological environment benefits of cruise tourism.

3 New Development Trends of the Cruise Tourism in China

3.1 All-for-One Tourism Is Becoming the New Development Direction of Cruise Tourism

In the development of the tourism in China, tourism was first treated as a cause and foreign affairs work in 1980s, and has then gradually achieved industrial and market-oriented development; tourism development plays an increasingly important role in the nation's economic development, and its closer relationships with people's lives as their living standards rise lead to gradual improvement of its status; tourism has now comprehensively integrated into the national strategic system. As to the development and changes, China's tourism has developed from single market to three markets: outbound, inbound, and domestic tourism markets with comprehensive prosperity (Sun et al. 2016). As tourism consumption continues to upgrade, the traditional scenic spot tourism pattern has failed to meet the needs of modern grand tourism, and tourism development has gradually shifted from construction of scenic spots, attractions, hotels, and restaurants to all-for-one tourism.

All-for-one tourism is a panoramic and full-covering type of the tourism industry, a kind of scientific and systematic tourism with optimized resources, orderly spaces, rich products, and developed industries, and an important strategic orientation in the tourism development of China. It stands for the shifting from extensive and inefficient method to refined and efficient method and from closed tourism self-circulation to "tourism plus", and will open a new pattern of joint contribution and sharing. China is now implementing the tourism supply-side structural reform path promoted with all-for-one tourism as the main line; developing cruise tourism requires making all-for-one tourism the new development direction, strengthening cruise tourism infrastructure supporting, improving public services, advancing integrated development, and innovating product supply, to have cruise tourism achieve comprehensive, integrated development with urbanization, industrialization, commerce and trade, and transport, etc., construct a smooth and convenient transportation network system,

strengthen environmental protection, and promote joint contribution and sharing. Demonstration areas for China cruise all-for-one tourism development shall be created based on Experimental Areas for China Cruise Tourism Development using the development idea and thought of all-for-one tourism, to promote industry integration and industry-city integration, comprehensively strengthen new features for cruise tourism development (Sun et al. 2016), have development achievements benefit tourists and local residents, etc., and construct the new pattern of joint contribution and sharing of cruise all-for-one tourism.

3.2 High Quality Is Becoming the New Theme of Cruise Tourism Development

Driving China's tourism to shift from rapid growth to high-quality development is in line with the general trend of China's economy shifting from rapid growth to high-quality development, and is an important task of improving the tourism level, inevitable direction of better satisfying people's needs for a better life, and important foundation for promoting the sustainable development of tourism. People's needs for a better life have become increasingly diversified and hierarchical, and their longing for a happy life has become increasingly strong, which is the important internal impetus to the rapid growth of China's cruise tourism. Fast growth of people's needs for a better life and continuous realization of a better life are what behind the growth of the cruise market size in China. And rate of such growth has far exceeded previous expectations, which is the result driven by the marine power strategy and Belt and Road Initiative of China, the result of China's shifting from a country short of tourism to a big tourism country, ranking first among global outbound tourist source countries and fourth among global inbound tourism host countries, and striding forward to a tourism power, and the result of Chinese people's tourism demand shifting towards high quality, and mid- to high-end market.

Tourism, a strategic pillar industry of national economy, is now at the key node of shifting from rapid tourism growth to quality tourism development, no matter from the perspective of the national macro development requirements or its own developmental need (Dai 2016). This golden development period of China's tourism is also the golden development period of China's cruise tourism. People's tourism needs have evolved into more extensive, more diversified, and more multilayered needs for a better life. High-quality development has become an important pivot and impetus for the supply-side reform of tourism economy of China, driven the shift towards the brand-new quality era of international cruise tourism, and brought enhancement of people's sense of happiness into a new era. People's consumption capacity and needs for a better life will become stronger, and their needs for leisure and tourism will be at a higher level during the process of building a moderately prosperous society in all respects, especially the decisive stage thereof, and after building of such society, therefore, the tourism market requires product and service provision at a

higher level, and cruise tourism will become an important choice for people's travels (Li et al. 2016). Especially, the *Tourism Development Plan for the 13th Five-year Plan Period* proposes that tourism development should "stick to people orientation, promote all-round development of human beings through tourism, and become a happiness industry that improves the quality life of the people." People's needs for a better life become increasingly broad, and consumption needs maintain rapid growth. Compared to other ways of travelling, cruise tourism can bring a stronger sense of happiness to people.

3.3 Policies Are Becoming New Support of All-for-One Development of Cruise Tourism

All-for-one tourism has been raised as a national strategy, and it has become one of the 100 new words of country governance of the CPC Central Committee since the Eighteenth National Congress of the CPC. In July 2016, during the inspection in Ningxia, General Secretary Xi Jinping pointed out, "Developing all-for-one tourism is on the right track and should be stuck with." The Report on the Work of the Government by Premier Li Keqiang in 2018 clearly proposes to "create all-for-one tourism demonstration zones". In March 2018, the *Guiding Opinions on Promoting Development of All-for-One Tourism* issued by the General Office of the State Council shows the high attention of the CPC Central Committee with comrade Xi Jinping as the core to all-for-one tourism development, and proposes to create all-for-one tourism demonstration zones, build models of all-for-one tourism development, form experience that can be drawn on and promoted, and establish benchmarks for new development of all-for-one tourism (Li 2016). It gives explicit policy support and development orientation in terms of advancing integrated development and innovating product supply, strengthening tourism services and improving satisfaction index, strengthening infrastructure supporting and improving public services, strengthening environmental protection and advancing joint contribution and sharing, and implementing systematic marketing and building brand images, etc., and gives explicit support in terms of financial support, guarantee of land and sea used for tourism, guarantee of talents of tourism, and professional support of tourism, etc., to provide good policy support for promoting the all-for-one development of cruise tourism, benefit more the creation of cruise tourism development demonstration zones, and lead the development of cruise all-for-one tourism of China.

4 New Mechanism for High-Quality Development of Cruise Tourism Under the All-for-One Tourism Background

4.1 Promoting the Effective Fit of Cruise Tourism Supply and Market Demand

In China, the development of cruise market must be fully and closely linked up with the national conditions and the people's conditions, cruise products need to better satisfy people's actual needs on the basis of internalization, and cruise tourism shall not be contrary to the law of satisfying people's needs for a better life. During the development of cruise tourism, factors such as urban-rural differences and vacation system perfection of China should be fully considered, to launch cruise tourism products more suitable for the consumption habits of the Chinese tourists. Development of local cruise tourism should be promoted, more cruise ships with Chinese cultural characteristics should be launched, the development of cruise tourism at the South China Sea should be vigorously promoted, and more cruise tourism destinations should be constructed, to attract more tourists from Japan, South Korea, Europe, and America to be on cruise tours. Publicity and promotion of cruise tourism should be increased, especially publicity of cruise products to the central and western regions, to have more tourists from central and western regions know more about cruise ships and raise cognition of cruise tourism.

Development of the cruise market of China needs the joint efforts of each party. Looking into 2018, China's cruise market will still proceed in hardship, the number of cruise ships berthed and tourists will decline significantly, and the opening of China-South Korea route will still be unknown. As to the new transport capacity, only MSC Splendida will be added on the basis of the World Dream in 2017, Venezia and Spectrum *of the Seas* will be added in 2019; new cruise ports will still be under construction, chartering will still exist, and resale of bought-out cabins will gradually prevail, however, better development could be achieved only on the basis of constantly improving product quality, strengthening product promotion and publicity, and channel construction. The signs of maturity of China's cruise market are that tourists maintain high repeat purchase rate and are no longer attracted only in reliance upon new ships, distribution channels are diversified, price matches value, and demand promotes supply, instead of supply, low price or low quality driving demand.

4.2 Building High-Quality Sources of Market Tourists and Product Structure

Currently, the development of the inbound cruise tourism is still slow in China, especially under the background of low proportion, low frequency, and low repeat

purchase rate of foreign tourists who travel in China. According to the statistical data, 79.8% of inbound tourists were first-time tourists to China in 2016, (low repeat purchase rate) affecting the development of inbound cruise tourism. China has rich tourism resources along the coast, however, mature cruise tourism destinations have not formed, especially, South China Sea market, cruise tourism around islands, and off-shore cruise tourism, etc. have not been fully developed. The development of the cruise tourism market needs the participation of more market players, wherein, travel agencies play an important role in cruise culture communication. Travel agencies in eastern China account for 50% of total of China, those in central and western China account for 41%, and those in northeast China only account for 9%. More cruise lines need to promote cruise tourism more in central and western China, to promote the regional structure of cruise market to become more balanced. The development of the cruise tourism destinations should combine more effectively with lives of local residents, to have all-for-one tourism better applied in cruise tourism, have cruise tourism play a bigger role and produce bigger influences, and promote satisfaction of local resident's needs for a better life through cruise ships.

In China, the development of cruise tourism has many issues with industrial structure, market structure, and income structure, etc.; cruise tourism market has problems of price competition and service quality decline; cruise onshore excursions have yet been fully exploited. China's cruise market is shifting from higher-than-expected growth to steady development, from development that focuses too much on quantity to market structure transformation and upgrading, and from stimulating demand through large and new ship supply to guiding supply changes through demand; deepening understanding of the law of market, constantly increasing attention to product quality, valuing development of new products, and improving tourist experience and satisfaction will all provide stronger guarantees for people's longing for a better life (Guo and Chen 2016).

4.3 Promoting the Construction of Integrated Cruise Tourism Destinations of Areas

The development of all-for-one tourism treats certain areas as complete tourism destinations, with tourism as the superior industry to achieve organic integration of area resources, industry integrated development, and joint contribution and sharing of society, and drives and promotes coordinated development of the economy and society through tourism, being a new idea and pattern of area coordinated development. All-for-one tourism is a panoramic and full-covering type of the tourism industry, and a kind of scientific and systematic tourism with optimized resources, orderly spaces, rich products, and developed industries. All-for-one tourism emphasizes the matching of tourism development and resources and environment carrying capacity, and is a positive and effective mode of protection by way of exploitation. As a high-end tourism format, cruise tourism requires high-end consumption environments and

high-end supporting services; cruise home ports can be relied on to build surrounding areas into international cruise home port cities with complete service functions, gathering of high-end business formats, business prosperity, and gathering of talents, so as to form modern service industry cluster areas where commercial service industry is developed, recreational facilities are perfect, and fashion consumption highly concentrates. As a vanguard in developing cruise tourism in China, Shanghai centers on the transformation development goal from “cruise terminal”, to “cruise port”, and then to “cruise city”, sticks to the development idea of “port-city integration”, and strives to promote the cruise city construction. The Shanghai International Cruise City project has a gross floor area of 243,000 m², and will be built into an urban complex where will gather the cruise industry and be integrated with grade 5A office building with landscape, shopping center themed by sea and air exploration, and 5-star business leisure hotel.

Advantages of rich tourism resources of cruise port cities shall be given full play to, integration of characteristic tourism resources shall be strengthened, harbor-city collaboration and industry-city integration shall be promoted, and modern cruise tourism cities complete with supporting facilities and integrated with “ship, harbor, city, tourism, shopping, and entertainment” shall be built. Coordinated development of cruise tourism and all-for-one tourism shall be promoted, all-for-one development of cruise tourism shall be accelerated, design of characteristic products and fine routes shall be strengthened, routes with different durations such as half-day characteristic tour, one-day essence tour, two-day experience tour, and in-depth cultural tour shall be developed and formed, leisure tourism resources of cruise port areas shall be developed energetically, and joint development of cruise tourism and local quality tourism resources shall be achieved.

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Chapter 5

Research on High-Quality Development Pattern and Path Improvement of Cruise Tourism in China



Ping Su, Shaojun Shen and Junqing Mei

Abstract Cruise tourism is a high-end form of modern tourism, the pursuit of high-quality tourism experience becomes the real demand of more tourists, so that cruise tourists experience a more quality-assured cruise tourism products, is to consolidate and enhance the international competitiveness of China's cruise market an important aspect. At present, there are some problems in China's cruise tourism market, such as unbalanced market supply and demand, unstable attraction of inbound cruise tourism, low interaction between cruise tourism and other tourism resources, etc. To promote the development of cruise product quality and specialization, to promote the transformation of cruise tourism to quality service, and to construct characteristic cruise tourism. The cruise market product system, the construction of a new order for the healthy development of the cruise tourism market, the creation of good basic conditions for inbound cruise tourism, the construction of a new cruise tourism market development system to further enhance.

Keywords Cruise tourism · Competitiveness · Quality tourism · Sustainable development

1 Introduction

The three tourism formats of domestic tourism, inbound tourism, and outbound tourism have achieved full prosperity in China that ranks first among global outbound tourist source countries and fourth among global inbound tourism host countries. Tourism has become a hotspot of social investment and a big comprehensive

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industry. In the era of mass tourism, people's needs for leisure and vacation rapidly grow, the pattern that pays too much attention to market scale has fallen behind and shifted to high-quality development that is already a development trend and consensus of the tourism community. Tourism itself is people's spiritual consumption, and quality is the soul of modern tourism. China has already possessed a huge scale and volume after the pursuit of scale growth for years. In the new era, there is a need to pursue more the improvement of quality, traditional tourism format and pattern will be replaced by new ones, and it's necessary to build the "China services" with Chinese quality, and build fine tourism products. The *Opinions of the State Council on Accelerating the Development of Tourism Industry* clearly proposes to make the tourism industry a strategic backbone industry of the national economy and make it a more satisfactory modern service industry to the people. The *Opinions of the State Council on Promoting Reform and Development of the Tourism Industry* clearly proposes to promote shift of tourism service onto high-quality service, to realize organic unification between standard service and individualized service. The *Opinions on Further Promotion of Tourism Investment and Consumption* proposes to focus efforts on improving the soft environment for tourism consumption, establish and improve standards for the quality of tourism products and services ..., and improve mechanisms for tourism complaints processing and service quality supervision. Tourist satisfaction is an important premise to promote the sustainable development of the cruise market, and enhancement of such satisfaction needs to be based on tourism quality improvement, to increase market competitiveness with better products and reduce substitutability. Cruise tourism is a high-end format of modern tourism. Pursing high-quality tourism experience has become a real demand of more tourists, while promoting high-quality development of cruise tourism is also an important foundation for promoting growth of cruise market size. Cruise tourism will gradually return to the right track of gaining competitive advantages in reliance upon product and service quality improvement, and to have cruise tourists experience cruise tourism products with more quality assurance is an important aspect of consolidating and improving the international competitiveness of the cruise market of China.

2 Analysis on the Cruise Tourism Development Situation in China

2.1 The Global Cruise Tourism Market Is Providing a Good Environment for China

The size of global cruise market maintains steady growth. According to the latest report of the Cruise Lines International Association (CLIA), in 2018, cruise ships will maintain the growth situation, and cruise market size is expected to reach 25.80 million visits, and to reach 37.60 million visits in 2025. According to the latest statis-

tics, the order for global luxury cruise ships has increased to 113 ships, with amount totaling USD 67 billion. International cruise lines including MSC Cruises, Princess Cruises, Norwegian Cruise Line, TUI Cruises, Star Cruises, and Costa Crociere, etc. have contracted with Italian Fincantieri and STX France, etc. for shipbuilding, with the latest delivery time already arranged to 2027, wherein, orders for 30 expedition cruise ships are expected to be delivered between 2018 and 2024. Cruise lines paid €5.6 billion to European shipyards in 2017, which are expected to build 66 new cruise ships by 2021, with total value exceeding €29.4 billion. Economic contributions of the cruise industry have continued to increase, including direct economic contribution, indirect economic contribution, and induced economic contribution. The economic contribution of European cruise industry reached USD 56.3 billion in 2017, increased by 17% compared with 2015 (Table 1).

According to data of CLIA, in 2017, there were 66 cruise ships in Asian cruise market, with 35 cruise brands, and cruise market size reaching 4.24 million tourists, increased by 36.7% compared with the 3.10 million in 2016, while the growth of global cruise market size was only 4.4% in 2017, meaning that the growth of Asian market was 8.34 times that of the world, which was directly associated with the good economic foundation of Asia.

2.2 The Size of the Cruise Tourism Market in China Is Progressing While Maintaining Stability

According to the *Report on the Tourism Work of China 2018*, the total tourism income achieved will reach CNY 5.98 trillion in 2018, with a year-on-year increase of 13%. In 2017, China's outbound tourism market reached 131 million visits, and outbound tourism spending reached USD 115.29 billion, with a year-on-year increase of 6.9 and 5.0%, respectively. The goals expected for 2020 are that the total tourism market size reaches 6.7 billion visits, total tourism investment reaches CNY 2 trillion, and total tourism income reaches CNY 7 trillion. In 2018, China continues to comprehensively promote supply-side structural reform, push the quality improvement and speed increase of social and economic development, promote steady development of economy, and implement the Belt and Road Initiative, etc., which provides a good environment for the cruise tourism development, however, the development of the cruise tourism market size has experienced a staged decline.

In the first half of 2018, China received 447 voyages of cruise ships, with a year-on-year decrease of 16%, and received 2.285 million visits of outbound and inbound tourists, with a year-on-year increase of 9%, wherein, it received 402 voyages of cruise ships from home ports, with a year-on-year decrease of 15%, and 2.189 million visits of outbound and inbound tourists via home ports, with a year-on-year increase of 11%, received 45 voyages of cruise ships from ports of call, with a year-on-year decrease of 26%, and received 95,600 visits of outbound and inbound tourists via ports of call, with a year-on-year decrease of 26%. In the first half of

Table 1 Building orders of global new cruise ships in 2018

Cruise lines	Cruise ship name	Cost (unit: USD one million)	Tonnage	Passenger volume (unit: person)	Target market
Carnival Cruises	Horizon Cruise	780	135,000	4000	Europe/Caribbean
Royal Caribbean	MS Symphony of the Seas	1300	227,625	5400	Europe/Caribbean
MSC Cruises	MSC Seaview	950	154,000	4140	Europe
TUI Cruises	Mein Schiff 1	625	110,000	2900	Europe
Seabourn Cruise	Ovation	350	40,350	604	Global
Norwegian Cruise	Bliss	1100	164,600	4200	Alaska
Ponant Cruise	Le Clamplian	110	1000	180	Global
Hurtigruten Cruise	Roald Amundsen	220	2000	600	Europe
Scenic Cruises	Ecliplc	175	16,500	228	Global
Celebrity Cruises	Edge	900	117,000	2900	Caribbean
Holland America	Nieuw Statendam	520	99,000	2660	Caribbean
AIDA Cruises	AIDInova	950	183,900	5000	Europe
Mystic Cruise	World Explorer	100	9300	200	Global

Data sources Cruise lines international association

2018, the voyages of cruise ships berthed in China were down by 85, only four ports had at least 50 voyages of cruise ships berthed there, including Shanghai Wusongkou International Cruise Terminal, Tianjin International Cruise Home Port, International Cruise Terminal of Guangzhou Port, and Shenzhen China Merchants Shekou International Cruise Homeport, and many cruise ports had less than 30 voyages of cruise ships berthed there, wherein, Zhoushan Archipelago International Cruise Port only had one voyage, and Yantai Port and Xiuying Port had 0 voyages. Shanghai Port International Cruise Terminal that receives the largest number of cruise ships from ports of call only received 11 voyages of inbound cruise ships in the first half of this year, markedly less than the 17 voyages in 2017; Sanya Phoenix Island International

Table 2 Number of home-port and visiting-port cruise tourists received in 2018

Port	Number of home-port tourists in January-June 2017	Number of home-port tourists in January-June 2018	Year-on-year growth (%)	Number of visiting-port tourists in January-June 2017	Number of visiting-port tourists in January-June 2018	Year-on-year growth (%)
Shanghai	118.9	126	5.9	5.79	4.08	-29
Tianjin	38.4	32.97	-14	2.64	2.27	-14
Sanya	0	0.68	-	2.00	0.64	-68
Xiamen	6.45	11.65	81	1.51	1.82	21
Qingdao	4.92	2.32	-53	0.11	0.03	-70
Zhoushan	0.132	0	-100	0.48	0.035	-93
Dalian	2.32	2.31	0	0.34	0.66	91
Guangzhou	19.76	24.56	24	0	0	-
Haikou	0	0	-	0	0	-
Shenzhen	6.32	18.37	191	0	0.0092	-
Yantai	0	0	-	0	0	-
Total	196.8	218.9	11	12.91	9.56	-26

Data source CCYIA

Cruise Terminal was the largest port of call of China in 2017, but it only received four voyages of cruise ships from ports of call in the first half of 2018, with a year-on-year decrease of 33% (Table 2).

2.3 Cruise Tourists' Requirements for Product Quality Are Becoming Increasingly Higher

As China's cruise tourism market develops, cruise ship form enters the upgrading period, and improving cruise product differentiation and quality becomes an important development direction and competition strategy. Many cruise brands, in order to better attract Chinese tourists, have promoted the cruise product upgrading, improved service quality, changed to use new and large cruise ships, and launched theme products. According to the statistics of Tuniu.com, in terms of cruise brand selection, Royal Caribbean's *Quantum of the Seas*, Costa's *Serena*, Royal Caribbean's *Ovation of the Seas*, Norwegian's *Joy*, Costa's *Fortuna*, Royal Caribbean's *Mariner of the Seas*, Dream Cruises' *World Dream*, *Majestic Princess*, Costa's *Atlantica*, and SkySea's *Golden Era* rank top 10 by popularity. Cabin environment, catering and

food, performances on board, onshore excursion itinerary, and theme activities, etc. are what tourists are most concerned about. And tourists have increasingly higher requirements for onshore routes, with personalized needs lifted significantly. Chinese tourists' outbound tourism is no longer limited to just buying, and their in-depth travel and self-service travel have become increasingly common. They pay more attention to outbound tourism experience and quality, and spend more and more on catering and cultural recreation.

In order to better meet Chinese tourists' needs for high-quality products, international cruise lines combine more Chinese elements fully with western cruise culture, for example, Chinese food such as hot pot and noodles is brought to cruise ships; Costa has joined hands with the 100-year brand: Quanjude Roast Duck, to integrate the Italian style and Chinese cuisine and further promote cultural exchanges between Italy and China; Ornaments with colored painting on Dream Cruises' Genting Dream and World Dream, etc. are integrated with "Chinese elements"; the Joy of Norwegian Cruise Line has phoenix, lotus, and auspicious cloud totems in red, yellow, and blue colors. In terms of cruise decoration, free sketch paintings of Chinese flowers, birds, insects and fishes are specially hung in some places. In terms of recreational facilities, more creative elements have been added, for example, FlowRider and Ripcord by iFly, etc. are available from Royal Caribbean's Quantum *of the Seas*, Go Cart and VR Game, etc. are available from Norwegian's Joy, and waterslides, etc. are available from Dream Cruises' World Dream.

3 Analysis on the Problems in the Cruise Tourism Market of China

3.1 Imbalance of Market Supply and Demand

In recent years, China's cruise market has experienced staged imbalance between supply and demand, resulting in lower profitability of cruise lines and declined experience of tourists (Wang 2017). The staged oversupply results in cruise tourism products to experience fierce price competition, a large number of chartered travel agencies to slid into loss, and foreign cruise lines to start to adjust transport capacity put into operation in China: Royal Caribbean's Mariner *of the Seas* and Princess Cruises' Sapphire Princess with Shanghai as home port left the Chinese market in 2017; Princess Cruises' Majestic Princess and Costa Crociere's Victoria operated with Shanghai as home port will say goodbye to the Chinese market in 2018; and Royal Caribbean's Quantum *of the Seas* will leave for Singapore in 2019.

From the perspective of market supply, the rapid growth of China's cruise market has caused cruise lines to centrally put cruise ships with large scales into operation within a short time. According to the data of home port cruise ships deployed at Shanghai Wusongkou International Cruise Terminal in 2017, 7 among the 12 home port cruise ships reached 100,000 ton, and the Quantum *of the Seas* with the largest

gross tonnage has standard passenger capacity of 4180 people. The cruise market supply has a structural surplus in China. Relevant department of China has not approved the pilot work of open-sea cruise route because, among other reasons, it is difficult to support visa without destination according to the existing laws and regulations and to control gambling tools on cruise ships. Long routes do not match the vacation system and costs (Shi and Sun 2017). Cruise products are now mainly based on 4–5 day short trips; as to the development of long trip products, most passengers cannot afford the time cost under current vacation system of China, which restricts the consumer group development. “Multi-port call” helps enrich the route design, promote port collaboration, and enhance attractiveness of ports of call. However, according to requirements of the *Announcement on Foreign Cruise Ships’ Conduct of Multi-port Call Business in China* of the Ministry of Transport, the multi-port call of foreign cruise ships belongs to domestic transportation that may be conducted only upon approval. The tedious application procedure and long approval time affect the enthusiasm of cruise lines. It’s difficult for service capacity of cruise port supporting facilities to meet demands within the short term, and for cruise ports to satisfy catering, accommodation, leisure and entertainment needs of tourists (Ye et al. 2014).

3.2 Attractiveness of Inbound Cruise Tourism to Be Enhanced

Shanghai’s efforts in cultivating and developing overseas cruise market are slightly insufficient, besides the insufficient cultivation of local cruise market. The inbound cruise tourism in China currently attracts inbound cruise tourists in the form of port of call. From January to June 2018, the development of inbound cruise tourism decreased significantly. The number of visiting-port cruise ships decreased remarkably. The number of visiting-port cruise ships received in China was 45, showing a significant decrease from the 61 in 2017. Even Shanghai Port International Passenger Transport Center that receives the most visiting-port cruise ships in China received only 11 inbound cruise ships in the first half year; and the number was significantly lower than the 17 in 2017. Sanya Phoenix Island International Cruise Terminal was China’s largest visiting port in China in 2017, but the port only received four visiting-port cruise ships in the first half year in 2018, showing a year-on-year decrease of 33%.

The outbound and inbound tourism of the cruise market has structural imbalance. From the perspective of market attractiveness, design of domestic cruise tourism products lacks richness and diversity, and domestic travel agencies are insufficient in overseas market expansion capacity (Sun et al. 2016), resulting in domestic and Shanghai cruise markets to be difficult to attract inbound tourists; publicity and introduction of Shanghai tourism are not much seen on some cruise ships, and some cruise staff members are not familiar with Shanghai’s tourism resources, and have low awareness rate of 114 h visa-free transit policy and 15-day visa-exemption entry

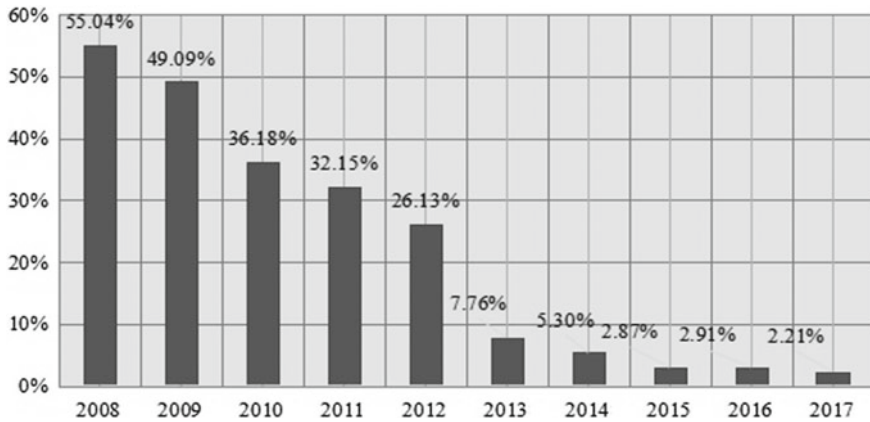


Fig. 1 Change diagram of proportion of inbound cruise tourists in Shanghai in 2008–2017. *Data source* Calculated by the authors

policy for foreign tour groups by cruise, etc. It's difficult to increase motivation of foreign cruise lines in expanding inbound cruise tourism market in China because the cruise customs clearance and multi-port call policies in China have not been in line with international policies (Fig. 1).

3.3 Low Interaction Between Cruise Tourism and Other Tourism Resources

Currently, cities of many cruise ports are famous tourist cities in China where there are rich tourism resources, however, the development of cruise tourism in China is not much linked up with other types of tourism resources, resulting in tourists to fail to fully experience different tourism formats during the travel, not conducive to better improving the whole experience of and satisfaction toward cruise tourism. Cruise tourism of Shanghai where the largest cruise home port of Asia-Pacific region is located is insufficient in resource integration and joint development with tourism brands such as Huangpu River Cruise and Disney and with Jiangsu, Zhejiang and other surrounding areas, and lacks good overall design of tourist routes and brand publicity (Ye and Sun 2007).

The joint development of Shanghai cruise tourism and Yangtze River Delta tourism resources needs to be strengthened. The U.S. is still the world's largest cruise tourism destination, and accounts for nearly 50% share of global cruise tourism destinations. It's necessary to compare the construction of Shanghai and other international cruise city destinations, make clear advantages, and look for gaps, to thus construct Shanghai cruise tourism destination. There are 946 tourist attractions in Yangtze River Delta, accounting for 22.9% of the total in China, wherein, there are 27

AAAAA National Tourist Attractions, accounting for 20.8% of the total in China, and 254 AAAA National Tourist Attractions, accounting for 22.9% of the total in China. It's necessary to effectively integrate Shanghai and surrounding tourism resources, accelerate construction of Shanghai cruise tourism destination, and cultivate the cruise market, to boost the sense of gain of the people toward cruise tourism. However, there is a lack of good integration and joint development for the rich tourism resources of Yangtze River Delta. Despite the rich inland river tourism resources and cruise port resources in Shanghai (Ye and Sun 2007), Shanghai is insufficient in developing characteristic inland river tourism resources and conducting collaboration with other cruise ports in Yangtze River Delta, and has not conducted full integrative development of cruise tourism.

4 Suggestions on Countermeasures for Promoting High-Quality Development of Cruise Tourism

4.1 Constructing a Characteristic Cruise Market Product System

Promote the quality and characteristic development of cruise products, and drive cruise tourism to shift towards quality services. Support the tourist routes with characteristics and different periods that depart from Shanghai. Encourage and support cruise lines to open routes with Shanghai as port of call, and increase the voyage density in a scientific and orderly manner. Strive for policy support and convenience for opening new cruise routes from the relevant national ministries and commissions, develop multi-port call cruise routes departing from Shanghai and combination routes that include Hong Kong, Macao, Taiwan, and overseas ports (Mei and Ye 2018), strengthen cooperation with foreign port cities, promote development of fixed routes with multiple countries and home ports, and conditionally open cruise routes to nowhere and to surrounding islands. We should continue to deepen the implementation of policies for “multi-port call” and routes involving Hong Kong and Macao; and try to change the current operation-after-approval system to operation-after-filing system. Attract cruise ships with excellent quality and distinct characteristics to open Shanghai home port route, and form a cruise tourism product system that has rich hierarchy and is well-ordered. Support market players such as cruise lines to organize and operate theme cruise voyages with distinct characteristics of Chinese culture, and encourage Chinese cultural performance groups and performing arts companies to perform on cruise ships in European and American markets, to constantly increase influence of Chinese culture and promote tourism diplomacy.

4.2 *Creating a New Order for the Sound Development of Cruise Tourism Market*

We should strengthen the supervision and management of related institutions operating cruise tourism products to ensure an orderly development of product sales channels; incorporate the sales of cruise tourism products into Shanghai tourism industry management and integrity construction system for implementation of blacklist system; Set up a normalized mechanism of joint consultation and law enforcement of departments, and crack down on behaviors disturbing the sound development of the cruise market such as illegal stocking up on berths (Sun 2015). Support the establishment of cruise ticket management platforms. We should implement the pilot tasks of ticketing system of the Ministry of Transport in an all-round way, and establish a public cruise ticket management platform with supervision and service functions such as certification and inquiry; research and establish a mechanism for the admission, evaluation, punishment and withdrawal of a ticket sales agent based on the management system.

Improve the cruise ticket control mechanism: cruise lines shall establish the ticket sales agency access system and regulation system, define levels and criteria of agencies, conduct rating, filing and certification, and assessment and supervision of their authorized agencies, and grant sales agencies with higher levels the right to issue tickets, encourage cruise lines to establish a management and control mechanism of ticket information, and improve the ticket refund and change system.

We should encourage cruise lines and their sales agencies to explore the distribution models of direct selling and retailing in line with the characteristics of cruise market in China and to develop boutique onshore routes for cruise tourism; allow cruise lines to sell cruise tourism related service products provided by other qualified enterprises on their sales platforms.

4.3 *Creating Good Basic Conditions for Inbound Cruise Tourism*

Strive to create Shanghai cruise tourism destination. Effectively integrate Shanghai tourism resources, and accelerate cruise tourism destination construction. Increase publicity and promotion of Shanghai as a cruise tourism destination, and form international brand attractiveness of Shanghai cruise tourism destination. Promote development of the “air-water collaboration” and “water-water collaboration” cruise tourism patterns (Zhang and Cheng 2012). With the help of domestic and foreign tourism promotion conferences and exhibitions, we should make more efforts to advertise Shanghai cruise tourism to the world. Increase marketing of Shanghai cruise tourism, and give full play to 144-h visa-free transit policy and 15-day visa-exemption entry policy for foreign tour groups by cruise, etc., to attract international tourists to take cruise ships in Shanghai. Explore the incentives for international cruise lines and

foreign travel agencies that organize foreign tourists to conduct inbound tours, and further optimize the policy to provide convenience for the transit visa of international tourists via Port of Shanghai, to promote development of inbound cruise tourism market.

Improve the tourist service quality. Comprehensively improve the infrastructure supporting of cruise tourism, optimize short berthing service of cruise port, increase transportation convenience for tourists to reach port, improve facility supporting of cruise port areas, and enhance the experience of port services, according to the development idea of all-for-one tourism and requirements of international metropolis standards. Additionally, we should ensure more efficient cooperation among the departments at the cruise port, promote innovations in the customs clearance system and model of the cruise port, and comprehensively promote the general application of advanced technologies, such as face recognition, to reach higher clearance efficiency. Strive to expand the coverage of 144-h visa-free transit policy and visa-exemption entry policy for foreign tour groups by cruise.

4.4 Constructing a New System for the Development of Cruise Tourism Market

We should enhance the spreading of cruise culture. We should strengthen public media publicity, encourage the promotion of cruise culture in various public channel platforms, make full use of digital media, mobile Internet and other means, give full play to the advantages of new media communication, and build a comprehensive, multi-level and wide-range cruise culture spreading pattern. We should support the establishment of cruise columns in the media channels such as radio, television, newspapers, magazines and the Internet, the production of series advertising videos of cruise culture and public welfare, as well as film and television works about cruise themes. strengthening the integration of industry communication channels and resources, promoting cooperation with railways, airlines, star-rated hotels and other units, and intensifying precision marketing promotion; providing financial support for hosting or participating in major domestic and international tourism exhibitions and cruise-themed festivals.

We should support the development of the cruise source market in mainland China. encouraging cruise lines and agencies to develop cruise tourist market in mainland China, support to establish a joint-way and collaboration mechanism for the airlines and railways in Shanghai, and advancing the orderly development of “cruise + aviation”, “cruise + railway”, “cruise + interprovincial bus” and other “other+” in order to provide tourists with more convenient transportation conditions; Governmental departments at all levels should issue relevant policies to encourage and support cruise lines and agencies to cultivate and develop customers overseas and from other provinces and cities (Sun and Feng 2012). We should enhance the social influence of important cruise festivals and exhibitions, provide more support

for important cruise brand activities, and further enhance the social popularity and influence of Shanghai Cruise Tourism Festival and other cruise culture promotion activities. We should continuously make use of Shanghai's influence and resource advantages in Asia-Pacific cruise market, and strive for permanent settlement of cruise-related conferences with greater international influence in Shanghai, such as Asia-Pacific Cruise Conference.

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Chapter 6

Research on China's Cruise Tourism Market Cultivation and Standardization System



Xinliang Ye and Younong Wang

Abstract In the process of China's cruise market transformation from high-speed growth to steady growth, related parties need to work together to standardize the cruise tourism market, follow the development practices of international cruise tourism, properly solve the problems such as the poor implementation of the responsibilities of the main bodies of cruise tourism market, the lack of smooth sales channels, the incompleteness of cruise tourist rights protection mechanism, the incompleteness of the cruise tourism culture cultivation and promotion mechanism, standardize the development of the cruise tourism market, release the cruise market vitality, realize the orderly competition in the cruise market, build a standardized, orderly, active and competitive cruise tourism market, establish a new cruise tourism market cultivation and standardization system, and promote the sustainable and healthy development of the cruise market in China.

Keywords Cruise tourism · Market cultivation · Standardization system · Sustainable development

1 Introduction

Although China's cruise market is slowing down and the transport capacity is declining, there is still great potential for the development in the context of the sound economic development level and huge consumer demand in China. In terms of the promotion of cruise culture, China has become the second largest cruise market in the world, but the cruise culture has not yet been fully cultivated, and all related par-

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ties need to enhance the cultivation of cruise culture hand in hand. In terms of cruise routes, China's market is facing the problem of single cruise routes. It is more difficult to expand them compared with the European and American markets due to the geographical relationship, but there are also many island resources in Asia-Pacific region, and we can learn from Europe and America to develop the island resources (Wang 2017). In terms of market demand improvement, in order to promote the healthy growth of demand for the cruise market, we should ceaselessly improve the quality of cruise ships, stimulate demand with better products, highlight the characteristics of product differentiation, enhance the diversification of brands and products, and stimulate more demand by supply. In terms of distribution channel expansion, the current cruise distribution channels in China are long and narrow, and they need to be expanded ceaselessly. In terms of market expansion, we should promote marketing in mainland China and expand the number of the Mainland tourists. We should strengthen the standardized development of the cruise tourism market, implement the responsibilities of relevant entities such as cruise lines and sales agencies, and better promote the healthy development of the onshore excursion, return the leading of onshore excursion from the travel agencies to the cruise lines, and establish and improve the evaluation mechanism of the cruise ships and the onshore excursion to protect the legitimate rights and interests of tourists.

2 Analysis on the Development Status of China's Cruise Tourism Market

2.1 China, the Most Dynamic Cruise Market in Asia

Asia is the fastest-growing emerging market in the global cruise tourism market. The scale of the Asian cruise market is expected to reach 4.6 million persons in 2018, with an increase of 8.4% over 4.24 million persons in 2017 (Fig. 1). The growth rate of the Asian market exceeds that of the global cruise market, of which the scale of China's cruise market has reached 2.4 million persons, accounting for 56.6% of the Asian cruise market. This is directly related to the sound economic foundation in Asia. In 2018, loose monetary policy, steady global demand and the boosting of economic activities by China's investment and credit growth will support the economy to continuously grow steadily in this region. North Asia is the most important cruise market in Asia, with good economic contribution. According to data released by the Cruise Lines International Association (CLIA), it is divided into direct, indirect and induced contributions. The cruise tourism created total USD 7.21 billion of total output in goods and services in North Asia in 2016 (Ye and Sun 2007). The direct economic contribution of the cruise market in North Asia in 2016 included USD 3.23 billion in direct expenditures, USD 1.51 billion in value-added service expenditures, and 23,697 full-time/part-time jobs, with total employee compensation of USD 754 million.

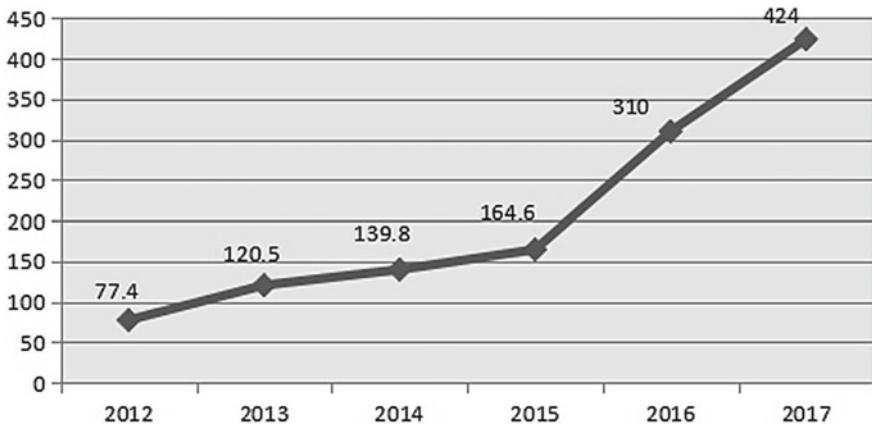


Fig. 1 Changes in number of tourists of Asian cruise market (Unit: 10,000 persons). *Data source* Cruise Lines International Association

2.2 China's Cruise Market with Good Development Potential

Starting from the cruise market of home ports in China in 2006, as of 2017, the total number of cruise ships received by China's cruise ports reached 5807 throughout the year, and the number of inbound and outbound tourists reached 18.1354 million persons. Voyages received by China's home ports maintained the growth trend, from 18 in 2006 to 1098 in 2017, increasing by 60 times. The scale of Shanghai cruise tourism market is expanding continuously, especially after the construction of the Wusongkou International Cruise Terminal, providing a solid foundation for Shanghai to become the first largest and the fourth largest cruise ship home port in Asia Pacific and in the world respectively (Sun and Feng 2012). Wusongkou International Cruise Terminal surpassed Singapore to become the largest domestic cruise home port in Asia in 2014. It remained the 1st in Asia and ranked 4th in the world, and becoming the 2nd largest inbound and outbound inspection port in Shanghai next to Pudong Airport in 2016. Shanghai cruise ports received a total of 512 cruise ships in 2017, accounting for 43.3% of the total in China, including 481 ships in the home port, accounting for 43.8% of the total in China; and the number of inbound and outbound cruise tourists reached 2,977,300, accounting for 60% of the total in China, of which the number of the tourists in the home port reached 2,911,200, accounting for 60.8% of the total in China.

The development of tourism has laid a good foundation for the development of cruise tourism. In the first half of 2018, the number of outbound tourists in China reached 71.31 million, with a year-on-year increase of 15%, and it was 62.03 million in the first half of 2017. According to the information released by the National Immigration Administration earlier, the number of private residence permits issued for the Mainland residents reached a new height in the first half of 2018. A total of 16.416 million private passports were issued by the exit and entry administrative

departments of the national public security authorities, with a year-on-year increase of 21%. Japan is still the most popular short-haul destination country, and it is also the most important tourist destination for cruise tourism from China in the first half of 2018.

2.3 The Gradual Transformation of Cruise Cabin Distribution Mode to the Resale of Bought Out Cabins and the Retail of Cabins

The internationally accepted practice is that the cruise lines adopt a “one-to-one” service mode with an experienced sales team to provide passengers with the whole-track tracking services such as destination recommendation, route selection, ticket booking, fee collection & post-purchase transportation connection, hotel reservation, boarding service and onshore excursion etc., and the cruise products are combined tourism products that can be selected independently by tourists (Cai and Niu 2010). At present, the distribution of the cruise market in China is still dominated by wholesale, which is a team market, not a FIT market, which makes the cruise chartering mode effectively to promote market development in the past. At many sales levels, it is difficult for cruise tourists to obtain real and reliable information in a short period of time, and the information is gradually distorted as the increase of channels. The adoption of wholesale model makes it difficult for cruise lines to communicate directly with tourists, and they have little understanding of the real consumption needs of tourists, affecting the repurchase rate of products. At present, the repurchase rate of products in China’s cruise market is at a low level. The repurchase rate of cruise products in the US market is as high as 80%, while that in China’s cruise market is only 15, and 85% of tourists are still taking cruise ships for the first time. This is mainly related to the little understanding of cruise tourism by Chinese tourists. They have not yet formed good cruise cognition, and their interest in cruise tourism is not high enough, and they have not regarded cruise tourism as a way of life, just as a tourism experience (Zhang et al. 2010).

