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CIR Partnership

Cruise Industry Review (CIR), the Official Journal of International Cruise Council Taiwan, Japan Cruise Research Institute, the National Kaohsiung University of Hospitality and Tourism, Shanghai International Cruise Business Institute, and Korea International Cruise Institute, is the only peer-reviewed journal focusing exclusively on the Cruise Industry. International in scope, the CIR advances the knowledge of the development of cruise industries targeted at reflecting the trusted voice of the profession. The CIR is expected to be the global home for cruise professionals renowned as leaders in shaping a sustainable development for the cruise industry.

上海国际邮轮经济研究中心
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International Cruise Council Taiwan (ICCT)

➢ HISTORY

The cruise travel is booming in Asia. However, there is not a single organization that plays as a bridge between private sector and government in Taiwan. (International Cruise Travel Council Taiwan, as our forerunning organization, was dismissed in mid-90s, due to it was stalled in developing business). Until now, because of the rapid growth and needs in the regional cruise development, the Council is back to action and registered under the new name “International Cruise Council Taiwan.” We are meant to improve the development in cruise travel and push its related business and industries.

➢ MISSION STATEMENTS

The International Cruise Council Taiwan is aiming to integrate domestic cruise travel agencies and related business and to form a business chain in order to improve the service quality and develop new resources in tourism.

➢ TASKS AND FUNCTIONS

To promote international cruise tourism.
To protect the rights on both agencies and passengers of cruise travel.
To hold seminars and training classes for members and professionals related to cruise business to improve their knowledge and skills on cruise travel.
To urges the Government developing standard contract for international tours by cruises.
To provide information and services on international cruise travel.
To have professional trainings for local tour related personnel on greeting international incoming cruise tourists.
To promote insurance policy on curies travelers.
Other subjects related to our mission and developing matters.

Japan Cruise Research Institute (JCRI)

Japan Cruise Research Institute (JCRI) belongs to WAVE (one of the Japanese government-affiliated foundations)

https://www.wave.or.jp/cruise/index.html

The research institute was established in 2017, the office is in Tokyo, and there are 5 professional staff and about 10 concurrent staff working for the purpose of promoting cruises in Japan.

The main tasks of the research institute are surveys and research on cruises, cooperation with domestic and overseas organizations, dispatch of lecturers to lectures and other events, human resource development, and information gathering and dissemination.

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Exchange with overseas cruise research institutes, etc.:

・Concluded an MOU for research cooperation on cruises with Shanghai International Cruise Business Institute(SICBI) and Korea Maritime Institute(KMI).

・Member of International Cruise Research Alliance and Asia Cruise Leaders Network (ACLN)

Korea International Cruise Institute (KICI)

➢ Korea International Cruise Institute (KICI)

Established under the permit of the Ministry of Oceans and Fisheries (MOF, Korea), KICI is the global organization that conducts and publishes a variety of studies which include diversified areas of the cruise industry. With the help of our partners, KICI fosters the success of cruise communities by advocating, educating and promoting the common interests of the cruise community.

➢ KICI's Purpose and Main Activities

The purpose of the KICI is to cope with certain necessities to develop and support the cruise industry, thereby contributing to the healthy development of the national economy by creating the foundation for the cruise industry and strengthening the competitiveness thereof. KICI, as the Policy Aid Agency of MOF, carries out several projects to enhance Korea's position of the cruise hub in Northeast Asia including the following activities:

· Collecting and managing information, such as the status of the cruise industry both in Korea and abroad;

· Aiding MOF's policymaking process like 'the Master Plan for Development of Cruise Industry';

· Creating and managing cruise networks both for domestic and international entities;

· Researching and studying policies and systems concerning the cruise industry;

· Hosting international events, etc. related to the cruise industry;

· Education, training, and study and training of people who engage in the cruise industry;

· Advertising on the cruise industry;

· Other activities incidental to development of the cruise industry in Korea.

National Kaohsiung University of Hospitality and Tourism (NKUHT)

The National Kaohsiung University of Hospitality and Tourism (NKUHT) had aimed at becoming a source for hospitality elites, gaining the interest of students and positive appraisal from the public and laying a substantial foundation for stable development with ground-breaking study programs, excellent teachers, practical courses and novel teaching facilities.

However, as technology and knowledge, as well as the environment of hospitality education, have rapidly changed in recent years, it is believed that the school will face more severe challenges in the future.

Besides the development direction of “Taking root in Taiwan and expanding internationally”, the school has established the development idea of “More tolerant, more independent; more open, more beautiful” while implementing the original concepts of humanism, specialization, enterprise-style and internationalization for the future.

The university not only aims at becoming a source for hospitality service talents, a key partner of hospitality businesses and a new model of hospitality education, but also at constructing the vision of NKUHT: “To be the hospitality university most capable of leading creation and development”.

The school eagerly looks forward to promoting the hospitality education of Taiwan internationally in order to connect with the rest of the world.

Shanghai International Cruise Business Institute (SICBI)

With support from the Development Research Center of Shanghai Municipal People's Government, Shanghai Municipal Tourism Administration, and the People's Government of Baoshan District, Shanghai International Cruise Business Institute ("the Institute") is established jointly by Shanghai University of Engineering Science (SUES) and Shanghai Wusongkou Development Co., Ltd., as a research ThinkTank.

Based on the cruise specialty and discipline team of SUES, as well as the concept of "Opening, integration, cooperation and win-win", the Institute has formed a mode of government-enterprise-universityinstitute-employer cooperation ("five-in-one" mode) in order to build up an "international, high end and open" research platform for policy-making consultation.
The institute has also got the support of China Cruises & Yacht Industry Association during development.

The Institute mainly makes researches on the political theory, creative idea and development strategy for the cruise industry development in China and Asian-Pacific region, and carries out various academic exchanges by publishing subject research, holding China's cruise economy summit forums, and publishing Annual Report on China's Cruise Industry (Green Book) and Prosperity Indix of Cruise Economy in China.

Besides, The Institute has also directed and participated in the construction of the first "China (Shanghai) Cruise Tourism Development Pilot Area", the construction of the "Demonstrative Zone of Tourism Standardization of China" in Baoshan District, and the formulation of Standards for Cruise Home Port Enterprises of China and Standard System of Shanghai for Cruise Tourism Service, providing reference and intellectual support for the policy making of related government and the strategy planning of cruise enterprises.

The Institute has become an important platform for researches on cruise industry and cruise economy as widely recognized in the cruise industry in China and even in the world.

Assessment Research on Asian Cruise Economy Resilience

Qiu Ling[1]

Abstract

The significant impact of the pandemic in 2020 necessitates the cruise industry's contemplation of cruise economy resilience. This paper analyzes and summarizes the resilience theory and the concepts of cruise economy, etc. from domestic and international literature, defines the concept and constructs a framework of cruise economy resilience, and constructs dimensional indexes that affect cruise economy resilience. The research selects data indexes from 2013 to 2022 and employs a dynamic evaluation model based on the virtual worst solution TOPSIS and grey correlation degree to measure resilience, with a focus on changes in cruise economy resilience before and after the pandemic. The results show that Asian cruise economy resilience had a stable upward trend from 2013 to 2019, and it showed a rapid recovery trend after a sharp drop due to the pandemic; dimensionally, reorganization and recovery capabilities were prominent before the pandemic, while resistance and renewal capabilities were more notable after the pandemic, and the gaps in the capability dimensions narrowed after the pandemic. Researching cruise economy resilience can enable a comprehensive understanding of the cruise industry's response to risks, help improve the ability to cope with risks and guide the future development of the cruise economy.