With the development of the Internet, channel networking is an important development trend. According to statistics, 70% of people currently book tickets through the Internet, and 30% of customers book their tickets through traditional travel agency stores, which will gradually decrease. With the in-depth development of cruise tourism, the scale of the cruise market in China has increased, and the cruise lines and travel agencies are constantly exploring new distribution modes. The resale of bought out cabins and the retail of cabins are both important modes, and the direct sales mode of Western and European mature cruise markets is expected to gradually become an important distribution mode in China’s market, but it also needs to be better connected with the consumption habits and preferences of Chinese tourists, and explore more distribution modes in line with China’s market.

3 Current Problems in China's Cruise Market

3.1 The Investment in Shanghai Cruise Tourism Market Cultivation Should Be Increased

In the past years, the cruise culture was promoted at a slow pace. Most tourists focused on the onshore tour at the destination and attached too much importance to cost performance of cruise products instead of the essential attribute of the leisure on the ship itself, and they always considered luxury ships as a kind of relatively cost-saving and comfortable maritime means of traffic. It is not easy to convert Chinese cruise tourists' cognition of cruise tour. In the history of China's tourism, people always took natural, historical and cultural sceneries as the destination of a trip, especially scenic areas rated above Class A. Cruise tourism, however, is a product of the western culture, and it is hard for Chinese tourists to deeply understand and take it granted that a ship itself is a destination. Therefore, more efforts shall be made to publicize and popularize cruise tourism.

Both cruise lines and travel agencies shall undertake the responsibility to popularize cruise culture. Once deeply understanding cruise tour, tourists will obtain higher "cost performance" from such a tour. At present, the cruise culture in China is developing. The market cognition of cruise tour and cruise brands is at a low level. The urgent need is to vigorously publicize and popularize cruise tour and convey information about cruise tour to the public. To expand the cruise market, it is essential to improve the universality of cruise tourism and enable more people to know about, understand and be fond of this mode of outbound tour, which is the key to expand China's cruise market.

3.2 Poor Distribution Channels of Cruise Ships Leading to Low Price Competition

The early cruise ship chartering mode in China did promote the rapid development of the cruise tourism industry. However, with the explosive growth of China's cruise market, cruise lines began to increase cruise ship transport capacity, and the balance of supply and demand in the market was gradually broken, and the situation that the cruise ship supply is greater than the market demand began to appear, resulting in the continuous emergence of low-price competition in the cruise market. The total supply of Shanghai cruise market was 1.65 million persons in 2017, with an actual sale of 1.43 million persons. In a sense, such low-price competition has affected the price system of the cruise ticket market and disrupted the market order (Sun and Ye 2007). As a result of such competition, some of the mid-end and high-end cruise tourism products have also become low-end cruise tourism products in order to maintain profit margins, which in turn has reduced the profitability of travel agencies

and ultimately led to a decline in the service quality of cruise tourism and lowered the experience and satisfaction of tourists.

At present, cruise lines have strong ability to select and control the chartering party. However, in a multi-level system, the insufficient management of the end of the sales chain results in low reliability of the sales platform. Once there is a problem in one of the links, there will be disputes. In the cruise ship event of Bula Travel on February 3, 2018, the sales structure was “Royal Caribbean—Shanghai Overseas—Tuniu Travel—Guangxi Bajie International Travel—Bula Travel”. Moreover, the management of downstream retailers from various cruise lines is relatively inadequate, and ticket price and space are almost out of control, which greatly increases the risk coefficient of the entire sales chain system.

3.3 The Standardization and Openness of the Cruise Product Sales Market Needing to Be Improved

At present, cruise lines have strong ability to select and control the chartering party. However, in a multi-level system, the insufficient management of the end of the sales chain results in low reliability of the sales platform. Once there is a problem in one of the links, there will be disputes. Moreover, the control of various cruise lines over the downstream retailers is relatively deficient, and the ticket price and cabins are almost out of control, causing the risk coefficient of the entire sales chain system to increase significantly (Hu and Chen 2004). At present, cruise tickets adopt “futures transactions” rather than “spot transactions”, and tourists can only get tickets before they travel. However, cruise products are different from other commodities. Tourists spend a lot of time and money for preparation. Unavailable travel will cause losses to tourists, and then disputes appear easily. In the redundant cruise distribution links, there is a phenomenon that travel agencies may submit incomplete or untrue tourist information to cruise lines, which is mainly because the information is distorted during its level-by-level transmission or travel agencies provide false information for self-protection. In this case, it is hard for cruise lines to get personal information of tourists in time, with certain loopholes. And it is difficult for cruise lines to contact tourists in time when dealing with problems, being more passive in case of emergencies. According to the *Tourism Law*, travel agencies operating outbound package tourism products must have the qualification of outbound tourism before they operate and sale products, making the cruise distribution channels “narrow and long”, which is not conducive to the expansion of distribution channels.

3.4 No Perfect Cruise Ship Ticket Sales Supervision System

In the current cruise tourism market, various modes coexist, such as the cruise ship chartering, the resale of bought-out cabins, and the retail of cabins, and the direct marketing of cruise lines is just at an early stage, and the commission system has not yet been fully established, making cruise lines less capable of price control. In the process of ticket sales, some travel agencies have neither sales qualification nor relevant authorization, nor have they signed any commercial agreements, but they still pre-sell tickets. Further, in the case of only partial payment of the ticket, all the personal information of the tourists solicited by them can be uploaded to the online ship check-in system of cruise lines, and the cruise ticket can be obtained, which will bring great instable factors (Sun and Ni 2018). The ticket retailer is not managed strictly enough, so that the ticket scalpers have a space for survival, which to some extent leads to the problem of low price of the cruise ships. Due to the lack of access and supervision systems for ticket retailers, the neglect of retailer supervision will lead to chaos in the ticket market. A cruise ship ticket management platform should be established, a registration system should be implemented, and an access mechanism should be established to expand the ticket sales channels, so that travel agencies having no qualification can also sell the tickets and the cruise distribution channels can be further expanded.

4 Suggestions on Countermeasures

4.1 Implementing the Responsibilities of the Related Entities for the Cruise Tourism Market

The cruise lines should implement the responsibilities for the healthy and orderly development of the cruise tourism market as entities. All cruise lines must strictly abide by applicable Chinese laws and regulations, actively cooperate with governmental departments in the implementation and pilot of various policies and measures, continuously and effectively strengthen market cultivation, optimize business strategies, broaden market channels, enhance market promotion, and actively standardize market behaviors, and protect the legitimate rights and interests of tourists so as to promote the healthy and orderly development of cruise market. All agencies of cruise tourism must abide by laws and regulations, strictly implement various policies and measures, strengthen self-discipline, and actively cooperate with cruise lines to standardize market behaviors and avoid vicious low-price competition. They should continue to promote the innovation of cruise sales channels and modes, strengthen the promotion of cruise culture, provide tourists comprehensive and accurate product information, actively improve the service system, improve service quality, fully implement cruise tourism contracts and corresponding business practices, and effectively protect the legitimate rights and interests of tourists.

Governmental departments concerned should make efforts to play a guiding role, coordinate market resources, promote the formulation and implementation of cruise industry policies, and strengthen the classification and guidance of various market entities. They also should promote the construction of the credit system in the cruise market, and seriously investigate and punish violations of laws and regulations, purifying the market environment. Cruise tourists should strictly abide by *Tourism Etiquette Rules for Chinese Citizens Travelling*, conscientiously sign and voluntarily fulfill the cruise tourism contract, enhance their awareness of self-protection, and actively reject unreasonable low-priced cruise products. They should safeguard their rights in a civilized manner legally in case of dispute, and take the initiative to protect the good image of Chinese citizens.

4.2 Strengthening the Cultivation of the Demand for Cruise Tourism Market

We should build a publicity and promotion system of cruise culture. We should strengthen the publicity of public media, encourage the promotion of cruise culture in various public channel platforms, support the establishment of cruise columns in the media channels such as radio, television, newspapers, magazines and the Internet in the Yangtze River Delta region, the production of series advertising videos of cruise culture and public welfare, as well as film and television works about cruise themes. strengthening the integration of industry communication channels and resources, promoting cooperation with railways, airlines, star-rated hotels and other units, and intensifying precision marketing promotion; providing financial support for hosting or participating in major domestic and international tourism exhibitions and cruise-themed festivals.

We should strengthen the innovation in cruise routes and tourism products. Promote the quality and characteristic development of cruise products, and drive cruise tourism to shift towards quality services. We should support tourist routes with distinctive features and different cycles starting from Shanghai (Jin 2017). Encourage and support cruise lines to open routes with Shanghai as port of call, and increase the voyage density in a scientific and orderly manner. Attract cruise ships with excellent quality and distinct characteristics to open Shanghai home port route, and form a cruise tourism product system that has rich hierarchy and is well-ordered.

We should strengthen the development of the cruise ship source market in mainland China. encouraging cruise lines and agencies to develop cruise tourist market in mainland China, support to establish a joint-way and collaboration mechanism for the airlines and railways in Shanghai, and advancing the orderly development of “cruise + aviation”, “cruise + railway”, “cruise + interprovincial bus” and other “other +” in order to provide tourists with more convenient transportation conditions; asking the government departments at all levels for issuance of relevant policies to

encourage and support cruise lines and agencies to cultivate and developing tourists market from overseas and other provinces and cities.

We should support the development of local cruise brands, strengthen the building of local cruise ships, support the development of CSSC Cruise Industry Support Park, and improve the supporting system for cruise industry. actively calling for the issuance of special policies to support the development of local cruise brands from the national ministries and commissions, for low interest and discounts and preferential taxes and fees for the purchase of cruise ships, for the establishment of a special life limit system for mandatory scrapping of cruise, for the release of nationality restrictions on the crews of local cruises, and for the operation of inland and offshore routes for local cruises;

4.3 Constructing a Cruise Tourism Market Governance System

We should strengthen the cruise tourism market supervision. We should establish a joint law enforcement mechanism for cruise tourism, strengthen the supervision and management over institutions engaged in the cruise tourism products, and ensure the orderly development of product sales channels. We should incorporate the sales of cruise tourism products into the management and integrity construction system of tourism industry, and implement a blacklist system. We should establish a normalized mechanism of joint law enforcement to crack down on illegal space collection and other disturbance in the healthy development of the cruise market (Chen 2012).

We should implement the pilot tasks of ticketing system of the Ministry of Transport in an all-round way, and establish a public cruise ticket management platform with supervision and service functions such as certification and inquiry; research and establish a mechanism for the admission, evaluation, punishment and withdrawal of a ticket sales agent based on the management system. We should require cruise lines to establish an admission system and a supervision system for ticket sales agencies to specify their ranks and standards and carry out rating, registration, certification, assessment and supervision to authorized agencies, and grant high-ranking ones the right to issue tickets; encourage cruise lines to establish a management and control mechanism of ticket information, and improve the ticket refund & change system. The sales agencies should promptly submit the accurate, valid, true and complete tourist information to the cruise lines and the single port window to ensure the smooth communication of emergency response information. Relevant behaviors should be incorporated into the credit management system of the cruise port, and a corresponding disciplinary mechanism should be established.

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Part III
The Cruise Industry

Chapter 7

Research on the Dynamic Information System of Global Cruise Economy on the Basis of Internet



Ling Qiu and Linkai Qi

Abstract The cruise economy information system involves many aspects, such as urban public service system, cultural service system, education service system, health service system and safety service system, etc. It needs the collaborative support of relevant departments, cruise upstream and downstream industries. With the rapid development of new Internet technology, the integration of information platform and technical resources will greatly increase the efficiency of cruise economic information services and promote the development of cruise economy. This paper studies the cooperation and coordination among the relevant organizations of the cruise industry based on dynamic information, artificially controls and manages the dispersed, closed and isolated cruise information resources, realizes the full utilization and maximum value-added of the cruise economic information resources, and realizes the sharing of the cruise economic information resources on a broader and open platform. The paper also puts forward the corresponding countermeasures and suggestions by discussing the challenges and opportunities, policy bottlenecks, value evaluation and measurement methods of the implementation of the cruise industry informatization strategy.

Keywords Dynamic information and information resources · Dynamic information · Information strategy

1 Introduction

The cruise industry is comprehensive without clear boundary. Whether in government decision-making, macro-control, industrial restructuring or infrastructure planning,

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the cruise industry focusing on cruise tourism should be included as a very important aspect in the overall consideration of the government. The coordination and comprehensiveness of the cruise economy information system depend on the diversity and relevance of the cruise industry. One of the important contents is to build a platform to coordinate the relationship between governmental departments concerned, port cities, route areas, and related upstream, midstream and downstream cruise enterprises and consumer groups, so as to ensure the smoothness of cruise tourism activities and promote the development of the cruise industry.

2 Research Background and Significance

2.1 Research Background

2.1.1 The Importance of Integrated Application in Cruise Industry Data Becoming More and More Prominent

According to the data in *Ecology Map of China's Big Data Industry and the White Paper of China's Big Data Industry Development in 2017* (hereinafter referred to as the "White Paper of Big Data Industry"), the integrated application layer is the focus of the future development of the big data industry, and its development stage is as shown in Table 1.

2.1.2 Linear Industrial Value Chain Gradually Evolving to Net Value Chain

In the past five years, the drawbacks of the industrial value chain of the vertically integrated linear structure of the cruise industry chain have gradually emerged, and each link creates value while increasing costs according to the linear trend. The cruise economy information system on the Internet can transform this linear value chain based on technical division of labor into a net value chain based on service correlation formed by value division of labor, so that the enterprise competition foundation in the cruise industry chain will be changed, and the core enterprises on the value chain will become the standard setters. For example, the current new generation of consumers is initially forming the habits of searching and consuming based on the Internet. After the introduction of Internet platform in the port and business travel service market in the midstream and downstream of the cruise ships, the integration of cruise ships, hotels, catering, transportation and entertainment in the port cities will become a comprehensive solution, and the targeted release to consumers is possible, which is one of the high-end representation forms of the integration of the cruise industry value chains.

Table 1 Development of big data application under internet background

Application stage	Year	Application content	System tool
Data precipitation, and launching of business information system	2005–2010	The large customer groups, mainly in finance, insurance, banking, telecommunication, power grid and medical care, have successively launched various information systems and business systems. The data precipitation period is 3–5 years, and a certain data scale was formed in 2013	Similar to ERP, CRM, OA and HIS etc.
Big data analysis architecture for enterprise application	2011–2013	Concepts such as cloud computing and big data begin to appear before the public	Data analysis architecture represented by Hadoop, and various analysis tools represented by SAP BO, Oracle BIEE and IBM Congos
Solutions in big data industry for market application	2013–present	The whole process of big date analysis includes data collection, interactive query, machine learning and visualization, and the data analysis under business scenarios has become the top priority	Hardware and software vendors continue to emerge

2.1.3 Coordinated Development of Cruise Industry, Regional Economy and Information System

The mutual promotion between the cruise industry system, the regional economy system and the information system is an organic whole. Under the technical support of the information system, the cruise industry interacts with the regional economy and develops together, the information system is the technical guarantee, and the regional economy system is the basic support (Fig. 1).

The cruise industry can increase national income and foreign exchange income, optimize and adjust regional industrial structure, enhance cross-regional cooperation and exchange, drive related industries, increase regional employment, and promote

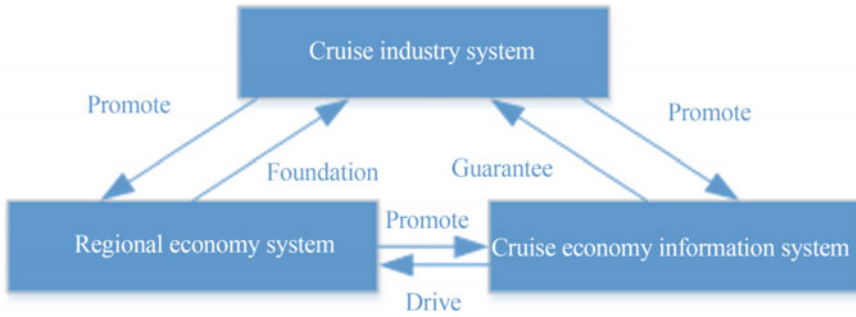


Fig. 1 Coordinated development of cruise industry, regional economy and information industry systems

ecological environmental protection. Further, there are more regional characteristics in cruise tourism information products and information services, which will promote the development of the information system. Vice versa, a good regional economic development level cannot only stimulate cruise tourism consumption, but also provide financial support for the development of cruise industry in the aspects of the development of cruise tourism resources, port infrastructure construction and cruise service improvement, and provide abundant financial support, talent guarantee and other basic conditions and support for the development of cruise economy information, and can promote the demand for information equipment and information services of the tertiary industry, and promote the development of the cruise economy information system.

2.2 Research Significance

2.2.1 Improving the Contribution of Cruise Ports to the Development of the Industry Chain

The construction of the cruise economy information system will help integrate the cruise home port infrastructure construction operation information, cruise maintenance information, and cruise lines operation management information, which will increase the number of cruise ships, voyages, products and tourists etc., thus promoting the derivatives of cruise tourism products, driving the development of surrounding industries and increasing the contribution to the development of cities and the industry chain.

2.2.2 Promoting the Gradual Penetration into the Cruise Tourism Market in China

The cruise economy information system can improve the market penetration rate of cruise tourism. The tourists' consumption propensities and consumption preferences are analyzed, consumers' demands are stimulated, and consumption habits are cultivated by capturing the expectation of cruise tourists on destinations and cruise tourism diversification.

2.2.3 Promoting the Formation of a Complete System of Cruise-Related Policies

The macro management departments of the governments can use the cruise economy information system to conduct scientific forecast, analysis and planning, and then formulate relevant policies. The construction of the cruise economy information system can also promote the establishment of the information sharing and exchange mechanism between different functional governmental departments, promote the collaborative work among various functional departments, help the formation and issuance of relevant policies, and improve the overall operational efficiency of the cruise industry.

2.2.4 Improving the Layout of the Industrial Chain to Avoid and Control Risks

For the construction of the cruise economy information system, firstly, it will help the establishment of a financial soft environment, and avoid and control risks; secondly, it will promote the downstream online transfer and form a multi-channel capital pool; thirdly, it will help to integrate the resources of the midstream; and finally, it can effectively promote the overall evolution of the cruise industry chain, and form a higher level of complete industrial chain layout in the aspects of integrating operation, building and supporting facilities, so as to avoid and control risks to the maximum extent, enhance the scope of industrial radiation at the same time, and drive the development of the cruise economy.

2.2.5 Integrating Existing Information Resources to Avoid Repeated Construction

By planning the functions and building framework of the cruise economy information platform in a united manner, upstream manufacturing enterprises can release, inquire and receive supporting information such as cruise manufacturing supply chain and financing, midstream operating enterprises can release, inquire and receive cruise operation information such as tickets, routes and products and dynamic port infor-

mation, downstream consumers can release, inquire and receive consumer experience information, governmental departments can release, inquire and receive public information services such as transportation, travel, weather, industry, inspection and quarantine, and research institutions can release, inquire and receive relevant monitoring and research information. Therefore, the transparency of the cruise industry can be improved, and the barrier between higher and lower levels or between different departments and regions of cruise organizations can be broken, providing support and guarantee for the development of the cruise economy.

3 Conceptual Framework of the Cruise Economy Information System on the Internet

With the support of emerging technologies, it is possible to combine information resources scattered across multiple organizations into an integrated and coherent economic information supply system. The tourism administrative departments at all levels, the government supervision departments, the upstream, midstream and downstream enterprises of the cruise ships, and the non-profit organizations are regarded as network nodes, and the business collaboration and information resource sharing across organizations are emphasized.

3.1 Research Thought

The dynamic cruise economy information system is not only the result of the mutual influence and interaction between the inter-organizational and inter-departmental construction and organizational systems, policies and social environment within the information service field, but also the result of a new value formed on basis of the public service concept and the focus on the greater public interest, and the result of the development of new strategic partnerships between governmental departments, enterprises and non-profit organizations. Therefore, the research of the system involves not only the technical level, but also the management level. It is the process of integrating technology with policies, systems and management. The role of non-technical factors is more complicated and more important than technical factors.

3.2 Collaboration Mode of Cross-System Information Service

3.2.1 The Government as the Leader and Organizer of the Construction and Maintenance of the Cruise Economy Information System

Governmental departments can plan the long-term development of cruise informatization globally, establish a corresponding commercial market regulation system, integrate functional departments and the strengths and resources of relevant parties, provide a good market service environment, establish relevant standards and specification system, promote the establishment of the internal information system and the cruise e-commerce platform of the cruise enterprises, and realize the interconnection between the cruise ships and the business information system of the bank, customs and public security.

3.2.2 Establishing a Consultation Mechanism Between Information Sharing Entities

A cruise travel route covers a wide region, and the regional economic and social development levels are different. The members of the cruise economy information sharing entities are required to discuss and clarify the scope of the cruise information exchange, the objects to be exchanged, the building of the information platform, the construction of the network infrastructure, the provision of business data, the powers and obligations of the relevant parties, and the relevant systems are required for guarantee.

3.2.3 Establishing a Cooperative Joint Conference System Between Information Sharing Entities

It is possible to understand the cruise policy and its implementation effect, duly track the development of the cruise industry and the operation status of cruise companies, and promptly respond to the demand for the tourism market and products. Relying on the information platform, the supervision authorities can standardize the order of the cruise market, urge related parties to improve their service quality, inform them of security situation etc., and publish the above relevant information on the information platform, so that the joint members can know the real-time situation, and analyze and judge the market information.

3.2.4 Establishing an Operation and Maintenance Functional Organization of Cruise Economy Information Platform

The management and maintenance of the cruise economy information system platform should be conducted by professional organizations, such as the establishment of a cruise tourism information exchange center, with main tasks including mining and publishing cruise industry resources, investment opportunities, cruise market dynamics, and information about cruise tourism services. The upstream, midstream and downstream enterprises of cruise industry and the departments and institutions concerned can be recruited as members, and an information sharing system can be developed.

3.3 *Conceptual Model of Dynamic Cruise Economy Information System*

3.3.1 Cruise Tourism Information Service Oriented to Cruise Tourism Consumers

It is committed to improving the cruise tourism experience, with the most extensive application, mainly in the form of cruise tourism websites, information management and information infrastructure construction.

3.3.2 Economic Operation Information Service Oriented to the Development of the Cruise Industry

The cruise economic operation information service covers the public service system of the relevant information of the cruise industry chain, the port cities and the route areas, such as the health care service system, the tourism culture service system, the security guarantee service system and the ship supply logistics system etc., and it is integrated and systemic. Specific services include comprehensive analysis on cruise economic operation, the trend analysis on travel, trade, traffic and fleet etc. of cruise tourism between different regions, the analysis on attention, attitude tendency and emotional changes of consumers during the development of cruise economy in different regions and industries, the tracking and analysis on the authoritative comments of experts and scholars, the more comprehensively reflection of the needs of users, and the forecast of market conditions and capital flows etc. (Fig. 2).

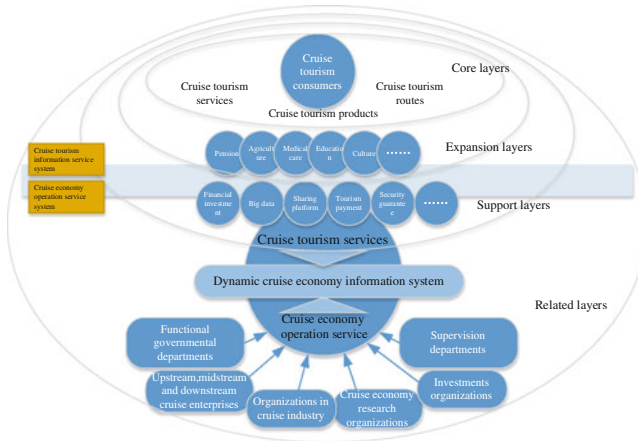


Fig. 2 Conceptual model of cruise economy information system

3.4 Design of the Cruise Economy Information System Under Internet Background

3.4.1 Overall Architecture Design

The data is provided by the governmental departments, cruise ports, cruise lines, cruise travel agencies and research institutions for the system, and the system is managed by relying on the Internet big data platform, and data interfaces are provided for the cruise tourism information service system and the cruise economic operation service system. These two systems rely on the data provided by the platform to serve consumers, enterprises, institutions and governmental departments.

3.4.2 Information Platform Analysis

The system design of the cruise economy information platform is mainly carried out in four aspects: the cruise basic data resource system, the cruise information exchange system, the cruise economy information service system and the cruise tourism management information system. The application system is comprised as shown in Fig. 3.

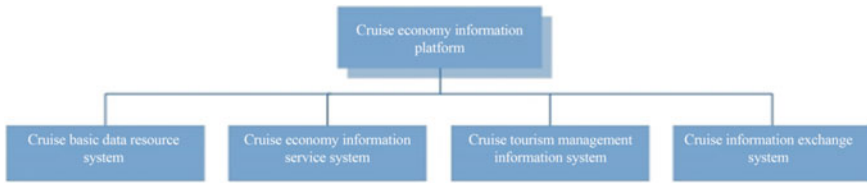


Fig. 3 The composition systems of the cruise economy information platform

3.4.3 Application System Design

Cruise economy information data is mainly stored on the big data platform. Data are provided and managed regularly by governmental departments concerned, cruise ports, cruise lines and cruise travel agencies. The big data platform provides a data interface for network nodes at specified IP addresses, so that it can provide data support for the cruise economy information service system and the cruise tourism management information system, enabling them to serve consumers, businesses, governmental departments and other institutions (Fig. 4).

3.4.4 Application of Dynamic Cruise Economy Information System Functions

For the effective operation and maintenance management of the cruise economy information platform, the members sharing the cruise economy information system use the unified query interface, unified network interface and standardized information distribution methods of the platform to establish a dynamic information base, and link their respective cruise industry related information resources. The cruise tourism information, cruise product information, route promotion information, government publicity information, and other information in each region can be published through the information center to establish a unified overall cruise image externally, which is beneficial to consumers and potential consumers to fully understand cruise products. On the other hand, it also enables members of the organization to know well the cruise economy operation in the region in real time (Fig. 5).

The realization of the application framework of the cruise economy information system is divided into two parts: the realization of the top-level user-oriented application development community and the realization of the data interface and data asset management in the figure. The former is the realization at the technical level, and the latter mainly depends on the realization at the management level.

The realization process at the technical level is as shown in Fig. 6. The realization at the management level mainly depends on the establishment of consultation mechanism, joint conference mechanism and full-time organizations between the information sharing entities mentioned above.

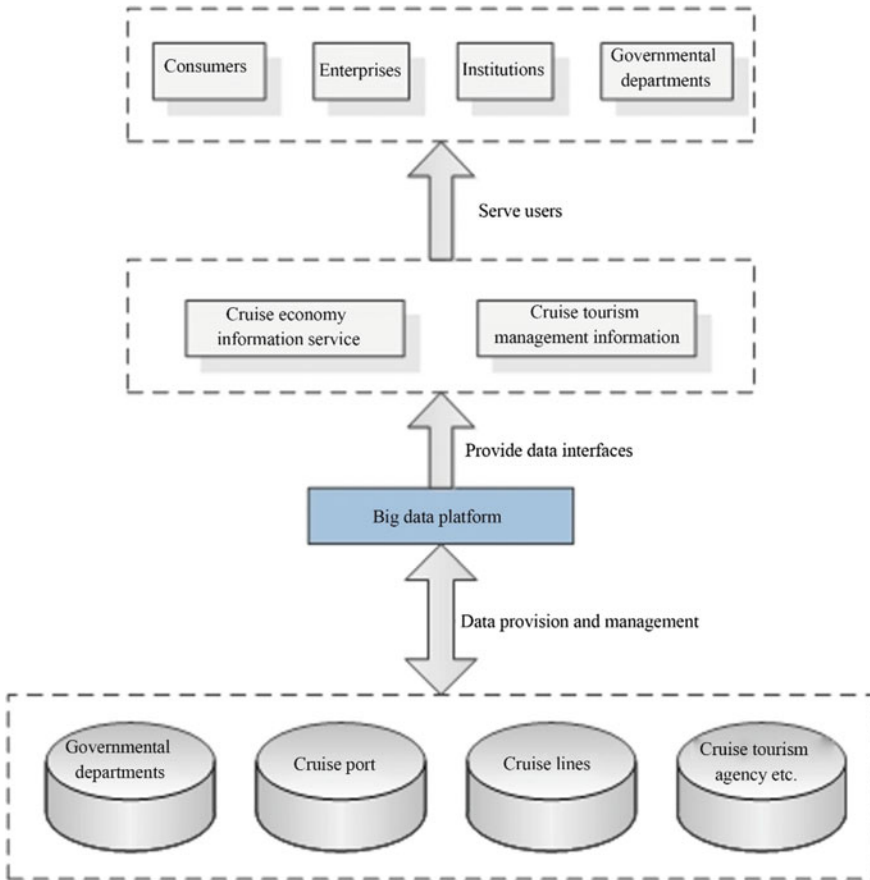


Fig. 4 Architecture diagram of dynamic cruise economy information application system

At the integrated application layer, the comprehensive cruise economy information services for will be provided by use of shipping services, finance, cruise shipbuilding, customs clearance and border control, cruise operation condition, ship supply logistics, transportation services, tourism, security, social contact, geographic information, human resources, port operation, journey marketing and other big data.

At the data service layer, the cruise economy information platform is required to provide data transaction service, data collection and pre-processing services, data analysis, visualization service, and data security service.

At the basic support layer, the infrastructure and tools of the cruise economy information platform include big data storage management, big data analysis software, big data platform technology solutions, big data related hardware facilities, network and system management, and big data processing algorithms and tools.

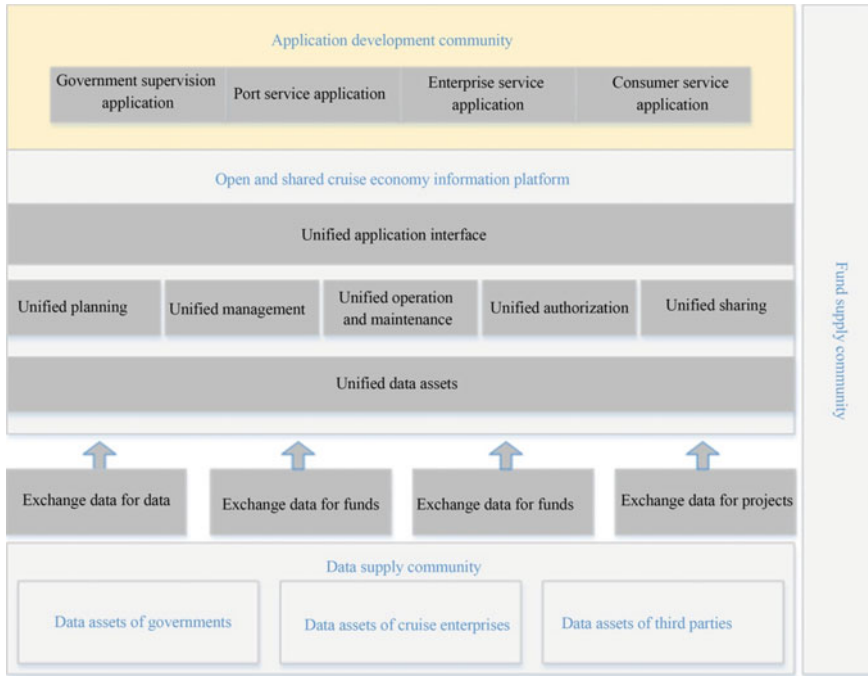


Fig. 5 Application framework of cruise economy information system

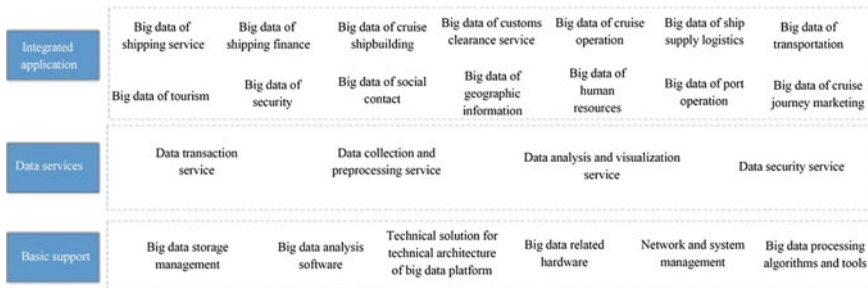


Fig. 6 Basic functions of cruise economy information platform

3.5 Implementation Guarantee System of Global Cruise Economy Information System

3.5.1 Government Level

First of all, the governments should reform the cruise information policies and improve the cruise ships with information integration system. The economic infor-

mation platform is a product responding to the call of the state, which should be built and operated by relying on the corresponding systems formulated by governmental departments concerned. For example, due to voyage delay or route change caused by objective reasons, the non-material damage compensation to the tourists, their appeal and settlement mechanism can find relevant institutional basis from the cruise economy information system, thus avoiding the “forcible occupation of a ship” to a certain extent. For another example, the statistics of tourist information, the sharing of the desensitized tourist information among the governments, cruise lines, downstream derivative companies and other units must have legal basis and conform to the systems. Therefore, the operation of the cruise economy information system requires solid institutional support and the development of a comprehensive cruise information system, including metadata sharing, joint and unified services, and regulations and by laws on metadata making and exchange. The workflow for the collection, processing, storage, sharing, flow and service of information resources should be standardized to ensure stable and long-lasting operation of cruise information services.

Secondly, the governments should break down the obstacles in the management system and promote coordination and joint collaboration among various departments. The cruise industry information is widely distributed in cruise lines, cruise port terminals, transportation port bureaus, tourism bureaus, cruise pilotage agencies, port offices, maritime bureaus, customs and the supervision and business operation departments in charge of border control, inspection and quarantine. The construction of cruise economy information system urgently requires these departments concerned to establish a seamlessly integrated joint collaboration mechanism and information connection mechanism to achieve timely exchange, dynamic update and sharing of information.

In order to fundamentally change the original separate management situation with barriers between higher and lower levels or between different departments and regions, and realize the centralized planning, management and regulation of the cruise economy information system, the provinces and municipalities of the cruise ports should take the lead to build a “coordination center for building of cruise economy information system” to coordinate the functional departments and institutions concerned in cruise industry. The function integration should be realized in the aspects of information flow, division of responsibilities and management operation through the joint collaboration of various departments, so that “the flow of information is smooth, the division of responsibilities is clear, and the management operation is efficient”, thus improving and enhancing the centralized collection, analysis and processing, the sharing in the industry, and the targeted publishing of the cruise industry information.

3.5.2 Enterprise Level

Firstly, the investment in software and hardware should be increased to improve the level of information operation and maintenance. The construction of the cruise economy information system includes information infrastructure, information ser-

vice entities and database information system. Information infrastructure construction is the foundation and starting point for the construction of the cruise economy information system, mainly including the investment and construction of information equipment and communication network. Since the hardware foundation is the basis for meeting the dynamic demand for cruise industry information, and also the premise for construction of the software database information system. Therefore, the enterprise itself needs to increase investment in information construction, and establish hardware and software infrastructure such as the basic data center, network and mobile terminals by steps, stages and levels, providing hard environment support and guarantee for the construction of cruise economy information system.

In addition, enterprises should strengthen the follow-up operation and maintenance management during information construction, so as to ensure the information security of cruise enterprises and consumers. The first is to strengthen the construction of information security assurance capability, increase security protection tools, and prevent information leakage. The second is to pay attention to the filtering, screening and extraction of network information. Enterprises should establish an effective mechanism to continuously filter junk information, extract effective information and ensure the information quality of the cruise economy information platform.

Secondly, the cultivation of interdisciplinary talents should be accelerated, so as to carry out talent introduction and talent assessment simultaneously. The information team is a prerequisite for the construction of the cruise economy information system, and the demand of the cruise industry for informatization needs to be taken as the orientation to strengthen the construction of relevant talent teams.

The first is to train talents. We can fully refer to foreign advanced experience, and cooperate with colleges, institutes and institutions to establish a designated base for talent training and jointly cultivate the required professional information talents for cruise ships. At the same time, we should gradually pay attention to and consciously cultivate the middle-end and high-end talents necessary for the cruise market, especially the interdisciplinary talents with knowledge in various aspects such as cruise market operation, cruise management and big data statistics, thus providing intellectual support and guarantee for the construction of the cruise economy information public platform and the long-term development of the cruise market.

The second is to introduce talents. The preferential policies may be formulated to introduce advanced cruise management talents at home and abroad. The specialized personnel in various industries and units in information economy, information technology and information management should be introduced to optimize the overall structure and talent layout of the cruise information team.

The third is to assess talents. The governments and industry associations can jointly formulate the talent assessment standards in the cruise industry, set up basic conditions for talent introduction, and ensure the basic capabilities and basic qualities of the talents in the industry. Such a talent cultivation model that governments, industry, universities and research institutions cooperate together and academic education is combined with vocational qualification training should be established so as to get rid of the predicament of insufficient cruise information talents.

3.5.3 Market

Firstly, the sound investment and financing mechanism should be established to strengthen the “government + market” funding model. In terms of the construction at the early stage, the governmental departments concerned should provide financial support. The construction of the cruise economy information system has strong social welfare characteristics and obvious public service product attributes, and the overall characteristics include large investment, long cycle and slow effect. Therefore, the government can set up the special funds for platform construction and introduce fiscal interest discount-related policies to help cruise enterprises promote the implementation of platform construction projects better.

In terms of later update and maintenance, on the one hand, the governmental departments concerned should allocate funds, and provide corresponding preferential policies, support and encouragement in the economic and financial fields (such as credit, taxation, finance and other support policies); on the other hand, member units concerned should bear the cost of platform operation and maintenance to ensure the healthy operation in the market-oriented operation mode of value-added services. In summary, diversified, multi-level, multi-channel social force participation mechanisms and investment method should be established, multi-party investment channels should be integrated, and such a financing way should be formed that is based on platform market-oriented operation and supplemented by the financial investment of governments.

Secondly, the market demand should be taken as the orientation to strengthen the sharing of information benefits. Providing satisfactory services for cruise tourism consumers is the fundamental purpose for the construction of the cruise economy information system, and it is also the basic premise for the realization of the interests of the information platform service entities. Therefore, the construction of the dynamic cruise economy information system should be market demand-oriented and improve the service quality and service guarantee of cruise tourism.

Cruise tourism consumers are the beneficiaries of the information service platform. The construction of the cruise economy information system aims to know the real demands of cruise tourists, establish and improve the bottom-up demand expression mechanism, clear the two-way communication channel between the cruise tourism consumers and information service agencies, and improve the synergy efficiency of the cruise industry chain so as to avoid the blindness and resource waste of cruise tourism services.

In the face of personalized demand for cruise, each service entity can use the innovative service mode of the cruise economy information service platform to effectively improve its service capabilities. A multi-level, multi-form and multi-channel information release window should be established to innovate in the information sharing, integration, utilization and re-creation mechanisms between the governments, enterprises, institutions and consumers. Generally, the terminal cruise consumers should be taken as the nodes to promote the formation, development and ceaseless improvement of the cruise economy information system on the basis of the realization of the benefit sharing between all parties based on the information platform.

4 Conclusion

The research on the dynamic cruise economy information system is not only an important part of emerging information technology, but also the profound transformation of the processes and interaction modes of the organizations in the cruise industry. In order to realize the sharing of cruise economy information resources on a broader and more open platform, it is also necessary to explore the challenges and opportunities, policy principles, value evaluation and measurement during the implementation of the cruise industry informatization strategy, and propose practical action countermeasures and recommendations, and then validate them in practice, form new feedback opinions, discover new issues, and conduct a new round of research.

Chapter 8

Comparative Research on Development Modes of Global Cruise Economy Circles



Mingyuan Wu, Xiyan Wu and Daofei Liu

Abstract Today, United States adopts hegemonism to treat other countries with high profile against globalization, but the trend of economic globalization is accelerating. The countries and regions have a clearer division of labor during industrial development and closer economic interaction based on their comprehensive conditions such as geographical location, resource availability and socio-economic development level. The cruise industry is also developed in this way. It is almost impossible for any country or region to develop its cruise industry based on its own strength. Only to actively participate in the economic cooperation in the cruise region, share the benefits and risks, and jointly promote the development of the regional cruise economy, and cruise culture and the cruise industry can create a regional cruise economy circle on the basis of national and regional cooperation, thereby promoting the steady development of the national cruise economy. Therefore, the development of the cruise industry insists on regional cooperation, which has become the common experience for countries and regions in the world to develop their cruise economy and their cruise industry. Under the background of globalization, informatization and marketization of the world economy, the development of the cruise industry has new features of market sharing, information sharing, policy interaction and resource complementation, and the regional concentration of the cruise industry has become one of the trends for the development of the current cruise industry. The overall historical process of the cruise tourism industry fully shows the characteristics of regional interaction, spatial linkage, industrial relevance and cultural penetration. Due to their respective resource endowment, industrial conditions, cultural history, development mechanism, the continents and regions in the world have different growth paths, forming a featured cruise economy circle with many regional characteristics. Their development model, industrial structure and management experience have great enlightenment and reference significance for the construction and

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development of the China–Northeast Asia cruise economy circle. Through the comparative study on the global cruise economy circle, the internal structure and development dynamics of the cruise economy circle are revealed herein, providing theoretical support for creating the Northeast Asia cruise economy circle with resources shared, advantages complemented, labor divided, and work coordinated, and promoting more reasonable cruise economy circle structure and more stable development.

Keywords Cruise economy circle · Internal structure · Model comparison

1 Introduction

With the rise of cruise ships in the tourism industry, the demand for high-end tourism products such as international cruise ships is bound to increase. The National Tourism Administration officially approved Shanghai as the first “Experimental Area of China’s Cruise Tourism Development” in September 2012; the State Council clearly proposed to support the construction of tourism and leisure infrastructure such as cruise ship and yacht terminals in February 2013. In particular, the overall plan for Shanghai Free Trade Experimental Zone approved by the State Council in 2013 also requires upgrading the international shipping service level and exploring and forming an internationally competitive shipping development system and operation modes. These policies will inject a strong impetus for the development of cruise economy industry in China. Shanghai, Tianjin and other places are actively promoting the construction of cruise infrastructure as well as the international cruise cities and international yacht clubs with complete comprehensive functions. The cruise consumption in China is rising year by year, the cruise market in China is about to boom, and the cruise industry is likely to become another “high ground” of consumption in the near future. With respect to the basic concept of the cruise industry, economy and economic circle, the cruise economy has become an important part of the marine economy today, the cruise industry is such a comprehensive industry with large-scale luxury cruise ships as the carrier that obtains its income by relying on the industrial resources of cruise shipbuilding, market development and tourism and leisure services, and by dealing with cruise-related transportation, sightseeing, accommodation, catering, training, shopping, adventure, entertainment, conferences, marketing and other activities related to maritime sightseeing and leisure by way of offshore, inshore and global cruise. The development of the cruise industry will also drive the development of cruise ports, terminals, maintenance, fuel, onshore tourism and other related industries to form a cruise economy with combined effect.

2 Main Internal Factors for the Forming of a Cruise Economy Circle

2.1 Basic Structure of the Cruise Economy Circle

A cruise economy circle refers to a geographical region built for the best economic, social and environmental benefits through a specific development model during the development of the cruise industry where some countries and regions collaboratively develop the five elements of economic cooperation circle, cultural exchange circle, comprehensive transportation circle, resource complementation circle, and industrial cooperation circle, with cruise tourism resources as the core, with cultural and economic affinity as the link. The cruise economy circle is an economic area consisting of a developed cruise economy regional center and a number of hinterland areas closely linked to such a regional center and driven by the radiation of the center. The cruise economy circle has three major characteristics: Firstly, there is a cruise economy center with great influence. As an economic circle, this economic center area has the function to attract resources, talents and industries, and the most important performance is the major source of tourists. Secondly, there are several hinterlands or port areas where cruise ships can arrive. They are mainly the places in the central area of the cruise economy circle where tourists release or diffuse their energy, and they also the source of tourism element resources to support the development of the central cities. Thirdly, the main cruise activities of the intrinsic economic link between the center and the hinterlands are closely linked by cruise ships as shown in Fig. 1.