Keywords

Resilience; Cruise Economy; Index System; TOPSIS

[1] Qiu Ling(1974--), female, PhD degree, professor of the School of Management of Shanghai University of Engineering Science, Deputy Director of Shanghai International Cruise Business Institute, research direction is tourism industry planning and cruise economy

With the improvement in the global pandemic prevention and control trend, the cruise industry has entered a new stage of continuous recovery, with the cruise tourism market gradually recovering and scaling up and the global cruise industry rapidly rebounding. In the Asian market, according to Clarksons statistics, 7.2% of cruise ship berthing occurred in Asia before the pandemic, but this proportion dropped to 1.9% from September 2022 to September 2023. Nonetheless, Asia began to accelerate the resumption of international routes at the end of 2022, and with the Asian cruise industry rallying, research on issues related to cruise economy resilience is of great significance for achieving the goal of high-quality cruise development.

Resilience basically means the recovery capability of an individual or system after suffering from shocks and disturbances, and it has gradually become an important topic in economics, with related research results concentrated in areas such as urban-rural system resilience [0], network structure resilience [0] and regional economic resilience [0]. As an important application of resilience theory in the economic and social fields, economic resilience has been a hot research area in recent years. Foreign scholars have mostly analyzed the concept of economic resilience from industrial structure, institutional environment, social capital, cultural environment, etc. and based on the two cognitive perspectives of equilibrium theory and evolution theory, and have researched the evolution features, influencing factors and improvement paths of economic resilience through network analysis and index system construction 오류! 참조 원본을 찾을 수 없습니다.오류! 참조 원본을 찾을 수 없습니다.오류! 참조 원본을 찾을 수 없습니다.. On the other hand, Chinese scholars have quantitatively evaluated the ability of different economic systems to prevent and resolve major risks from the perspectives of economic vulnerability [0], sustainability [0] and adaptability [0] and proposed corresponding optimization measures.

Against the backdrop of the COVID-19 pandemic and changes in the international political and economic situation, the development of the cruise industry is challenged, which necessitates contemplation of cruise economy resilience. As resilience theory is not much applied at the industry economy level and there is a gap in the quantitative research on cruise economic resilience, this paper takes the Asian cruise economy as the research object and uses a dynamic evaluation model based on virtual worst solution TOPSIS and grey correlation degree to explore the development level and time variation of cruise economy resilience, in the hope of constructing a reference index system for the economic resilience of the cruise industry.

1. Concept and Framework of Cruise Economy Resilience

1.1 Related concepts

(1) Cruise economy: The cruise economy in a broad sense is equivalent to the concept of the cruise industry chain, while the cruise economy in a narrow sense mainly refers to a series of economic activities that occur before the cruise ship arrives at the port, when it arrives at the port, during its berthing at the port, and when it leaves the port [0].

(2) Cruise industry chain: The cruise industry chain is based on cruise operations as the mainstay, with cruise ship building, design and maintenance in the upstream part, cruise line operations, cruise terminals, cruise product sales, etc. in the midstream part, and cruise talent cultivation, cruise financial services and related service industries in the downstream part [0].

(3) Economic resilience: Academia has not reached a consensus on the connotation of economic resilience, and overall, it is emphasized by some scholars as the ability of the economic system to respond to shock and disturbance and by some scholars as the ability of the economic system to restore to its original development status or convert external shocks into opportunities to begin a new and better development path [0].

1.2 Related theories

(1) Vulnerability theory: Vulnerability mainly refers to the instability of the economic system itself and the system's limited ability to respond to disasters, while resilience, in addition to the connotation of vulnerability, also includes the economic system's ability to reorganize itself, adapt to the new environment and shift to a new development path 오류! 참조 원본을 찾을 수 없습니다..

(2) Adaptability theory: Adaptability analysis provides a new perspective for studying complex social and ecological systems and has become an important tool for studying the adaptability of the system when dealing with external shocks and disturbances and its ability to evolve new development paths [0]. The regional economic resilience theory is developed and obtained based on the adaptability theory.

1.3 Concept definition

Searches of related concepts and research methods have shown that cruise economy and economic resilience are independent of each other and are rarely researched in combination. This paper tries to define cruise economy resilience as follows: cruise economy resilience refers to the ability of the cruise industry to adapt, adjust and recover when confronted with economic challenges and uncertainties.