2.2 Internal Factors in the Cruise Economy Circle and Realization of Their Functions

2.2.1 Internal Factors in the Cruise Economy Circle

The influence factors of the cruise economy are composed of the factors on the demand side and the supply side. The three elements on the demand side are investment, consumption and export. Investment is the supporting force for the formation of the cruise economy circle. Consumption is the core for the formation of the cruise economy circle. The impact of export on the cruise economy circle is mainly in two major sectors: one is the export tourism service of cruise destination, that is, the cruise ship's visit to the port provides cruise tourism reception service; the other is that the travel ship companies provide sea tour service on the cruise ships.

The three elements on the supply side are labor, capital and technology. Labor mainly refers to the labor support and the quantity and quality of talents in the cruise industry chain. Capital mainly refers to the subject and intention of capital

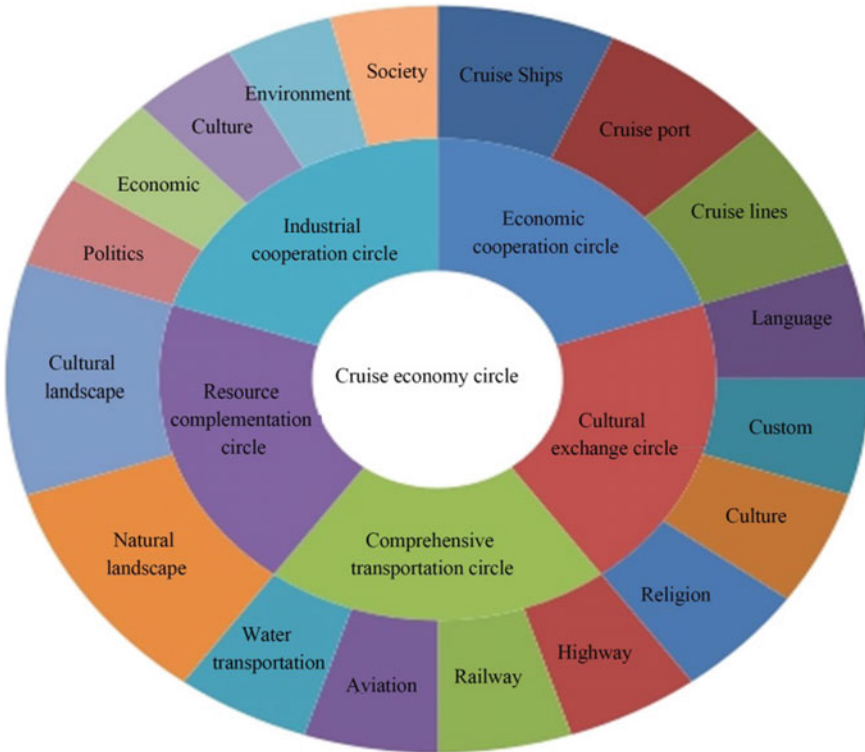


Fig. 1 Basic structure model of the cruise economy circle

investment in the cruise industry chain during the formation of the cruise economy circle. At present, the investment subjects in the cruise industry chain are mainly governments and enterprises. The technology of the cruise economy circle mainly refers to the technical background and feasibility in the cruise industry chain, such as the technology and training environment for cruise operation and production, the planning and experience of cruise operation, the technical support and guarantee for the development of cruise ports etc. as shown in Fig. 2.

2.2.2 Relationship Between the Various Cruise Economy Elements and Their Influence on the Cruise Economy Circle

The cruise economy is the overall economic effect generated by driving the development of related industries based on cruise tourism as the core product, while the cruise economy circle is a regional economy concept, including cruise routes, ports, radiation areas, tourist source market and tourism resources. Therefore, this part mainly analyzes the main roles of the three elements on the demand side and the

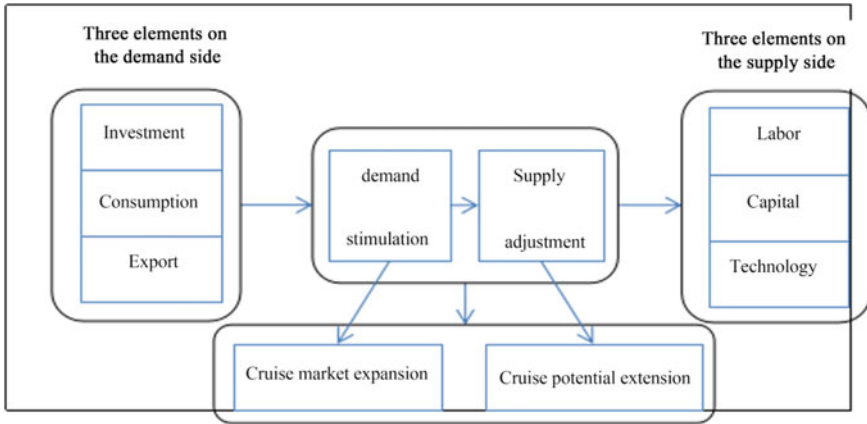


Fig. 2 Elements of cruise economy circle and their functional structure

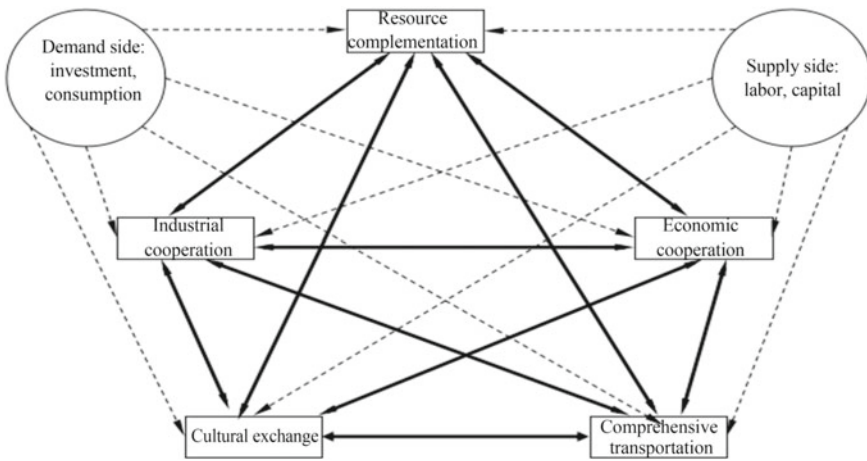


Fig. 3 Relationship of internal elements of the cruise economy circle

three elements on the supply side of the cruise economy circle during the formation of the cruise economy circle as shown in Fig. 3.

3 Typical Models of Major Global Cruise Economy Circles and Their Characteristics

3.1 North America–Caribbean Cruise Economy Circle

North America is the most advanced region in the cruise industry development in the world, and it has already formed a mature and rich cruise economy community. In the cruise economy circle in this region, cruise tourism has the typical characteristic of economies of scale.

3.1.1 Basic Structural Characteristics of North American–Caribbean Cruise Economy Circle

The cruise economy circle is active and the most developed in the world, and the cruise market, cruise creativity, cruise industry and cruise culture all lead the world; there is frequent exchange in the cruise culture circle, basically in the one-way output between the cruise ship source country and the cruise destination country; the cruise traffic circle is smooth, the traffic in the source country is very developed, the traffic in the destination is underdeveloped, and the sea and air traffic from the source country to the destination is developed, with no obstacles at sea; the cruise resource circle is fully developed, with two characteristics: tropical island and island country landscape + special colonial and cultural landscape; the cruise industry circle has a large scale, operation by powerful North American cruise organization + high customer source output + interaction between source country and destination which complement each other as shown in Fig. 4.

3.1.2 Basic Structural Characteristics of North American–Caribbean Cruise Economy Circle

The characteristics of cruise demand elements: The investment is biased towards the midstream, there are numerous cruise lines, numerous cruise ships, and strong demand for cruise ships; the consumption of cruise ships is huge, with long-term leading the growth of the global cruise market; there is strong one-way flow of tourism export, mainly in the cruise tourism of North American tourists to the island countries in Caribbean region; the characteristics of cruise supply elements: There is a comprehensive human resources system in midstream and downstream of the cruise ships, with sufficient guarantee and abundant talents; for the cruise technical support energy, there are rich technologies and experience in the midstream and downstream of the cruise ships, which can effectively guarantee the sustainable, steady and high-speed growth of the cruise industry in the midstream and downstream.

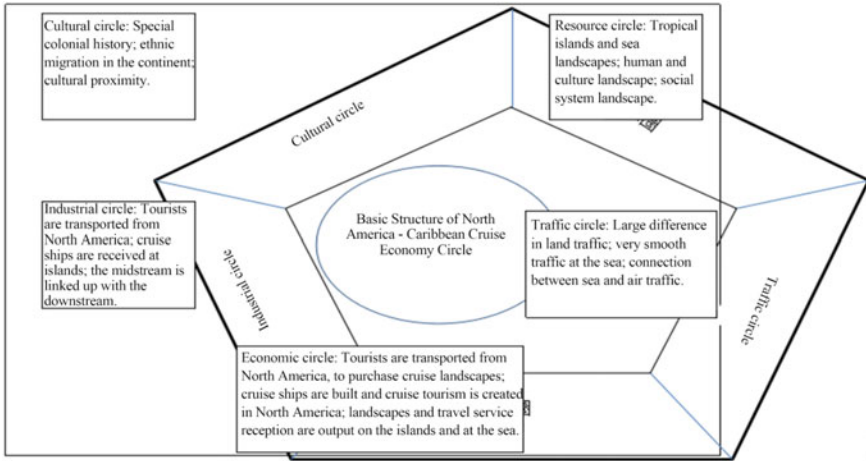


Fig. 4 Structure of North America–Caribbean cruise economy circle

3.2 Europe–Mediterranean Cruise Economy Circle

3.2.1 Basic Structural Characteristics of Europe–Mediterranean Cruise Economy Circle

It is the second active cruise economy circle, the world’s largest cruise shipbuilding market, and the second cruise tourism market; cruise culture is the most glamorous exchange, and the culture of cruise facilities, cruise shipbuilding and cruise tourism are rich and colorful; the cruise traffic is smooth, the sea, land and air transportation is developed, and it is easy to organize the customer sources for cruise ships; the cruise resources are unique, with the Mediterranean natural scenery + the Mediterranean historical and cultural landscape; the cruise industry circle emerges, with the cruise shipbuilding + the powerful cruise operation + the source leisure and vacation demand + the interaction between source countries and destinations which complement each other as shown in Fig. 5.

3.2.2 Characteristics of Functional Elements of Europe–Mediterranean Cruise Economy Circle

The characteristics of cruise demand elements: Investment bias, the most important region for cruise shipbuilding in the world, the second largest region for global cruise growth; tourism export, with two-way mobility between European countries + vocational cruise tourism in Mediterranean;

The characteristics of cruise supply elements: The supply of labor for the cruise industry chain is sufficient, the human resources system in the upstream, midstream

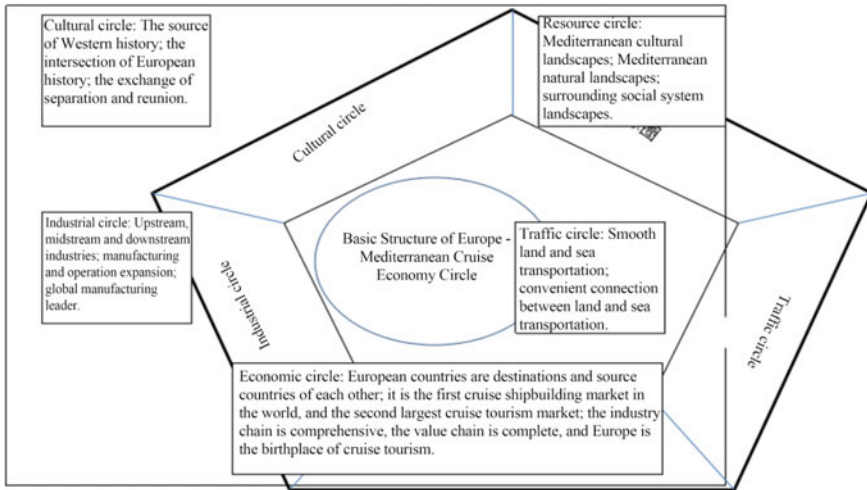


Fig. 5 Structure of Europe–Mediterranean cruise economy circle

and downstream of the cruise ships is comprehensive, and the talents are abundant. The technical support capacity is powerful, with rich technologies and experience in manufacturing, design, port planning, route development, operation, management and various guarantees in the upstream, midstream and downstream of the cruise ships.

3.3 *Australia–South Pacific Cruise Economy Circle*

3.3.1 **Basic Structural Characteristics of the Australia–South Pacific Cruise Economy Circle**

It has a moderate cruise economy scale, and it is the fourth largest cruise tourism market in the world, with midstream and downstream cruise industry chain; there is regional cruise culture circle exchange, with two-way transportation between visiting port and home port; the cruise traffic is smooth, sea and air transportation is developed, and the traffic in destination is convenient; the characteristics of the cruise resource circle are obvious, with the natural scenery of the Pacific Ocean in the southern hemisphere + immigrant culture and indigenous historical and cultural landscapes; the cruise industry circle emerges, with the powerful European and American cruise operation + leisure vocational destinations + superimposition of local source countries and destination countries as shown in Fig. 6.

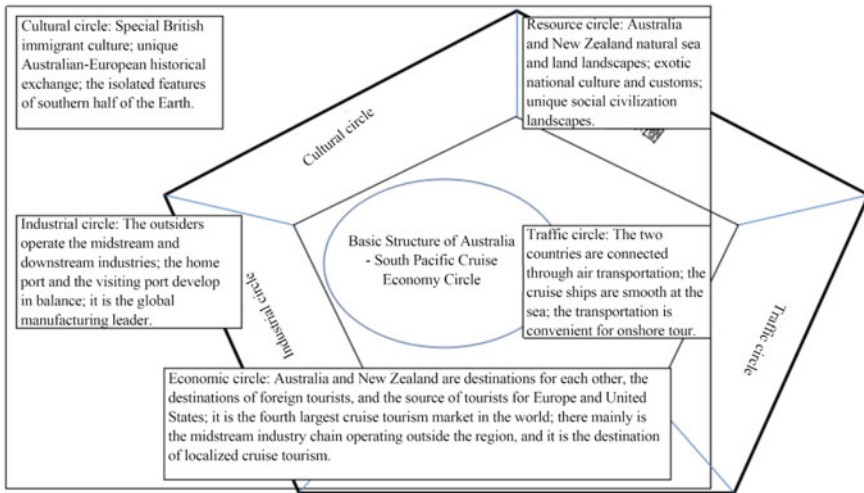


Fig. 6 Structure of Australia–South Pacific cruise economy circle

3.3.2 Characteristics of Functional Elements of Australia–South Pacific Cruise Economy Circle

The characteristics of cruise demand elements: Investment intends to be mainly concentrated on the onshore product development and marketing of the downstream visiting ports of cruise ships; the cruise consumption is relatively fixed; for tourism export, there are the destinations which mainly attract European and American tourists.

The characteristics of cruise supply elements: The human resources system in the downstream of the cruise ships is more reliable, and abundant talents are supplied in the cruise destinations. For the cruise capital market, there is corresponding financial support for the cruise tourism market, and the market growth is slow.

For the technical support capacity, there is rich experience in product manufacturing, design, development and marketing in the downstream of the cruise ships.

4 Reference to Typical Models of Major Global Cruise Economy Circles

4.1 Experience and Reference to North America–Caribbean Cruise Economy Circle

(1) The cruise economy circle structure has strong demand and adequate supply, the cruise culture radiation is strong, cruise resources are full of variety, and the cruise industry emerges powerfully. (2) The internal driving forces of the cruise circle with

complete elements and reasonable functional configuration: Strong cruise tourism consumption, which generates strong investment: the cruise consumption has always led the world, and the cruise investment system is very complete. (3) The strong cruise supply guarantee promotes strong growth: the senior human resources of cruise operation are very rich, and the core support technology of cruise tourism is very strong.

4.2 Experience and Reference to Europe–Mediterranean Cruise Economy Circle

- (1) The cruise economy circle structure with the development of the whole industry chain and complete elements: The cruise economy industry chain is long, the cruise industry chain is the longest, it is the core area of global cruise shipbuilding, and the development of cruise economy is balanced later; there is frequent exchange in cruise culture, unimpeded traffic, diversified cruise resources and rapid growth of cruise industry; strong European cruise shipbuilding + cruise organization operation + demand of customers for leisure and vacation + interaction between source countries and destinations which complement each other.
- (2) The internal mechanism with strong production demand and comprehensive supply elements: A long history of shipping and shipbuilding drives the growth of the whole industry chain, the characteristics of the whole industry chain investment in cruise ships, the core of global cruise shipbuilding, and comprehensive development of the upstream, midstream and downstream; the history of cruise consumption is the longest, cruise consumption is long, and the cruise tourism concept is mature.
- (3) The three elements on the cruise supply side are fully guaranteed, which promotes the growth of the whole industry chain: The labor supply for the whole industry chain is sufficient, the support strength of cruise financial capital is huge, and the technical support for the whole industry chain is super strong.

4.3 Experience and Reference to Australia–South Pacific Cruise Economy Circle

- (1) The cruise economy circle structure with moderate scale and skillful use of external forces: There are cruise tourism market and scale suitable for the economic development of the region, and the two-way cruise culture exchange.
- (2) Unique cruise resource feature development system, natural scenery of the South Pacific + special immigration culture and indigenous historical and cultural landscapes, and cruise industry relying on external forces.

- (3) It is suitable for visiting, focusing on functional characteristics of downstream elements:

The investment demand for tourism services, the synthetic cruise consumption inside and outside the region, and the guarantee for the technical support for cruise tourism.

5 Main Obstacles During the Formation of Northeast Asia Cruise Economy Circle

5.1 Basic Structure of China–Northeast Asia Cruise Economy Circle

It is the third largest fast-growing global cruise tourism market area, and the new upstream, midstream and downstream cruise industry chain region, the Japanese and Korean-based cruise ship reception culture, the cruise tourism regional culture of uneven transportation between the visiting ports and the home ports, the transportation between the destination ports and visiting ports is not so smooth, the development of cruise resources is just starting, with natural landscape with temperate monsoon climate + Japanese and South Korean folk culture and historical and cultural landscape, strong European and American cruise operators + growing Chinese local cruise operators + onshore excursion destinations in Japan and South Korea + customer sources from China + travel services from Japan and Korea as shown in Fig. 7.

5.2 Analysis on Functional Elements of China–Northeast Asia Cruise Economy Circle

The characteristics of cruise demand elements: The investment is biased towards the third largest region of global cruise tourism, the regional headquarters of cruise lines are growing; cruise consumption is large, but it is an unbalanced unipolar market; tourism export is in one-way flow, with unilateral source of customers from China, and unilateral cruise destinations in Japan and South Korea, and the cruise tourism consumption is not mature.

The characteristics of cruise supply elements: The supply of labor for cruise ships is insufficient, the technical support for cruise ships is insufficient, and the technologies and experience are insufficient for the development, operation, management and guarantee in upstream, midstream and downstream of cruise ships.

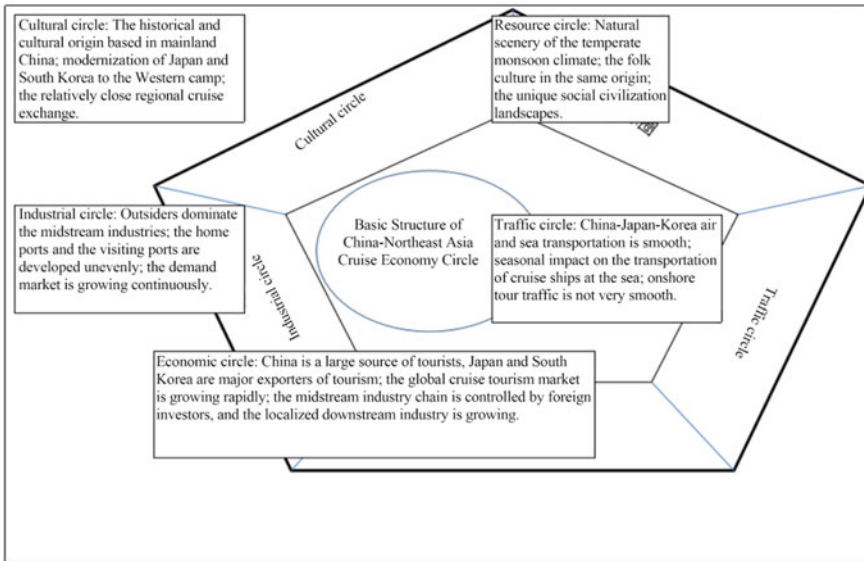


Fig. 7 Structure of China-Northeast Asia cruise economy circle

5.3 Analysis on Main Obstacles to Development of China-Northeast Asia Cruise Economy Circle

First of all, it is the incomplete and poor development of the five major cruise economy circles. The cruise economy system is incomplete, the benefits are unbalanced, the development is unbalanced, the cruise culture exchange is carried out unilateral and unbalanced, and the cruise resources are deficient in structure.

Secondly, the internal element support for the cruise economy circle is weak. There is a strong demand for cruise consumption and cruise tourism investment, but there is an obvious contradiction in weak financial capability. The difficulty in cruise management and cruise operation is increasing, but the lack of human resources and technical support capacity is prominent. The demand for cruise tourism experience is more and more intense, but cruise service guarantee and the cruise supply capacity are insufficient.

6 Effective Path and Safeguard Measures for Promoting the Formation of Northeast Asia Cruise Economy Circle

6.1 Technical Path

Firstly, the development idea of cruise resources should be expanded, and multi-dimensional cruise tourism products should be formed: The first is to expand the products and routes of onshore excursion in Japan and South Korea, break through the simple shopping experience, and expand from the material level to the all-levels tourism demand; the second is to form special products for tourism at the sea without destinations; the third is to strengthen the development of multi-port call. The current tour of Chinese tourists to Japan and South Korea may be expanded into a domestic, maritime and outbound tour.

Secondly, the scope of cruise cultural exchange should be expanded, to form a ship + shore + maritime culture circle to integrate the onshore landscape sight-seeing, the theme leisure on board and the sea tour activities, forming a systematic mechanism for leisure vacation and sightseeing, and expanding the tourists' experience.

Thirdly, a cruise financial support system should be formed to ensure the development demand of the whole industry chain of cruise ships to resolve the bottlenecks of cruise market expansion, cruise shipbuilding, cruise offshore operation, funding and development of cruise tourism organizations. The investment power of the private sectors and institutions should be simulated fully.

Fourthly, the cultivation of cruise human resources should be strengthened vigorously to form a strong cruise technical guarantee system, and form a human resources guarantee platform for upstream, midstream and downstream of cruise ships, form a talent system of cruise shipbuilding, design, ship supply, evaluation, operation, product design, and marketing, establish the technologies and specifications for manufacturing, design, port planning, route development, operation, management and various guarantees for Chinese localized cruise ships, establish the systems of cruise supply, product design, route development, and emergency support, and establish the specifications and management system of cruise operation and customer maintenance.

6.2 Safeguard Measures

6.2.1 Industry Policy Incentives

The first is the financial incentive policy for cruise ship manufacturing, the second is the industrial incentive policy for cruise ship operation, the third is the incentive policy for cruise product development, so as to promote Chinese local institutions

and the private sectors to be willing to buy ships, charter ships, and operate ships. More cruise ships are the hardware foundation for further cruise development.

It is recommended to form a promotion mechanism of regional cruise industry development in Northeast Asia (China, Japan and Korea), the cruise operation promotion guidance in Northeast Asia, and the rules and other regulations on cruise investment incentives and management in Northeast Asia, so as to promote the cruise industry investment in Northeast Asia to be more institutionalized and procedural.

6.2.2 Regional Coordination Mechanism

One of the core attractions for open-sea cruise tourism is outbound tourism, so it is crucial to guarantee the relationship between China and the tourist source countries. The formation of a cruise visiting and onshore tourism service system among China, Japan and South Korea can promote cruise tourists to perceive the charm of cruise tourism. Therefore, in case of no diplomatic and political turmoil, diversifying tourism routes and products as much as possible is the key to the development of cruise tourism in the region.

It is recommended to form the information sharing mechanism of China-Japan-South Korea cruise tourism, the onshore visit service and negotiation mechanism of China-Japan-South Korea cruise tourism, the negotiation mechanism of China-Japan-South Korea cruise supply, and the visit exchange and incentive negotiation mechanism of China-Japan-South Korea cruise tourists.

6.3 Key Work Contents

- (1) The government should enhance the industrial support. The governmental departments should formulate national-level industrial planning for cruise development as soon as possible, formulate a series of industry policies and industry management systems of investment, operation, consumption, route approval and port management related to the development of cruise industry as soon as possible to create the necessary policies and regulatory environment, clarify the distribution of coastal cruise ports, determine the division of functions of regional cruise ports, cultivate national and regional cruise home ports, and vigorously promote and regulate the development of the cruise industry.
- (2) The phased development planning should be made. The first is to act as a port of call for cruise ships, attract international cruise ships to berth and gain the inbound tourists; the second is to speed up the development of the domestic cruise tourism market, form a scale, and lay the foundation for the cruise industry upgrade; the third is to accelerate the pace of cruise home port construction and enhance the international competitiveness of cruise industry in China.
- (3) Regional cooperation should be carried out to develop the cruise economy. The cruise economy is the economy of scale. The construction of the cruise home

port must rely on the resources of the surrounding areas to jointly develop the cruise tourism market. The first is to strengthen domestic regional cooperation and re-integrate tourism resources in various regions of China to become an internationally renowned tourist destination. The second is to cooperate with neighboring regions to strengthen the cooperation in the four major regions of China. The third is to strengthen the cooperation with Hong Kong, Macao and Southeast Asia.

- (4) An international market operation mechanism should be established. The preparation of the industry specifications and standards in line with international cruise economy development and the establishment of a market operation mechanism in line with international standards are the key to the development of the cruise economy.

Chapter 9

Research on the Development of Shanghai Cruise Tourism Under the Background of Tourism Integration in the Yangtze River Delta



Huang Huang

Abstract At present, the Yangtze River Delta region is one of the regions with the highest level of economic development in China. The development status of regional tourism integration in the Yangtze River Delta is mainly manifested in that the Yangtze River Delta is an important tourist source and destination in China, the scale of tourism industry in the Yangtze River Delta tends to be balanced, Shanghai is the tourist distribution and service center of the Yangtze River Delta and the Yangtze River Angle tourism integration has laid a good foundation, Shanghai cruise port and tourism city integration has made remarkable progress, but there are still some problems such as the Yangtze River Delta has not yet formed a perfect cruise port system, the Yangtze River Delta cruise port and tourism hinterland integration still need to be developed. In the aspect of integrated development path, it is proposed to form a perfect cruise port system, form multiple single port cruise tourism destinations, and form a single multi-port cruise tourism destination. Based on detailed data analysis and government investigation, this paper will study the development path to promote the integration of cruise tourism destinations in the Yangtze River Delta.

Keywords Yangtze River Delta cruise · Tourism and tourism integration · Destination integration

1 Background and Trend of the Cruise Tourism Development Under the Background of Tourism Integration in the Yangtze River Delta

The current development situation of tourism integration and cruise destinations in the Yangtze River Delta will be studied in this section to forecast the development prospects for the integration of cruise tourism in the Yangtze River Delta.

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1.1 Current Situation of Tourism Integration in the Yangtze River Delta

The development foundation of tourism in the Yangtze River Delta will be studied in this section and the current situation of regional tourism integration in the Yangtze River Delta will be evaluated.

1.1.1 The Yangtze River Delta, an Important Tourist Source Region and Destination in China

The Yangtze River Delta region, composed of Shanghai City, Zhejiang Province and Jiangsu Province, is one of the regions with the highest economic development level in China. The per capita GDP of Shanghai, Jiangsu and Zhejiang was CNY 113,600, CNY 95,300 and CNY 83,500 respectively in 2016, equivalent to USD 17,100, USD 14,300 and USD 12,600, exceeding or close to the threshold for high-income economies of USD 12,736 determined by the World Bank in 2016 (Table 1).

With the improvement of the economic level, the tourism demand of the residents in the Yangtze River Delta has grown rapidly. *Annual Report on China's Domestic Tourism Development in 2017* from the China Tourism Academy shows (China Tourism Academy 2017), the travel capability of Shanghai, Jiangsu and Zhejiang as tourist source regions ranked 1st, 4th and 5th in China respectively, which are the important tourist source regions in China. The China Tourism Academy analyzes the number of daily flights between regions in China so as to study the tourist flow links between different regions of China, which can reflect the characteristics of

Table 1 Some economic and tourism indicators of the Yangtze River Delta region in 2016

Region	Per capita GDP (CNY)	Per capita disposable income of urban residents (CNY)	Per capita net income of rural residents (CNY)	Potential travel capability of tourist source regions	National ranking of potential travel capability of tourist source regions	National ranking of total income of domestic tourism
Shanghai	113,600	57,692	25,520	1.000	1	19
Jiangsu	95,259	40,152	17,606	0.7381	4	2
Zhejiang	83,538	47,237	22,866	0.7309	5	3
Nationwide	53,980	33,616	12,363	–	–	–

Source National and Provincial Statistical Report on National Economic and Social Development in 2016, *Annual Report on China's Domestic Tourism Development 2017*

inter-regional tourist flows in China to a certain extent. As shown in Table 2, the inter-regional tourist flow presents a “central-peripheral” feature.

The four major regions, namely the Circum-Bohai-Sea Region, the Yangtze River Delta, the Pearl River Delta and the Chengdu-Chongqing Region, are the most economically developed regions in China. The each two of them combine together to form a quadrilateral on the map of China and they are the central backbone of the national inter-regional tourist flows. The links between the other regions of China and the four major regions constitute the peripheral support of the tourist flows. It can be seen that the Yangtze River Delta is an important tourist destination in China.

1.1.2 The Scale of Tourism Industry in the Yangtze River Delta Tending to Be Equalized

Shanghai is the first gateway city for inbound tourism in China. In the era of just rise of domestic tourism, Shanghai had also become an important domestic tourist destination. In 1990s, the tourism industry in Shanghai was ahead of Jiangsu and Zhejiang in terms of industry scale. The evolution tracks of tourism development in

Table 2 Characteristics of tourist flows between major regions in China in 2017

Tourist source	Destination						
	Circum-Bohai-Sea region	Yangtze River Delta region	Pearl River Delta region	Central China	Northeast China	Chengdu-Chongqing region	Yunnan-Guizhou region
Circum-Bohai-Sea region	4 (0)	132 (+9)	137 (+13)	52 (-2)	15 (-4)	116 (+19)	83 (+18)
Yangtze River Delta region	122 (0)	2 (0)	218 (+35)	101 (+18)	41 (+9)	139 (+34)	106 (+20)
Pearl River Delta region	142 (+18)	219 (+36)	20 (+1)	64 (+1)	30 (+7)	124 (+23)	64 (+21)
Central China	50 (-4)	82 (-1)	95 (+32)	0 (0)	25 (+10)	62 (+13)	60 (+10)
Northeast China	15 (-4)	40 (+8)	31 (+8)	24 (+9)	0 (0)	22 (+10)	14 (+5)
Chengdu-Chongqing Region	117 (+19)	135 (+33)	121 (+19)	66 (+17)	22 (+9)	0 (0)	65 (+9)
Yunnan-Guizhou Region	83 (+16)	110 (+20)	66 (+7)	60 (+1)	14 (+5)	67 (+11)	2 (-14)

Source Annual Report on China's Domestic Tourism Development in 2017

Note Those in the brackets are the number of increase and decrease compared with the previous year, and the strong tourist flows are shown in bold

the “two provinces and one city” in the Yangtze River Delta since 1990 are as shown in Figs. 1 and 2 respectively. The column chart shows the number of tourist arrivals and the broken line chart shows the per capita consumption of tourists.

In 1990, the number of inbound tourists in Shanghai was 893,000, while it was 725,000 and 456,000 in Jiangsu and Zhejiang respectively. The per capita consumption of inbound tourists in Shanghai was also significantly higher than that in Jiangsu and Zhejiang. With the rapid development of inbound tourism in the past thirty years, the internal gap between Shanghai, Jiangsu and Zhejiang has been shrinking. In particular, the number of inbound tourists in Zhejiang Province has surpassed that in Shanghai, and the per capita consumption of inbound tourism in Jiangsu Province has surpassed that in Shanghai.

The development of domestic tourism in the Yangtze River Delta has followed the similar rule. The domestic tourism development of Shanghai has been ahead

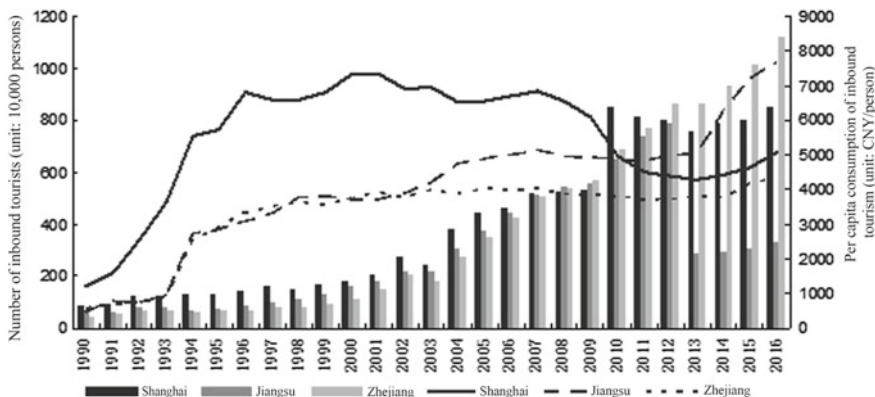


Fig. 1 Number of inbound tourists and per capita consumption in the Yangtze River Delta region from 1990 to 2016. *Data Source* China Domestic Tourism Development Annual Report 2017

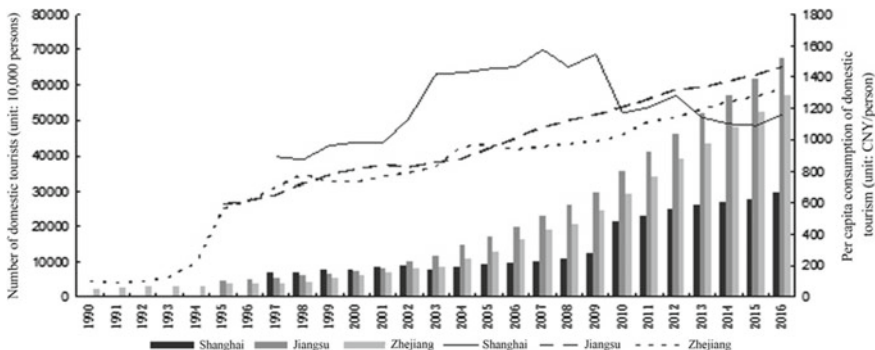


Fig. 2 Number of domestic tourists and per capita consumption in the Yangtze River Delta region from 1990 to 2016. *Data Source* China Domestic Tourism Development Annual Report 2017

of Jiangsu and Zhejiang since 1997. However, the number of domestic tourists in Shanghai has gradually been overtaken by that of Jiangsu and Zhejiang since 2002, and the per capita consumption of domestic tourism was also surpassed by Jiangsu and Zhejiang in 2010 and 2013 respectively. In general, the scale of tourism industry in the Yangtze River Delta tends to be equalized.

1.1.3 Shanghai, the Tourist Distribution and Service Center in the Yangtze River Delta

Shanghai is the distribution center of regional tourists in the Yangtze River Delta. Table 3 shows the throughput of civil aviation airports in the provinces and cities in the Yangtze River Delta.

In the passenger throughput and aircraft take-off and landing flights of civil aviation airports in the Yangtze River Delta in 2016, Shanghai accounted for 54.8 and 47.6% respectively, with the most important distribution function of inbound and domestic tourists.

The China Tourism Academy analyzed the number of daily trains between major cities in the Yangtze River Delta to study the tourist flow links in the Yangtze River Delta region, which can reflect the characteristics of tourist flows in the Yangtze River Delta region to a certain extent. As shown in Table 4, Shanghai has obvious advantages in the region, followed by Nanjing and Hangzhou. The number of trains parked and dispatched in the region is significantly more than other cities in the Yangtze River Delta. Therefore, Shanghai is the primary tourist distribution center in the Yangtze River Delta, Nanjing and Hangzhou are the secondary tourist distribution centers in the Yangtze River Delta, and Suzhou, Ningbo and Shaoxing are important tourist destinations in the Yangtze River Delta.

The survey on leisure behaviors of residents conducted by the China Tourism Academy shows that the tourism behaviors of residents in China are mainly concentrated on the short-distance range. With the increasing travel capability of residents in the Yangtze River Delta, the sharing of tourist sources and tourism resources in

Table 3 Throughput of civil aviation airports in the Yangtze River Delta in 2016

Region	Passenger throughput (Man-time)		Take-off and landing flights (flight)	
	Value	Proportion (%)	Value	Proportion (%)
Shanghai	106,462,549	54.8	741,883	47.6
Jiangsu	37,256,715	19.2	422,638	27.1
Zhejiang	50,504,216	26.0	393,538	25.3
Sum	194,223,480	100.0	1,558,059	100.0

Source The author added the civil aviation airports in all provinces and cities according to *Throughput Ranking of Civil Aviation Airports in 2016*

Table 4 Characteristics of internal tourist flows in the Yangtze River Delta Region in 2017

Tourist source		Destination									
		Shanghai		Jiangsu		Zhejiang					
		Nanjing	Suzhou	Yangzhou	Hangzhou	Ningbo	Shaoxing				
Shanghai	-	281	237	0	182	57	48				
	277	-			120	38	35				
	246				41	16	15				
	0				0	0	0				
	175				29	14	13				
	2				1	0	0				
	184				32	15	14				
	0				0	0	0				
	105				53	14	13				
	130				22	10	9				
Jiangsu	176	121	41	0	-						
	51	40	17	0							
	47	42	13	0							
	45	34	15	0							
	130	27	28	0							
	53	34	5	0							
	46	17	9	0							
	26	18	8	0							
	15	19	2	0							
	Zhejiang	176	121	41	0	-					
51		40	17	0							
47		42	13	0							
45		34	15	0							
130		27	28	0							
53		34	5	0							
46		17	9	0							
26		18	8	0							
15		19	2	0							

Source: Annual Report on China's Domestic Tourism Development in 2017

Table 5 Some tourism statistics indicators in the Yangtze River Delta in 2015

Region	Tourist attraction				Tourist reception capacity		
	AAAAA scenic area (Nr.)	A-grade scenic area (Nr.)	Average stay time of inbound overnight tourists (Day)	Proportion of inbound tourists to each region for the first time (%)	Hotel bed (Nr.)	Five-star hotel (Nr.)	Annual revenue per room of star-grade hotel (CNY 10,000)
Shanghai	3	100	3.01	36.8	87,113	65	33..25
Jiangsu	20	624	3.74	51.4	137,777	85	19.00
Zhejiang	14	488	2.54	46.9	193,765	78	19.20
Sum	37	1212	—	—	418,655	228	—

Source *The Yearbook of China Tourism Statistics 2016*

the Yangtze River Delta is greatly significant for promoting tourism integration in the Yangtze River Delta.

Shanghai is the tourism service center in the Yangtze River Delta. There were three AAAAA scenic areas and 65 five-star hotels in Shanghai in 2015, which were less than Jiangsu and Zhejiang in terms of quantity, indicating that the high-quality tourism attractions and tourism reception capacity of Shanghai were lower than those of Jiangsu and Zhejiang. However, in terms of the indicators reflecting the quality of tourism attractions, the proportion of inbound tourists to Shanghai for the first time was only 36.8%, and the average stay time of inbound overnight tourists in Shanghai was 3.01 d, indicating that Shanghai has strong attraction, which can attract tourists to stay for a long time and can effectively increase the revisit rate of tourists. In addition, the annual revenue of each room in Shanghai Star-grade Hotel is CNY 332,500, which is much higher than the level of Jiangsu and Zhejiang, indicating that the ability of Shanghai tourism enterprises to create value is much higher than that of Jiangsu and Zhejiang (Table 5).

In summary, Shanghai has a strong tourist distribution function and service center function in the Yangtze River Delta. The tourist attractions and star-rated hotels in Shanghai are less than those in Jiangsu and Zhejiang, but tourism attractiveness and the value-creation ability of tourism enterprises are stronger than those in Jiangsu and Zhejiang. Therefore, the tourism development of Shanghai and that of Jiangsu and Zhejiang are highly complementary. The advantages of Shanghai are mainly reflected in the tourist distribution function and the tourism service quality. The advantages of Jiangsu and Zhejiang are mainly reflected in the tourism development space and the scale of tourism industry. The complementary advantages of the “two provinces and one city” in the Yangtze River Delta should be fully utilized to achieve regional tourism integration.

1.1.4 Tourism Integration in the Yangtze River Delta with a Good Foundation

Since the “Twelfth Five-Year Plan”, the four regions of Shanghai, Jiangsu, Zhejiang and Anhui have fully utilized the platform role of the Joint Conference on Tourism Cooperation in the Yangtze River Delta, strengthened communication and coordination, improved the cooperation mechanism, and successively signed and implemented *Cooperation Framework Agreement of Tourism Integration in Shanghai, Jiangsu, Zhejiang and Anhui*, *Agreement on Jointly Promoting the Cooperation of the Recreational Tourism Development in the Yangtze River Delta*, *Action Plan for Realizing the Tourism Integration First in the Yangtze River Delta Region*, *Suzhou Consensus on Tourism Development Cooperation in the Yangtze River Delta*, *Hangzhou Scheme on Regional Tourism Integration Development in the Yangtze River Delta*, and other documents, and the process of tourism integration in the Yangtze River Delta is accelerating.

The main types, functional objectives and specific measures for tourism integration in the Yangtze River Delta are listed in Table 6. It can be seen that the main measures for tourism integration in the Yangtze River Delta are concentrated on the construction of the free tourist areas, the common tourism market, tourism destinations and tourism cooperation alliances in the Yangtze River Delta. The obstacles to the tourist flow in the Yangtze River Delta have been broken, and barrier-free free tourist areas have been built. Regional tourism products are connected together through tourism routes, and the intelligent tourism public service system in the Yangtze River Delta is built to initially form a common tourism market. The tourism brand image of “travel in Shanghai, Jiangsu, Zhejiang and Anhui, and enjoy quality tourism” is formed in the region and promoted at home and abroad to initially form the tourist destinations in the Yangtze River Delta. A “Joint Conference on Tourism Cooperation in the Yangtze River Delta” is held every year in the region, and a unified tourism development coordination mechanism has been formed to initially establish the tourism cooperation alliance. However, it should also be noted that the permanent joint tourism management organization and an authoritative system have not yet been established in the Yangtze River Delta, and the degree of regional tourism integration is still far away from the “integrated tourist area”.

1.2 Integration Development Status of Cruise Tourism Destination in the Yangtze River Delta

The development status of cruise tourism in the Yangtze River Delta will be analyzed in this section and the status of the integration of cruise tourism destinations in the Yangtze River Delta will be evaluated.

Table 6 Main types and measures for tourism integration in the Yangtze River Delta

Main types	Functional objective	Specific measures
Yangtze River Delta Free tourist area	Eliminate the traffic and institutional barriers for free flow of tourists in the region, and enable tourists to move freely in the Yangtze River Delta region	Yangtze River Delta high-speed rail travel alliance cooperation mechanism, 144 h Visa-free transit policy for foreigners, 15 d visa-free policy for entry of foreign tour groups by cruise ship, Yangtze River Delta regional tourism “one card” project, and continuing G20 tourism preferential policies
Yangtze River Delta Common tourism market	Promote the free flow of tourism industry elements in the region, realize the rational allocation of industrial elements, and promote the integrated development of tourism projects and products	Jointly launch medium and short-distance travel boutique routes and featured tourism products, preferential mechanism of product joint development in major scenic areas in the Yangtze River Delta region, and the Intelligent Tourism Public Service System in the Yangtze River Delta
Yangtze River Delta Tourist destination	Create an integrated tourism route, shape a unified regional tourism image and promote it together through the integration of tourism information, infrastructure and public services	The unified identification system for the publicity of the Yangtze River Delta overseas, the joint foreign-language tourism website in Shanghai, Jiangsu, Zhejiang and Anhui, the unified brand image of “travel in Shanghai, Jiangsu, Zhejiang and Anhui, and enjoy quality tourism”, the joint promotion conference on “Yangtze River Delta Night”, the joint overseas development of promotion activities themed on tourism in the Yangtze River Delta of China, the joint participation in key tourism exhibitions, and the joint implementation of large-scale tourism festival activities
Yangtze River Delta Tourism cooperation alliance	Establish a regular mechanism to coordinate tourism development systems and policies in the Yangtze River Delta region and ensure the benefits of tourism cooperation	The annual Joint Conference on Tourism Cooperation in the Yangtze River Delta, the joint preparation of the Yangtze River Delta tourism integration development planning, and the joint strengthening of market supervision
Yangtze River Delta Integrated tourist area	Establish a permanent joint tourism management organization to ensure smooth regional tourism cooperation, break all obstacles to tourism cooperation, and realize the complete integration of tourism development	—

Source It is sorted by the author based on the data from Dai and Huang (2016)

1.2.1 Shanghai Cruise Port with the Strongest Competitiveness in the Yangtze River Delta

Wusongkou International Cruise Terminal received 471 cruise ships and received 2.847 million inbound and outbound tourists in 2016, accounting for 47 and 63% of China respectively. Wusongkou International Cruise Terminal received 308 cruise ships and received 1.87 million inbound and outbound tourists from January to August 2017. The throughput of Wusongkou International Cruise Terminal has been ranked 1st in Asia and 4th in the world, becoming a world-class cruise home port. It is estimated that the quantity of home-port cruise ships in Wusongkou International Cruise Terminal will reach 20–30, the number of originating cruise ships will reach 800–1000, the number of originating cruise tourists will reach 5–6 million, and the number of cruise ships berthed and cruise tourists received are among the top three in the world in the 13th Five-year Plan period.

Wusongkou International Cruise Terminal launched a follow-up project with a total investment about CNY 800 million in June 2015, and it will build two new large cruise ship berths, two passenger terminal buildings and one approach bridge to further enhance the reception capacity of Wusongkou International Cruise Terminal and respond to the rapidly growing demand for cruise tourism market. The total length of the wharf will extend from 774 to 1600 m after completion, with four large cruise ship berths. Such an operational capacity that “four ships berth at the same time” and 800–1000 international cruise ships are received annually will be formed in 2018. At the same time, Baoshan District will adjust the Chongming Terminal on Baoyang Road to become the land passenger transportation center of the cruise ship port, and build a comprehensive transportation hub of Wusongkou International Cruise Terminal based on the comprehensive transportation hub of Baoyang Road.

Therefore, Wusongkou International Cruise Terminal is the first cruise home port of the cruise destinations in the Yangtze River Delta. Shanghai Cruise Port has the strongest competitiveness among the cruise tourism destinations in the Yangtze River Delta.

1.2.2 No Complete Cruise Port System Formed in the Yangtze River Delta

A “two main terminals and one standby port” city cruise port system has been formed in Shanghai. Cruise ships below 70,000 t are berthed at the International Cruise Terminal, cruise ships above 70,000 t are berthed at Wusongkou Cruise Terminal, and Waigaoqiao Haitong Terminal is used as a standby terminal. The three cruise ports of Shanghai received a total of 2.905 million passengers in 2016, of which Wusongkou International Cruise Terminal received 2.847 million passengers (accounting for 98.0%), and Shanghai Port International Cruise Terminal received 57,500 passengers (accounting for 2.0%).

Currently, two cities in the Yangtze River Delta have three dedicated cruise ports (Shanghai Wusongkou International Cruise Terminal, Shanghai Port International

Cruise Terminal and Zhoushan Archipelago International Cruise Port). Zhoushan Archipelago International Cruise Port received a total of 38,000 cruise tourists from October 2014 to March 2017. The three cruise ports mainly serve as the departing ports of the cruise ships, mainly including the cruise ships taken by Chinese for outbound tourism, with a few visiting cruise ships calling at the port. There are not many foreigners who travel by cruise ships for inbound tourism. Among the few foreign inbound tourists, they mainly visit Shanghai due to the influence of the urban attractiveness and the 15 d visa-free entry policy of Shanghai.

According to *Plan of Jiangsu Province for Distribution of Coastal Cruise Ports (2015–2030)* and the *13th Five-year Plan of Zhejiang for Ocean Port Development*, the dedicated cruise port under construction in Jiangsu Province and Zhejiang Province in the Yangtze River Delta is Wenzhou International Cruise Port (the maiden voyage is expected at the end of 2017). The ports with passenger terminals and cruise ship berthing conditions after being properly modified include Ningbo Port, Taizhou Port, Jiaxing Port, Lianyungang Port, Nanjing Port, Zhenjiang Port, Wuxi (Jiangyin) Port, Nantong Port and Suzhou Port.

The passenger flow of cruise tourism in the Yangtze River Delta is mainly concentrated in the Wusongkou International Cruise Terminal. The passenger flow to other cruise ports is smaller and their development is lagging behind, and a cruise port system hasn't been formed in the Yangtze River Delta. In terms of the development status, the Yangtze River Delta mainly serves as a departing point of the cruise ships, and it receives less cruise ships. It is difficult to form a cruise tourism route in the Yangtze River Delta in series due to the small total number of cruise ports in the Yangtze River Delta and the incomplete functions, which restricts the development of inbound tourism in the Yangtze River Delta.

1.2.3 The Remarkable Progress in the Integration of Cruise Ports and Tourism City in Shanghai

Baoshan District, Shanghai has determined the transformation development goal from “cruise terminal” to “cruise port” and “cruise city”, realizing the macro strategic transformation from “steel city” to “cruise city” to promote the integration of cruise tourism destinations.

From the spatial interaction of the port city, Baoshan District adheres to the development concept of “waterfront linkage and port city integration”, and plans to build a cruise riverside belt and a new cruise city with high standards by relying on the development of the cruise port, and focusing on the north–south extension of Binjiang Avenue, the follow-up project of the cruise port, the core area of the cruise city, Shanghai Long Beach and other key projects.

From the joint development of the cruise industry, Baoshan District promotes the cruise industry to accelerate the extension to the upstream and downstream, and creates a comprehensive cruise industry economy by establishing Shanghai CSSC International Cruise Industrial Park, the constructing Comprehensive Reform Demonstration Zone of Shanghai International Cruise Port, introducing the head-

quarters of international cruise lines, building Shanghai cruise material distribution center, and establishing China's cruise tourism cross-border commodity trading center and e-commerce platform.

From the urban tourism development, Baoshan District is oriented towards the theme of "Charming Baoshan · Cruise City" to vigorously develop the tourism industry. In terms of the tourism development in all fields, Baoshan Tourism has formed a full-field tourism pattern including cruise tourism, agricultural tourism, industrial tourism, cultural tourism and ecological tourism by deeply integrating eight fields: cruise, agriculture, industry, commerce, culture, greening, science and technology and education. The district received 11.3363 million tourists, with an increase of 8.3% over the previous year; the tourism income reached CNY 11.012 billion, with an increase of 78.3%.

1.2.4 The Integration of the Cruise Ports and Tourism Hinterlands Needing to Be Developed in the Yangtze River Delta

The current cruise routes in the Yangtze River Delta are mainly originating ones, and they mainly meet the demand of Chinese people for outbound tourism by cruise ships. The foreigners to the Yangtze River Delta rarely take cruise ships, so there are fewer routes satisfying the demand of foreigners for inbound tourism and calling the Yangtze River Delta, and there is no offshore cruise route connecting the cruise ports in the Yangtze River Delta.

Therefore, the hinterland tourism development in the Yangtze River Delta at this stage mainly relies on the onshore tourism of the outbound Chinese tourists in the Yangtze River before and after taking outbound cruise ships, mainly the domestic tourism of Chinese tourists in the Yangtze River Delta. The small number of routes of call is mainly to Shanghai with relatively short docking time, mainly the urban tourism of the foreigners in Shanghai. According to the originating routes, there is no cross-provincial deep tourism of Chinese tourists in the whole Yangtze River before and after taking cruise ships, the inbound tourism of the foreigners in the Yangtze River Delta region before and after taking cruise ships originating from the Yangtze River Delta or corresponding hinterland tourism driven by the routes originating from cities except Shanghai. According to the routes of call, there is no tourism in the cruise port cities driven by the visiting port call of the cruise ships. The whole Yangtze River Delta region hasn't become a mature cruise tourism destination.

The single cruise routes and destinations in the Yangtze River Delta have restricted the innovation space and elastic operating space of the cruise enterprise products. Since tourists' most important determinant of the cruise products is the destination, with the ceaseless increase in the market penetration rate of China's cruise tourism, it goes against the increase in the revisit rate and it possibly restricts the sustainable development on the cruise tourism in the Yangtze River Delta cruise tourism.

In addition, with the cruise headquarters, cruise supply, cruise service, cruise ship-building and other relevant industrial clusters in the Yangtze River Delta concentrated in Shanghai and the less radiation and promotion effect on Jiangsu and Zhejiang, the

economic division system of the cruise industry in the whole Yangtze River Delta hasn't been formed.

1.3 Development Trend of the Cruise Tourism Integration in the Yangtze River Delta

According to the deep research on the status quo and development trend of cruise tourism by European Commission (2009) and UNWTO (2010), and in combination with the study and judge on the development trend of the cruise tourism destinations by the author, it can be concluded that the regional tourism integration is the trend of cruise tourism development, which can be divided into three stages according to its development degree.

Primary stage—In the primary stage of cruise tourism development, the cruise ports and cruise routes boasting superior resources begin to rise. But the integration degree of cruise port, tourism city and tourism hinterland is low, and cruise tourism destination hasn't been formed.

Intermediate stage—With the further development of cruise tourism, the number of cruise ports and cruise routes gradually increase with the construction of cruise terminals at the qualified ports. But the relative homogenization of the functions and natures of ports and routes leads to such a situation that competition between them is greater than cooperation. The cruise ports, tourism cities and tourism hinterlands tend to be gradually integrated to form cruise tourism destinations. But the corresponding cruise tourism destinations of various cruise ports are relatively independent.

Advanced stage—At the mature stage of cruise tourism development, the further subdivision and integration of the cruise ports and cruise routes lead to such an integrated cruise port and cruise route system that the cooperation between them is greater than competition. The corresponding cruise tourism destinations of various cruise ports are gradually integrated from the multiple tourism destinations of the cruise ships from individual ports to the single tourism destination of the cruise ships from multiple ports. The cruise tourism destination enters the stage of regional integration.

2 Integrated Development Path of Cruise Tourism Destination in the Yangtze River Delta

According to the integrated development law of cruise tourism destinations, the integrated development of cruise tourism in the Yangtze River Delta can be divided into three stages.

2.1 Formation of a Perfect Cruise Port System

The construction of cruise ports is the basis for cruise tourism development. The construction of new special-purpose cruise ports and reconstruction of passenger terminals along the river and the sea with added docking function on the basis of three dedicated cruise ports (Shanghai Wusongkou International Cruise Terminal, Shanghai Port International Cruise Terminal and Zhoushan Archipelago International Cruise Port) in the Yangtze River Delta will form a cruise port system with Shanghai Port as the home port and Ningbo Port, Zhoushan Port, Wenzhou Port, Taizhou Port, Jiaxing Port, Lianyungang Port, Nanjing Port, Zhenjiang Port, Wuxi (Jiangyin) Port, Nantong Port, Suzhou Port and other ports as departing ports and visiting ports.

The reasonable layout, scale, structure and functions of the cruise port system can meet the diversified demands for cruise departure, cruise call and onshore tourism, which can be combined into a Yangtze River Delta cruise route with international appeal and healthy competition and cooperation relationship among cruise ports. The cooperation organization of the cruise ports with a standing body coordinates the cooperation between cruise ports in the Yangtze River Delta. Enterprise groups play a crucial role in the integration of cruise port system.

2.2 Formation of Multiple Cruise Tourism Destinations of the Cruise Ships from Individual Ports

In combination with the overall plan for the urban tourism development, the cruise ports and corresponding tourism cities in the Yangtze River Delta have realized the integration between macroscopic urban plans, microcosmic urban design, the tourism functions of port cities and the tourism products of port cities. Cruise tourism becomes an important driving force for urban tourism, and urban tourism becomes an important development space for cruise tourism. A number of cruise tourism destinations with distinctive individual ports have been formed in the Yangtze River Delta.

At this stage, the competition between cruise ports turns into the competition between cruise tourism destinations. Since the integration of cruise tourism destinations hasn't been completed, the competition between cruise tourism destinations is possibly greater than cooperation.

2.3 Formation of the Single Tourism Destination of the Cruise Ships from Multiple Ports

Various cruise ports constitute a perfect cruise port system based on the formation of the single tourism destination of the cruise ships from multiple ports. With the

further promotion of regional tourism integration, various tourism cities complement each other's advantages and various tourism hinterlands interact and integrate with each other, integrating the multiple tourism destinations of the cruise ships from individual ports to the single tourism destination of the cruise ships from multiple ports, and preliminarily realizing the integration of cruise tourism destinations in the Yangtze River Delta.

At this stage, the internal cooperation is greater than competition between cruise tourism destinations in the Yangtze River Delta. As an integrated region, the Yangtze River Delta competes against Caribbean, Mediterranean and other world-class cruise tourism destinations.

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Chapter 10

Cruise Tourism Integration and Regional Tourism Integration in the Yangtze River Delta



Xiaodong Sun, Rongxin Ni and Yating Hou

Abstract With the characteristics of global nature, openness and interconnectivity, cruise tourism can effectively promote the development of regional tourism integration. *2018 Action Plan for Promoting the Development of Regional Tourism Integration in the Yangtze River Delta* signed in December 2017 points out that the Yangtze River Delta needs to realize the regional tourism integration on a larger scale by relying on the “Big Planning”, “Big Brand”, “Big Promotion” and “Big Regulation” and, in particular, increase the inbound tourism turnover by linking up with the Belt and Road Initiative. As the Yangtze River Delta is the leader of mainland China in the aspect of cruise tourism development, the construction of “cruise tourism integration” featured with solid foundation, open market, openness, inclusiveness and unified standard is propitious to the deepening of tourism integration contents and the enhancing of the integrated competitiveness of regional tourism in the Yangtze River Delta. This report mainly refers to the domestic and foreign experience to discuss how to realize the cruise tourism integration in the Yangtze River Delta region. First of all, the relationship between cruise tourism integration and regional tourism integration is analyzed. Then the development experience in domestic tourism integration, EU tourism integration, Florida cruise tourism and European inland river cruise tourism are discussed. Finally, the countermeasures and suggestions for the construction of the cruise tourism integration in the Yangtze River Delta are proposed. The goal is to construct the “Yangtze River Delta Cruise Tourism Economy Circle” in the large market through the two-way interaction between cruise tourism integration and regional tourism integration to get through the bottleneck of tourist sources, resources, information, service, channel and other factors.

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Keywords Cruise tourism · Yangtze River Delta · Tourism integration

1 Relationship Between Cruise Tourism Integration and Tourism Integration

After a rapid development for more than ten years recently, a fairly complete cruise port system has been formed in China's cruise industry. In the Yangtze River Delta region, Shanghai, Zhoushan, Wenzhou, Lianyungang and other places have had hardware conditions for cruise ship reception. After the port construction and cruise ship reception reached a certain scale, the necessary conditions for maintaining a long-term prosperity of cruise industry are abundant tourist resources in the hinterlands, effective connectivity between ports and hinterlands, reasonable structure of inbound and outbound markets, unified service standards for cruise tourism, and onshore products featured with both international characteristics and Chinese characteristics. The port cities should break the closed pattern of "node" type development to realize the effective connectivity and cooperation and resources integration among tourist generating regions, destinations and departing ports so as to build an integrated "big market" status with coordinative total factors.

Cruise tourism integration and regional tourism integration complement each other. On the one hand, as cruise tourism integration is an important part of the tourism integration, its openness and interconnectivity can effectively improve the degree of tourism integration. On the other hand, regional tourism integration is a major support for cruise tourism integration, which can effectively promote the tourist source interconnection between the hinterlands and ports, the resources access between hinterlands and the interest sharing between different stakeholders as shown in Fig. 1. As a vital center of China's tourism economy, the Yangtze River Delta has gradually formed a networked developing situation featured with complementary advantages and sharing market relying on the geographical advantages, resources advantages, tourist source advantages, economic advantages, information advantages and talent advantages. It can be said that it has taken the lead in entering the substantial stage of tourism integration. The tourism integration in the Yangtze River Delta cannot only help Shanghai expand the market depth and make up for the lack of tourism resources, but also benefit Jiangsu, Zhejiang and Anhui in increasing the tourists number and tourism income with the help of Shanghai's tourist attraction. As the fastest growing and most mature region of cruise tourism in mainland China, Shanghai has become Asia's first and world's fourth largest home port city. In the aspect of cruise tourism, the tourism integration in the Yangtze River Delta to a great extent is the process of the linkup of Jiangsu, Zhejiang and Anhui with Shanghai.

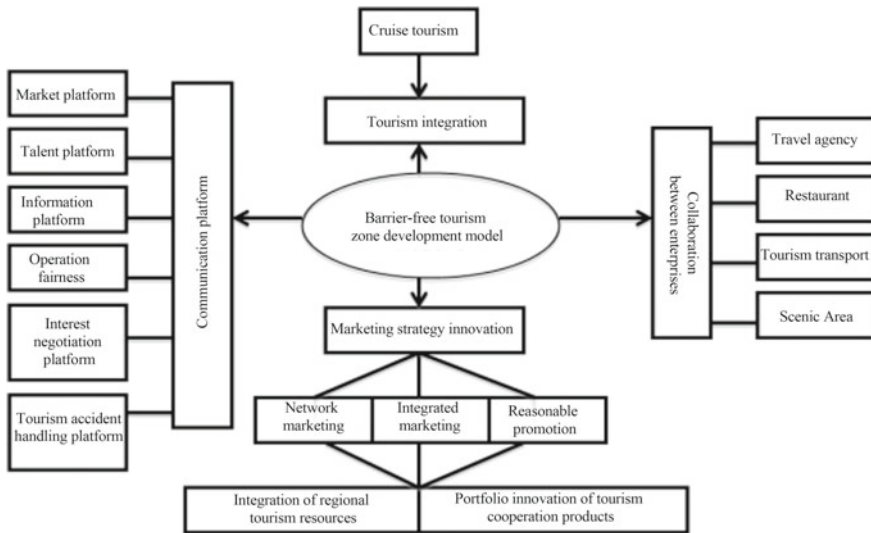


Fig. 1 Tourism integration in the Yangtze River Delta with cruise tourism embedded

2 Current Situation and Problem of Tourism Integration in the Yangtze River Delta

2.1 Current Situation of Tourism Integration in the Yangtze River Delta

Since Shanghai put forward the concept of “big tourism” in 1986, the tourism in the Yangtze River Delta has entered the substantial stage of integrated development of higher-level and comprehensive close cooperation after the partial, sporadic and loose cooperation at the beginning stage and in the rapid development period. In particular, the annual working conference (as shown in Table 1) on tourism integration has launched various policies and measures to perfect the system construction such as tourism infrastructure, public service system and tourism market standard system. The Yangtze River Delta has taken the lead in the domestic tourism integration with significant achievements in the aspects of joint promotion, festival celebration, talent cultivation, development strategy, tourism standard and brand building through the integration of system and tourism functions.

Table 1 Evolution course of tourism integration in the Yangtze River Delta

Time	Main work contents
1986	Put forward the concept of “big tourism”
1997	<i>Agreement on Cooperation between Cities in the Yangtze River Delta</i> established the mechanisms such as tourism joint conference and tourism summit forum
2001	Conference on tourism economy cooperation between 15 cities
2003	Signed <i>Declaration on Cooperation between Tourism Cities in the Yangtze River Delta</i> and confirmed the “Tourism Year of Jiangsu-Zhejiang-Shanghai”
2004	Established the “Jiangsu-Zhejiang-Shanghai Tourism Market Promotion Association” and publicized <i>Suggestions on Further Promoting the Cooperation of Tourism Education and Training in the Yangtze River Delta</i>
2006	Adopted <i>Declaration on Tourism Cooperation between Canal Cities</i> to create tourist attractions in canal cities
2007	Issued <i>Suggestions on Comprehensively Promoting Tourism Cooperation in the Yangtze River Delta</i> and <i>Specification for Setting of Road Traffic Guidance Signs in Main Scenic Areas (Spots)</i>
2007	Circum-Taihu Lake Tourism Cooperation Organization issued a declaration, advocating Taihu Lake tourism integration
2010	Signed the framework agreement on aquatic tourism cooperation in the Yangtze River Delta to unify service standards and specifications
2011	Signed <i>Framework Agreement on Tourism Integration Cooperation between Jiangsu, Zhejiang, Anhui and Shanghai</i> to integrate Anhui into the tourism cooperation circle in the Yangtze River Delta
2012	Signed <i>Cooperation Agreement on Joint Promotion of Leisure Tourism Development in the Yangtze River Delta</i> , issued <i>Outline of Recreation Vehicle Tourism</i> , held a launch ceremony of “Joint of Tourism and Cruise Ship” in the Yangtze River Delta and included the cruise tourism into the development framework of integration tourism for the first time
2014	Signed <i>Action Agenda of Taking the Lead in Realizing the Tourism Integration in the Yangtze River Delta</i>
2015	Signed <i>Suzhou Consensus of Tourism Development Cooperation in the Yangtze River Delta</i>
2016	Signed <i>Hangzhou Scheme on Regional Tourism Integration in the Yangtze River Delta</i>
2017	Signed <i>2018 Action Plan for Promoting the Development of Regional Tourism Integration in the Yangtze River Delta</i> to respond to the Belt and Road Initiative and expand the inbound tourism market

2.2 Main Obstacles of Tourism Integration in the Yangtze River Delta

2.2.1 Insufficient Integration of Public Service and Insufficient Tourism Facilitation

The service quality, information consultation, emergency rescue system and transportation network in the regional tourism development in the Yangtze River Delta are lagging behind and even the one card for traffic hasn't been really formed. In the aspect of cruise tourism, the financial system that meets the needs of inbound tourists such as credit card payment and foreign currency exchange hasn't been formed. There are few guidance signs in foreign language and the popularity rate of basic English is low.

2.2.2 Insufficient Overall Planning and Deep Cooperation in Tourism Cooperation

The overall planning document concerning the tourism integration development hasn't been developed and the implementation of tourism projects hasn't be arranged in a unified manner, leading to the repeated construction and homogeneous competition, and eventually wasting resources. The multi-layer linkup and overall cooperation concerning cruise tourism between different regions in the Yangtze River Delta haven't been formed. The superior resources and products in the hinterland areas are poorly developed.

2.2.3 Unreasonable Tourism Product Structure and Weak International Competitiveness

Problems that restrict the formation of world-class tourism brands and the promotion of industry level exist. For example, the tourism resources are not fully utilized, the development design lacks innovative and integrated ideas, and the products are simple and similar and different in quality.

2.2.4 Unformed Tourism Market Integration and Weak Tourism Enterprise

The roles of tourism enterprises as subjects haven't been brought into full play. The organization by the third parties hasn't been in place, making the tourism enterprises still in the marginal zone of regional tourism cooperation, without international competition consciousness, innovation consciousness and competent innovation ability.

2.2.5 Insufficient Tourism System Integration, Strong Coordination Mechanism and Legal Binding Force

The functions of Joint Conference on Tourism Cooperation and forums are incomplete, the coordination mechanism is loose, and the framework agreement has no operability and legal binding force. Cross-department performance evaluation mechanism hasn't been established. There is no multi-layer and diversified cooperation mechanism and interest coordination mechanism that are jointly participated in by the governments, associations, enterprises and residents. The construction of tourism laws and regulations lags behind, and the legislation of tourism service and trade hasn't been systematic.

2.2.6 No Sufficient High-Quality Talents and Innovative Talents

High-end management personnel and R & D professionals are scarce, so the market demands and responses to the innovative products cannot be continuously tracked and monitored. At the same time, the absence of effective talent incentive and management mechanisms makes the tourism innovation lack initiative, originality and sustainability. For example, "East China Line" is still a dominant route and product open to international tourism market, and there are few innovative products and routes.

2.2.7 Insufficient Integrated Regional Tourism Promotion Image

The tourism resources haven't been effectively integrated and refined, their cultural context hasn't been arranged, and the promotion image representing the connotation of the tourism resources in the Yangtze River Delta hasn't been formed. Taihu Lake is now taken as an example. Wuxi claims that "The super-excellent scenery of Taihu Lake is in Yuantou", Suzhou expresses that "Half of the fascinating sceneries of Taihu Lake are in Gusu", and Huzhou publicizes that "Huzhou is the only city named after the lake in the area around Taihu Lake". The three cities all highlight their own special status in Taihu Lake area, without unified brand image.

3 Experience and Reference to Tourism Integration at Home and Abroad

3.1 Experience and Reference to Tourism Integration at Home

Besides the Yangtze River Delta, China has initially formed a number of tourism integration regions, such as Beijing-Tianjin-Hebei, Circum-Bohai-Sea Region and Pan-Pearl River Delta, and they have made some important achievements respectively. For example, Beijing-Tianjin-Hebei have set up a tourism marketing cooperation alliance and have preliminarily established the regional tourism cooperation mechanism. They have basically completed the top-level design of collaborative development, and have determined the overall policy for promoting the implementation of the strategy. They have opened Beijing-Tianjin-Hebei tourist trains and special trains. In the Circum-Bohai-Sea Region, the five cities have established a tourism collaboration association, the Circum-Bohai-Sea Region economy circle with a certain degree of relevance has been formed gradually, and the three-dimensional transportation system of sea, land and air has been preliminarily established. The pattern of regional “tourism integration” in the Pearl River Delta has also taken its initial shape. In particular, the cultural tourism integration has made significant achievements with established four color blocks of “Green”, “Red”, “Blue” and “Gold” and distinctive positioning of fully exploited natural resources, traditional customs and historical sites; the traffic network that radiates to the whole China has taken its initial shape, and multiple tourist routes of “One route with multiple stops” has been jointly built.

3.1.1 Construction of Regional Tourism Brand

In the region, a clear and unified market image should be constructed to bring the important tourism products in the region under the brand, and double the marketing effect with half the effort by marketing and promoting the region as a whole.

3.1.2 Development of Product Systems as a Whole

The basic principle for the design of the tourism products in the whole region is that the products in the whole region are interconnected and non-conflicting. The intensive development operation instead of homogeneous development and operation should be realized and the overall performance of the regional tourism economy should be improved through the comprehensive and profound exploitation and deduction of the shared core resources.

3.1.3 Optimization of the Tourism Management Mechanism

A regional intelligent tourism management system should be constructed in combination with intelligent information technology as a sharing platform to realize the collection and processing of regional tourism information, the supply of tourism service and the control over tourism management in a timely manner.

3.1.4 Introduction of the Secondary Allocation Mechanism

The “regional tourism development fund”, “transfer payment of special tourism revenue” and other second distribution mechanisms of economic income should be rationally constructed among different administrative divisions, departments and enterprises, and the direct income of the frontline tourism regions, enterprises and projects should be used through financial, tax and financing means for the prevention and development of the frontline ones.

3.1.5 Establishment of the Joint Environmental Protection Mechanism

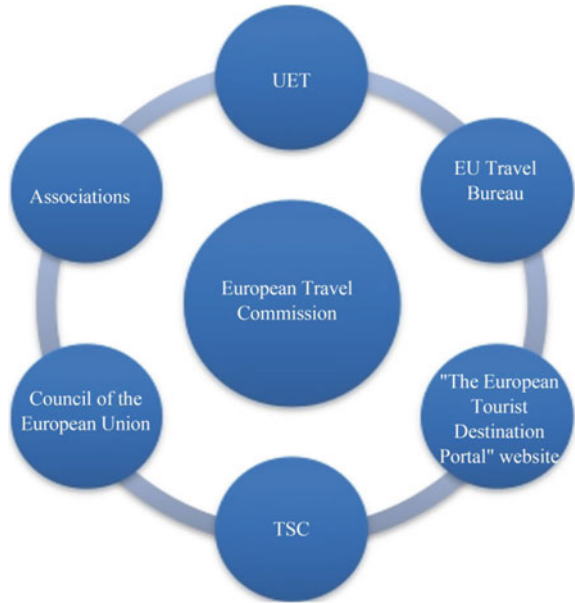
The safety of ecological environment and social environment has an important influence on the sustainable development of regional tourism industry. Therefore, the regional ecological compensation mechanism should be implemented and the early public safety warning mechanism should be established in a forward-looking way, so as to construct harmonious and safe tourist tourism for tourists.

3.2 Reference to Tourism Integration Abroad

3.2.1 Reference to Tourism Integration in EU

The establishment of the European Travel Commission in 1948 marked the beginning of the EU tourism integration, and EU has become a model of regional tourism integration this far. In 1986, EU established Tourism Consultative Committee as the specialized agency representing the interests of member countries. This agency is responsible for organizing the member countries to formulate the basic strategies of outward tourism cooperation, carry out the research on tourism policy and theory, jointly develop the tourist source market and improve the tourism reception level. It is at the center in the process of tourism integration development to coordinate various institutions and organizations, including Council of the European Union, TSC, EU Travel Bureau, Association of European Airlines, European Tourism Association, Euro Chambers and European Community Shipowners' Association as shown in Fig. 2. Since 2012, EU has further strengthened its cooperation and exchange with China in tourism.

Fig. 2 European tourism integration cooperation mechanism



A stable and specialized agency has been established. In 1986, EU established the specialized tourism integration agency—Tourism Consultative Committee. Since 1988, officials in charge of tourism have held regular meetings and annual “European Tourism Forum” to discuss difficult problems during the tourism development, share successful experience and strengthen the cooperative relations among the parties.

Tourism service standards and development plans have been prepared. EU has set the unified tourism industry program, developed new tourism projects ceaselessly, established a unified quality assurance system, established UET and TSC, formulated *Tourism Development Plan of European Community* and *Main Principles for European Community Tourism Policy*, making unified regulations on the development objective, external relations, regional policy, enterprise policy, cooperation policy and tourism development fund.

Strong financial support is provided. Council of the European Union has set the Structural Funds and Cohesion Funds to provide extra assistance for reducing and eliminating the unbalanced social and economic development in the EU. Moreover, “European Social Fund”, “European Agriculture Guarantee and Guidance Fund”, “European Regional Development Fund” and other funds are also established to support the tourism development in the aspects of tourism development, service facility construction and personnel training.

Convenient transportation network has been constructed. Transportation has been put at a premium, and the integration of transportation means has been taken as the primary mission or main content of the policy. On the one hand, the transportation administration of each country has prepared the specific plan for the infrastructure on

the basis of optimizing the whole transportation network; on the other hand, advanced technologies have been used to promote the regional transportation interconnection and vigorously develop the public transportation with large traffic volume and high utilization frequency.

The tourism publicity and promotion have been unified. *New EU Travel Policy Framework* has been prepared to build a high-quality tourism destination brands. Europe Travel Network has been established, major festival events have been organized jointly, “Europe, the best tourist destination” has been determined as the unified tourism image, and European tourism is promoted with a specific theme elected every year. Europe attaches great importance to cultural tourism, launching the “Road of European Culture” tourism product and designing the tourism products across regions or countries. A creative idea is published every year to promote the cross-border cultural tourism.

Perfect system of policies and regulations have been prepared. As early as 1990, in the program of “European Year of Tourism”, EU put forward that it was necessary to adopt special policies for the tourism industry. After that, EU issued the first special document on tourism industry, *Main Principles for European Community Tourism Policy* and adopted *Resolution on Establishing the Distribution of Tourism Areas and Establishing Consultation and Cooperation Procedures for Tourism Industry*. In 1993, *Package Tour Regulations of European Community* was implemented; in 2006, *Tourism Development Plan of European Community* was prepared; in 2011, *New EU Travel Policy Framework* was put forward, which avoids the arbitrary interference of the member country government in cooperation, fully guarantees the interests of all parties, and provides a relatively fair and equal competitive environment for EU tourism enterprises.

Governments, industry and enterprises divide the work and cooperate with each other. EU attaches importance to the close cooperation between countries, regions and local public institutions as well as the cooperation with tourism associations and other public and private tourism stakeholders, playing the role of European Tour Operator Association, European travel agents and other tourism operator associations and promoting the cooperation between tourism industry and airlines. EU gives full play to the main role of enterprises and vigorously promotes the tourism enterprises to grow big and strong. In addition, EU also carries out the targeted exchange and cooperation with other countries, organize various unified promotion conferences and tourism festivals, and conduct overall tourism promotion and marketing.

3.2.2 Experience of Florida in Cruise Tourism Development

The cruise industry in United States began in the last century with Florida as the most developed region. The Port of Miami, Port Canaveral, and Port Everglades are the three important cruise ports in Florida, the Port of Miami is reputed as the “Cruise Capital of the World” and the other two ports are two of the most vigorous cruise ports in the world. Florida organized the overall development, dislocation competition and unified marketing of cruise ports in the state, and led the establishment of the Florida-

Caribbean Cruise Association (FCCA) to jointly promote the integration of cruise tourism in Caribbean.

The government prepares the integrated regional development plan.

The Florida Harbor Committee has developed a unified cruise development plan, recommending the harbors in Florida to enhance the dominant status in US cruise industry by attracting new partners and providing the best facilities in the industry. In 2012, Florida invested USD 180 million in the channel deepening and other harbor projects through Florida Department of Transportation.

Cruise lines are actively cooperated with and differentiated development strategy is adopted regionally. The theme of each port in Florida is distinctive with clear development direction, which forms the integration trend of the coordinated development between home port, gateway port and the regional port. For example, Port Everglades has developed tourism products with the theme of onshore ecotourism together with National Park Service; Port Carnival has built the marine theme park with Disney on the basis of marine amusement; the port Key West has built a commercial port with complete functions such as night market, artistic performance, catering, music and hotel with the theme of romantic sunset.

The supply for cruise ships is statewide. With the well-established cruise ship supply chain, Florida unifies the allocation and management of food and beverage supply, the arrangement of onshore activities, the arrangement of port schedule, fuel procurement, technology procurement and hotel procurement, and forecasts the demand and effectively controls the supply through data analysis.

Suitable local agents are looked for. The important promoter for the cruise tourism integration is local agents, especially the agents that have a deep understanding of corresponding regions. Florida gives full play to the main body role of enterprises, encourages local residents to participate in the development of the cruise industry, and carefully selects the service providers and suppliers.

Good communication system is established. Florida has realized the 24-h unimpeded and timely communication between ports through the establishment of whole-area communication system and the real-time exchange of information among shipping companies, travel agencies and tourists through a big data network platform, and effectively improved the efficiency of port customs clearance through a cruise tourism information platform, improving the external service of the cruise ports as a whole, solving the emergent situations such as insufficient materials supply of each port, over-loading and rotation of tourists, cruise ship stagnation and port exchange.

Adjacent regions are actively cooperated with for the alliance between giants. Making the utmost of geographic advantages and in combination with Mexico and Caribbean, Florida established the FCCA in 1972 for constructing the bilateral and constructive dialogue mechanism concerning the matters of legislation, tourism development, port, safety, and other cruise industry matters.

3.2.3 Enlightenment of European River Cruise

River cruise tourism can be called the major element in the aspect of cruise tourism promoting the regional tourism cooperation and integration development. The key factors of river cruise are the onshore sightseeing and activities along the cruise route. The cruise route connects the distinctive human resources and natural resources in different regions and gives full play to the integrated effect of the tourism resources to display the brand image of the regional tourism destination to the fullest extent and promote the coordinated development of regional tourism through the effective cooperation between stakeholders.

Viking River Cruises is the largest river cruise operator in the world, and it has extended its business to ocean cruise service. In 2016, for China's market, Viking River Cruises launched multiple river cruise routes with Rhine and Danube as carriers (including the 11-day Romantic Rhine, 11-day journey on Rhine, 11-day journey on Danube, 8-day journey on Rhine and 8-day journey on Danube), connecting the distinctive destinations along the thousands of kilometers long route with flexible combinations and expanding the radiation effect of the river cruise tourism. For example, the voyage plan for Journey on the Rhine involves Amsterdam and the Child Dike in Netherlands, Cologne and Heidelberg in Germany, Paris and Strasbourg in France as well as Lucerne, Jungfrau and Basel in Switzerland, integrating the top-level distinctive resources along the route from Netherlands to Switzerland for creating a classic and romantic river cruise route. The total length of the route is 1200 km with leisure and vocation as keynote, as shown in Fig. 3. While the journey on the Danube connects the famous tourist attractions from Germany to Austria and Hungary, including Vienna, Wachau Valley, Salzburg and Melk in Austria, Munich in Germany, Cesky Krumlov in Czech, Bratislava in Slovakia and Budapest in Hungary. The total length of the route exceeds 800 km with a strong cultural atmosphere and diversified themes as shown in Fig. 4.

Therefore, while vigorously developing the high seas cruise business, the river cruise development model represented by the Viking Cruise can be adopted to integrate the distinctive resources of the destinations from similar region with same water system and connected context by integrating route design and onshore tourism products, so as to enrich the contents of cruise tourism integration in the Yangtze River Delta. For example, by virtue of the superiority of the water system in south China, the connotation of "Chinese Culture, South China's Charm" can be exploited to launch the high-quality tourism projects such as aquatic tourism and river cruise tourism centering on the water systems of the Yangtze River, the Grand Canal and Hangzhou Bay and resources in the famous historic and cultural cities and characteristic towns.

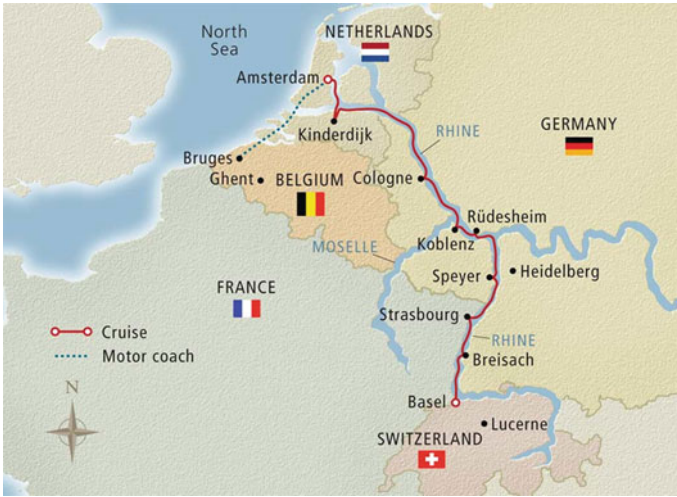


Fig. 3 11-day Romantic Rhine. Source www.vikingcruises.cn



Fig. 4 11-day Danube route. Source www.vikingcruises.cn

4 Suggestions on Countermeasures for Cruise Tourism Integration in the Yangtze River Delta

4.1 Joint Operation and Promotion to Establish Joint Conference on Cruise Tourism Integration

Shanghai should take the lead in forming the joint conference on cruise tourism integration, organizing the preparation of the overall plan for cruise tourism in the Yangtze River Delta, putting forward and formulating the recommendations, policies and regulations relating to the development of cruise tourism integration, coordinat-

ing conflicts of interest, and unifying the implementation of major cross-regional cruise tourism cooperation projects. The “Joint Conference” must strengthen the systematic plan for the overall development, including the orientation of port functions, the development model of hinterland source markets and tourism products, the design of onshore tourism routes, the design of river cruise routes and products, and the unification of standards for the full service, elect and establish the cross-administrative boundary “Cooperation Committee of Cruise Tourism in the Yangtze River Delta”, establish institutionalized focus groups, put forward the major problems, joint objectives and feasible plans during cruise tourism integration development, and complete the specific tasks.

4.2 Coordination Between Ports and Hinterlands to Create Resources Accumulation Platform for the Home Ports in the Yangtze River Delta

The cross-regional characteristic tourism products such as urban scenery, ecological landscape, garden ancient town, cultural folk customs are created by bringing the radiation effect of Shanghai cruise home port, Zhoushan, Wenzhou, Lianyungang and other cruise departing ports into play, relying on the tourism resources in the hinterlands in the Yangtze River Delta, and integrating high-quality travel agencies and scenic spots. The inbound cruise business is expanded by optimizing the resources allocation, innovating in the tourism products, improving the service quality and enriching the supply of onshore tourism products. The coordinated and synergistic development between ports and cities as well as between hinterlands is achieved through multi-party cooperation in expanding the tourist source market.

4.3 Thorough Consideration to Promote Regionalization of Local Tourism Policies

In the aspect of tourism policies, the achievements of tourism integration in the Yangtze River Delta should be linked up with cruise tourism. We should explore the establishment of linked preferential policies in the Yangtze River Delta and the launch “cruise ship + tourism” products. We should improve the cooperation mechanism of the high-speed rail tourism alliance in the Yangtze River Delta and innovate in “cruise ship + high-speed rail” products. We should create an interactive platform between the Yangtze River Delta and outside source market, and consolidate and expand the tourist source market through multiple channels. We should refer to EU tourism integration experience, and solve the problems in interest distribution and incentive among members at different development levels through the regional development fund and the social funds in the Yangtze River Delta. We should carry out

the cooperation model in regional border inspection and comprehensively promote the construction of cruise window modules, and explore and promote the establishment of single window in the Yangtze River Delta to achieve three-dimensional cooperation. We should jointly apply for the visa-free policy of higher degree.

4.4 Unification of Standards to Optimize the Supply of Onshore Cruise Tourism Products in the Yangtze River Delta

With rich tourism resources and high cognition of the brand “Southern China Water Town” among tourists, it is very suitable to develop cruise tourism and river cruise products in the Yangtze River Delta. The tourism resources in the region can be thoroughly sorted out and analyzed, and the experience of international cruise ports in product allocation and resources allocation of onshore products can be used for reference. We should design the onshore products that can not only match with the international cruise industry but also effectively combine with the domestic tourism resources to create the onshore products and activities with high quality and high service standard, and we should establish the coordinated mechanism of quality management and unify the standards for tourism service quality. For example, in order to assure the product quality and service quality, the design and quality control system of cruise tourism products on the principle of “led by the large groups and participated by the small groups” can be constructed, and the service evaluation system and credit evaluation system with tourists’ satisfaction as the core can be established.

4.5 Brands Integrated to Realize Integrated Cruise Tourism Promotion Effect in the Yangtze River Delta

We should combine the cruise tourism image in the Yangtze River Delta with the cultural tourism image in southern China to establish a development model with the theme of tourism images integration. We should set up the explicit integrated image of cruise tourism in the Yangtze River Delta and publicize the image through various channels to establish a good reputation and attract tourists outside the region. We should fully exploit the traditional Chinese cultural elements to promote the development of tourism integration in the Yangtze River Delta with culture as the soul and cruise tourism as the carrier.