1.4 Basic framework

Based on the adaptability theory, the connotation of cruise economy resilience is interpreted as the ability of the cruise industry, in the process of adapting to external shocks, to maintain stable chain operation, repair breaks and upgrade and develop cooperation methods in each link, covering the four dimensions of resistance capability, recovery capability, reorganization capability and renewal capability. According to the actual development situation of the current cruise industry, the indexes of the foregoing four dimensions are further explored to form a complete framework of cruise economy resilience as shown in Figure 1.

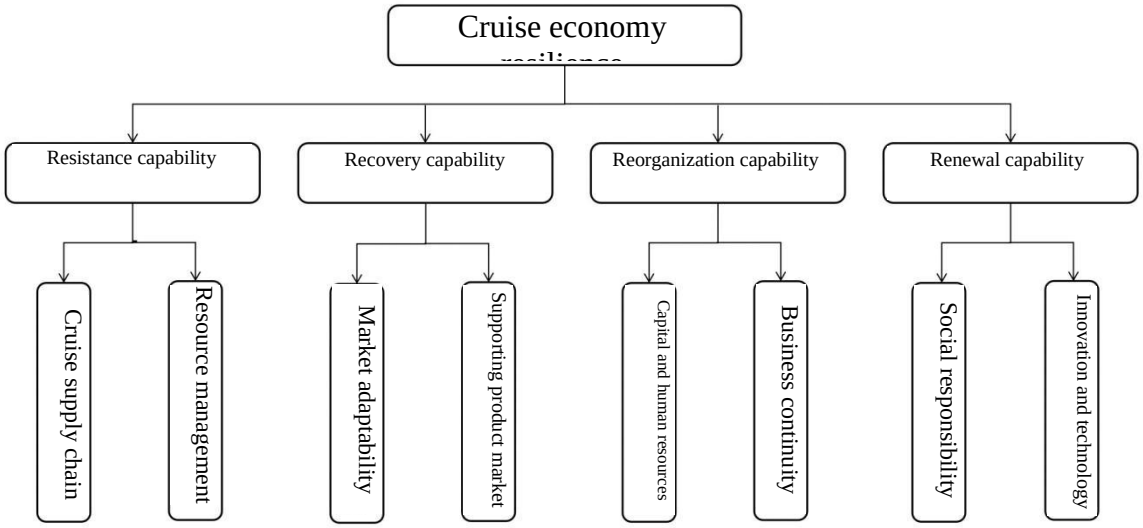

Figure.1 Cruise Economy Resilience Framework

2. Research Method and Data Source

2.1 Construction of evaluation index system

A cruise economy resilience evaluation index system has been constructed as shown in Table 1 based on the connotation of cruise economy resilience and by referring to the index selection ideas and reliability and validity test procedures of Cheng Xiang [0], Wang Zeyu [0], etc., covering 14 specific indexes in eight secondary factors in the four dimensions of resistance capability, recovery capability, reorganization capability and renewal capability.

Table 1 Cruise Economy Resilience Evaluation Index System

System layer	Factor layer	Index layer	Index explanation
Resistance capability (B1)	Supply chain (B_{11})	New cruise ship development (B_{111})	Number of cruise ships delivered
		Order undertaking situation (B_{112})	Number of new orders for cruise ships
		Cruise capacity situation (B_{121})	Number of cruise ship beds provided

	Resource management (B12)	Cruise port scale (B_{122})	Number of cruise ports operated
Recovery capability (B2)	Market adaptability (B21)	Fleet operating scale (B_{211})	Number of operating cruise ships
		Tourist market situation (B_{212})	Number of people participating in cruise tourism
	Supporting product market (B22)	Shipyard building and repair capacity (B_{221})	Sum of number of cruise ships built and number of cruise ships repaired
Reorganization capability (B3)	Capital and human resources (B_{31})	Operating and financial status (B_{311})	Total production income of cruise industry
		Employment situation (B_{312})	Number of employees in cruise industry
	Business continuity (B32)	Future route layout (B_{321})	Number of future routes planned by cruise lines
		Port development situation (B_{322})	Number and area of cruise port berths, transformation and upgrading extent, and other comprehensive evaluation coefficients
Renewal capability (B4)	Social responsibility (B41)	Sustainable development process (B_{411})	Sum of number of berths using shore power at cruise ports and number of cruise ships using environment-friendly energy
	Innovation and technology application (B_{42})	Innovative cruise projects (B_{421})	Sum of number of new routes opened and number of innovative cruise projects
		Scientific research and patent situation (B_{422})	Sum of number of scientific research papers and number of technical patents obtained in relation to cruise ships

2.2 Research method

2.2.1 Dynamic evaluation model based on virtual worst solution TOPSIS and grey correlation degree

The dynamic evaluation model combines the advantages of the two methods of virtual worst solution TOPSIS and grey correlation degree, to more comprehensively assess the performance of decision objects at different time points and find the optimal solution or optimal solution's decision objects. The basic steps are as follows:

Suppose there are m evaluation objects and n evaluation indexes. Then, the value of the j^{th} index of the i^{th} evaluation object at time t_k is $x_{ij}(t_k)(i=1,2,\cdots,m;\ j=1,2,\cdots,n;k=1,2,\cdots,N)$.

Step one: Calculate the weighted standardized index value based on the original data in combination with dimensionless processing and entropy weight methods;

Step two: Determine the ideal solution, the negative ideal solution and the virtual worst solution;

Step three: Calculate the Euclidean distance from each solution to the ideal solution and the virtual worst solution;

Step four: Calculate the relative closeness $c_i(t_k)$;

Step five: Calculate the grey correlation degree between each target solution and the ideal solution $r_i^+(t_k)$:

$$r_i^+(t_k)=\frac{1}{n}\sum_{j=1}^{n}r_{ij}^+(t_k) \qquad (1)$$

Step six: Combine the relative closeness and the correlation degree to obtain the comprehensive evaluation value:

$$h_i(t_k)=\alpha c_i(t_k)+(1-\alpha)r_i^+(t_k) \qquad (2)$$

Where, $\alpha\in[0,1]$ reflects the preference of decision-makers for location and shape, with α valued as 0.5 in this paper. The larger the comprehensive evaluation value $h_i(t_k)$, the higher the resilience level.

2.2.2 Data source

The data used in this paper is from the annual public reports on the official website of the Cruise Lines International Association (CLIA) and the series of Green Books of Cruise Industry in China. Continuous cruise data was obtained through organization, with all data generated between 2013 and 2022.

3. Analysis of Results

3.1 Cruise economy resilience evaluation results

According to Asian cruise economy resilience evaluation values from 2013 to 2022 (see Table 2) calculated based on formulas (1) and (2) and the trend of changes in cruise economy resilience (see Figure 2), overall, cruise economy resilience between 2013 and 2022 had a trend of first rising, then dramatically dropping and then rapidly rising, with the dramatic drop due to the severe impact of the COVID-19 pandemic on the cruise industry. Between 2013 and 2019, Asia's cruise economy grew annually at a high speed and became the cruise market with the highest potential, however, between 2020 and 2022, the

pandemic froze the cruise industry in most of Asia. Nonetheless, the regional cruise industry gained momentum during the sailing suspension period and made breakthroughs in cruise shipbuilding and environmental protection. In particular, China built an independently developed large cruise ship and achieved a qualitative leap in the cruise shipbuilding market, which has driven a rapid recovery in cruise economy resilience and better promoted high-quality cruise development.