4.6 Marketing Innovated to Expand Cruise Tourists Source Market in the Yangtze River Delta

We should adopt the trinity model of “government investment + subsidy, scenic area investment + interest concessions, travel agency participation + operation,” and combine the cruise ticket with onshore scenic spot, hotel and theme park etc. to establish the joint preferential mechanism and boost the popularity of cruise tourism in the Yangtze River Delta. In particular, in the Yangtze River Delta, we can innovate in “cruise ship + traffic” tourism products with the advantages of large traffic to reduce the trip cost, construct the integrated service model of “from home door to cabin door” through the express channel of “cruise ship + high-speed rail + bus”, and attract tourists outside the region with tourism products of “cruise ship + high-speed rail + scenic area ticket”, and carry out the product test and tourist satisfaction survey by establishing the destination marketing information center in the Yangtze River Delta.

4.7 Construction of Tourist Distribution and Information Centers Perfected in the Whole Region

(1) We should promote the construction of the distribution functions of the three transportation networks. We should set up tourist distribution centers at the main connections with the track network and railway network in the Yangtze River Delta to make good traffic connection. We should open special shuttle buses for tourists and connect with various cruise ports to construct the tourist distribution center network connected by the track network and railway network in the Yangtze River Delta and extend the tourist service function in passenger ports. We should accelerate the construction of passenger ports along the water system of the Yangtze River and the formation of passenger port system with complete functions and supporting facilities. We should gradually improve the functions of tourist distribution centers relying on the home ports such as Shanghai, Lianyungang, and Zhoushan. (2) We should promote the construction of tourism consulting service system. We should strengthen the unified plan for and control over the consulting centers, establish tourism consulting points in public places such as ports, airports, railway stations, passenger terminals, hotels and scenic areas, distribute the cruise tourism brochures and onshore product guides with the Yangtze River Delta as a whole, and promote the establishment of a unified service calling center in the Yangtze River Delta to provide consulting service for tourists.

4.8 Points and Lines Integrated to Develop River Cruise Products in the Yangtze River Delta

We should build the high-quality river cruise routes in the Yangtze River Delta by connecting the distinctive natural resources along the routes on the basis of profound cultural background. We should build the systematic high-quality routes with typical characteristics by integrating the wharf facilities and transportation networks and allocating the tourism scenic spots in various cities. For example, we should build river cruise routes from aquatic tourism to onshore tourism in light of the characteristic of long voyage and set high-quality route centering on Buddhist culture such as Putuo Mountain, Tiantai Mountain, Jiuhua Mountain and Lushan Mountain; the coastal route centering on the Shanghai Coastal Tourism Resort, Putuo Mountain, Xiangshan Film City and Liya Mountain; the ancient city route centering on Dinghai Ancient Town, Sun Yat-sen's former residence in Shanghai and Nanjing; historical cultural route centering on historic site of maritime silk road in Zhoushan, the Bund in Shanghai and Hemudu cultural heritage.

4.9 Specialized to Integrate Cruise Talents Training

We should make clear the tourism development needs in the Yangtze River Delta and prepare tourism talent system according to needs to cultivate the scarce service talents. We should refer to EU tourism development to establish a tourism management college, make full use of the tourism schools in the Yangtze River Delta, jointly organize overseas training with foreign famous tourism education institutions to cultivate high-quality talents, comprehensively improve the education level, and enhance scientific research ability according to international standards. We should improve the treatment of cruise tourism talents to retain the talents, periodically organize training for tourism talents at all levels of all types, and attract and cultivate interdisciplinary talents of cruise tourism through cross-border recruitment and training.

Part IV
Policy Suggestions

Chapter 11

Design Features and Construction

Enlightenments of Oasis-Class Luxury Cruise Ships



Xinliang Ye, Xueting Wang, Yanan Wang, Yujie Luo, Gang Yang and Ruihong Sun

Abstract The rapid development of cruise economy and the eastward shift of cruise industry have put forward urgent demand for the development of cruise manufacturing industry in China. In recent years, China's shipbuilding industry has developed rapidly, but China has no experience in luxury cruise ship design and building. To develop the luxury cruise shipbuilding industry is of great significance for China to be the world shipbuilding power and for the transformation and upgrade of the shipbuilding industry chain. At present, the trend of large-scale cruise shipbuilding becomes more and more obvious in the world. The world's largest cruise ship has reached 228,000 t. The characteristics of ship type and in-ship facilities not only impose strict requirements for the building technology of functional equipment on ships, but also pose great challenges to the design of the overall speed, safety and comfort, and personalized configuration and building of cruise ships. In this paper, the features, building difficulties and core building technology of the world's operating Oasis-class luxury cruise ships are sorted with the hope to bring enlightenment on the development of China's luxury cruise shipbuilding industry.

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1 Introduction

In recent years, the world's cruise industry shows a high-speed development trend. The rapid rise of cruise economy brings great opportunities for the development of China's cruise industry. In spite of the large downturn pressure of global economy, China is still the most promising emerging economy in the world's cruise industry with a growing market size and huge market demand, attracting wide attention. The cruise industry is featured by multi-layers and multi-links in its structure group, with a relatively long industry chain. With very obvious disadvantages, China's cruise industry mostly stays at the midstream and downstream of the industry chain, such as undertaking port services for foreign cruise ships. However, China is blank in the cruise shipbuilding industry which is highly technical, additional and economically beneficial. Under this background, it is of great significance to vigorously develop the cruise shipbuilding industry and break through the core technical difficulties in cruise shipbuilding to promote China's cruise industry into the whole industry chain as soon as possible.

According to the data of global cruise shipbuilding, the building of luxury cruise ships shows a trend of large scale. In Table 1, the tonnages and passenger capacities of built global cruise ships are sorted out. The average tonnage of a cruise ship was 26,000 t in 1980s, 46,000 t in 1990s (Cui 2011; Li and Yang 2017), 76,600 t after 2000, and 98,000 t in 2010–2017, which is 3.7 times of that in 1980s. Especially the appearance of the cruise ship "Oasis of the Seas" in 2009 makes the development of global cruise ships enter the Oasis-class era, and the trend of large-scale becomes more and more obvious. In April this year, Symphony of the Seas, the world's largest cruise ship, has reached 228,000 t. Moreover, experts forecast that a super-large cruise ship of 250,000 t will appear in the near future. The building of large luxury cruise ships is a systematic project integrating modern industry and urban construction. The building difficulty is even greater than that of aircraft carriers, so it is called the typical representative of high-end equipment manufacturing industry. The development of luxury cruise shipbuilding capability and technology is very powerful to drive relevant industries and it is of great significance in practical application. At present, the luxury cruise ships in the world are mostly built in Europe. With the rise of China as an emerging shipbuilding economy in Asia in recent years, China is steadily the largest shipbuilding country in the world with the three shipbuilding indexes of shipbuilding completions, new orders and handheld orders in the whole year. However, most ships built by China are mainly bulk carriers, oil tankers and container ships, and the independent design and building of luxury cruise ships is still at the exploration stage. Affected by the external factors such as the worlds' sagging economy and stagnant demand in the ship market, the global shipbuilding industry is deeply depressed, the handheld orders of China's shipbuilding industry also show a

Table 1 Parameters of Oasis-class luxury cruise ships

Parameters	Oasis of the Seas	Allure of the Seas	Harmony of the Seas	Symphony of the Seas
GT (10,000 t)	22.5	22.5	22.7	22.8
Length (m)	361.8	362	362.1	362.1
Width (m)	65.5	65.5	65.7	65.7
Passenger capacity (person)	5400	5400	5479	5518
Crew (person)	2165 (maiden voyage)	2165 (maiden voyage)	2300 (maiden voyage)	2300 (maiden voyage)
Guest rooms	2742	2742	2747	2759
Passenger deck	16	16	16	16
Average speed (km)	22	22	23	22
Time of maiden voyage	2009.12	2010.12	2016.05	2018.04
Operation regions	Caribbean and North America	Caribbean and North America	Caribbean, Mediterranean and North America	Caribbean, Mediterranean and North America

Source Official Website of Royal Caribbean International www.royalcaribbean.com

decline trend, and the shipbuilding industry's overcapacity is prominent, driving the demand for the upgrade of the shipbuilding industry. In 2016, the cruise ship owner operated JV company established by CSSC and Carnival Corporation and plc placed orders to the cruise shipbuilding company established by CSSC and Fincantieri for two Vista-class large cruise ships, and the option for four large cruise ships. The newly ordered two cruise ships were jointly designed by the experts from CSSC Cruise Technology Development Co., Ltd. (CCTD) and Fincantieri and they will be built in Shanghai Waigaoqiao Shipbuilding Co., Ltd., a company under CSSC. In June 2018, CSSC formally approved *Overall Scheme and Next Work Plan for Cruise Industry Development of CSSC*, and the process of China's luxury cruise shipbuilding projects and industrial construction were formally started. The development of the large-scale luxury cruise shipbuilding industry meets the needs of China's ship industry transformation, which is of positive significance for China to overcome the technical difficulties of cruise shipbuilding as soon as possible and to solve the capacity problem of the ship industry.

2 Concept and Features of Oasis-Class Luxury Cruise Ships

2.1 Concept of Oasis-Class Cruise Ships

The concept of Oasis-class luxury cruise originates from the Oasis of the Seas, the first luxury cruise ship with GT above 200,000 t under Royal Caribbean International. In 2009, the Oasis of the Seas formally started its voyage from Port Everglades, Fort Lauderdale, United States. The building cost and luxury level of Oasis of the Seas, once the largest super cruise ship in the world, started a new era of huge luxury cruise lines. Since then, the luxury cruise ships above 225,000 t are collectively called Oasis-class luxury cruise ships in the industry. There are four Oasis-class luxury cruise ships in operation, namely Oasis of the Seas, Allure of the Seas, Harmony of the Seas and Symphony of the Seas. All four super cruise ships are owned by Royal Caribbean International. Among them, the Symphony of the Seas with its maiden voyage in April 2018 is the largest cruise ship in the world at present. See Table 1 for details.

2.2 Features of Oasis-Class Luxury Cruise Ships

2.2.1 Large Size

The size of Oasis-class cruise ship is far larger than that of the common ships, with larger length, width and height. Four Oasis-class cruise ships in operation have an average hull length about 361.9 m, an average width about 65.6 m, and average height above the water surface about 72 m. The ship sizes are unified, with small changes.

2.2.2 Large Gross Tonnage

Gross Tonnage (GT) refers to the total volume of all enclosed spaces determined according to *Convention on Tonnage Measurement of Ships*, which is one of the core indexes reflecting the transport capacity of a cruise ship. As a series of cruise ships that have continuously broken the world's cruise tonnage records, GT of Oasis-class cruises has been kept above 225,000 t. The GT of symphony of the Seas delivered recently even exceeds 228,000 t, with the building cost up to USD 1.4 billion.

2.2.3 Large Passenger Capacity

Passenger capacity refers to the standard number of passengers on board, which is another key index of the transport capacity of a cruise ship. There is an inseparable relationship between the passenger capacity and GT of the cruise ship, both of which

jointly determine the scale of the cruise ship. With the increase in GT of cruise ships, the passenger capacity of Oasis-class cruise ship is improved continuously. The standard passenger capacity is improved from 5400 persons of Oasis of the Seas to 5518 persons of Symphony of the Seas. The maximum passenger capacity is improved from 6296 persons of Oasis of the Seas to 6780 persons of Symphony of the Seas. The standard crew is improved from 2165 persons of Oasis of the Seas to 2300 persons of Symphony of the Seas. The smallest Oasis of the Seas can carry 8461 persons, and the Symphony of the Seas can carry as many as 9080 persons, far more than the passenger capacities of ordinary cruise ships.

2.2.4 Complete Functional Facilities

Great importance is attached to the high-quality experience of passengers in Oasis-class cruise ships. The ship facilities are complete with various functions, which can meet the demands of passengers for leisure and vacation to the greatest extent. The superstructure of any Oasis series cruise ship has more spectacular open-air Central Park and Royal Avenue than any previous cruise ship, the concept of land “community” is applied to cruise ships, creating seven theme areas, namely Central Park, City of Joy, Royal Avenue, swimming pool and sports area, marine spa and fitness center, entertainment world and youth activity area, and providing living and entertainment facilities such as restaurant, hotel and special guest room, shopping center, bar, amusement park, theater and golf course etc. as shown in Table 2. The unique and innovative concept of community, rich and exciting entertainment facilities, and the extremely luxurious guest room layout etc., highlight the “Oasis” series cruise ships in facility service innovation, which can meet the demands of tourists at different ages and of different types during holiday.

2.2.5 Large Energy Consumption and Emission

The huge size and tonnage as well as complex and diverse on-board facilities mean that the Oasis-class cruise ships will inevitably result in the problems of large energy consumption and excessive waste emission when sailing. An Oasis-class cruise ship has six engines. In order to support the normal operation of the on-board equipment and systems, its main engine ship consumes 5210 L diesel oil per hour under full power, and the daily fuel consumption is up to 110,000 L. In addition, a large number of wastes, such as black water, grey water, air pollutants and solid wastes, will be discharged when the cruise ship anchors, stops or moves. If they are not properly treated, a series of negative effects will be produced on the marine ecology (Carić 2016).

Table 2 Facilities on Oasis-class cruise ships

	Oasis of the Seas	Allure of the Seas	Harmony of the Seas	Symphony of the Seas
Restaurant	17	16	18	20
Special guest room	Balcony room Ocean view room Inside room Landscape room Room for the disabled	Balcony room Ocean view room Inside room Landscape room Room for the disabled	Balcony room Ocean view room Inside room Landscape room Room for the disabled Inside room with virtual balcony	Balcony room Ocean view room Inside room Landscape room Room for the disabled Inside room with virtual balcony
Shopping center	Shopping street Royal avenue	Shopping street Britto gallery	Shopping street Britto gallery	Shopping street Britto gallery
Bar	11	8	8	8
Standard facilities	Green plant area, outdoor entertainment area for families, swimming area, sea spa, fitness center, theater, indoor/outdoor sports areas, activity center for children and youth, recreation room, video game room and internet bar etc.			
Special entertainment facilities	Merry-go-round Zip line Water theater		Merry-go-round Zip line Water theater Water slide Sea slide Robot bar	Merry-go-round Zip line Water theater Water slide Sea slide Robot bar

Source Royal Caribbean Press Center

2.2.6 Unique Superstructure Design

The Oasis-class cruise ships are of a unique superstructure design. Their superstructure is actually divided into two parts. Both the left shipboard and right shipboard are independent. The middle is an open structure. The atrium is the Central Park Community the “Oasis” series cruise ship is proud of, from which unique Central Park landscape cabins are designed. This unique superstructure design benefits from the cruise ships’ large width, providing tourists with a richer and more diversified experience on board.

3 Requirements and Difficulties for the Building of Oasis-Class Cruise Ships

The building of cruise ships is more complex and comprehensive compared with ordinary ships. The characteristics of Oasis-class cruise ships in ship type and in-ship facilities pose great challenges to the overall speed, safety, comfort and personalized configuration of the cruise ships. Therefore, the Oasis-class cruise ships have stricter and more precise requirements for building than ordinary ships in such aspects as power system, steering, maneuverability and hull stability, which needs the shipyards to concentrate on solving such problems and constantly seek technical innovation and breakthrough in such aspects.

3.1 Power System to Be Enhanced

Oasis-class cruise ships are characterized by larger size and tonnage, which require the shipboard power system to provide strong propulsion to overcome the enormous resistance of cruise ships when they set sail or sail. In addition, the vehicle attributes of cruise ships require that the entire voyage must be completed on schedule, which requires the cruise ships' power system to maintain a certain speed on the basis of sufficient range ability, not only to promote the normal operation of cruise ships, but also to adjust the speed under special circumstances, so as to complete the expected range.

3.2 Steering and Maneuverability

The cruise ship types gradually become wider and larger to ensure the stability of ship draft under the trend of large-scale cruise ships. The entry channels of some traditional ports are too narrow for such behemoths, and a little bit of course deviation may cause a port entry incident. The larger the size of the cruise ship is, the more difficult it is to control over the fine adjustment of heading and speed. In order to enter the port safely and smoothly, a cruise ship must be equipped with a precise and flexible steering system to adjust the direction when entering a port.

3.3 Hull Stability to Be Maintained

The vehicle and travel attributes of a cruise ship require that the safety and comfort of the cruise ship must be taken into account when building the cruise ship. The cruise ship is tall. The bad sea conditions that probably encounter in actual sailing are easy

to cause hull jolt, and the cruise ship itself contains complicated equipment and facilities, it will produce self-sway even under the sea conditions with small wind and waves. In addition, the International Maritime Organization (IMO) has strict requirements for the stability of passenger ships, so maintaining the hull stability is an issue that must be considered when building a cruise ship.

3.4 Modularization Technology to Be Utilized

The building of a cruise ship is a huge project which is time-consuming and energy-consuming. The complexity of the internal layout of a cruise ship and the high cost for the building of a cruise ship require the shipbuilding enterprise to make a perfect building plan before starting. In order to simplify the building process of a cruise ship, shorten the use period of the dock and reduce the building cost, all major shipyards in the world generally adopt modular building technology, which divides a cruise ship into modules to be completed at the same time by a number of professional supporting manufacturers, which can greatly improve the building efficiency.

3.5 Green Development Requirements to Be Met

When a cruise ship anchors, stops or moves, it will produce a large amount of waste water, exhaust gas and solid wastes, which will affect the marine and atmospheric environment. In order to reduce the negative externality of a cruise ship and promote the sustainable development of cruise tourism, the requirements for environmental protection should be fully considered when a ship is built, advanced waste treatment technology should be adopted and the waste treatment system should be optimized. In addition, the consumption of a large quantity of sulfur-containing fuel oil is the main cause for air pollution caused by cruise ships; it prefers to develop clean energy and nuclear power to power the cruise ships in the future.

3.6 No Venture Capital Investment

Large luxury cruise ships require a lot of money during their design and building. The minimum cost of Oasis-class cruise ship is USD 1.2 billion (Allure of the Seas); two ships cost USD 1.35 billion (Harmony of the Seas and Symphony of the Seas), and the maximum cost is USD 1.4 billion (Oasis of the Seas). The new shipbuilding enterprises in the cruise shipbuilding industry are required to have great working capital due to high standards for design and building technology. In addition, the uncertainty of the risks and benefits of the later management and operation of cruise ships also makes some domestic venture capital investors shrink back. To break through the

problems of less investment and difficult financing in independent luxury cruise shipbuilding in China, it's not enough to strengthen guidance from government policies. If we fail to fundamentally solve the technical problems in cruise shipbuilding to assure the successful delivery of independently built cruise ships on schedule, it is difficult to make substantive breakthrough.

4 Key Technologies for Building of Oasis-Class Cruise Ships

In terms of intuitive feeling, the biggest feature of Oasis-class cruise ships is “big”. Therefore, there are new requirements and challenges for cruise ship design, building and management. Some specific technical problems during cruise ship design can be correctly judged and properly solved in China, but it is difficult to put forward new design ideas with creative thinking (Zhang et al. 2016a). In order to improve the building quality of cruise ships and build high-quality cruise ships, international shipyards generally implement precision management in the building process of cruise ships to improve their market competitiveness (Mao 2017). But currently, there is no self-built cruise ship in China. It is even more important for China's major shipbuilding enterprises to be able to build cruise ships and accumulate experience in cruise shipbuilding. On the basis of basic capability of building cruise ships, the shipbuilding enterprises will carry out comprehensive precision management, improve the building quality of cruise ships, and strive to establish “Chinese cruise ship” brands in the world. Through detailed analysis on the building process of Oasis series cruise ships, it is found that engineers often spend a lot of time and energy focusing on solving power, steering, stability, module assembly and environmental protection problems by adopting the methods and means such as computer simulation analysis, building model and comparative experiment. Therefore, the technologies in the following five aspects should be specifically analyzed from the perspective of building.

4.1 Propulsion Technology

Due to the large displacement and heavy tonnage of Oasis-class cruise ships, it requires powerful engines to provide powerful and sustainable propulsion. Currently, the Oasis-class cruise ships adopt an electric propulsion system, its operation principle is a way of propulsion by converting the mechanical energy generated from the prime mover into electric energy and driving the propeller with a motor (Wang 2010). The prime mover is the power source of the whole propulsion system, usually diesel or gas turbine. But the Oasis-class cruise ships also apply turbocharging technology in the engine. The turbocharger can improve the diesel engine power, perfect eco-

nomical performance and provide stronger power than ordinary engines, which will be favored by cruise lines. As revealed in 2017 by Royal Caribbean Sustainability Report, the Company has equipped eight ships with gas-turbine engines that burn clean fuel and reduce air pollution.

The Oasis-class cruise ships adopt ABB podded electric propulsion system, including three ABB Azipod propulsion units, three ACS6000 medium-voltage frequency converters, six main generators, 11 kV main switchboards, six propulsion transformers, four propeller motors, distribution and propulsion excitation transformers and substation switching equipment. The motive power comes from six medium-speed generating units, with total output about 97,020 kW (130,110 hp), far higher than non-Oasis cruise ships (Table 3). Such energy is converted into electric power, the main purpose is to drive the three Azipod pod boosters that can realize ship propulsion and steering in a space-saving device in addition to the supply of power to the ship's electrical facilities. Compared with the conventional axial propeller, the power from the generator set enables the Azipod pod propeller to transport more payloads at a higher speed and operate more efficiently with less energy. Azipod pod propeller has excellent maneuverability (full thrust all-around), steady cruising speed, undetectable noise and vibration, and significantly reduced fuel consumption and greenhouse gas emission. The prow of Oasis-class cruise ships is equipped with four sets of side thrusters. The main system with auxiliary propulsion system makes the Oasis-class cruise ships with the most powerful propulsion in the history, which makes the Oasis-class cruise ships more operational. The cruise ships can also easily dock in the absence of tugboat help. In addition, the pod electric propulsion system has greatly reduced fuel consumption and exhaust emission, enabling ships to operate with unparalleled fuel efficiency, ship maneuverability and passenger comfort, saving energy costs and meeting the requirements for environmental protection.

4.2 *Steering Control Technology*

For ordinary cruise ships, pod propellers are not only driving devices of cruise ships, their advantage in 360° horizontal rotation and drive-force generated all around can also help cruise ships to change their courses (Nie et al. 2003), meeting the demand for the direction adjustment during the daily sea voyage of cruise ships. However, when entering and leaving a port, due to the high requirements for the accuracy of the cruise terminal, in the past, a cruise ship could only rely on large tugs to provide side thrust for steering control when berthing and leaving. For giant cruise ships like Oasis-class, their unusual mass makes it difficult to maneuver, and steering with only a pod propeller is barely adequate for most steering needs. When an Oasis-class cruise ship enters or leaves from a port, the slower the ship sails, the worse the rudder effect is, and the more difficult the cruise ship operation is. In order to meet the requirements of Oasis-class cruise ships above 200,000 tons for steering mobility on the sea, it is extremely important to equip with steering control devices when entering or leaving a narrow fairway and arriving at a port.

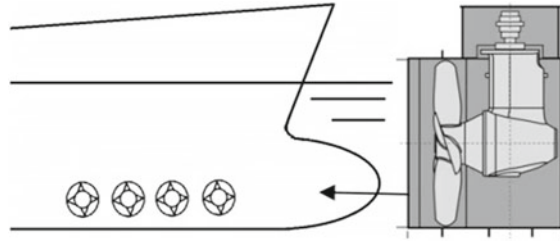
Table 3 Performance comparison between the power propulsion systems of Oasis-class and non-Oasis-class cruise ships

Class	Representative cruise ship	Tonnage	Motive power	Side thrust	Propeller
Oasis-class	Oasis of the Seas	225,282	3 × 13,860 kW (18,590 hp) Wärtsilä 12V46D	4 × 5500 kW (7400 hp) Wärtsilä CT3500, Bow thrusters	3 × 20,000 kW (27,000 hp) ABB Azipod, All Azimuthing
	The Allure of the Seas	225,282	3 × 18,480 kW (24,780 hp) Wärtsilä 16V46D	4 × 5500 kW (7400 hp) Wärtsilä CT3500, Bow thrusters	3 × 20,000 kW (27,000 hp) ABB Azipod, All Azimuthing
	Harmony of the Seas	227,000	4 × 14,400 kW (19,300 hp) Wärtsilä 12V46F	4 × 5500 kW (7400 hp) Wärtsilä CT3500, Bow thrusters	3 × 20,000 kW (27,000 hp) ABB Azipod, All Azimuthing
	MS Symphony of the Seas	228,081	2 × 19,200 kW (25,700 hp) Wärtsilä 16V46F	4 × 5500 kW (7400 hp) Wärtsilä CT3500, Bow thrusters	3 × 20,000 kW (27,000 hp) ABB Azipod, All Azimuthing
Non-Oasis class	Quantum of the Seas	167,800	2 × 14,400 kW (19,300 hp)	4 × 3500 kW (4694 hp)	2 × 20,500 kW (27,500 hp)
	Ovation of the Seas	167,800	2 × 19,200 kW (25,700 hp)	4 × 3500 kW (4694 hp)	2 × 20,500 kW (27,500 hp)
	MSC Meraviglia	171,600	2 × 2500 kW (3300 hp) 4 × 38,400 kW (51,500 hp)	–	2 × 19,200 kW (25,700 hp)
	Norwegian Joy	167,400	2 × 16,800 kW (22,520 hp) 3 × 14,400 kW (19,300 hp)	–	2 × 40,000 kW (53,600 hp)

Source CruiseMapper, ABB official website and Wärtsilä official website, etc.

With the development of side thrust technology, at present Oasis-class cruise ship relies on the pod propeller as well as the bow thrust technology to complete the steering control. The side thruster is a propeller driven by motor in the transverse pipe at the bow of the cruise ship. This flexible propeller can push the water from one side to the other side and drive the ship to change the direction by means of the reaction force of sea water. Compared with the ordinary marine ships, cruise ships arrive at ports more frequently, and the requirements for the safety and comfort of tourists are higher. Therefore, the steering control technology of cruise ships is very critical. For ordinary marine ships, if there is no requirement for DP positioning, they have only one bow thruster. Moreover, cargo ships with large tonnage are fitted with only one axial flow side thruster at the bow. At present, all the Oasis-class luxury cruise ships adopt 5.5 kW side thrusters produced by Wärtsilä Corporation (Table 3), with four ones set at the bow of Oasis-class cruise ships (Table 1). The bow thrusters not only provide the cruise ships with unparalleled steering control and accuracy, but also greatly enhance the overall maneuverability of the cruise ships (Fig. 1).

Fig. 1 Schematic diagram of the side thruster on Oasis-class cruise ships



4.3 Hull Stabilization Technology

Compared with regular cruise ships, the wind profile of an Oasis-class cruise ship is large when it is sailing. Severe sea conditions, random waves, various activities on board and acceleration will significantly affect the ship's stability, which will not only reduce the comfort satisfaction of tourists, but also affect the safety. Therefore, it is particularly important to install stabilizing devices on board. Ships may produce six kinds of motion when sailing at the sea: Swaying, surging, floating, rolling, pitching and yawing, in which rolling is most harmful to the sailing ship, so the ship stabilizing devices often refer to the rolling stabilizers. The Oasis-class cruise ships mainly adopt fin stabilizers to keep the ship stable. The principle is to use the lifting force moment generated by the fins in the process of sailing to offset the ship rolling moment, so as to resist the disturbance caused by waves and other factors. The fin stabilizing system consists of a control subsystem, a hydraulic subsystem and a mechanical subsystem, taking micro-gyroscope as the sensor to control the mechanical stabilizer through a computer. In case an Oasis-class cruise ship is in rolling motion when sailing under wind and waves conditions, the fin stabilizer can make corresponding rotation according to the disturbance law of waves under the action of the control system, so as to resist the wave disturbance by the lift force generated by the fin stabilizer, and to reduce the rolling of the ship (Zhu 2012).

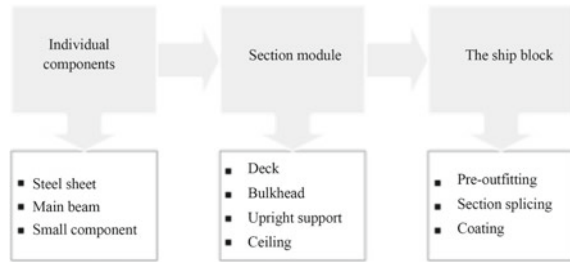
Although the fin stabilizer technology has been applied in marine ships and engineering ships etc., the cruise ships are different from other ships. Its passenger transport and tourism attributes require extremely high safety and comfort during the voyage. In this case, the anti-rolling fin technology for ordinary ships cannot meet the requirements for the stability of large cruise ships. It is particularly critical how to customize the fin stabilizer according to the specific parameters of the cruise ships, and to avoid the excessively high resistance of the fin stabilizers onto the cruise ship when stretching while maximizing the rolling stabilization. Generally, the passenger capacity of an Oasis-class cruise ship is above 5000 people. The fin stabilizer technology can effectively maintain the stability of the cruise ship in complex sea conditions, provide security guarantee for cruise voyage, and provide tourists with high-quality travel experience.

4.4 *Modularization Technology*

Modularization technology was first applied in the building of military vessels. During the second world war, United States built a large number of military vessels, and the modularization technology gradually attracted attention, and other countries also researched and applied modularization technology in succession. Modularized shipbuilding concept was introduced in China in the mid-1980s and began to apply the modularization technology in military shipbuilding in the 1990s. Currently, the total number of 052C destroyers is up to 6, and the number of 052D destroyers is expected to be up to 12. In addition, a large quantity of 054A and 056 frigates has been built to achieve the goal of building a ship with multiple models. In civil shipbuilding, modularization technology has also been widely used, such as engine room module, health unit module and some superstructure modules. Apparently, modularization technology has been widely used in China, but the actual situation shows that the existing understanding and application of modularization technology are insufficient for the building of luxury cruise ships, especially Oasis-class cruise ships, which is determined by the building characteristics of the cruise ships themselves. For the hull structure, it can be divided into the main body and the superstructure. The main body refers to the part below the upper deck, which is surrounded by upper plywood, ship bottom and ship side, and used for power equipment, cargo, fuel, fresh water and other functional compartments. It is the main part of other ships. In addition to the main body of the cruise ship, the superstructure is more important. The visible area above the deck of the cruise ship belongs to the superstructure, including thousands of cabins, such as guest rooms, bars, restaurants, casinos and opera houses. Each cabin module is laid with piping and cable in advance in the professional supporting factory. With an outfitting rate of nearly 100%, and its building complexity and accuracy are much higher than those of other ships. Therefore, a breakthrough can be realized in cruise shipbuilding only when existing modularization technology has been further researched and innovated in.

The building engineering of an Oasis-class cruise ship is huge, and the building of a cruise ship usually needs tens of thousands of tons of high-strength and high-elasticity high quality steel. These steel materials will be cut into tens of thousands of individual components, including steel sheets, steel beams and other smaller components through numerous production lines and automation equipment. The assembly process is as shown in Fig. 2. On the single deck, the steel sheets, main beams and small members are welded to form the basic hull frame, and then welded to the bulkhead, column and ceiling to form a section module containing multiple cabin unit spaces. Generally, the section module is only as high as a single deck. At present, all major international shipyards adopt the prefabricated module building method to process the section modules, i.e., the circuit system and pipeline system are laid ahead of time at the section module stage, and reserved interfaces with the same sizes and shapes. After the installation of the outfitting equipment, the sections are stacked and welded into a block, and the outer surface of the block is coated. For example, the building of the “Harmony of the Seas” is divided into 90 blocks, the largest of

Fig. 2 Schematic diagram of modularized assembly process



which has the height of five decks and has 10 sections. Following the principle of building blocks, the blocks are spliced together to form a complete cruise ship hull building.

Modern shipyards generally separate hull construction and cabin construction. Cabin construction and interior decoration are completed by professional matching manufacturers, and finally, they will be hoisted aboard for assembly. Therefore, modularization technology is not only a building technology, but also the comprehensive embodiment of design and management technology (Wang and Chi 2003). For the current situation of the cruise shipbuilding in China, the establishment of an efficient system integration network is the premise and guarantee for the application of modularization technology. The nature of system integration is to optimize the comprehensive and overall layout and integrate various resources, so that each independent module unit can work after having been connected together, and the whole system has the lowest cost and highest efficiency. A mature industry is necessarily a highly integrated industry of equipment, technology and functions. Using advanced computer technology to perfect and optimize the design process is helpful to control the overall layout at the macro level and better guide the building process. Adopting advanced management modes and strengthening the close coordination and tacit cooperation between shipyards and supporting manufacturers are also very important for cruise shipbuilding (Pero et al. 2015).

4.5 Environmental Protection Technology

Oasis-class cruise ships are praised as “a moving city on the sea”. Thousands of tourists produce a large amount of domestic wastes in the course of their living, relaxation, sports and entertainment, which are generally treated by means of incinerator equipment (Wang and Chen 2010). A cruise ship requires large consumption of energy fuels every day. Insufficient burning of fuels not only leads to increase in operating cost, but also produces hazardous exhaust gas severely polluting atmospheric environment. On an Oasis-class cruise ship, engineers try to maximize fuel efficiency by reducing resistance. On one hand, according to principle of fluid dynamics, the hull of a cruise ship is usually designed to be a shape with wide rear and narrow front.

This design enables minimum level of undulation while the ship is cruising along and minimizes the resistance. On the other hand, while the cruise ship is sailing, there will be a great number of bubbles at the bottom of the spherical prow, flowing backwards along the hull, which can effectively reduce resistance to the hull. With the design of spherical prow and air lubrication technology, fuel efficiency can be increased by 5% approximately, thus fundamentally reducing emission of hazardous exhaust gas (Zhang et al. 2016b). Moreover, the cruise ship is equipped with the largest exhaust gas scrubber for marine applications- Wärtsilä integrated cleaning system which eliminates detrimental impurity by means of seawater in open and closed loop system, relying on state-of-the-art exhaust gas cleaning technology, thus effectively reducing emission of sulfur oxide and nitric oxide.

In addition to technologies of power, steering gear, stability, module assembly and environmental protection, the Oasis-class cruise ship utilizes a lot of high and new technologies, for example, global automatic positioning system capable of satellite navigation and automatic collision prevention, meteorological monitoring system comparable to prefecture-level city monitoring system, internet technology developed by a scientific and technological company, condition monitoring software, as well as fully automatic robot bartender and virtual staterooms. These high and new technologies not only improve information level, safety and operability of the cruise ship, but also provide tourists with intelligent, convenient, comfortable and luxurious touring experience. The Oasis-class cruise ship is a modern “castle on the sea” integrating various advanced technologies, which will shine more radiantly as a pearl on the crown of shipping industry.

5 Conclusion and Inspiration

With rapid growth of cruise tourism market development and cruise industry, cruise ships tend to be larger and larger. Arising of the Oasis-class cruise ship leads and reinforces such a trend. To be specific, inspiration includes the following.

5.1 Mastering Key Technological Requirements for Large and Luxurious Cruise Ships

An Oasis-class cruise ship has large tonnage and volume, and requires strong power system and operable steering gear system to enable fast speed and convenience of controlling direction. Furthermore, given that such a giant cruise ship has a complete variety of facilities and functions, and carries numerous passengers, it needs well-designed stabilization and shock absorption systems, so as to ensure stable operation and provide tourists with comfortable touring environment. Currently, low-carbon has become a globally agreed environmental protection concept. An Oasis-class

cruise ship also incorporates this concept into its design and building. Its pod electric propulsion system enables the effect of energy saving and emission reduction. On the whole, building an Oasis-class cruise ship often requires cooperation of supply chains on the basis of module assembly, which not only greatly improves building efficiency, but also meets personal needs of cruise lines. The Oasis-class cruise ship has been more successful than those cruises formerly built in terms of tonnage, passenger capacity, internal structure, standard of relaxation and entertainment, or in terms of advanced power, stabilization, steering gear and assembly technologies, ushering cruise industry in a new chapter.

5.2 Improving Engineering Management Level of Large Shipbuilding Projects

Organization and management of building of luxurious cruise ships, particularly Oasis-class cruise ships, is complicated systems engineering. Its specialized ancillary construction covers a far wider scope than that of ship industry, as it relates to hotel, culture, entertainment and arts.

The following issues will come out in connection to production management, safety management and cost control: management of over ten thousands of mountainous conduits, air ducts and cables; control of equipment suppliers and their fitting-out in order to ensure hundreds of contractors to deliver quality goods on schedule according to shipyard's intent; management of production and fitting-out process of thousands of accommodation quarters, deformation prevention in the course of sheet steel cutting, welding and segmental hoisting, control of shipbuilding precision, construction of propelling plant with high power, coordination of interior decoration; segmental arrangement to facilitate mechanical equipment installation; noise elimination and vibration reduction in cabin area, correct measurement of ship stability; understanding of specific requirements for luxurious cruise ships from classification society, the flag state of ship, International Labor Organization and the United States Coast Guard, understanding of requirements for installation of barrier-free access in the entire passenger cabin under Americans with Disabilities Act, understanding of the latest requirements for luxurious cruise ships from international ports; construction of quiet air conditioning for multistory application, construction of fire protection facilities, and construction of escape and lifesaving appliances on large population background; authentication of furniture and interior flammability test results, guarantee of food and health safety, and western high standard for state-rooms for passengers and crew; understanding of how to read complicated technical specifications, and difference between signing a commercial contract for a luxurious cruise ship and a commercial contract for a cargo ship. Foreign practice of cruise ship interior decoration test is to specify the identity with cruise ship XX in the contract. If mother ship cannot be found, model room is generally taken as the standard for test in order to avoid needless disputes with ship-owner.

Building process should be strictly controlled. A ship-owner requires delivering the ship on the exact date specified in the contract, failing which the cruise lines will suffer tremendous losses. Therefore, shipyard take quite strict measures to control building process of luxurious cruise ships, and its production schedule is difficult to be changed. To prevent delay in delivery, the shipyard will refuse a change in order if such a change may result in extension of dock cycle. The ship-owner will also control quantity and form of changing an order. All changes have to be verified and approved by the owner's senior management. Cabin installation begins in the mid-term of dock and ends after trial trip. Clearly, cabin building accounts for the most proportion of entire shipbuilding process, and therefore control of its building schedule is more critical.

5.3 Studying the Latest Update of Cruise Shipbuilding Technologies in Advance

Cruise shipbuilding technologies represent advanced technological level of shipbuilding. Arising of the giant Oasis-class cruise ships lifts these technologies to a new height. International shipyards and cruise enterprises never stop pursuing technological innovation of cruise shipbuilding. With continuous improvement of technological level in ship industry, more and more new technologies will also be applied to giant cruise ships. For example, hybrid-power cruise ships driven by LNG are being built; with the development of nuclear energy technology for civil applications, nuclear-powered cruise ships will be not just a dream in the future. All these technologies can provide Oasis-class cruise ships with stronger and cleaner impetus, thus increasing ship speed and extending voyage. Additionally, now artificial intelligence (AI) has been developed rapidly and applied to diversified sectors. To use AI controlling system in an Oasis-class cruise ship is also a great innovation, not only improving operability of this "jumbo" cruise ship, but also improving intelligent level of the entire cruise ship. The arising of Oasis-class cruise ships maybe is only a beginning. There may be larger and more advanced cruise ships which will make amazing appearance in the future. To Chinese dockyards, each stage, from design, building to trial trip, requires strict and prudent management and control. To make breakthrough in terms of giant and luxurious cruise shipbuilding as soon as possible, Chinese dockyards must refer to successful experience of international dockyards, and learn lessons from failed building or severe accidents, so as to take precautions, in addition to careful analysis on technological difficulties in shipbuilding and tackle them one by one.

At present, China is still incapable of building luxurious cruise ships, and lacks related technologies and experience. However, China is actively preparing to build local cruise ships. In 2017, CSSC signed a Memorandum of Agreement with Carnival Cruise Lines and Fincantieri regarding the first large cruise ship made in China, declaring the beginning of building local cruise ship in China. As a great power

of shipbuilding in the world, China also has abundant experience of building large ships. China Shipbuilding Industry Corporation (CSIC) and CSSC have considerable technological foundation for stabilization technology that maintains ship hull stable and side thruster technology that helps ship to turn. However, overall design and building of luxurious cruises are still shortage of Chinese shipbuilding industry, and propulsion technology and module assembly technology applied to cruises have long been monopolized by foreign companies. Therefore, China should be active in learning building experience of Oasis-class cruise ships, on one hand learning technical practices regarding advanced engines, stabilization and shock absorption, low-carbon and environmental protection, informatization, as well as security and stability, on the other hand using the experience of module assembly technology by foreign dockyards for reference, so as to improve management level of cruise shipbuilding projects, particularly fine management level. Furthermore, we need to seek breakthrough in disciplinary study and core technology on our own, building local cruises from a high starting point, according to a high standard and with a high technological level.

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Chapter 12

Establishment and Application of National Integrity Management System for Cruise Ports



Shanghai Cruise Port Case

Jingjun Gu

Abstract With rapid development of cruise industry, cruise integrity issues have gradually drawn attention. Shanghai Government departments and port authorities also developed and announced a series of policies and regulations on cruise integrity issues, and have achieved some results. However, they are not on the same path of development. In this paper, the establishment of cruise port integrity management system is discussed on the principle of comprehensiveness and delicacy, scientific reasonability, sufficient quantification and strong operability and on the basis of the existing research results, incorporating current status of Chinese integrity development and Shanghai cruise port integrity management as well as cruise industry development characteristics, so as to facilitate active establishment of Shanghai cruise industry integrity when the system is put into practice, to maintain development order of cruise economy, and to push forward sustainable and healthy development of cruise industry, thus producing experience and a pattern which is duplicable nationwide to contribute to Shanghai and even national economic growth.

Keywords Cruise port · Integrity management system · System establishment · Practical application

1 Introduction

In the development course of Chinese socialist market economy, credit is an integral part. To maintain healthy and orderly development of socialist market economy, developing and improving an integrity system corresponding to present Chinese development stage is a must-do. However, in the real world, lack of credibility can be seen everywhere, for example, tax dodging, fraud practice, improper trading and

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competition, which prevents socialist market economy from sustainable and healthy development.

After 10-year rapid development, Shanghai cruise port has gradually become the 1st cruise home port in Asia-Pacific region and the 4th in the world. Comparing with the growth rate of cruise economy, port integrity system construction lags far behind. In recent years, functional government departments have gradually realized the importance of construction of cruise port integrity system, and have set about exploring actively.

2 Status of Similar Subject Studies Home and Abroad

2.1 Studies on Integrity Evaluation in Foreign Countries

Integrity is necessary at any stage of relation of social production development. In the 21st century, with rapid global development, economic intercourse has raised higher requirement for integrity.

Olegario (2008), the historiographer said in the book named *Credit Culture*: “Credit becomes an element of social economic operation of entire country. Social rules and culture commonly followed are characterized of self-reinforcement, which means credit becomes more necessary if more people rely on it.” In hundreds of years of capitalism development, western capitalist economy has been highly developed. It experienced various credit crises during development. Studies on integrity and credit crises have become an important point for economists.

Over the past forty years, international scholars have made great progress constantly on enterprise credit researches. Arrow (1972) believed that if two parties of a deal lack basis of credit, trading costs will be increased to a large extent, accordingly reducing an enterprise’s profit, thus increasing social operating costs and lowering social benefits. Kreps’s (1984) studies indicate that lack of integrity or insufficient trust between two parties of a deal will make it difficult to maintain long-term stable income. Therefore, in repeated trading, credit matters a lot to any party of trading. Hence, credit of any individual and principal trading party is an integral part of credit economy. Lack of credit of any party will trigger a series of chain reaction. Credit is a part of social capital (Fukuyama 1998). Moreover, methodology of integrity researches is a fruitful piece of research results in this area. To quantify integrity researches, more and more scholars attempted to study integrity management and evaluation by means of inter-discipline analysis, and have achieved fruitful results. Survival analysis and data envelopment analysis for integer programming, medical science and biology.