Table 2 Cruise Economy Resilience Evaluation Index

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
China	0.19085	0.24346	0.27299	0.36201	0.41629	0.42871	0.46686	0.15069	0.52812	0.62601

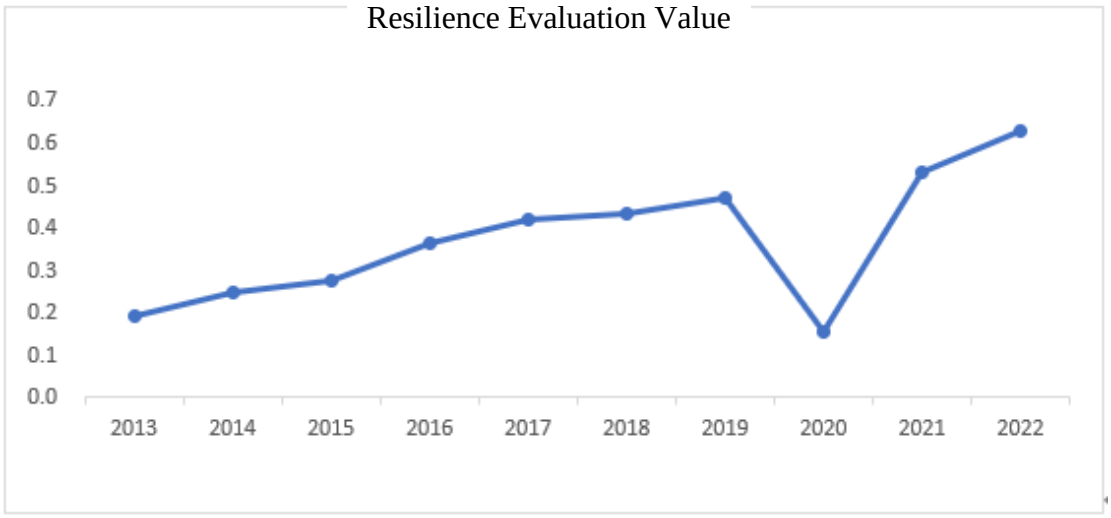

Figure 2 The trend of changes in cruise economy resilience evaluation values

Table 3 Dimensional Evaluation of Cruise Economy Resilience

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Resistance	0.13368	0.15694	0.29636	0.37691	0.40732	0.41576	0.48470	0.22927	0.49379	0.61563
Recovery	0.16517	0.18501	0.22517	0.35918	0.51476	0.57415	0.65638	0.08498	0.36137	0.53186
Reorganization	0.24261	0.34134	0.38675	0.63118	0.67298	0.71928	0.86763	0.02064	0.32991	0.49595
Renewal	0.08449	0.09568	0.11349	0.15870	0.22289	0.22289	0.27755	0.00357	0.40454	0.58130