2.2 *Researches on Integrity System in China*

In 1990s, China set about preliminary research on integrity theory. Publication of Zeng Kanglin's *Credit Theory* (1993) was a sign that during the development of Chinese socialist market economy, integrity issues have drawn social attention. Qin and Li (2003) believed that lack of commercial credit may seriously impair economic operation, and that construction of credit system was of great importance. Therefore, it is a must do to strengthen laws and announce information. Liu (2004) believed that foundation, form and system of credit constitute an organic whole, and jointly form the ultimate credit capital. It is of realistic importance to take credit as social capital and provide effective management. In addition to theoretical guidance and education, a series of laws and regulations as well as construction of economic operation system are even required, establishing credit records of individuals and principal trading party to enable transparency of credit history. Government plays an importance role therein, which is both the participant and the manager of credible society. The government is obliged to announce to the public any information it is informed during law enforcement, as long as such information is irrelevant to national or commercial secrets, and to strengthen protection of honest and trustworthy entity equity, so as to propagate and encourage honest practices. It even has the right to punish individuals committing breach of promises, in order to give alert and eradicate such breach.

2.3 *Research Review*

National and international scholars carried out credit researches from multiple prospects and dimensions, including impacts on economic efficiency of social operation, information asymmetry, individuals and principal party of social trading. They carried out systematic studies on issues relevant to credit design in terms of professional division.

According to the existing results, it seems that there are only a few researches on credit issues in tourism, particularly cruise industry, but scholars' research results are valuable as they provide a reference to building integrity management system for Shanghai cruise port. For Instance, trading costs, information asymmetry and spillover effect of credit are all realistic issues faced by Shanghai cruise port in integrity management practice. Shanghai cruise port integrity management system targets enterprises engaging in cruise businesses. To establish the system, equal consideration should be given to construction and development of Shanghai cruise port and realistic issues faced by enterprises during operation. Hence, in this paper, it is intended to establish Shanghai cruise port integrity system on the basis of the existing researches and in combination with the current status of Chinese integrity and Shanghai cruise port integrity management, so as to facilitate active establishment of

Shanghai cruise industry integrity when the system is put into practice, thus pushing forward sustainable and healthy development of cruise industry.

3 Current Status of Shanghai Cruise Port Integrity Management

3.1 Government Support

In 2009, the State Council suggested in *Opinions on Accelerating Construction of Shanghai Financial Center and Shipping Center* that Shanghai should basically achieve the objective of completing construction of the international shipping center by 2020, and specified that Shanghai should guarantee sustainable and healthy development of cruise industry. Inspection department at each port should seize development opportunity, put mutual efforts into optimizing the pattern of opening ports to the outside world, pushing forward port information construction and improving convenient level of port clearance, and improve capacity level of cruise ports, thus constantly improving international competitiveness of cruise ports. As early as during Shanghai World Expo, Shanghai cruise ports unveiled *Measures for Pushing Forward Clearance Convenience for Cruise Tourists*, which specified six measures: cruise clearance information communication and sharing, optimization of entry clearance procedures, simplification of exit clearance procedures, standardization of on-board joint inspection, improvement of clearance information level and perfection of emergency linkage mechanism for clearance.

3.2 Practice of Integrity Management by Supervising Agencies of Cruise Ports

In 2001, General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (AQSIQ) unveiled *Administrative Provisions of Risk Pre-warning and Quick Response for Entry and Exit Inspection and Quarantine* on the basis of referring to internationally established practices, taking into account Chinese entry and exit conditions and observing related Chinese regulations. In 2005, Maritime Safety Administration of the People's Republic of China (MSA) announced *Selection Regulations of MSA for Safe and Credible Ships and Captains*. The reformed Shanghai General Station of Immigration Inspection (SGSII) announced provisions of "Green, Yellow and Red" card punishment in 2007. General Administration of Customs, P.R. China (GAC) issued Interim Procedures of Customs of the People's Republic of China for Enterprise Credit Management in 2014. These provisions, in principle, indicate the importance of establishing mutual trust mechanism between enterprises or means of transportation participating in entry

and exit activities and joint port inspection authorities. However, no specific controlling measures against clearance issues occurred in cruise operation have been taken. In 2015, SGSII announced *Measures for Implementing Cruise Reputation Management at Home Ports* and established credit events archives to evaluate and rate cruise credit at home ports. Differential management was also put into practice with some results achieved. However, each department/division was not on the same path of development.

3.3 Necessity for Establishing Shanghai Port Integrity Management System

With the rapid development of cruise industry, currently Shanghai cruise ports are facing three challenges of customs clearance. Firstly, organizations of cruise lines and travel agencies at the ports have influence on efficiency of customs clearance. Secondly, accuracy rate of cruise data declaration has influence on efficiency of clearance by inspection authorities. Thirdly, prominent issues of cruise lines during operation bring potential risks to customs clearance.

3.4 Basis for Establishing Shanghai Cruise Port Integrity Management System

On the CPC's third Plenary Session of the 18th Central Committee of the Communist Party of China (CCCPC) dated November 2013, the Decisions of CCCPC on Several Major Issues Concerning Comprehensively Deepening Reform specified that "push forward collaboration between inland customs and coastal/border customs in order to enable mutual information exchange, mutual recognition of supervision and mutual assistance of law enforcement between related departments of port management."

In December 2014, the State Council announced *Reform Plan for Implementing the "Three Mutual" Policy and Promoting General Clearance Construction*, including reform objectives, "Three Mutual" collaboration contents, improvement of general clearance management system and overall environmental safeguard, as well as promoting steps and organizational leadership, covering five aspects and twenty specific contents. Thus, the "Three Mutual" clearance construction stepped into a rapid growth path.

In June 2014, the State Council printed and issued *Summary of Construction Plan for Social Credit System (2014–2020)*, which stated that social credit construction should be boosted comprehensively, and a credit reference system covering the entire society should be substantially built by 2020 so as to guarantee incentives and punishment mechanism fully functional.

On June 27, 2016, *Standards for Shanghai Cruise Tourism Operation* was announced. The Standards provided criteria for credit management for cruise tourism operation in order to ensure Shanghai cruise tourism market order, protect consumers' rights and interests as well as lawful rights and interests of cruise lines, travel agencies, international shipping agencies and cruise ports.

4 Construction Frame of Shanghai Cruise Port Integrity Management System

4.1 Leading Organs for Integrity Management Activities

Led by Shanghai Municipal Office for Port Services (SMOPS), a working team of Shanghai cruise port integrity management should be founded responsible for unified coordination of integrity management of Shanghai cruise ports.

At present, the team members include SMOPS, Industry Supervision and Management Department of Shanghai Municipal Tourism Administration, the 6th Division of Shanghai Cultural Market Administrative Enforcement Unit, Foreigners Management Office of Exit-Entry Administration Bureau of Shanghai Police Security Bureau, Baoshan Riverside Development and Construction Management Committee, Pujiang Immigration Inspection Station, Wusong Customs, Baoshan Bureau of Exit-Entry Inspection and Quarantine, Baoshan Maritime Safety Administration, Wusong Cruise Terminal Corporation, Shanghai International Cruise Tourism Service Center.

Considering that sound mechanism has not been established at early stage of Shanghai cruise port integrity management, in early period of preparation, units having close relation with Shanghai cruise entry and exit clearance services will be recruited to be sponsor. When this mechanism operates smoothly, the working team will recruit more members depending on actual cruise operation situation to participate in integrity management evaluation, thus continuously improving cruise integrity management mechanism.

4.2 Customs Clearance Rules for Shanghai Cruise Port Integrity Management

Customs Clearance Rules for Shanghai Cruise Port Integrity Management is developed by the working team of Shanghai cruise port integrity management. Applicable to various enterprises participating in cruise operation, the Rules require all members to sort out problems accumulated during customs clearance inspection of cruise ships, which are frequently encountered by those to be managed, and produce a

menu list of these problems. Detailed contents of the Rules will be developed upon discussion and decision within the working team.

The contents will cover non-standard behaviors committed by cruise ship operators' staff when they cooperate with its company in clearance inspection in violation of integrity principle, which are detected by each member over the years of cruise operation, and behaviors that severely influence smooth clearance and environmental order at cruise terminals. Upon the completion of formulation of the Rules, it will be announced to the public by the working team in order to inform those to be supervised for warning purpose, thus urging the enterprises to avoid non-standard behaviors.

4.3 Work Pattern of Integrity Management

Integrity management activities are managed on the basis of combination of three modes.

4.3.1 Daily Management of Targets Supervised by Team Members

Daily management is independently carried out by each team member that enters integrity event information via information platform of Shanghai cruise port integrity management. Then, the system automatically computes daily scores of targets supervised according to event information for future reference. Besides, team members are allowed to carry out, within their law enforcement authorities, internal self-rating of how targets under their supervision observe and cooperate with customs clearance, according to list of integrity management events, and implement differential management of enterprises, as shown in Table 1.

4.3.2 Key Management of Special Events

For special events, a special event linkage working mechanism will be established in the form of key management. For targets supervised that trigger redline of supervision and cause emergencies, any of the team members may activate the linkage working mechanism. upon discussion on a joint session of the working team, a decision may be made to temporarily adjust overall integrity rating of the target supervised and take joint measures.

4.3.3 Annual Overall Rating

The platform for Shanghai cruise port integrity management information application automatically computes annual overall rating and score of the targets supervised

Table 1 Rating of home port cruise reputation management by Pujiang Immigration Inspection Station (2015)

Documentary basis	Reputation rating	Cruise lines	Cruise ship name	Rating criteria	Reputation measures
<i>Measures of Pujiang Immigration Inspection Station for the Implementation of Home Port Cruise Reputation Management</i>	Grade A	Princess Cruises	Sapphire Princess	No event where passengers stop over abroad and do not return occurs through the year. There is no Notice of Correction or administrative penalty issued by immigration inspection authorities	<ol style="list-style-type: none"> 1. Given a plaque of 2015 Credible Cruise Ship; 2. The cruise service agencies making mistakes in declaration, if on-site correction has no influence on clearance efficiency, will receive lenient punishment or be exempted from administrative penalty 3. In special circumstances, upon communication with joint inspection authorities, immigration inspection authorities may permit extension of clearance time 4. Quantity of valid one-year boarding permits may be increased properly for units involved
		Royal Caribbean International	Quantum of the Seas	Occurrence of events where passengers stop over abroad and do not return is lower than 0.3 ⁰ /000. There is no Notice of Correction or administrative penalty issued by immigration inspection authorities	

(continued)

Table 1 (continued)

Documentary basis	Reputation rating	Cruise lines	Cruise ship name	Rating criteria	Reputation measures
	Grade B	Royal Caribbean International	Mariner of the Seas Millennium	Entry and exit management laws and regulations and provisions of immigration inspection are observed in a conscientious manner. No severe violation of laws and regulations is committed, or there is potential management risk of minor nature, and timely correction has been made after warned by immigration inspection authorities	Receive management from immigration inspection authorities in accordance with general requirements
		Costa Crociere SpA	Serena Atlantica		
		Bohai Ferry Co., Ltd.	Chinese Taishan		
		SkySea Holding International Ltd.	SkySea Golden Era		
		Costa Crociere SpA	Victoria		
	Grade C	Costa Crociere SpA	Victoria	There are two events where administrative penalties are imposed for inaccurate information declaration. There are four events where 11 passengers leave tour group while travelling, accounting for 1.1 ⁰ /000, the highest rate	During its operation in Shanghai, immigration inspection authorities will implement rigorous management, including increasing ID check percentage of the ship's crew during joint inspection, strengthening inspection of new boarding crew abroad, and strictly controlling number of boarding visitors

according to the integrity event information entered by team members during their daily management, and sort them according to industry involved for reference.

The final annual overall rating is decided by the working team upon discussion on the joint session held at the end of each year.

4.4 Rules for Integrity Rating

4.4.1 Evaluation Method

- (1) Targets to be evaluated have a benchmark score for annual integrity, which is 100, subject to annual resetting, under the name of those which perform supervision duties. (In case of annual rating of Grades C and D, the integrity benchmark for the next year will be 10 and 20 lesser respectively.)
- (2) On the basis of integrity management events entered by team members, the integrity benchmark score is plus one per positive event and minus one per negative event.
- (3) Calculation method for annual overall score: average of daily scores gained by targets supervised under the name of those which perform supervision duties (Table 2).

$$\text{Annual Overall Score of Sapphire Princess} = \frac{90 + 95 + 100 + 80 + 90}{5} = 91$$

$$\text{Annual Overall Score of Sinotrans Limited} = \frac{95 + 90 + 92 + 87}{4} = 91$$

- (4) Each team member is entitled to one-vote veto. The member exercising the veto needs to provide related reasons and enter them into the system.
- (5) The annual rating of a target supervised over which a veto is exercised automatically falls into the next lower grade. If two or more team members exercise the right of veto, more degrading is subject to discussion and decision.
- (6) If there is less Grade A rating in an industry, the working team may make supplement in a proper manner according to actual conditions.
- (7) The target does not provide cruise port services within the year will not be taken into account for the current year rating.

4.4.2 Classification of Rating

Integrity rating follows the international practice of “four classes and ten grades”. The details are listed in Table 3.

Table 2 Example of calculation of annual overall score

Target supervised		Daily score		
		Sapphire Princess	Sinotrans Limited	...
Supervising agency	Shanghai Municipal Office for Port Services	–	–	...
	Shanghai Municipal Tourism Administration	–	–	...
	Shanghai Cultural Market Administrative Enforcement Unit	–	–	...
	Exit-Entry Administration Bureau of Shanghai Police Security Bureau	–	–	...
	Baoshan Riverside Development and Construction Management Committee	–	–	...
	Pujiang Immigration Inspection Station	90	95	...
	Wusong Immigration Inspection Station	95	90	...
	Wusong Customs	100	92	...
	Baoshan Bureau of Exit-Entry Inspection and Quarantine	80	87	...
	Baoshan Maritime Safety Administration	90	–	...
	Wusong Cruise Terminal Corporation	–	–	...
	Shanghai International Cruise Tourism Service Center	–	–	...

Table 3 Standards for integrating rating classification

Integrity rate		Standards for System evaluation	Level of integrity	Prerequisites for supplement of Grade A target
Grade A	AAA	Annual score > 100	Excellent	Within the first three ranks in its category
	AA	Annual score > 95		Within the first six ranks in its category
	A	Annual score > 90		Within the first ten ranks in its category
Grade B	BBB	Annual score > 85	Good	–
	BB	Annual score > 80		–
	B	Annual score > 75		–
Grade C	CCC	Annual score >70		–
	CC	Annual score > 65	Poor	–
	C	Annual score > 60		–
Grade D	D	Annual score < 60	Extremely poor	–

4.5 Integrity Management Measures

On the principle of reward and punishment, enterprises rated differently should be given different facilitation measures.

4.5.1 Facilitation Measures

For Grade A targets according to annual overall evaluation, the working team members will provide various facilitation measures on a unified basis. Furthermore, according to rating of targets supervised, from high to low (AAA => AA => A), preferential treatment will be provided.

4.5.2 Joint Law Enforcement

For Grades C and D targets according to annual overall evaluation, the working team members will carry out not less than one and three joint law enforcement activities in the next year respectively.

4.5.3 Notification to the Public

For Grade A and Grades C/D targets according to annual overall evaluation in all industries, the working team circulates a notice of commendation and warning occasionally through information application platform for Shanghai cruise port integrity management, depending on actual conditions.

4.5.4 Authorized Advertising

AAA targets will be authorized to put the slogan of “Shanghai Cruise Port Integrity Enterprise of the Year” on their company websites, WeChat Official Accounts and other push media for advertising purpose, in order to improve corporate image.

4.5.5 Priority on Equal Conditions

On equal conditions, Grade A enterprises may have priority.

4.5.6 Collaborative Law Enforcement

For Grade C and D targets, if they participate in Shanghai cruise operation in the next year, the working team members properly strengthen supervision through collaborative law enforcement.

4.5.7 Incentives for Cruise Terminals

On the basis of demands for cruise port integrity system construction, cruise terminals may implement differential management for some highly rated enterprises by exempting them from or deducting some service fees at their discretion, so as to urge cruise lines to consider the importance and economic benefits of customs clearance with cautious eyes.

4.6 Information Disclosure and Social Interaction

Through information disclosure module, the information application platform for Shanghai cruise port integrity management discloses annual overall rating of targets supervised and temporary rating adjustment arising from special events. Other information are sorted when the team members enter it into the system, and disclosed regularly subject to the working team’s decision.

As an authoritative channel, Shanghai International Cruise Tourism Service Center Limited discloses related information synchronously with its information platform. Moreover, as an interactive window between the information application platform for Shanghai cruise port integrity management and society, it accepts consumers' complaints and advices, organizes online voting activities, and gives related information to the working team after verification and summary.

5 Construction and Application of Integrity Management Information Platform

The information application platform for Shanghai cruise port integrity management is developed relying on single window of Shanghai ports, including four information modules, namely information inquiry and relevant module, integrity event entering module, integrity rating module, and information disclosure module. The system framework is sketched in Fig. 1.

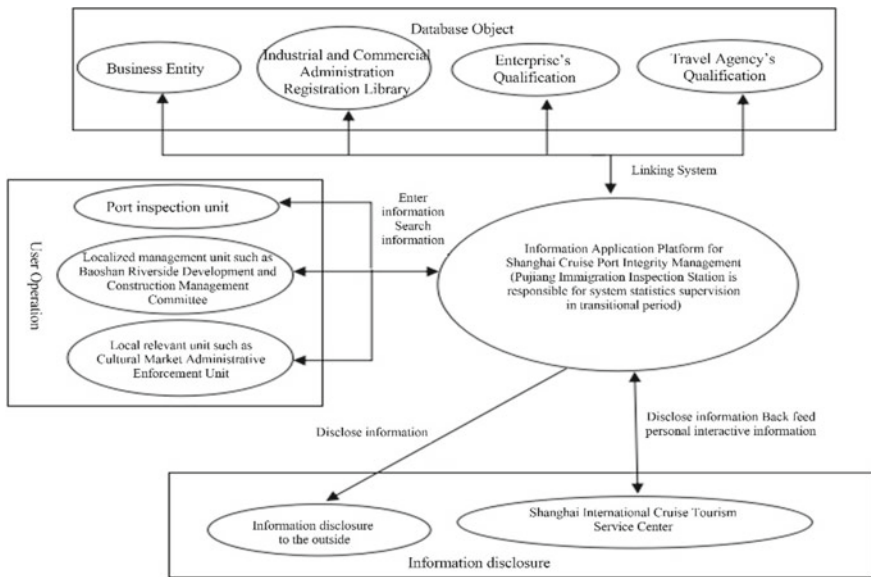


Fig. 1 Schematic diagram for framework of integrity management information application system

6 Management of Shanghai Cruise Port Integrity Evaluation System

Management of cruise port integrity evaluation system should include development of standards, system application and so on.

6.1 Development of Evaluation Standards

Being comprehensive and quantified indicator evaluation system, evaluation standards are basis on which integrity status of enterprises engaging in cruise industry is evaluated.

Integrity evaluation must be in quantified form with unified evaluation standards to produce a final score through calculation, which gives proper weight for evaluation contents according to previously drafted degree of importance. Furthermore, the development of evaluation standards requires incorporation of development phase of cruise ports to produce practical, scientifically reasonable and operable contents.

6.2 Evaluation Management

At present, all department of Shanghai cruise port have accumulated abundant experience in their management activities. They have attached increasing importance to applying integrity management theory to port management. However, sharing and integration level of port integrity management are still far lower than the level of advanced countries in the world. Currently, there are diversified methods for Shanghai port integrity management. Assessment of credit category also conforms to their respective business needs. However, on the whole, linkage among departments and credit resource integration haven't been realized completely.

6.3 Function Description of Platform for Integrity Management Information Application

At present, the information application platform for Shanghai cruise port integrity management has been established. This platform has functions such as information entry, information inquiry, information publish, information statistics analysis, and consumers' interaction. By evaluating clearance quality of cruise lines in operation period, benign interaction are enabled between management by supervising department and cruise enterprise credit construction. Requirement of "mutual information exchange, mutual recognition of supervision and mutual assistance of law enforce-

ment” is met. the information application platform for Shanghai cruise port integrity management provides a set of working mechanism for linkage among departments and resource integration regarding Shanghai port integrity management, provides a set of rules for execution of integrity management activities, and provides a unified platform for information exchange among departments.

6.4 Purpose of the System Development

The system is developed for five purposes: 1. Solidify credit management rules to enable standardized information acquisition; 2. Exploit network platform advantages to the full to enable sharing of management event information; 3. Utilize specific algorithm to enable intelligent data sorting and comparison; 4. Evaluate overall quality of customs clearance for cruise ships, providing basis for reputation management decision-making; 5. Put into practice government information disclosure to publish cruise clearance quality report, creating a competition pattern of cruise service quality improvement.

7 Conclusion

The establishment of *Customs Clearance Rules for Shanghai Cruise Port Integrity Management* aims at creating atmosphere of conscious promise-keeping line operation through differential management, in order to finally enable balance and coordination among management departments, enterprises and tourist. Formulation of rules comes out of both the need of solving prominent problems and the need of balancing interests of all parties. As the basic principle for social and economic operation, honesty and integrity play a protecting role in development and growth of cruise tourism. Strengthening propaganda, making government functional and establishing effective constraint mechanism are all effective approaches to establishing and improving Shanghai port integrity management system.

Chapter 13

Research on Building and Application of China Cruise Terminal Bid Data



Yanhui Gao, Cheng Chen and Xinlei Qin

Abstract With the in-depth development of the domestic cruise industry and gradual maturity of the cruise tourism market, based on the rapid development of the domestic Internet and the demand for intelligent services for tourists, the development focus of China's cruise terminals has shifted from "hardware platform" construction to "information level" promotion. As an important development point, "intelligent cruise terminal" urgently needs cruise big data as the core to support the construction of intelligent cruise terminal. In this paper, based on the experience of the construction of intelligent tourism big data platform, the development status of big data in domestic cruise terminal is analyzed; through the analysis of the demand for big data platform of domestic cruise terminal, the main implementation path and risk control plan for the construction of big data of cruise terminal is proposed to ensure efficient operation, precise marketing, personalized service and the operation of the situational awareness system of the national intelligent cruise terminals.

Keywords Big data · Intelligent cruise terminal · Risk control

1 Introduction

Big data is a pool of data which cannot be collected, managed or consolidated by conventional software within a limited period of time. Big data is also high volume, high velocity and high variety information assets that require innovated forms of processing to enable enhanced decision making, insight discovery and process optimization. However, the construction of big data platform integrates data consolidating, data processing, data storing, data analyzing, visualization and other functions, and is constructive to unearth business logic behind data, identify problems behind data, and timely solve the problems. For that purpose, domestic conventional industries

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are devoted in succession to seeking for new growth areas by constructing big data platform, and emerging industries also give priority to the construction of big data platform.

The emerging and rapidly developing domestic cruise industry is further deployed, and the cruise tourism market has become more and more mature. The development focus of domestic cruise terminals has shifted from “hardware platform” construction to “information level” promotion. A new point of “intelligent cruise terminal” for the development of domestic cruise terminals becomes urgent and important, but the core to support the construction of intelligent cruise terminal is the construction of cruise big data.

2 Experience Reference for Constructing Intelligent Tourism Big Data Platform

2.1 Construction Process of Intelligent Tourism Information Big Data Platform

The construction of intelligent tourism information big data platform has three phases. In the primary professional phase, all scenic areas and tourism authorities of any level will build their websites and database, to realize the goal of unified management of basic data and thematic data and promote the shift from single function to thematic comprehensive application.

The second phase is to drive the construction of digital tourism and digital scenic areas. In this phase, it is required to strengthen the function to consolidate and manage partial and distributed data, accelerate the construction for resource sharing and service, and add spatial information infrastructures, so as to improve the flow of data and business resources.

The last phase is intelligent tourism and requires intelligence. The construction of tourism information aims to further the upgrading speed of applications, users and the whole tourism industry. New ITs will be fully applied throughout the tourism industry chain. Appropriate sensing chips will be installed in tourism resources. On the basis of cloud computing and super-computing, resources on the internet of things, internet and communication network will be combined together organically to make interactions between human and human, human and things, and things and things closer and closer and further improve fine management and dynamic management of scenic areas and tourism resources, so as to make the whole travel process intelligent.

2.2 Demand Framework of Big Data Platform

Collection—It aims to make tourism information perception more generalized and make data collection process for external data and internal data more real-time, accurate and objective;

Network—It aims to transmit. Network architecture system consists of mobile internet, internet of things and wireless network. It is to transmit data resources generated at the layer of network to the layer of data processing;

Data processing—It aims to consolidate and analyze all kinds of information with artificial intelligence, cloud computing and other technologies to make information sorting, information consolidation and information application more convenient and efficient;

Application—It covers various application systems, including e-commerce system, ticketing system and government system. Different application systems have different client sides, such as tourism managers at different levels, various service suppliers and tourists;

Users—The layer of users, originating from the layer of application, is re-classification of different levels of applications at the layer of application, including tourism managers at different levels, tourists and service suppliers.

2.3 Experience Summary

2.3.1 Building a Complete Big Data Industry Chain

The big data industry chain for the development of intelligent tourism is incomplete and is not led by reasonable and scientific system, and the market application of big data is weak. Along with continuous updating and improvement of cruise terminal big data, the whole ecological chain industry structure for upstream and downstream big data development is the main object of development. Key factors for the construction of cruise terminal big data industry chain is data source, how to process data, how to apply data well, how to ensure data security, etc.

2.3.2 Paying Attention to Top-Level Design and Laying Emphasis on the Construction of Big Data Platform Strategically

In the early development age of intelligent tourism, people all over China strove for intelligent tourism development to enable intelligent tourism up to the strategic level. The construction of intelligent cruise terminal and terminal big data is very helpful

to the construction and development of domestic cruise terminals. The construction of intelligent cruise terminal and terminal big data should be raised up to the national strategic level and be planned reasonably. Currently, the intelligent cruise development has been listed in relevant laws and the 13th Five-year Plan to better support the construction of cruise terminal big data.

2.3.3 Laying a Solid Foundation and Giving First Priority to Big Data Platform Infrastructure

The input to intelligent tourism big data comes from diversified sources which have complete coverage. In the process of intelligent tourism development, priority will be given to infrastructure. Cruise terminal data source and intelligent tourism have some similarities and overlapping points. In the process of intelligent cruise terminal construction, pay attention to infrastructure support and give priority to promote infrastructure construction. For example, provide free complete WiFi coverage for cruise terminals to lay a solid foundation for subsequent construction of big data platform.

3 Analysis on the Demands for Constructing China Cruise Terminal Big Data Platform

In addition to that the construction of China Cruise Terminal Big Data Platform will be affected by the environment in which big data application develops rapidly, the demand on various elements of cruise tourism service drives its construction.

3.1 Cruise Tourism Service System

Cruise tourism service system is a complete system of services provided by service providers for tourists from the time when they pay for cruise tourism service until the cruise travel ends.

3.1.1 Subjects of Cruise Tourism Service

(1) Cruise terminals (2) Cruise lines (3) Travel agencies (4) Relevant regulatory authorities.

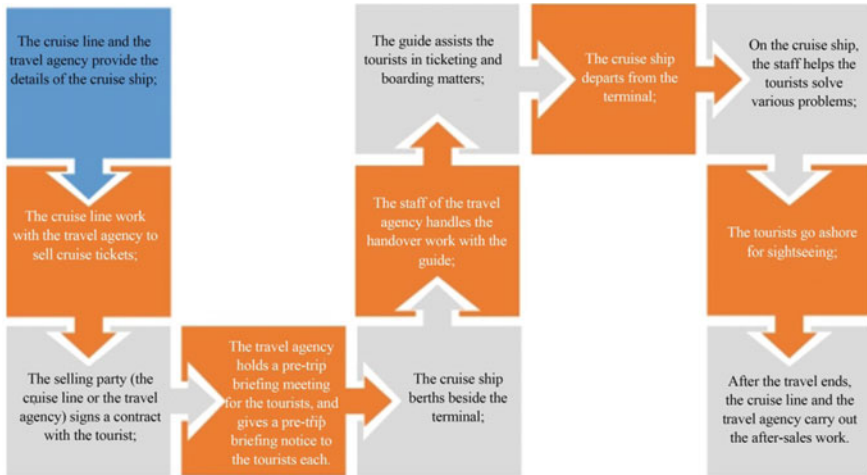


Fig. 1 Flow chart of cruise tourism service

3.1.2 Content of Cruise Tourism Service

(1) Terminal service (2) Cruise service (3) Route sightseeing (4) Cruise ticket (5) Guide service (6) Transportation service (7) Insurance.

3.1.3 Process of Cruise Tourism Service

The reception process of cruise tourism service of a cruise line or a travel agency includes (Fig. 1):

- (1) The cruise line and the travel agency provide the details of the cruise ship;
- (2) The cruise line works with the travel agency to sell cruise tickets;
- (3) The selling party (the cruise line or the travel agency) signs a contract with the tourist;
- (4) The travel agency holds a pre-trip briefing meeting for the tourists, and gives a pre-trip briefing notice to the tourists each;
- (5) The cruise ship berths beside the terminal;
- (6) The staff of the travel agency handles the handover work with the guide;
- (7) The guide assists tourists in ticketing and boarding matters;
- (8) The cruise ship departs from the terminal;
- (9) On the cruise ship, the staff and the guide helps the tourists solve various problems;
- (10) The tourists go ashore for sightseeing;
- (11) After the travel ends, the cruise line and the travel agency carry out the conduct after-sales work.

3.2 Analysis on Demand Elements of Cruise Tourism Service

Subject to the reception process of cruise tourism service, by different demanding parties, cruise elements can be analyzed in the five aspects:

3.2.1 Tourists' Demand for China Cruise Terminal Big Data Platform

When choosing among different cruise tourism services, cruise tourists, as the subjects on the cruise ship, will be provided by China cruise terminal big data platform with official information and services of different cruise lines, including prices, cruise ship types, routes, timetables, transportation facilities, terminal service facilities, on-board service and entertainment facilities, standing duration at the destination, etc.

3.2.2 Regulatory Authorities' Demand for China Cruise Terminal Big Data Platform

Currently, there are diversified methods to manage port credit. The assessment of credit types satisfies business requirements of respective industries. However, from the entire perspective, we have something to do to realize departmental linkage and credit resource integration. However, China cruise terminal big data platform will be an important window which is linked up to the information application platform for credit management of cruise terminals and implements the construction of port entry credit system.

3.2.3 Cruise Terminals' Demand for China Cruise Terminal Big Data Platform

The demand of cruise terminals on China cruise terminal big data platform includes two aspects: operation demand and service demand.

- (1) Operation demand: Currently, there are deficient information construction, conventional operation mode, non-information terminal management, insufficient linkage to cruise lines, travel agencies and terminal regulatory authorities, unrealized information management, inefficient terminal operation and other problems existing in the operation of cruise terminals.
- (2) Service demand: Main service objects of cruise terminal are cruise tourists. For most of them, it is the first time to take a cruise ship. They are not familiar with cruise terminals, so it is hard for them to get existing service information of cruise terminals or external service information. Therefore, the big data platform is helpful.

3.2.4 Cruise Lines' Demand for China Cruise Terminal Big Data Platform

As terminal tourism develops rapidly in China, foreign cruise lines have invested more in the cruise market of China. Foreign cruise lines need the information about cruise policies, scale of cruise tourists in China, berth charges of cruise terminal, age, sex, economic income, preference of cruise tourists, real-time weather, etc.

3.2.5 Travel Agencies' Demand for China Cruise Terminal Big Data Platform

In most cases, Chinese tourists like traveling through travel agencies. To make travel agencies more professional and trustable, they need element information about cruises, cruise lines, destinations, ticketing marketing, visa and guide service.

4 Main Implementation Path and Risk Control Plan for the Construction of China Cruise Terminal Big Data

4.1 Implementation Paths

Key elements for the construction of China cruise terminal big data: (1) Requiring stable, continuous and diversified sources of data; (2) Using data warehouse, data mining and other information technologies as technical support; (3) Aiming to correct users cluster; (4) Accurately confirming user demand information.

On the basis of big data technologies and user demand analysis, the implementation path is: collect data resources, build database, process data, carry out detailed analysis of business demand, mine data and handle relevant business matters. It is shown in Fig. 2.

4.2 Implementation Steps

4.2.1 Establishing Smooth and Effective Data Collection Channels

Cruise tourism generally involves the whole mother cruise terminal industry chain, including cruise terminals, cruise lines, travel agencies, terminal connection, transportation service, cruise service, financial service, sightseeing service, hotel service, administrative regulation, etc. However, the information sharing is poor in the industry chain, and it is difficult to realize information linkage. This barrier is the bottleneck that restricts the construction of China cruise terminal big data.

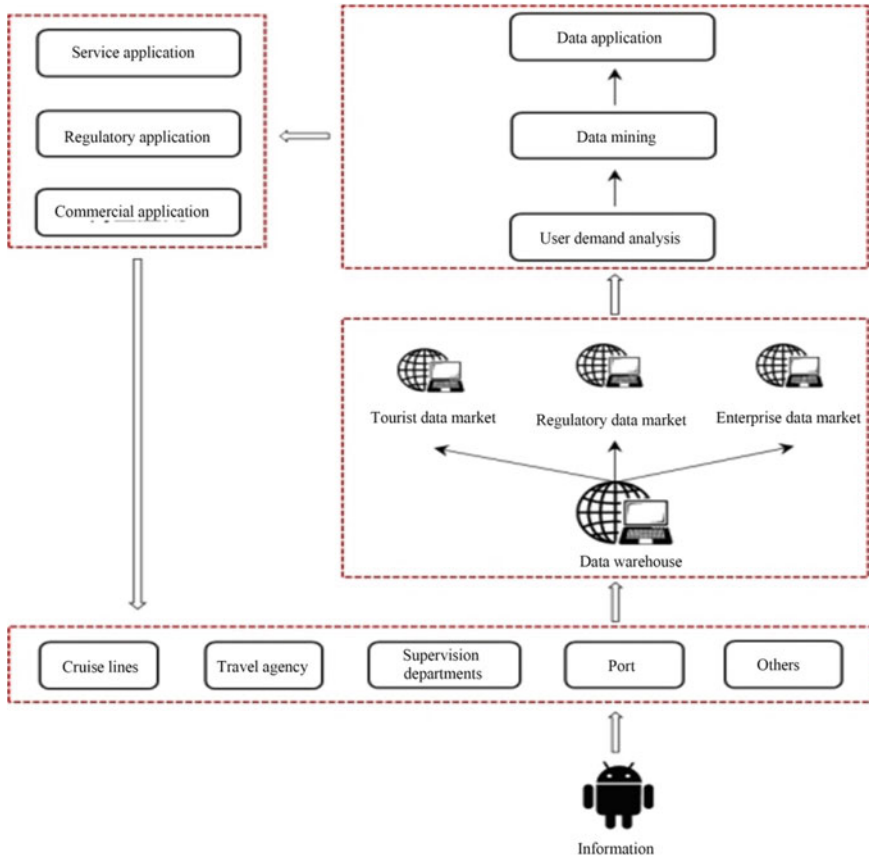


Fig. 2 Diagrammatic figure of implementation patch for the construction of China cruise terminal big data

In addition, one of the drivers for rapid development of big data is high-speed flows of data. The key lies on the driving force of business flow and capital flow. Therefore, to build smooth and effective data collection channels, in addition to the organization activities led by regulatory authorities, further research should be carried out on economic development model of sharing between enterprises on the cruise industry chain to establish data sharing channel that is led by regulatory authorities for cruises and driven by commercial value sharing on the cruise industry chain.

To sum up the aforesaid analysis, the construction of cruise data sharing channel model is shown in Fig. 3.

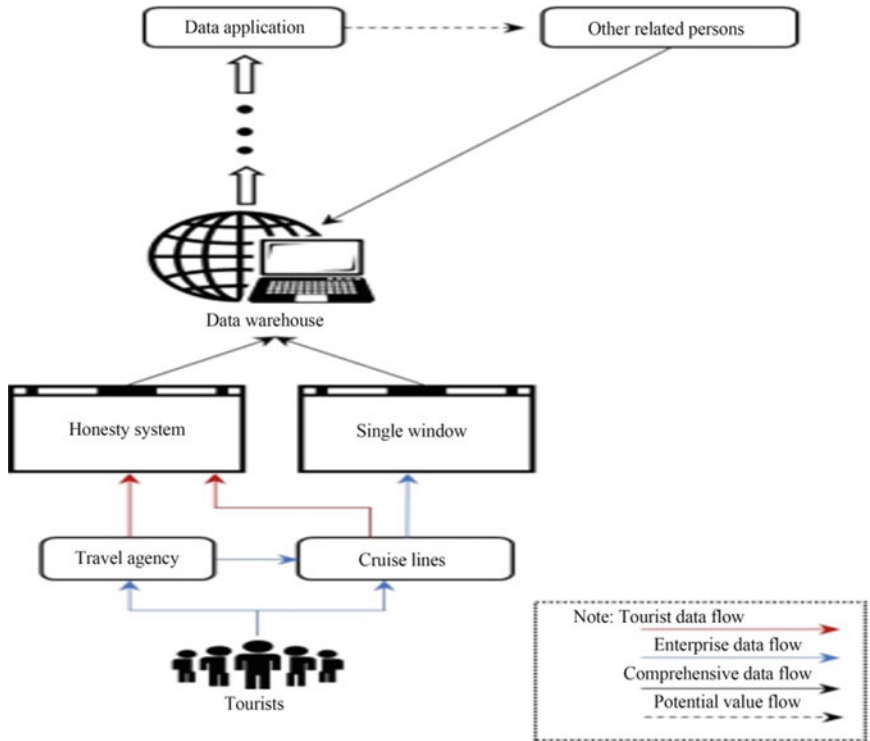


Fig. 3 Diagrammatic figure of data sharing channel of China cruise terminal big data platform

4.2.2 Establishing Scientific and Standardized Data Warehouse Application Model

For security, privacy and application of the collected information, before applying the data, we should establish scientific and standardized data warehouse application model in Fig. 4.

4.2.3 Designing for Data Mining Algorithm

In data warehouse, the data mining is the key point for the construction of China cruise terminal big data platform. Through depth analysis of all tourist information, relevant enterprise information, relevant regulator information, etc. Recorded in data warehouse, on this basis, have a more detailed classification of tourist groups, further analyze behavior rules and buying modes of the groups, determine enterprise groups, enterprise operation demand, relation between enterprises and tourists, and decide regulatory situation, regulatory service requirements, regulatory policy issuance requirements of regulatory authorities for cruises, so as to provide tourism

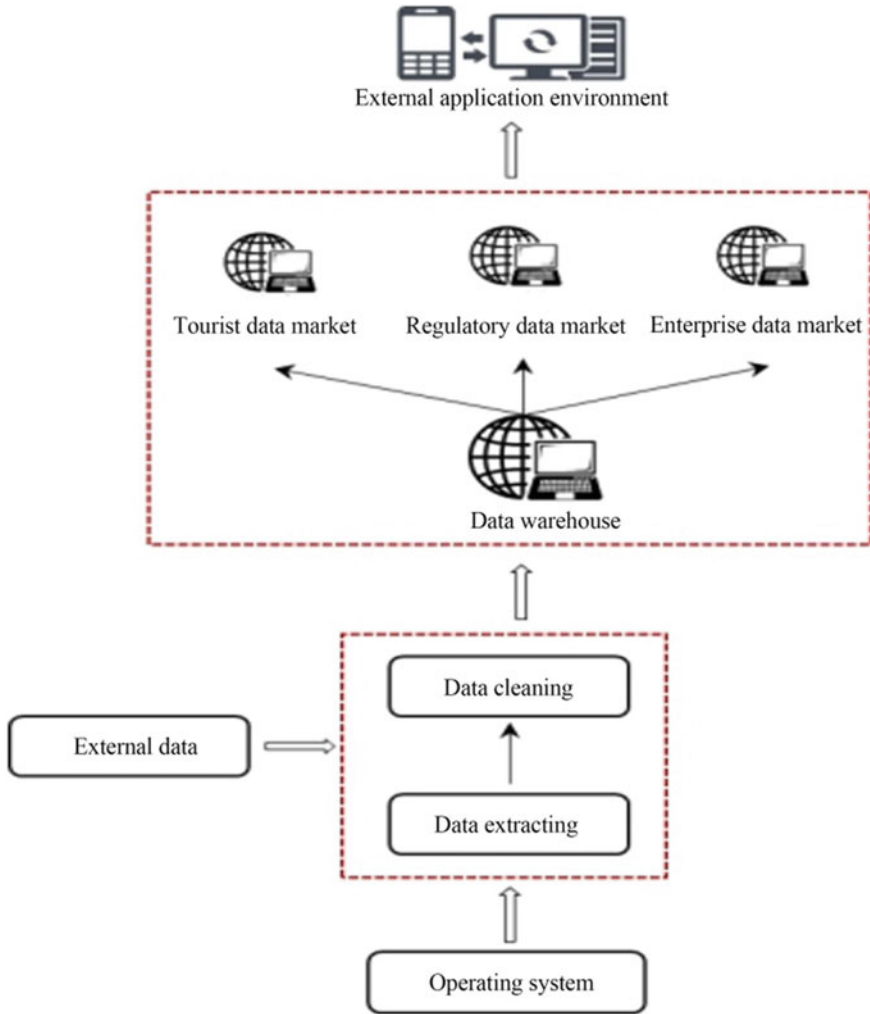


Fig. 4 Diagrammatic figure of data warehouse application of China cruise terminal big data platform

services for tourists, operation activity services for cruise related enterprises, and effective regulatory services for cruise related regulatory authorities. The main tools include data mining, online analytical processing (OLAP) and other relevant data statistical tools which are important application tools. In this paper, comprehensive and intelligent analysis on the tourist information presented with clustering method.

The data of China cruise terminal big database presented platform has two clusters: (1) mining algorithm cluster; and (2) business logic cluster.

The specific analytical model is shown in Fig. 5.

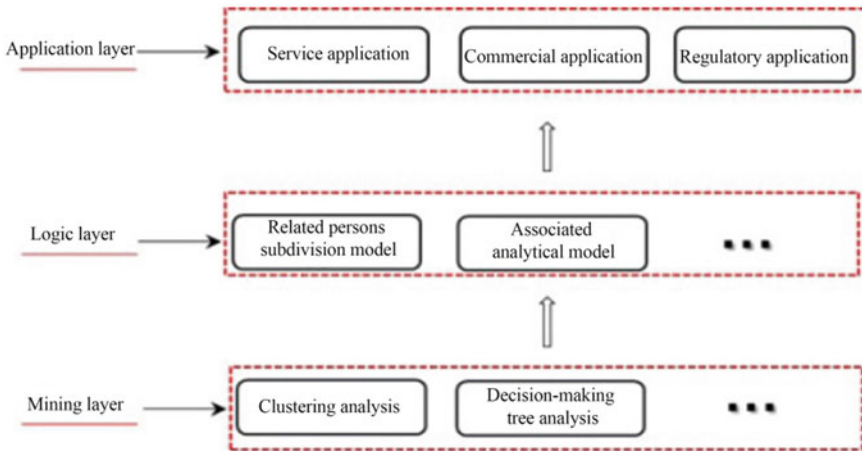


Fig. 5 Design chart of data mining model for China cruise terminal big data platform

4.2.4 Enabling the Business Application Functions of China Cruise Big Data

The final aim of the construction of the China cruise big data platform is to enable the business application functions, including cruise service function, cruise business function and cruise regulation function.

(1) Cruise Service Function

The cruise service function of the cruise big data platform means provision of cruise services for tourists. Cruise tourist services consist of basic functional services (e.g. information inquiry, transportation service, guiding service, and consultation service) and value added services (e.g. ticket booking, hotel reservation, product buying, and insurance service).

Based on preliminary investigating activities, tourists’ basic requirements for cruise tourism are shown in Fig. 6.

(2) Cruise Business Function

In the process of construction for China cruise terminal big data platform, tourism companies can integrate cruise tourism and regional tourism to diversify their marketing channels and win more opportunities for development. Currently, large international cruise lines have an increasing share in Asian market. However, growth prospects of small travel agencies and cruise tourism service providers are not sound, because they lack a developed data platform and the effect of promoting cruise products is not good, as part of bottlenecks for the development of cruise tourism. Thus, in the process of construction for the cruise big data platform, the opinions of cruise tourism service providers should be taken into consideration to support and guide

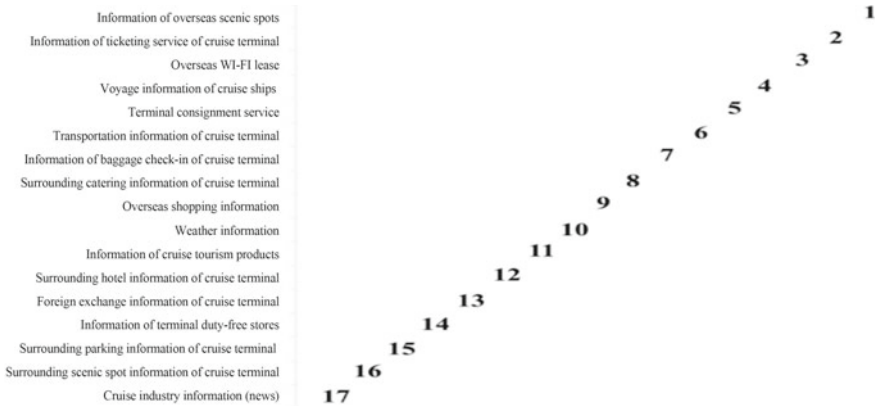


Fig. 6 Ranking of service items based on tourists' requirements. *Note* Figure is a ranking of service items, and a bar length does not have mathematical meaning

their promotion activities, encourage them carry out cruise tourism related activities and further arise attraction from tourists.

(3) Cruise Regulation Function

Currently, governmental authorities pay more and more attention to cruise tourism in port cities and hope that the rapid development of cruise tourism could drive the development of the primary and tertiary industries. However, cruise tourism service providers usually act alone in diversified modes of operation. This leads to many barriers in the information and integrating development of cruise tourism. Thus, in the early development age of cruise tourism, governmental authorities should take the initiative to make the building of China's self-owned brand of cruise terminal more smooth and efficient. So, the requirements of governmental authorities should be taken into consideration. Firstly, improve the safety and credibility of cruise tourism big data platform; then analyze data and develop policies with some data analysis tools, and address different complaints, inquires and suggestions from tourists and operators at the first time; finally, enable effective monitoring and regulation over the cruise tourism market in China, and ensure sound and rapid development of cruise tourism industry.

Accordingly, application function modules of China cruise big data platform consist of tourist service function, enterprise service function, regulation service function, and equipment operation and maintenance, as shown in Fig. 7.

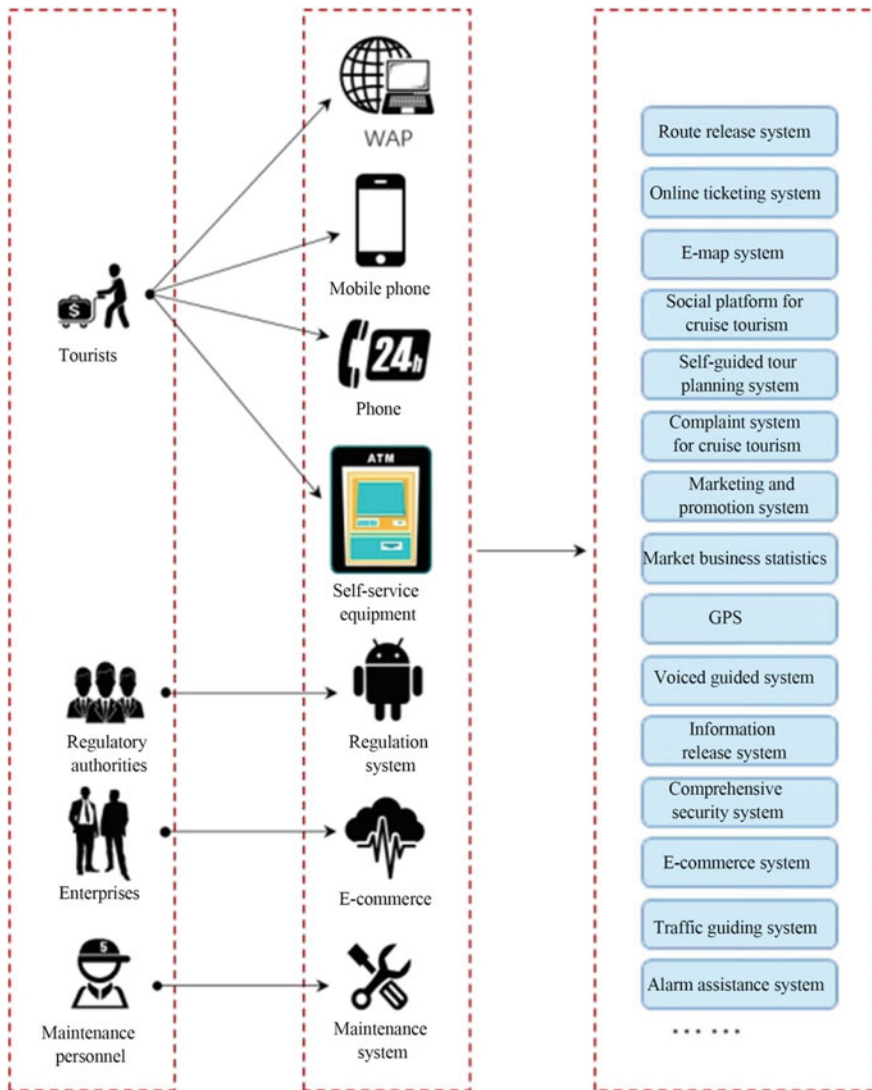


Fig. 7 Model of application functions of Shanghai cruise big data platform

4.3 Risk Control Plan

Main risks existing in the construction of China cruise terminal big data platform include data leakage and data analysis credibility. Thus, the development of the risk control plan for China cruise terminal big data platform should focus on data security and data feasibility.

4.3.1 Rules and Principles for the Implementation of Data Security Control Management Plan

Data security control for China cruise terminal big data platform will be designed in two aspects: control over operating and technical personnel who have access to data, control over operating risks of hardware equipment and technical control over system security. For information security risks identified through the above analysis, they can be controlled in the following methods:

Avoid: to avoid the re-occurrence of the risks by suspending all activities that may give rise to the risks.

Transfer: to transfer to other systems some activities that may give rise to risks, such as outsourcing, joint venture and insurance.

Reduce: to probability of occurrence of risks by taking some measures, such as adopting some methods to control risks and adopting some approaches to reduce risks.

Accept: it is impossible to eliminate the occurrence of risks generally. After taking some measures to transfer and reduce some risks, there might be the occurrence of risks. To reduce risks, it is required to incur more costs for reducing risks. Therefore, taking into consideration of the balance between costs for risk reduction and benefits from risk reduction, some enterprises will accept the case where there are acceptable risks.

4.3.2 Security and Privacy Protection Management

Strengthen the Management Against Security Risks Existing in Operating Activities of Operating Personnel

- (1) Establish background review and regulation system for the persons who have access to the data, and have information confidentiality agreements executed.
- (2) Implement operating log system for data system where each log-in and operating activity will be recorded and the duties of operating personnel will be defined.
- (3) Impose limits of authority on operating personnel where the duties of operating personnel to operate will be restricted to avoid operation errors that might lead to data leakage.

Strengthen Technical Support

In the process of building the system of private data risk control strategies in the cloud environment of data system, priorities will be given to establish the legal regulatory mechanism for cross-border transmission of cloud private data, optimize restricting rules for format contracts of cloud services, improve the application of cloud users "right to be forgot", and enact new multidimensional key standards and establish cloud privacy impact assessment system.

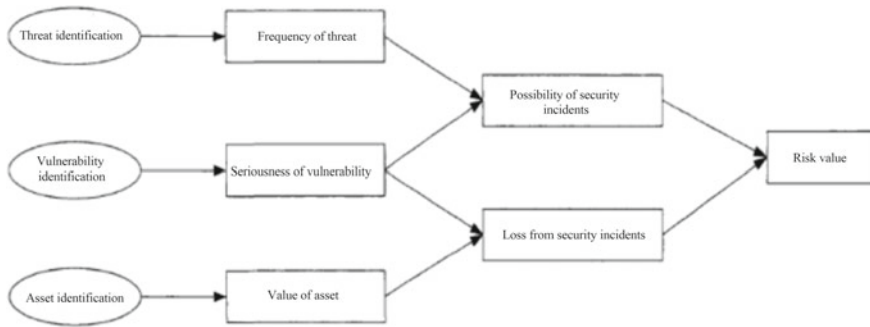


Fig. 8 Schematic diagram of cyber security risk assessment

4.3.3 Risk Control

Key steps of network attack of China cruise terminal big data platform include collection of remote data, data analysis, remote attack and collection of local data. However, the process of cyber security risk assessment includes data collection, data processing and data analysis, and key steps include collection of local data, analysis of local data, collection of remote data, analysis of remote data and comprehensive assessment.

Cyber security risk detection on the cruise terminal big data platform is to identify risks existing in or outside the system network and carry out assessment and comprehensive analysis over the risks. The principles for identifying, assessing and analyzing risks are shown in the following figure. The basic elements involved include asset identification, vulnerability identification and threat identification (Fig. 8).

5 Application Space and Development Prospects of China Cruise Terminal Big Data

5.1 Application Space of China Cruise Terminal Big Data

Compared with foreign companies in overseas cruise industry, the companies in Chinese cruise industry does not have a systematic approach for big data application, notwithstanding a lot of attempts in marketing, customer services and other sectors which have gained good effect. In addition, in the industrial chain of cruise, a lot of partners, particularly internet companies, have driven the application of big data with significant effect on the whole ecological system of cruise. However, the future success of the cruise industry depends on how to effectively apply big data.

5.1.1 Fixated Management

Ensure the unification and normalization of management event descriptions of terminal regulators. All the regulators are required to fixate the rules for credit management events and determine the nature of unified standards for various events for subsequent inquiry, statistical and assessment work. Fixate the credit management rules and realize information collection standardization.

5.1.2 Monitoring of the Passenger Flows

Display the tourist boarding process data for each voyage on real-time basis, including number of passengers who are checking in, number of passengers who are checking in with baggage, number of passengers who are in security inspection, duration of security inspection (initial and final), number of passengers boarding, and boarding time. This function is designed to assist operation managers in monitoring cruise ships, always protecting passenger security, identifying and solving them timely.

5.1.3 Information Sharing

Depending on the cruise terminal big data platform, the data sharing of management information will be realized to enable managers to assess cruise customs clearance, and also enable the superiors to identify all kinds of problems existing in cruise customs clearance, so as to rapidly adjust port management policies.

5.1.4 Improving the Tourists' Tourism Experience

As the cruise industry introduces the big data application, with the aim to improve cruise tourists' tourism experience, by applying big data technologies, the information that is valuable in marketing, sales and service will be reflected. By combining with the application of online platform and mobile side, with offline services, such as preliminary terminal services, terminal area services and departing services, tourists' experience will be improved in all aspects to realize increment sales and crossover sales and obtain higher customer value.

5.2 *Development Prospects of China Cruise Terminal Big Data*

5.2.1 Efficient Operation of Intelligent Cruise Terminal

Collect big data about operation of cruise terminal through sensor network and business system at the cruise terminal, and use monitoring operation and forecasting of big data, to coordinate and use terminal resources more efficiently.

5.2.2 Precise Marketing and Personalized Services

Use big data to determine which new individualized services should be deployed, optimize business operation, and improve tourists' experience; integrate tourists' internet experience into insolated data of cruise tourism process, and adopt data analysis method to determine tourists' needs and preferences so as to understand tourists' true interests and conduct; and develop and customize featured products and services and promote them to the tourists.

5.2.3 Situational Awareness System in the Cruise Terminal

It involves governmental regulators, cruise terminals, cruise lines, travel agencies and is featured by diversification of operating entities, sizes, changes, information sources as well as large-volume data. The application mode and operation mechanism of the situational awareness system in the cruise terminal are analyzed and discussed in the big data environment.

6 Policy Suggestions on the Construction of China Cruise Terminal Big Data

6.1 *Improving the Awareness of the Importance of Cruise Terminal Big Data Work*

The development experience of foreign cruise industry shows that the cruise industry strongly drives regional economy and makes a lot of economic contributions. The cruise industry is not only the driver for regional economic development and also a new engine for the transform and upgrading of regional economy. Therefore, the cruise terminal big data should reflect internal and external conditions of cruise related companies, and all kinds of information that can indicate problems in the application. It is also required to have different functions, such as market investi-

gation, information forecasting, comprehensive judgment, advising, monitoring and management. Accordingly, governmental authorities at all levels should pay attention to cruise industry big data work to make sure of the funds necessary for the construction of the cruise big data, allocate relevant persons, give a certain position to the construction of the cruise big data, and create the necessary conditions to give play to the statistical function.

6.2 Strengthening the Cruise Data Sharing and Industry Coordination

As the cruise industry includes shipbuilding, port service, transport and transportation, tour and sightseeing, it involves a lot of businesses. Different departments have different job categories, so that collection modes and sources for big data are diversified, and the data of relevant departments is not available for sharing. Thus, different governmental departments, ports and enterprises should cooperate to achieve the goal. However, a lot of information and messages in the cruise industry are not public or transparent, and are not consolidated or summarized by relevant authorities or companies. Thus, it is difficult and uncertain to construct the cruise big data platform, and the progress in the construction of the cruise big data platform is prevented. It is very energy-consuming, time-consuming and difficult to collect data, because there is not an institution or platform which is responsible for collecting and consolidating cruise data. Therefore, it is costly, less accurate and less efficient to collect data. Hence, the construction of the cruise big data platform requires communications and investigations carried by a lot of departments.

6.3 Establishing a Safeguard Mechanism for Cruise Big Data Platform

The smooth construction of the cruise big data platform requires certain mechanism for management and regulation. Cruise related entities at all levels should establish big data quality assessment and inspection institutions. Modern statistical analysis methods will be adopted, such as clustering analysis, principal component analysis, regression analysis and consistency check, and computer technologies will be used, to make use of longitudinal extension and transverse affiliation of big data, assess data quality, timely identify problems and make tracking and identification.

6.4 Enacting Reasonable Supporting Policies for Cruise Big Data Platform

The construction of the cruise big data platform requires a large investment and a long period, and will get returns very slowly. To construct the platform better, the policies for special capital investment, financial subsidies and corporate recognition to enable the companies to proceed with relevant projects.

Chapter 14

Analysis on the Paths for Building a Cruise Talent Information Database in China



Guodong Yan, Shuangshuang Liu, Wei Wang, Wenlu Shen and Jing Shen

Abstract Cruise talent is an important cornerstone of the development of the cruise industry, and the rapid development of the cruise industry urgently needs the support of cruise talent. Firstly, this paper introduces the construction of the cruise talent information database in Singapore, the United States, the United Kingdom and other places. Through the comparative analysis of the experience of the construction of the cruise talent information database at home and abroad, it is found that the foreign cruise tourism system has a clear classification and a complete content. Then, it summarizes the achievements and the face of the construction of the cruise talent information database in China. The problems and bottlenecks are mainly manifested in the increasing number of cruise personnel training units, the continuous innovation of cruise personnel training mode, and the stabilization of cruise personnel training supply, the emergence of cruise personnel information database construction mode, the decentralization and independence of cruise personnel information database, and the existence of cruise personnel letter. The problem of uneven construction of interest library and inconsistent standards of information database construction for cruise personnel. On this basis, we should design a scientific and reasonable organizational structure, optimize the experience of using the cruise talent information database, optimize the efficiency of data acquisition of the information database, and promote the construction of the cruise talent information database in China.

Keywords Cruise talents · Talent database · Data collection and construction path

1 Introduction

Cruise is an industry full of high capital, advanced technologies, great talents and excellent management. Along with rapid development of the cruise industry in China,

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the market capacity of the cruise industry in China is expanding. CLIA researches show that cruise tourism is in good development trend in 2018. It is estimated that annual cruise passengers will reach 25.8 million person-times, higher than that figure in 2017, i.e. 24.7 million person-times. Along with the increase in cruise passengers, the problem of talent shortage is brought out. According to estimates, by 2020, the gap of talent supply in the cruise industry of China will reach 280,000. Cruise talents are very important for the development of the cruise industry. It is urgent that more and more talents are needed to support rapid development of the cruise industry. Currently, as there are many problems in China's cruise talent building, such as uneven building standards, conventional management mode and less innovation, it is a long way to build the team of cruise talents. Since 2006, the number of cruise ships berthing in Shanghai has increased from 50 to 500, a more than tenfold increase. Shanghai does not only rank first in the cruise market of China, but is also the port that receives the most cruise ships in Asia. In 2016, Shanghai International Cruise Tourism Service Center initiated a new channel for cruise service and cruise talent training. In 2017, specialized knowledge and skill training course for cruise tourism guides of Shanghai provided systematic training for nearly 100 professional guides. Through series of practices to continuously explore the channels to train cruise talents, Shanghai has become a sally port for cruise talent information building.

2 Domestic and Foreign Cruise Talents Information Database Experience for Reference

2.1 Construction of Foreign Cruise Talents Information Database

Singapore established a cruise tourism information platform in double-platform mode where the government affairs website and commercial website complement with each other. The government affairs website is mainly used to publicize the places of interest and tourism projects in Singapore and has a special channel used to introduce cruise tourism products, inquire detailed cruise route information, and submit reservation orders. The commercial website is subordinated to Temasek and mainly responsible for the operation management of ferryboats and the cruise terminal in Singapore; the cruise tourism information platform of America is a professional (vertical) commercial website characterized by high level of specialization and market-oriented operation and has attracted a large number of users in reliance on its rich and friendly interface; British tourism information platform integrates the information of tourism affairs and scenic spots and provides one-stop information inquiry service. In addition, the developed cruise market in European and American countries benefits from a group of competitive and efficient cruise e-commerce information platforms. These platforms include Amadeus cruise e-commerce platform, CruisesOnly—the

largest cruise tourism service provider of America, and Traveltek cruise ship online reservation information platform having leading advantage in Europe.

2.2 Construction of Domestic Cruise Talents Information Database

Shanghai International Cruise Tourism Service Center pays consistent attention to the training of cruise talents and personal development of cruise ship staff, and cooperates with Xiamen, Zhejiang, Fujian and other places to implement cruise talent training practices and find out the best way to training cruise talents. In 2017, about 100 professional team leaders successfully passed the training; Youluntong Integrated Platform developed a multi-destination touring mode with yachts as the transport in Shanghai, Sanya, Qingdao, etc., and by yacht-associated operation, it saved energy and also protected the interests of local residents; China Cruise Ship Design Alliance is a professional group involving shipbuilding industry, transportation industry and supporting industries, a multi-industry expert team incorporating information exchange, technological cooperation and project consultancy centered on cruise ships, and also a non-official technological communication and cooperation platform in the field of cruise ships; the Alliance is composed of more than 400 domestic and foreign experts, with domestic and foreign cruise ship suppliers, designers and experienced experts involved, and has diversified and professional supply and demand types of supporting cruise talents for enterprises from all over the world.

2.3 Enlightenment from the Cruise Talents Information Database Experience Reference

By comparative analysis on the experience in foreign and domestic cruise talents information database construction, it is found that foreign cruise tourism systems are clearly classified and have complete content, while domestic websites are mainly classified into two categories, i.e. one is disordered with too many functions and takes cruises as a small part, with ticket selling and shipping route inquiry combined. The other is specialized cruise ship website, and such websites are small in scale, not that popular and delay in information updating. There is a large gap between Chinese and foreign cruise ship websites, and there is still a long way to go to create a complete cruise tourism information system. In future cruise talents information database construction, the emphasis should be placed on the connection of the whole industry chain so that the information can be shared and timely updated.

3 Current Status of Cruise Talents Information Database Construction in China

3.1 Preliminary Effect of Cruise Talents Information Construction

To gather cruise talents, fill the cruise talent gap, and promote the transformation and upgrading of the cruise industry, many places have made active attempt to train cruise talents and made certain achievements.

(1) Increasing Number of Cruise Talents Training Institutions

Since Tianjin established the first cruise talents training center in China with the internationally famous Royal Caribbean Cruises in 2013, the cruise talents training in China has begun to spread nationwide. In 2015, China established the first tourism think tank, and in 2016, Zhejiang Institute of Communications established a cruise talents training center. In 2017, Yantai Tourism Talents Supply and Demand Platform was launched, and Shanghai International Cruise Business Institute became one of the first twenty four institutions establishing youth (college students) profession training camps.

(2) Increasingly Innovative Cruise Talents Training Modes

The cruise talents cultivation modes are increasingly innovated and more diversified. In addition to cruise talents training center, there are also international cruise talents cultivation cooperation alliance, international tourism institute, tourism think tank, tourism talents electronic platform, talents database, and other modes. The continuous innovation of cruise talents cultivation modes has improved the efficiency in cruise talents cultivation and provided new approaches for cruise talents cultivation.

(3) Improvement of Cruise Talents' Satisfaction

In this paper, talents in the cruise tourism industry were surveyed by questionnaire in order to analyze the methods used to optimize cruise talents information database. We distributed 300 questionnaires in e-mail and paper forms and selected 282 effective ones after screening and processing. In the questionnaire, most employees are satisfied with the work, but there are still 10% who are not that satisfied and hope to be improved; therefore, enterprises should provide training chances for each employee, discover their advantages, and dig out their potential (Fig. 1).

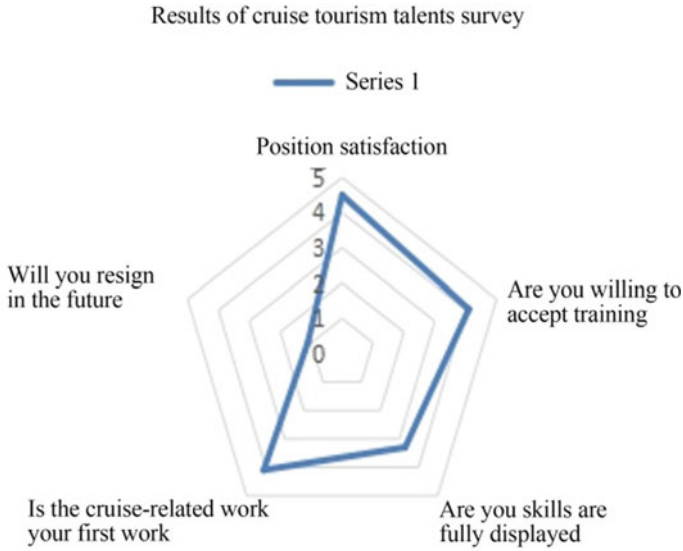


Fig. 1 Results of cruise tourism talents survey

3.2 Features of Cruise Talents Information Database Construction

(1) Increasingly Steady Cultivation and Supply of Cruise Talents

In terms of the setup of specialties, the cruise talents specialties in China mainly include “cruise economy”, “cruise economy and management”, “cruise yacht management”, which are set for the postgraduate education and undergraduate education stages; “international cruise crew” is set in higher vocational and professional colleges, and “cruise service and management” set in secondary specialized schools. In terms of the geographical space, the institutes and colleges related to the cultivation of cruise tourism talents are widely distributed in China. In terms of the quantity, the colleges and universities setting up cruise tourism courses and the students in this specialty are increasing year by year, and the supply quantity of cruise tourism talents is also increasing.

(2) Emerging of the Cruise Talents Information Database Construction Mode

In the construction of cruise talents information database in China, the operation mechanism, supervision mechanism, management mechanism, and other different levels in the construction of database platform respectively take shape in different degrees. Firstly, the information updating is at a fast pace. Lowering information barriers to update talents information timely is of great importance to the development of cruise enterprises and cruise industry; second, there are many searching routes.

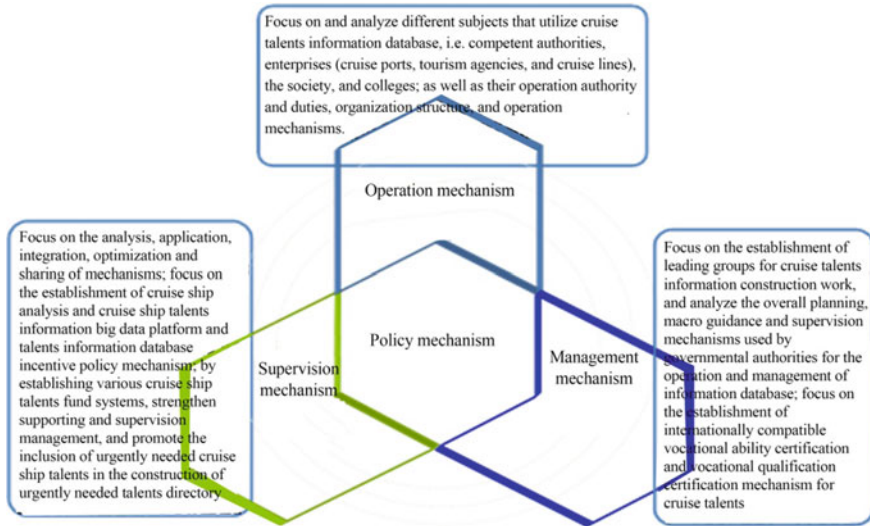


Fig. 2 The mode of cruise talents information database construction in China

The information related to cruise talents can be searched from different aspects and perspectives; finally, the inquiry is highly efficient. The information related to cruise talents and enterprises can be found rapidly and accurately, realizing highly-efficient inquiry (Fig. 2).

(3) Dispersal and Independence of Cruise Talents Information Database

Cruise ports, cruise lines, agencies, and other related enterprises have their own HR management systems and the cruise talents information is all stored in their own database. The dispersal of enterprises results in the dispersal of cruise talents data, the database of each enterprise is mutually independent, and each enterprise has their own talents information management rules and won't share their data and information so as to provide relatively safe and steady data information environment for their own cruise talents. The dispersal and independence of cruise talents information database actually reduced the utilization efficiency of resources and deviated from the rapid development trend of cruise industry.

3.3 Bottleneck in the Construction and Development of Cruise Talents Information Database

(1) The construction of cruise talents information database is out of imbalance

The cruise ports in China are mostly in 10 port cities where the regional economic development is imbalanced, and other non-cruise port cities have less experience

in cruise talents information database construction and cannot provide professional cruise talents information construction channels or construction management institutions, resulting in obvious gap in the hardware development concerning information database construction in different regions. Besides, the cruise HR information construction in cruise lines also shows imbalanced development characteristic depending on their revenues.

(2) The standards for the construction of cruise talents information database are not uniform

As cruise enterprises, cruise lines, cruise ports and other cruise talents employment and training subjects established their cruise talents database using different systems at different time, and no related logical structure, data information, application mode, information management, etc. exist between the databases of enterprises, it is difficult for each cruise talents database to share and exchange the data; and without the same standards, it is hard to make relevant data summarization and statistics; besides, there is no corresponding construction standard for reference, leading to inconsistency.

(3) The cruise talents information database management needs to be transformed

Currently, the cruise talents information construction in China is still of HR management and personnel archives management mode, and informatization is needed in personnel archives management. Although some enterprises and departments began to attempt using electronic archives, the information still cannot be updated timely and effectively due to software and hardware problems and insufficient resources input. In addition, managers' lacking of professional knowledge and skills will also cause disordered information searching, incomplete archives system, improper classification management, and other problems. Therefore, more obvious digitalization and networking is required to support the transformation from the management of HR by archival entities to talents information database construction, and the HR archives should be managed in an open manner so as to take full use of materials, give full play to the capabilities of talents, and coordinate the functions of talents information database.

(4) There is a lack of innovation in the cruise talents information construction

Firstly, the information construction is repetitive and the information is monotonous as no win-win cooperation and resources sharing mechanism is formed for cruise talents information construction. Secondly, the cruise talents information is updated slowly. Cruise tourism is developing rapidly and its information has been changing without end, including the information of tourism talents. However, the data in the current talents information systems are updated so delayed that many suitable cruise talents are missed. Finally, the information of cruise talents is difficult in collection. Cruise talents are from different places in a wide scope, leading to the difficulty in information collection.

4 Analysis on the Paths for Building a Cruise Talent Information Database in China

4.1 Foundation for Cruise Talents Information Database Construction in China

(1) Strong Support from Talents Policies

Cruise talents are the source for the cruise industry to consistently innovate and develop, and in order to attract, retain, and effectively use cruise talents, all places introduced relevant supporting policies. For example, Hainan established the “Plan for Introducing Millions of Talents to Hainan Action (2018–2025)” in 2018 to implement more open talents introduction policies and more active talents cultivation policies; in November 2017, Shanghai Administration for Industry and Commerce introduced *Several Opinions on Supporting the Development of Cruise Industry in Baoshan District*; in February 2018, Baoshan District released the *Implementation Opinions on Accelerating the Development of Cruise Economy in Baoshan*. Shanghai established reward policies at all 3 levels, i.e. institution, enterprise and the society.

(2) Relatively Complete Infrastructure

The cruise talents information database construction is still in start-up stage in China, but outstanding achievements have been made in the construction of e-commerce, e-government affairs, public tourism service platforms, etc. For example, Shanghai Tourism Public Service Center offers tourism consultancy service; China (Shanghai) Highly-skilled Talents Public Practical Training Center is able to provide practical training of nearly one hundred occupations covering nearly 200 posts and plays a leading and demonstrative role in forging highly-skilled talent teams of Shanghai. In addition, Shanghai has first-class information research institutions in China that are qualified to build, operate and maintain the indicator system for talents information database construction, develop database creation software, and provide facilitation for the construction of tourism talents information database in Shanghai.

(3) Large Market Demand for Cruise Talents

With the rising and development of the cruise industry in China, the talents demand in the cruise market is also increasing, and according to conservative estimation, by 2020, the talent market demand in the areas of cruises, yachts, boats and water tourism will exceed 300,000. By then, the cruise talents cultivated in China will be only about 20,000 and the supply gap of cruise talents will be 280,000. As a result, a huge number of employees will be needed in the field of cruises. Employees in basic posts, such as logistics support, site guidance, and ticket service, may adapt to these posts rapidly after short-term training, while high-level management talents, R&D talents and technological talents are in a great shortage due to the requirement on long-term cultivation and high quality.

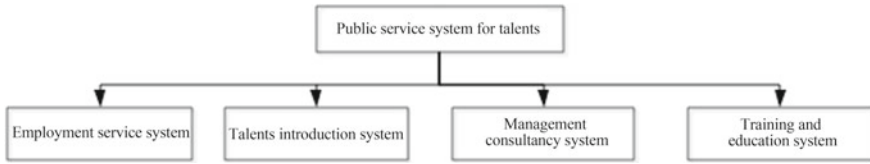


Fig. 3 Composition of sub-systems of the cruise talents information database

4.2 Analysis on the Paths for Building a Cruise Talent Information Database in China

The construction of cruise talents is not just to forge a talent resource information system, but also to gather talents related to cruise tourism resources and create a good cruise tourism market.

(1) Composition of a Cruise Talents Information Database

The cruise talents information database system is intended to serve as a cruise talents public service platform and promote the construction of cruise talents public service system. Main subjects involved include governments, operation enterprises, service enterprises and cruise talents. Governments are responsible for operating supervision platforms and building talents service systems to ensure capital supply for non-profit businesses and the order of platforms. Operation enterprises are responsible for constructing and operating platforms and keep them stable. Service enterprises are the corporate users of platforms through which they can find the cruise talents required. Cruise talents are personal users of platforms through which they can find suitable enterprises. The sub-systems of cruise talents information system include cruise talents employment service system, talents introduction system, cultivation and education system, and management consultancy system (Fig. 3).

(2) Key Tasks for Optimizing the Cruise Talents Information

At the SEATRADE Asia-Pacific Cruise Conference in November 2017, the International Cruise Talents Education Union and International Cruise Research Institute Union launched by Shanghai International Cruise Business Institute held a signing ceremony. Based on self-development demand and common interests, and for the purpose of improving industry research and innovation capabilities, the colleges, universities, and scientific and research institutes focused on the seven aspects through international unions, i.e. constructing cruise talents communication platforms, strengthening cruise talents information communication, promoting cruise talents training, pushing international cooperation concerning cruise talents, perfecting cruise talents cultivation system, establishing cruise talents communication mechanism, and promoting cruise talents resources sharing, so as to provide good approaches for improving cruise talents information collection and optimization. Please see Table 1.

Table 1 Key tasks for international unions to promote the cruise talents information optimization

Key targets	Key content
Construct cruise talents communication platform	Provide various cruise talents required in the cruise industry and provide specific services concerning the employment in cruise specialty
Strengthen cruise talents information communication	The members of International Cruise Research Institute Union hold regular meetings, conferences and forums to realize the exchange of cruise talent information and experience and share the resources
Promote professional training for cruise talents	Hold various cruise lectures and academic activities, and improve cruise employees' quality and development management level
Promote international exchange and cooperation concerning cruise talents	Invite international high-level cruise talents to hold cruise development symposiums, regularly hold international cruise communication and cooperation conferences and forums, and organize cruise talents to actively participate in them and make interactive communication
Complete cruise talents cultivation system	Develop thoughts on the basis of defined school running orientation, establish cruise talents cultivation paths suitable for self-development based on the construction of discipline and specialty, and build a complete cruise talents cultivation system
Establish cruise talents communication mechanism	Organize special communication and discussion activities for major cruise talents topics of common concern, realize common development and resources sharing through union websites, forums, conferences, etc., and gradually optimize and establish cruise talents communication mechanism
Promote the sharing of cruise talents resources	Union members exchange and share the resources of each other at favorable conditions by making available to each other the education and training, production R&D, equipment and facilities, HR, employment (entrepreneurship) posts, and other comprehensive resources

(3) **Measures for Supporting the Construction of Cruise Talents Information Database in China**

Policy support—Give full play to the stimulating and guiding role of cruise talents introduction policies, and perfect international talents attraction, cultivation and use mechanism. By establishing the system of identifying cruise tourism profession skills and completing the classification of cruise talents' professions, explore cruise talents development demonstration pilot projects. Strengthen the education reform and teaching reform concerning cruise specialty, and improve cruise education and cruise talents education system construction.

System support—Prepare and implement cruise industry talents development planning, and highlight the core demand for talents in the development of cruise industry in the preparation for the tourism talents plan for the 13th Five-year Plan Period. Besides, improving cruise talents incentive mechanism in reliance on joint talents cultivation strategies and the optimization of autonomous right of distribution with cruise tourism enterprises and institutions. Establish cruise talents archives and socialized cruise talents evaluation mechanism in order to perfect the market-oriented arrangement and development mechanism of cruise talents.

Organization support—Strengthen supervision and management of cruise talents' work, and perform intensified guidance, supervision and assessment on the target-oriented responsibility system. Coordinate and organize departments to intensify the management over cruise talents' work, properly build skill-oriented cruise talent teams, and coordinate the development and use of operation and management talents in cruise tourism enterprises.

Financial security—Increase financial input into the development and cultivation of cruise talents. Implement positive talents introduction policies, coordinate the utilization of the special funds granted by financial departments, establish “Com-mendation Bonus for Excellent Cruise Tourism Talents”, and found “Special Fund for Introduction of Cruise Talents”, etc. to ensure sufficient financial support for the development of cruise talents.

5 Countermeasures and Suggestions for the Construction of Cruise Talents Information Database in China

5.1 A Scientific and Reasonable Organizational Structure Should Be Designed

In the construction of cruise talents information database, the first thing should be to establish a perfect organization management system and form a specialized talents information database leading team; it is suggested the principal in charge of talents cultivation in the tourism agency should also take the post of team leader, and under the team, informatization divisions composed of special staff should be established

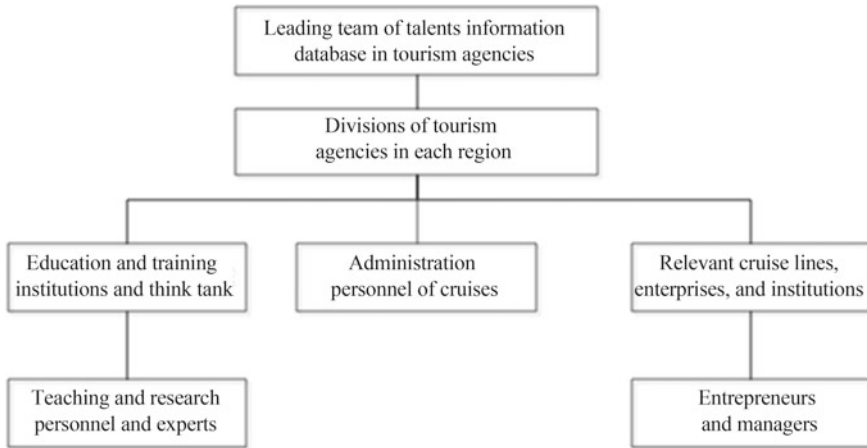


Fig. 4 Organization structure of cruise talents information database

for relevant talents of tourism agencies in each region in order to perform informatization acquisition and management on cruise talents such as teachers, experts, entrepreneurs and management in colleges, universities, scientific research institutes, tourism administrations, and relevant tourism enterprises (Fig. 4). Besides, it is also required to strengthen the construction of an administration cadre team. Strengthen the learning and training work for government officials, and push government officials to strengthen theoretical learning, consolidate ideals and faith, increase Party spirit training, and improve political quality.

5.2 The Experience in the Use of Cruise Talents Information Database Should Be Optimized

Carry out employment service activities for talents throughout the cruise industry chain. Enterprises transmit post requirements, special skills and other requirements to the cruise talents information database, and the cruise talents information database analyzes and summarizes the demand information of different enterprises to form a cruise talents demand report to be transmitted to cruise talents cultivation institutions. The cruise talents cultivation institutions establish cultivation plans and send qualified cruise talents to enterprises based on demand information to form a closed loop of cruise talents supply and demand; or make summarization and analysis based on the job demand of cruise talents; with 1–3 months as a cycle, the online special recruitment activities of various topics should be held together with cruise enterprises, and the cruise talents information database is used as an online intermediate platform so that the specialties of cruise talents are linked up with cruise lines, the recruitment procedures are simplified, and the work efficiency is improved.

5.3 The Cultivation of New-Type Urgently-Needed Cruise Talents Should Be Accelerated

The talents information database should be constructed on the condition of intensifying the cultivation of cruise talents and developing new-type cruise talents, especially urgently-needed talents in cruise manufacturing, cruise maintenance, cruise materials supply, cruise supply logistics, etc. on the upstream of the cruise industry. One is cultivation by colleges, and the other is to improve the construction level of cruise talents training base and practical teaching level, in order to develop cruise talents teams with higher professional skill level that are more consistent with industry demand.

5.4 The Data Collection Efficiency of Information Database Should Be Improved

Cruise talents information database is an intelligent talents information database integrating data collection, data service platform, data storage, information database operation and maintenance. Implement dynamic management on the database of professional cruise talents. The tourism agencies of each region should timely discover excellent talents emerging in all sectors of the industry and establish outstanding talents report systems (Fig. 5).

5.5 Emphasis on the Safety of Cruise Talents Information Data Should Be Placed

In releasing the constructed information database to the public, to facilitate information searching and inquiry, a specialized cruise talents information database service portal interface should be established, including basic information, education information, post information, and reward information of talents. However, problems are commonly found in informatization platforms, such as low versions of operation system and database, low strength of user password, low updating frequency, and potential safety hazards in firewall and intrusion detection system. Cruise talents information is about personal privacy, and to ensure normal operation of cruise talents information database, it is necessary to reduce data risk and improve database safety management.

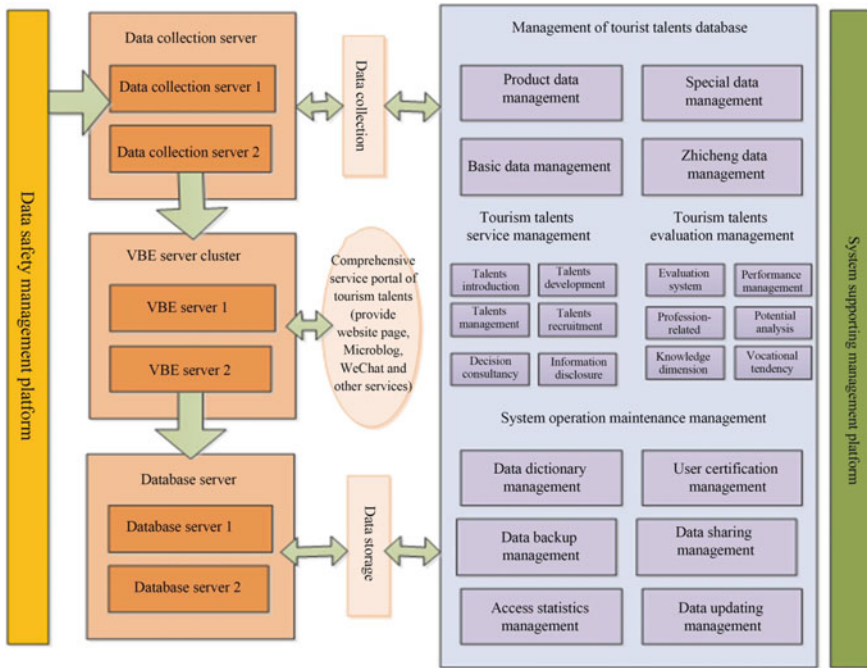


Fig. 5 Structure of cruise talents information database

5.6 *Emphasis on the Construction of Cruise Talents Archival Information Database Should Be Placed*

After many years’ development, the technologies and management concerning e-government and e-commerce have become sophisticated, and in the construction of cruise talents information database in China, it is required to foster strengths and circumvent weakness, take full use of electronic information, and improve production and service efficiency in the industry. The archives of cruise talents should be managed “with emphasis and accurately”, and be kept complete, comprehensive and timely updated, to ensure the archives of cruise talents can fully and accurately reflect personal situations and become the “information database” of talents.

6 Conclusion

By referring the domestic and foreign experience in constructing talents information database, in this paper, the current status, characteristics, bottleneck and problems in cruise talents information database construction in China, as well as the construction

paths are analyzed based on the same, and countermeasures are provided, i.e. the construction of cruise talents information database in China should be optimized from the aspects of organizational structure, data acquisition, information data, use experience, and archival information database construction, and China should also accelerate the cultivation of new-type urgently needed cruise talents, provide new talents, and fill the great gap of cruise talents.

Appendix A

Analysis on the Construction and Operation of Cruise Ports in China in 2017–2018

Since the 21st century, the cruise industry in the world has been kept in a robust development momentum, and building cruise home ports has become an important strategic choice of many coastal countries and regions. Cruise home port is a distributing center of international tourists, an organizer of cruise industry chain, a new engine of economies of scale, and a growth pole of regional economy. The development of cruise ports is closely related to cruise routes. The home port is starting and ending station of cruise routes while the port of call is where the cruise routes pass. While the cruise market in China is developing rapidly, the cruise port has played an important supporting role in the development of regional cruise economy, and in order to attract more international cruises to moor and promote the development of cruise economy, modernized cruise ports have been built and completed successively in coastal areas of China, contributing to great improvement of the receiving capability of cruise ports.

A.1 Latest Information About the Overall Layout of Cruise Ports in China

A.1.1 Overall Situation

According to the Planning Proposal for the Layout of Coastal Cruise Ports in China in 2015, the coastal areas of China will develop into a port distribution mode led by 2–3 cruise home ports, dominated by departure ports, and supplemented by visiting ports by 2030. In the distribution of port of departure, it is proposed to give priority to developing Dalian Port in Liaoning Coast, to take Tianjin Port as the port of departure of Tianjin and Hebei Coast, Qingdao Port and Yantai Port as the port of departure of Shandong Coast, Shanghai Port as the port of departure of Yangtze River Delta where Ningbo-Zhoushan Port are to be developed accordingly, Xiamen

Port as the port of departure of South-East Coast, to give top priority to developing Shenzhen Port in Pearl River Delta where Guangzhou Port is to be developed accordingly, and to take Sanya Port as the port of departure of South-West Coast where Haikou Port and Beihai Port are to be developed accordingly. In 2018, there are 15 cruise ports and 8 specialized wharves for cruises in use in China. The eight cruise terminals include Shanghai Wusongkou International Cruise Terminal, Shanghai Port International Cruise Terminal, Tianjin International Cruise Home Port, Qingdao Cruise Home Port, China Merchants Shenzhen Shekou International Cruise Home Port, Sanya Phoenix Island International Cruise Terminal, Zhoushan Archipelago International Cruise Port, and Xiamen International Tourist Pier. In addition, there are seven ports transformed from freight terminals, including Dalian Port International Cruise Center, Guangzhou Port International Cruise Home Port, Yantai Port, Xiuying Port, Wenzhou International Cruise Port, Fangcheng Port, and Beihai Port. There will be several new cruise ports under planning, including Dalian International Cruise Home Port, Guangzhou Nansha Cruise Home Port, Beihai International Cruise Port, Haikou South China Sea Pearl International Cruise Port, Xiamen International Cruise Home Port, Ningbo International Cruise Port, and Qinhuangdao International Cruise Port, most of which are targeted to Home Port.

Cruise home port is a product when the market develops to a stage, and generally determined by cruise lines according to market demand, urban reliance conditions and enterprise operation strategies. A cruise home port is not just a central link of cruise transportation but also an important link in the system of cruise economy. As the cruise economy is developing, its functions have been developing from traditional transportation to industrial production, commerce, service and other multiple functions. With the passenger flow, capital low and information flow gathered, the cruise home port more and more becomes a distribution center for social and economic activities. Home ports should have basic functions such as tourist distribution, loading of fuel, supplementation of materials, and cruise maintenance, which means no all ports are qualified enough to build home ports. The cruise home ports develop on basic conditions such as geographical location, port facilities, transportation, tourism resources, commercial service, supply of materials, financial insurance, and other factors.

A.1.2 Latest Distribution of Cruise Port Areas in China

Currently, five cruise port groups have been formed, i.e. Northeast, North, East, Southeast, and South of China, of which, the East and the South are the two areas with the most cruise ports in China. In the East China area, there are 8 cruise ports, including the largest home port Shanghai Wusongkou International Cruise Home Port which has two 225,000 t berths and two 150,000 t berths; in South China area, there are 11 international cruise ports (Table A.1).

Table A.1 Distribution of cruise ports in China in 2018

Region	S/N	Cruise port	Number of cruise ship berths	Orientation	Completed
Northeast	1	International Cruise Center of Dalian Port	Two 150,000 t berths	Home port	2020
North China	2	Tianjin International Cruise Home Port	2	Home port	2010
	3	Qinhuangdao International Cruise Port	–	–	Planning
East China	4	Qingdao Cruise Home Port	3	Home port	2015
	5	Yantai International Cruise Home Port	1	Home port	2020
	6	Lianyungang Port International Passenger Transport Station	1	Home port	2017
	7	Wusongkou International Cruise Terminal	Two 225,000 t berths and two 150,000 t berths	Home port	2018
	8	International Passenger Transportation Center of Shanghai Port	Three 70,000 t cruise berth	Visiting port	2009
	9	Zhoushan Islands International Cruise Terminal	One 100,000 t (also 150,000 t)	Port of departure	2014
	10	Wenzhou International Cruise Terminal	One 50,000 t (also 100,000 t)	Port of departure	2017
	11	Weihai Port International Passenger Center	Three 30,000 t Ro-ro berths	Port of departure	2013
Southeast China	12	Xiamen International Cruise Home Port	One 140,000 t berth	Home port	2020
South China	13	Nansha International Cruise Home Port	One 100,000 t berth and one 225,000 t berth	Home port	2019
	14	International Cruise Home Port of Guangzhou Port	1	Home port	2016
	15	Shenzhen Shekou International Cruise Home Port	One 220,000 t berth and one 100,000 t berth	Home port	2016
	16	Zhanjiang International Cruise Terminal	One 30,000 t berth and one 70,000 t berth	Port of departure	2021

(continued)

Table A.1 (continued)

Region	S/N	Cruise port	Number of cruise ship berths	Orientation	Completed
	17	Beihai International Cruise Home Port	One 50,000 t berth and one 20,000 t berth	Home port	2010
	18	Fangcheng Port	–	Port of departure	–
	19	Xiuying Port of Haikou	One 100,000 t berth in plan	Port of departure	–
	20	Nanhai Mingzhu International Cruise Terminal	One 225,000 t berth and one 150,000 t berth	Home port	Planning
	21	Sanya Phoenix Island International Cruise Terminal	One 100,000 t wharf, two 150,000 t wharves, and one 225,000 t wharf	Home port	–
	22	Hainan Haihua Island Cruise Terminal	–	–	Planning
	23	Huangpu International Cruise Terminal	–	–	Planning

A.2 Current Construction Situation of Cruise Ports in China

A.2.1 The Subsequent Work of Shanghai Wusongkou International Cruise Terminal has been Completed

To better enhance the receiving capability of cruise home ports and improve the service experience of cruise ports, the subsequent work of Shanghai Wusongkou International Cruise Terminal officially commenced in 2015, and the passenger building project officially commenced in November 2016. After the subsequent work has been finished, the terminal will extend 1600 m and be able to incorporate four large cruise ship berths, including two 225,000 t berths and two 150,000 t berths. On May 18, 2018, Wusongkou International Cruise Terminal ushered in the maiden voyage of “MSC SPLENDIDA” in Asia, and Wusongkou received more than 10 million inbound and outbound tourists/times. Over the six years, Wusongkou International Cruise Terminal has received more than 10 million inbound and outbound tourists/times, with nearly 1800 international cruises (times) berthing here in accumulation. After three years’ construction, official trial operation happened on July 13, 2018, and 3 large cruise ships berthed at the terminal successively, i.e. “Majestic Princess”, “Norwegian Joy” and “MSC SPLENDIDA”,

and the port area received 21,000 inbound and outbound tourists (times) daily and more than 2000 tourist vehicles. Such scale has never occurred before in the history of domestic cruise home ports.

A.2.2 The Construction of Nansha International Cruise Home Port in Guangzhou has been fully Commenced

On July 14, 2017, the environment impact assessment report for Guangzhou Nansha International Cruise Terminal Project was approved, and all reporting and approval formalities for the preliminary stage of the project had been properly handled. Guangzhou Nansha International Cruise Terminal Project was located within a scope of 640–1410 m at the downstream of Humen Bridge in Nanshawan Block, Nansha New District, Guangdong Pilot Free Trade Zone. The project extends 770 m in length and incorporates one 100,000 t cruise berth, one 225,000 t cruise berth, and a terminal covering a building area of 35,000 m². Its annual designed carrying capability is 750,000 persons/times. It is expected that the Nansha International Cruise Home Port will be completed and put into operation in 2019. Plot II Phase I of Guangzhou Nansha International Cruise Terminal Complex Project covers an area of 137,800 m² and a building area about 507,000 m² and the planned works include wharf, terminal, shipping building, waterfront commerce, business apartment and residence; Plot III Phase II covers an area of 100,000 m² and a building area of 360,000 m² and its planned works include duty-free shopping mall, tourism and entertainment facilities, and business office.

A.2.3 Zhanjiang International Cruise Terminal Expected is Expected to be Completed in 2021

In March 2018, jointly with Zhanjiang Port, the China Merchants Shekou Industrial Zone Holdings Co., Ltd. acquired the Plot WGC2018003 of Zhanjiang International Cruise Port Complex at a total price of CNY 1.79 billion. China Merchants Shekou will be responsible for the operation and management of the cruise terminal for 30 years and assume all construction and operation expenses incurred therefrom. Upon expiration of the operation period, the property right and operation right of the cruise terminal (including the terminal building), relevant supporting facilities and supporting land will be handed over to government authorities free of charge. In Zhanjiang International Cruise Port Complex Project, it is planned to take full use of the 1120-m shoreline resources in the former Xiahai Port Area in Zhanjiang, the wharf will occupy 570 m of the shoreline, and two 30,000–70,000 t cruise berths will be constructed, in order to form a large complex integrating port service,

transportation support, commerce, tourism, office and apartment into one in reliance on the characteristic maritime resources of “Guangzhou Bay” and forge a complex vibrant port city center of maritime characteristics under the theme of “cruise port” and integrating “business office, culture, entertainment, leisure, tourism, and ecological living” in the future CBD district of Zhanjiang. For the complex project, it is planned to comprehensively develop the land occupying about 260,000 m² and about 900,000 m² of building area, with the total estimated investment about CNY 7 billion.

A.2.4 Yantai International Cruise Home Port will be Completed in 2020

Yantai International Cruise Home Port will commence in May 2019 and be put into operation in 2020 upon completion. According to the Overall Planning of Yantai Port (2016–2030), 3 large cruise ship berths are planned in Zhifu Bay port area which is located in Yantai. Over the years, the handling capacity of the port has occupied half of Yantai Port, defending its dominant position among ten port areas in Yantai as one of the major port areas of Yantai Port. The berth at the west of the planned jetty mainly incorporates international and domestic large cruise ships, and the one at the east of the planned jetty mainly serves for rapid passenger transportation, tourism transportation, land-island transportation, and other functional demands. It is planned to build 3 large cruise ship berths at the west of the jetty, with annual comprehensive throughput capacity of 600,000 persons.

In the Plan for the Distribution of Coastal Cruise Ports in China released by the Ministry of Transport, it is clearly stated that the “Qingdao Port and Yantai Port serve as the departure ports in Shandong coastal area”, and Yantai is listed by the Ministry of Transport as one of the 12 departure ports of cruise ships in China.

A.2.5 Wenzhou International Cruise Port is Accepted for Commissioning

In the morning of December 9, 2017, Wenzhou International Cruise Port held the maiden voyage ceremony and 2517 passengers took “MSC Lirica” to Japan Nagasaki. Wenzhou International Cruise Port Project commenced at the end of 2015, with its No. 7 berth completed in September 2016, the cruise function added upon approval by the Ministry of Transport in June 2017, and acceptance check by the Joint Inspection Hall passed in September. On July 17, 2018, the International Cruise Terminal in Zhuangyuan’ao Port Area of Wenzhou Port was accepted for opening to the public. Wenzhou International Cruise Port Project is located in Zhuangyuan’ao Port Area of Wenzhou Port. The total investment about CNY

300 million was made into the project including No. 7 berth, tourism inspection hall, closed accesses and auxiliary facilities and equipment. No. 7 berth is 340 m long and 50 m wide and able to berth 50,000 and 100,000 t cruises. The tourism inspection hall covers a building area of 6200 m², with designed annual passenger throughput of 220,000 persons/times. No. 7 wharf used by cruise ships is a transitional wharf, and in the future, a 150,000 t cruise terminal will be newly built in Wenzhou International Cruise Port.

A.2.6 Consideration About the Construction and Operation of Cruise Ports

Cruise ports are immovable while cruise ships are flexibly movable, so that cruise lines may flexibly make strategic transfer and adjustment in different regions or even in international markets. Thus, cruise ports are also exposed to certain market risks; most investments are from bank loans which can be extended when due, but the financial risk is relatively low as most are state-owned assets. At present, the income of domestic cruise ports is mainly from berthing fee and manual service fee as well as certain shipping supply service fees. The cruise ship berthing amount and other commercial incomes are so low that many cruise ports are confronted with difficulty in development. It is not a problem for China to build cruise ports, and the ports become much larger and luxurious.

China is also working on the building of luxurious cruises so that China will have the right of speech in the field of cruise shipbuilding. However, the development core of the cruise industry is in the market instead of the industry itself. If a region has no enough cruise passengers, the development of the cruise industry will be out of the question, so while more emphasis is placed on the extension of the cruise industry chain, it is more important to better cultivate the cruise market, promote the communication of cruise culture, and increase cruise passengers. Cruise tourism is the core and fundamental driving force for the development of the cruise industry. In the current cruise market of China, the most important thing should be to improve the permeability and development speed of the cruise market, improve the quality of cruise tourism, innovate in development mode, and promote joint development of cruise ports in Asia so that the market passengers in different regions will be connected. Therefore, in the development process of the cruise industry chain, more efforts should be made on cruise tourism, and this is rightly where the motive power is.

Appendix B

Analysis on China’s Cruise Design and Building Development in 2017–2018

The shipbuilding industry is known as an important cornerstone for building a “maritime power”. In 2017, China has taken the lead in the three major global shipbuilding indicators, with new orders and hand-held orders ranking first in the world. China is able to build more than 95% of known vessel types in the world. In order to give full play to China’s technological advantages and management advantages in the shipbuilding industry and promote the transformation and upgrading of the shipbuilding industry, China is gradually extending the development of design and building of local luxury cruise ships, developing the local cruise manufacturing industry in China, building domestic large-scale luxury cruise ships, and fostering local cruise industry chain.

B.1 Foundation and Advantages for China to Develop Domestic Cruise Shipbuilding Business

B.1.1 The Cruise Shipbuilding Policy System is Being Gradually Improved

In “Made in China 2025” strategy, it is proposed to vigorously promote the breakthrough development of key areas, with clear proposal to “break through the luxury cruise design and building technology, comprehensively enhance the international competitiveness of high-tech ships such as LNG carriers, and master the core technology of integrated, intelligent and modular design and building of key supporting equipment.” The *Notice of the State Council on Printing and Distributing the Tourism Development Plan for the 13th Five-year Plan Period* proposed “to encourage diversified capital to enter the cruise tourism industry,

strengthen cooperation with foreign-funded cruise lines, and support the development of local cruise lines.” The *Several Opinions of the State Council on Promoting the Reform and Development of Tourism Industry* proposed “to continue to support the localization of tourism equipment such as cruises and yachts and actively develop cruise and yacht tourism.” The *Several Opinions of the General Office of the State Council on Further Promoting Tourism Investment and Consumption* proposed “to support the establishment of R&D, design, building and independent supporting systems for domestic large-scale cruise ships, and encourage qualified domestic shipbuilding enterprises to develop and manufacture large and medium-sized cruise ships.” The *Action Plan for Deepening Structural Adjustment and Accelerating Transformation and Upgrading in Shipbuilding Industry (2016–2020)* proposed “to respond to the trend of accelerated release of traditional high-end consumption potential such as domestic cruises and yachts, accelerate the realization of independent design and building of cruise ships, and vigorously develop the design and building of small and medium-sized yachts and new-type yachts.”

B.1.2 China has the Basic Technologies for Building Domestic Cruise Ships

Compared with the general passenger ships and ro-ro passenger ships, the cruise ship demands higher, more complex and challenging technology, greater building risk, and large building work quantity. It is a comprehensive outcome of high-tech technologies in the modern shipbuilding industry and must obey the requirements of international maritime affairs regarding the comfort, safety and environmental protection of cruise ships. In this sense, it is much more difficult to build a cruise ship than an aircraft carrier or a large LNG carrier. Although China is a global shipbuilding powerhouse, we still lack experience in and core technology of building luxury cruise ships, which leaves cruise ships the only unresolved high-tech ship problem in China. Among the shipbuilding manufacturers in China, only Guangzhou Shipyard International Company Limited has rich experience in the building of ro-ro passenger ships and luxury cruise ships. Huarun Dadong Dockyard Co., Ltd. located in Chongming Island, Shanghai has some experience in maintenance and modification of large-scale cruise ships, and some research institutes of CSSC have laid a foundation in the research of cruise ships building technology and hydrodynamics, and their years of experience in design of ro-ro passenger ships can contribute to the building of cruise ships. Finally, the building of the large domestic cruise ships is tasked with Shanghai Waigaoqiao Shipbuilding Co., Ltd. The first cruise ship is expected to reach 135,000 ton, and accommodate 4980 tourists, 2000–3000 crew members, with a total value about USD one billion, which will become the most expensive ship built in Shanghai to date.

B.1.3 China has the Advantages to Building Domestic Cruise Ships

Firstly, China has a good customer base. At present, China's cruise tourism market is developing fast, and the market scale is growing rapidly. In 2016, it became the world's second largest cruise market with 2.28 million tourists. With the gradual expansion of China's international tourism market, the cruise tourism market will also gradually grow and become an important part of China's international tourism industry. China's current cruise ships mostly rely on the local tourist market. With the accelerated market penetration and development, China's cruise tourists market will further expand from coastal to inland areas and transform from single purchase to repeated consumption. The cohesiveness of tourism products will be further enhanced.

Secondly, China's cruise shipbuilding has a high starting point and enjoys a strong resource advantage. Different from the completely independent building of cruise ships by Mitsubishi Heavy Industries Group of Japan, the building of domestic cruise ships in China is "concentrating power to do big things" and pooling together many advantageous resources at home and abroad. China's domestic cruise shipbuilding is dominated by CSSC. CSSC is a central enterprise with very strong technological, capital and management strength as well as a long history of shipbuilding. The first large-scale domestic cruise ship will be built by Shanghai Waigaoqiao Shipbuilding Co., Ltd, which, known as "China's first shipyard", possesses good shipbuilding technology, equipment and professional technical personnel. Besides, it is supported by significant national funds and resources. In December 2016, CSSC, together with China Construction Bank, Agricultural Bank of China, Bank of China, China Everbright Bank and Industrial Bank, jointly launched the first cruise industry development fund in China, with the first scale reaching CNY 30 billion. In short, CSSC has a wide presence in the cruise industry, including the cruise industry investment business based on China Cruise Industry Investment Company, the cruise shipbuilding business based on CSSC Fincantieri Cruise Lines, the cruise ship operation business based on CSSC Carnival Cruise Lines and supporting cruise industry business based on the CSSC Cruise Industrial Park.

Thirdly, the international risk sharing has effectively mitigated the risk of domestic cruise shipbuilding. For the building of domestic cruise ships, CSSC has cooperated with Carnival Corporation & plc, the world's largest cruise line, supported by China Investment Corporation, one of the world's largest sovereign wealth funds. Furthermore, Lloyd's Register of Shipping provides cruise advisory services for CSSC. And CSSC has launched a domestic cruise industry fund together with China Construction Bank, Agricultural Bank of China, Bank of China, China Everbright Bank and Industrial Bank. All these efforts have provided a good foundation for building the first domestic cruise ship and effectively mitigated its various risks.

B.2 Exploration for the Path for Building China's Domestic Cruise Ships

B.2.1 China Plans to Build a Large-Scale Cruise Coordinated Development Platform

On July 17, 2018, the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council convened a video conference of the heads of central enterprises and local SASACs. The meeting summarized the work in the first half of 2018 and made arrangements for the key tasks in the second half of the year, clearly proposing to build a large-scale cruise coordinated development platform in the second half of 2018.

B.2.2 CSSC Intends to Build a Cruise Business Platform

On June 4, 2018, CSSC held the 24th meeting of the first board of directors. The meeting reviewed and approved the *Overall Plan of China State Shipbuilding Corporation for Cruise Industry Development and the Next Work Plan*. Shanghai Waigaoqiao Shipbuilding Co., Ltd. intends to transfer its 43.4% equity in CSSC Cruise Technology Development Co., Ltd. (CCTD) to its controlling shareholder, CSSC. After the transfer, CSSC will inject CNY 400 million to CCTD, and Waigaoqiao Shipbuilding will give up the right to increase the capital in the same proportion. CSSC will directly become the controlling shareholder of CCTD, and the latter will be built into the cruise ship business platform of CSSC to be responsible for cruise operation and supply chain investment.

B.2.3 CMHI Promotes the Building of Polar Cruise Ships

On March 16, 2018, CMHI (Jiangsu) held the groundbreaking ceremony for the Polar Expedition Cruise Ship. The shipbuilding project was carried out in China. The Norway-based company Ulstein was responsible for providing all equipment combinations and supervising the shipbuilding. The Finnish company Makinen was responsible for the interior design, and the Tomas Tillberg International Design Company of Florida, USA was responsible for the hotel design. On April 27, 2017, CMHI officially signed the Building Contract of 4 + 6 Polar Expedition Cruise Ships with SunStone Ships in Paris, France. CMHI (Jiangsu) is responsible for the building, making it the first Chinese shipyard to build expedition cruise ships. According to the agreement, the first ship will be delivered on August 1, 2019, and

for the remaining new ships, one will be delivered every six months after the delivery of the first ship. The first phase of the manufacturing base of the luxury cruise ships is planned to cover about 900 μ ($1 \mu = 666.7 \text{ m}^2$) of building area, and the supporting industrial park covers an area about 1100 μ . It is planned to build seven functional zones, including a supporting manufacturing area for luxury cruise ships, an industrial bonded warehouse, an industrial R&D cluster, a testing laboratory, an industrial display area and a talent apartment. It involves many sectors such as cruise ship hull materials, outfitting manufacturing, shipboard home furnishing, electrical automation, inspection and inspection, and exhibition.

B.3 Analysis on the Challenges in China's Domestic Cruise Shipbuilding

B.3.1 The Cruise Shipbuilding Policy System Needs to be Improved

In recent years, the support from the national and local governments for building cruise ships has gradually increased. The Ministry of Industry and Information Technology, the Ministry of Transport, and the National Development and Reform Commission have all strongly proposed to support the building of domestic cruise ships and provide more favorable environment for building domestic cruise ships. However, most of the current opinions are only guiding ones, and specific policies to support the building of cruise ships are still absent, such as fiscal policy, financial policy, and industrial supporting preferential policies. In this aspect, further improvement is needed. While the building of domestic cruise ships is vigorously supported, the progress of cruise shipbuilding is relatively slow and faces many difficult problems.

B.3.2 The Technological Reserve for Cruise Design and Building is Insufficient

The design and building of cruise ships are extremely difficult and complicated, which are greatly different from ordinary cargo ships and ro-ro ships in terms of design ideas, technical standards, project management, etc. It is necessary to build tourism-dedicated luxury ships with new ideas and methods. Although China has the world's leading technical level and management methods in shipbuilding and maintenance, and has mastered the core technology of shipbuilding, it still has no

technical reserve or experience in cruise shipbuilding. The building of cruise ships requires strong support from various aspects such as cruise design, building technology, and building supporting industry. It is more difficult than building today's aircraft carriers.

B.3.3 The Management in Cruise Shipbuilding Projects is Difficult

The planning and design of a cruise ship is longer than the ordinary ships, and can take as long as 100 working hours. It is a huge systematic project, which needs to be studied from the aspects of concept, technical feasibility, market demand and innovation. The number of building parts of a cruise ship is as many as 30 million or so, the working hours are as high as 10 million, and it takes 3000 people to work at the same time. Besides a long-time and high-intensity workload, the on-site working environment is extremely demanding. For instance, the Japanese Mitsubishi Heavy Industries Group suffered from huge losses due to a fire. Our experience in this area is still relatively lacking. Cruise shipbuilding requires strong supply chain management capabilities, as the system is very complex, and many parts need to be imported from abroad, which contrasts with the high localization rate in Europe. It is why European shipyards form "a high-end manufacturing monopoly".

B.3.4 The Localization Rate of Supporting Facilities for Cruise Shipbuilding is Low

Currently, China has not grasped the technology for core parts of cruise ships, and not yet formed mature supporting facilities for cruise ships, despite the fact that cruise shipbuilding requires strong supply chain management capabilities. In the past years, China's shipping companies have more participated in global shipbuilding industry chain, but most of them are distributed in low-cost expansion and low value-added ends of the chain, while the R&D, production, sales and after-sales services of high-tech ends are mostly undertaken by foreign companies. China's shipping companies have weaker dominance in this respect, so China's supporting facilities for cruise industry is almost a blank. In the long-term development of the shipbuilding industry, China's initiative in R&D and investment in high-end ships needs to be further improved. The general contracting and design capabilities of cruise ships are weak, and the R&D achievements of core technologies for building cruise ships are limited, making the building of cruises ships in a short time a very difficult challenge. If a large amount of research on cruise shipbuilding had been done ten years or even fifteen years ago, it would provide a flood of literature on cruise shipbuilding for today.

B.3.5 Analysis on the Path for Promoting the Building of China's Domestic Cruise Ships

B.3.5.1 Differential Analysis on China's Domestic Cruise Shipbuilding

For the concept of cruise shipbuilding in China, many people have proposed to build cruise ships with Chinese cultural elements, such as Buddhist cruises, wedding cruises, gourmet cruises and other theme cruises as well as marine convention centers. Of course, there are many other novel ideas. But in the end, we must figure out which Chinese cultural elements are suitable for cruises. The "Chinese element" refers to an image, symbol or custom that is recognized by most Chinese (including overseas Chinese), and condenses the traditional Chinese cultural spirit and reflects national dignity and national interests. It is more about embodying a spiritual inheritance. Concentrating a large number of Chinese elements on a cruise ship will undoubtedly make people feel depressed. The development of cruise ships is obviously international and shows cultural fusion. Therefore, in the process of cruise shipbuilding in China, it is necessary to reflect the local characteristics on the basis of internationalization, instead of the other way around.

The cruise ship itself is an international tourism product to experience the local customers and practices of different regions. So it must keep up with the pace of the times and cannot integrate plenty of historical and cultural elements into domestic cruise ships or local cruise ships. In short, we advocate looking at China's local cruise brands with a higher vision. The local cruise ships will inevitably go global. Therefore, it is important to build local cruise ships with the concept of global vision, international standards and local advantages, and develop local cruise brands which will eventually become an important part of the international cruise product supply market. Even Chinese-funded cruise brands should try to go out, take foreign cruise ports as their home ports, or destination ports, and constantly learn more experiences and lessons, so as to develop toward globalization.

B.3.5.2 Increasing Fiscal and Financial Policy Support for Domestic Cruise Building

The building of cruise ships requires huge amounts of funds. Western governments provide strong fiscal and financial support for cruise ship enterprises. For example, France and Germany have implemented a favorable subsidized/low-interest shipbuilding loan policy with interest subsidy or low interest for cruise shipbuilding enterprises. According to international cruise shipbuilding practices, the government

will provide strong support for the design and building of cruise ships. In order to vigorously support the development of the domestic cruise shipbuilding industry, for instance, the German government issues a 95% subsidized/low-interest shipbuilding loan policy for the cruise shipyards, and the French government issues a 90% subsidized/low-interest shipbuilding loan policy for cruise shipyards to help the shipyards win new cruise orders. Recently, the Indian government planned to introduce a subsidized shipbuilding loan policy with the hope of promoting its shipping industry. According to the policy, any shipping company that orders new ships in India will receive an interest-free loan of up to 65% of the total price of the ship. Therefore, it is necessary to implement subsidy policies for the design and development of cruise ships and issue subsidized/low-interest loan policies for cruise shipbuilding in China. It may also appropriately relax the restrictions on the introduction of relevant international capital to participate in the building of cruise ships, establish China Cruise Financing Center, and set up cruise shipbuilding development funds to attract various capitals to participate in the building of local cruise ships.

B.3.5.3 Intensifying the Input in Cruise Shipbuilding Technology

The core technology of cruise shipbuilding is mastered by several major shipyards in Europe. To vigorously develop domestic cruise ships, and truly realize the independent building of domestic cruise ships, it is necessary to gradually master the core technology of cruise shipbuilding. For China's cruise shipbuilding, we should firstly carry out joint venture cooperation, and then gradually learn the building technology from foreign shipyards, and work with foreign shipyards to build cruise ships until we have fully grasped the core technology of cruise shipbuilding and realize completely independent intellectual property rights. Building technology, especially the core technology, is the most critical link in mastering the initiative of cruise shipbuilding. The technical breakthrough, characterized by a large investment, long development cycle, high failure rate, long payback period and high uncertainty, requires a large input in manpower, material resources, financial resources, etc. Therefore, the government needs to intensify its input in cruise shipbuilding technology and support a wealth of key enterprises in cruise shipbuilding. The cruise ship, the outcome of the highest technological integration in the shipbuilding industry, represents the international strength of a country in the shipbuilding industry. In this sense, it is important to raise the height of the cruise shipbuilding technology and attract more shipbuilding talents into the building of cruise ships.

B.3.5.4 Establishing a Scientific Policy System for Domestic Cruise Shipbuilding

At present, China has given various kinds of policy support for building domestic cruise ships, and clearly proposed to vigorously endorse the development of cruise shipbuilding, support the breakthrough of building technology of luxury cruise ships, encourage shipbuilding enterprises to enter the building and maintenance of cruise ships, and improve the supporting facilities for cruise shipbuilding. The building of domestic cruise ships is a huge systematic project involving a wide range of aspects. For example, how to use the policy of the Free Trade Zone to guarantee the relevant imported parts required for cruise shipbuilding are bonded, how to promote the planning and development of the cruise shipbuilding industry park, and how to map out the development of the cruise shipbuilding and maintenance center and how to promote the financial leasing of cruise shipbuilding. Therefore, it is necessary to establish a comprehensive and scientific policy system for domestic cruise shipbuilding, so as to promote the building of domestic cruise ships in every aspect, and finally realize the building of luxury cruise ships in China.

B.3.5.5 Vigorously Promoting the Development of Local Cruise Lines

In the future, China's domestic cruise ships will become the main ship type of China's domestic cruise lines, and the cruise industry chain will be further improved. However, there are currently many restrictions on local cruise ships. In terms of cruise taxes and fees, if a Chinese-funded enterprise purchases a cruise ship and flies our national flag, it needs to pay nearly 30% of the taxes. The value of the cruise ship itself is costly, if the tax is fully paid, the cost would be very high. Therefore, there is no cruise flying China's national flag yet. As for manning of the cruise, local cruise ships, like cargo ships, require 70–80% of crew members to be Chinese. This undermines the diversified development of local cruise tourism services as the cruise tourism services are highly international. In regard to entertainment products, cruise ships flying China's national flag cannot operate gaming projects, but the gaming industry is an important part of modern cruise tourism projects and a major entertainment for tourists.

In the aspect of cruise purchase, the purchase of cruise ships requires strong capital strength, and China has not yet had a special financial policy to support the purchase of cruise ships, which to some extent has limited the large-scale expansion of the local cruise fleet. Therefore, China needs to make further improvement in such aspects as cruise purchase support, taxation and cruise shipbuilding and maintenance, provide effective policy support for the development of local cruise tourism, and set up supporting funds to local cruise lines to purchase, build and massively renovate cruise ships, so as to realize the localized development of domestic cruise ships.

Appendix C

Analysis on Economic Contribution of International Cruise Market in 2017–2018

At present, China has leaped from a tourism-strapped country to a big tourist power. Under the dual strong push of the government and the market, China's cruise tourism has also developed from nothing and gradually transformed to a large, powerful cruise market with global influence. In 2017, China ranked second in the world by its 2.4 million tourists in the world cruise market. Shanghai has become No. 1 home port for cruise ships in the Asia-Pacific region and the fourth largest home port for cruise ships in the world. The city has greatly lifted its position in the global cruise industry and is an important driving force for the transformation and upgrading of the regional economy. With the growth of China's cruise market, the economic effects of cruise ships will gradually become more prominent, and from regional economic transformation to economic transformation and upgrading of large regions, will contribute much more to China's regional economic development.

C.1 Composition of Cruise Industry Economic Chain

From the perspective of supply side, the international cruise industry chain basically consists of three links: The first one is the design and building of cruise ships (In this link, the core of the cruise design is to grasp and reflect the Western noble culture, and the focus of building includes luxuriousness, comfort and safety); the second is the operation of cruise ships (Cruise lines are capital-intensive enterprises, and they adopt international operation. They are reflectors of economic globalization.); the third is the supporting construction of the terminal area, including the construction of cruise terminals, supporting facilities in port areas and other related infrastructures.

C.1.1 Cruise Design and Building

Shipbuilding technology is the foundation of the cruise industry. It represents the level of human productivity at each stage in a certain sense, and the building and maintenance of cruise ships has spurred the development of the modern shipbuilding industry. Modern cruise ships have very high requirements for professionalism and luxury, and their cost is much higher than that of ordinary passenger ships. Despite of the global downturn of the shipbuilding industry, the fleet of cruise lines is growing in size. In recent years, the number of luxury cruise ships launched has been on the rise, and the launch of new ships has shown a relatively high growth trend. The trend in the design and building of cruise ships is the well-equipped ultra-large luxury cruise ships, the building of which has high requirements in terms of capital, technology and design.

C.1.2 Cruise Operation and Consumption

The various industries that serve cruises, such as restaurants, hotels, ports, tourist attractions and even agriculture are facing major market opportunities. The city where cruise ships berth will become a distribution center for international consumer groups. Generally speaking, the number of tourists a cruise ship can carry equals that on six Boeing 747 aircrafts, and the main goal of these tourists is to travel and spend money, which will have a great effect on increasing the consumption amount and consumption level of a city.

C.1.3 Construction of Supporting Facilities in Terminal Area

It mainly includes the construction of dedicated berths for cruise ships, supporting facilities in the port area and other related infrastructure. The most basic facilities and services include berthing, pick-up, replenishment, waste disposal and recycling, and logistics systems. Agglomeration is one of the inherent characteristics of cruise tourism industry. The high-quality home port for cruise ships can attract more cruise ships to gather in the port. The gathering of many cruise ships will greatly promote the rapid development of cruise economy in the region and drive the development of related industries.

C.2 Definition of Cruise Industry Economy

The cruise industry economy refers to the economic phenomenon that relying on cruise industry and its extension, the upstream and downstream industries are driven to form mutual support and common development, which can also be expressed as the economic value chain effect related to cruise operation. In the broad sense, the cruise industry economy includes cruise shipbuilding and maintenance, cruise operation, terminal services, intermediary agents, catering and accommodation, sightseeing, comprehensive transportation, financial insurance, cultural entertainment, education and training and other directly related industries, as well as various intangible economic factors that can directly and indirectly affect the society and the quality of and people's lives, such as political and cultural forms, legal system, labor and employment and environmental protection.

C.2.1 The Economic Value Chain of Cruise Industry

Practice has proved that the development of the cruise industry economy plays an important role in improving the ability of earning foreign exchange of relevant cities and regions, expanding market consumption, increasing employment opportunities, and displaying the international image of the city. From the statistical analysis of the relevant cities (including ports) in the world, it is found that the economic value chain formed by the cruise industry has become the foundation of the social economy.

By analyzing the economic value chain of the cruise industry, it can be seen that the economic benefits brought by the cruise ships to the port cities and regions are self-evident. According to statistics, from the perspective of economic benefits, the profit of the home port of cruise ships can often reach 5–10 times that of the general port of call. In the case of intangible assets, the impact will be even greater. In recent years, the world's cruise economy has developed rapidly, with an average annual growth rate of around 796–798%. The cruise industry is therefore known as the “the gold industry floating along the golden waterway”.

C.2.2 The Contribution of the Cruise Industry to the Local Economy

Since the 1990s, the modern cruise industry has entered into a golden period of rapid development. The analysis of economic contribution includes three elements: direct economic contribution, indirect economic contribution, and induced economic contribution. The direct spending of the cruise ships and their passengers and crew members is a driving force for the industry's contribution to the global

economy, which generates direct employment and employee income to support the provision of goods and services purchased by the cruise ships, passengers and crew members. Indirect income is the result generated from subsequent demand for goods and services that directly affects an enterprise's indirect contribution. For example, food processing plants must purchase processed raw materials, electricity, water and operating equipment; transport services for the delivery of finished goods to cruise ships or wholesalers; and insurance for property and employees. The induced contribution is generated by employee spending of the cruise lines and their suppliers. The income of these employees is used to purchase a wide variety of consumer goods and services, including automobiles, food, clothing, furniture, health care and other commodities. Therefore, the induced contribution is concentrated in the household sector where the final demand resides.

C.2.3 The Direct Contribution of the Cruise Industry to the Local Economy

The direct contribution of the cruise industry to the local economy refers to the initial or first-round impact of the cruise industry on the local economy. The direct expenditure generated by cruise tourism consists of three parts: cruise passengers, crew members and the cruise ship itself. Cruises tourists spend money before and during the trip, and purchase souvenirs and other retail goods, while crew members prefer a similar set of goods and services, mostly being retail goods. In addition, cruise lines buy a wide variety of goods to support their cruise business, including food and beverages, hotel supplies, fuels and facilities in the port. The cruise lines also pay for a variety of services to support its global cruise business, including travel agency commissions, advertising and promotional expenses, and other business services.

In this type of contribution, the output value of the cruise industry will directly enter the total output value of the local economy, which is equal in value to the income of other industries that receive cruise consumption. Direct contributions to government revenues include taxes, customs duties, various licensing fees, and other taxes directly paid by tourists (such as airport construction fees, international tourist pass fees, etc.). The contribution to society is roughly divided into two parts: one is the consumption of the cruise ship itself, such as cruise shipbuilding and maintenance costs, daily operating expenses, fuel fees, terminal berth usage fees, inbound and outbound pilotage dues, on-board consumer goods purchase costs, freshwater fees, etc.; the other is the consumption of tourists and crew members, including food (restaurants, bars and fast food restaurants), intra-regional transportation (buses, taxis and ferries), sightseeing tours, entertainment (theaters and discos), attractions (museums, theme parks and zoos) and shopping.

C.2.4 The Indirect Contribution of the Cruise Industry

The indirect contribution of the cruise industry refers to the contribution of the cruise industry to the local economy through its related industries, that is, the economic impact after the second round of consumption in the region, which is manifested in two aspects: firstly, the companies and institutions that receive the consumption of cruise ships and tourists will also accept services from other types of suppliers and tertiary industries; secondly, these related industries need to hire a certain number of people in order to meet the requirements of the cruise industry, thus generating more jobs. These indirect effects are constantly passed up and down. Indirect and induced contributions are generated by directly affected the companies and their employees. These effects are spreading in the global and regional economy. The specific indirect and induced non-negative behaviors are determined by the structure of each economy, so the results from region to region will vary greatly.

C.3 Analysis on the Improvement Path for the Economic Contribution of the Cruise Industry in China

In 2017, the economic contribution of the European cruise industry reached €47.9 billion, of which the cost of the cruise lines in the European shipyards amounted to €5.6 billion, an increase of 22.4% over 2015, and by 2021, the European shipyards will build 66 new cruise ships for the cruise lines, with a total value of €29.4 billion. In 2017, the new employment positions provided by European cruise industry reached 43,000, making the total number of cruise operators reach 403,000. The economic contribution incurred by cruise tourists and crew reached €19.7 billion. In terms of the revenue of global cruise market in 2017, the revenue of Caribbean still ranked first in the world and accounted for 35.6%.

At present, as the international cruise lines occupy a dominant position in the Shanghai cruise market, most of the revenues from ticket sales, on-board consumption, and destination shopping consumption flow to foreign countries. Shanghai cruise port's revenue is mainly from berthing fees, service fees, venue leasing and ship supply tax rebates, among which, the berthing fees take up a relatively large proportion. In particular, the berthing fees of Wusongkou International Cruise Port accounted for 70% of total operating income in 2015–2017. Shanghai has not made major breakthroughs in the design, building and maintenance of cruise ships in the middle and upper stream of the industrial chain. The development of the industry chain of cruise lines headquarters economy is still in its infancy and needs to be further innovated strategically.

C.3.1 Promoting the Design and Building of Domestic Cruise Ships

The extension of the industrial chain will focus on the building of local cruise fleets and the building of cruise ships. The support from the national and local governments for building cruise ships has gradually increased. The Ministry of Industry and Information Technology, the Ministry of Transport, and the National Development and Reform Commission have all proposed to strongly support the building of domestic cruise ships and provide more favorable environment for building domestic cruise ships. The building of luxury cruise ships requires greater support in fiscal policy, financial policy, and preferential policies for industrial supporting facilities. Cruise shipbuilding requires strong supply chain management capabilities, and must leverage Shanghai's role in global resource allocation to advance the development of supply chains for building cruise ships. Combine the basic development sources of China and Shanghai and the policy orientation of cruise industry in China and Shanghai to gather global superior resources and give full play to local innovation advantages of Shanghai, accelerate the organization of local cruise fleets and give priority support to the building of local cruise brand; Exert the policy and capital advantages of Shanghai in promoting the building of domestic cruise ships, and facilitate the building of local luxury cruise ships and master its own intellectual property rights.

C.3.2 Vigorously Promoting the Development of Cruise Inbound Tourism

Inbound tourism is given top priority in the tourism industry in China. Its development depends on the construction of good tourist destinations where a good brand image is to be formed to gain attraction. In order to promote the development of cruise inbound tourism, the "144-h visa-free transit policy in Jiangsu, Zhejiang and Shanghai" and the "15-day visa-free policy for international cruise tour groups" are implemented, but the effect of to develop cruise inbound tourism is not very satisfactory, and it is thus necessary to widen the activity scope during the visa-free period. At present, the United States is still the world's largest cruise destination, accounting for nearly 50% of the global cruise destinations. It needs to compare the construction of Shanghai and other international cruise city destinations, identify advantages, find gaps, and build Shanghai cruise tourism destination. For example, there are 946 tourist attractions in the Yangtze River Delta, accounting for 22.9% of the total in China, including 27 national 5A-level tourist attractions and 254 national 4A-level tourist attractions, accounting for 20.8 and 22.9% of the total in China respectively. It is also important to effectively integrate Shanghai's and its surrounding tourism resources, accelerate the construction of Shanghai cruise tourism destination, foster cruise market, and enhance the people's sense of acquisition for cruise tourism.

C.3.3 Advancing the Balanced Development of Cruise Ship Supply Capacity and Market Demand

In the current development of China's cruise market, the rapid increase in short-term supply, the lack of strong distribution network support, slowed market demand growth and short-term oversupply has caused prices of cruise ships to drop significantly. In order to attract cruise ships to berth, all localities provide attractive incentives for cruise lines, only for the increase of short-term berths, but the effect is not obvious. However, in the case of falling market prices, cruise ships such as the "Mariner of the Seas" and "Majestic Princess" have quit from the Chinese market, making the market easy to fluctuate. In the development of the cruise market, we pay too much attention to the increase in quantity, the pursuit of eye-catching data. As a large number of cruise ships flood into the Chinese market, it often leads to a volatile market. At the same time, it has boosted the development of plenty of cruise ports and other heavy assets. At present, cruise ports are powerless to deal with the radical change in berthing, and without market initiative, they actively introduce subsidy policies to attract cruise ships to berth. In the case of effective control of the total quantity, it is also possible to achieve a balanced development of supply and demand more effectively, and avoid the surging pressure on the survival of local cruise ships.

C.3.4 Promoting the Development of Multi-Home-Port Cruise Routes

The multi-home port operation is very mature in the Mediterranean region, provided that such routes are operated stably for several months and rationally allocate the number of passengers in each port. In the Mediterranean, Southeast Asia, and Baltic countries, the ports are more concentrated, and the distribution of cruise passengers is more dispersed, which is suitable for the development of multi-cycle routes and multi-home-port routes. Passengers can choose for boarding and disembark at two different ports, thus changing the merely port of origin/home port-based competitive relationship among existing cruise ports. Cruise tourism programs with "China, Japan and Korea" as home ports will strongly promote the development of the regional economy. It is no longer just for foreign cruise ships to carry Chinese passengers to Japan and South Korea for sightseeing, but more to attract Japanese and Korean passengers to China for sightseeing. Furthermore, it will attract more European and American tourists to China for cruise trips, sightseeing and consumption, and better promote the development of cruise inbound tourism and even the inbound tourism.