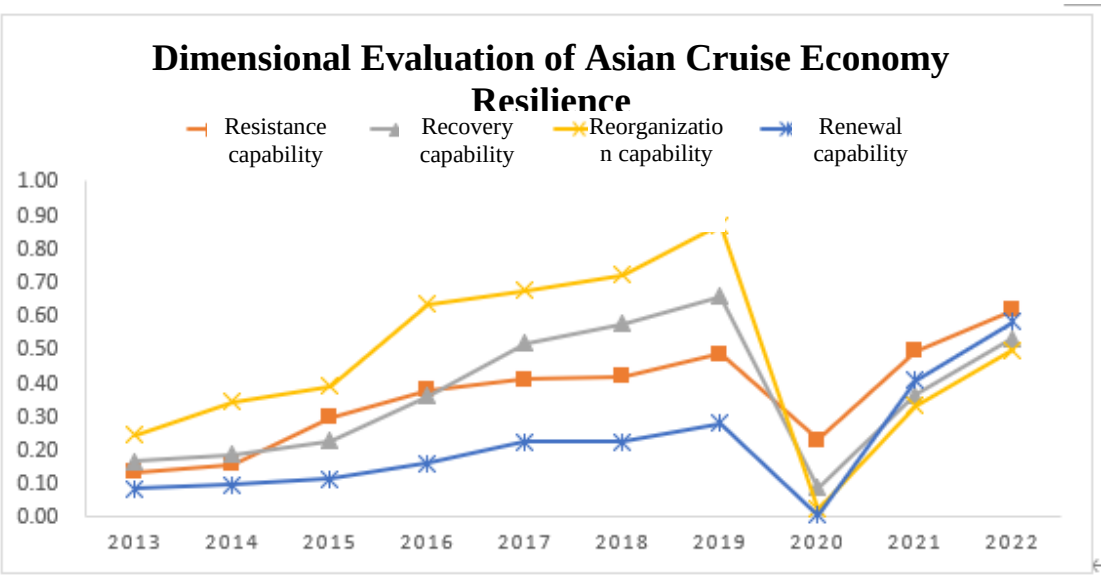

Figure 3 Dimensional Evaluation of Cruise Economy Resilience

Based on the dimensional evaluation values of cruise economy resilience (see Table 3) and the dimensional evaluation diagram of cruise economy resilience (see Figure 3), overall, reorganization and recovery capabilities were prominent before the pandemic, while the recovery performance of resistance capability and renewal capability was more notable after the pandemic; observation of gaps in the figure and table of capability dimensions before and after the pandemic shows that gaps existed in capability dimensions before the pandemic in 2020, indicating the uneven development of capability dimensions in Asia, however, the gaps in the four dimensional evaluation values narrowed after experiencing the pandemic in 2020.

By combining the states presented by the dimensional evaluation figure and table with the development of the cruise industry in reality for analysis, the following aspects can be concluded:

(1) The reorganization capability dropped to the lowest level during the pandemic. During the pandemic, cruise ships in Asia were suspended sailing for a long period, with low cruise opening-up, and it took them (especially those in East Asia, with China formally resuming international routes in 2023) longer than those in other parts of the world to resume sailing. Therefore, cruise lines' operations and route layouts were severely impacted during the pandemic, which seriously affected the development of the reorganization capability.

(2) The resistance capability rose to become the capability dimension with the highest evaluation value after the pandemic. Asia's cruise shipbuilding capacity achieved leapfrog development thanks to China's major breakthrough in building large cruise ships. China's first large cruise ship, "Adora Magic City" under Adora Cruises, has been completed, and its second cruise ship is in the building process. Therefore, the breakthrough in cruise shipbuilding led to a rise in overall resistance capability.

(3) The renewal capability after the pandemic surpassed the level before the pandemic. The renewal capability improved because cruise research and development drove innovation capability. Furthermore, the planning and development of the cruise industry during the pandemic, the development of cruise ports in environmental protection and the stepping up of the layout of shore power projects overall promoted the improvement of renewal capability.

(4) The recovery capability was in a relatively low position after the pandemic, but its rebound trend was good. The cruise business was resumed relatively early in Southeast Asian and West Asian regions such as Singapore, India and Malaysia, and before the resumption of international cruise operations in China, China's first five-star red flag cruise, China Merchants-Yidun, started operations, which marked the beginning of resumption of China's cruise industry within a certain range.

Overall, the cruise industry made progress in many aspects after the pandemic, promoting the development, certain recovery and breakthrough of cruise economy resilience.

4. Research Significance and Suggestions

4.1 Research significance

Researching cruise economy resilience can gain insight into the adaptability of the cruise industry in the face of uncertainties, shocks and changes as well as its recovery and development capabilities and is of great significance for various aspects:

(1) Practical significance: As the cruise industry is faced with multiple shocks, including natural disasters, health crises and political conflicts, researching resilience helps reveal how the industry can maintain operations and mitigate losses during crises and quickly recover in due course, thereby helping improve industry sustainability and maintain supply chain stability.

(2) Significance for the Asian cruise industry: Researching cruise economy resilience helps Asia understand how to protect the cruise industry in the face of various shocks, draw on the experience of other countries, enhance the resilience of its own industry, achieve sustainable development and become more in line with the requirements of high-quality development of the cruise economy.

(3) Significance for cruise industry development: Researching resilience can provide strategic guidance for the cruise industry so that the industry can develop more flexible and sustainable development strategies by understanding its vulnerabilities and strengths, and researching resilience can also help the industry better deal with market changes, technological innovations and policy adjustments and ensure the industry maintains vitality.

4.2 Suggestions for the development of Asian cruise economy resilience

The overall cruise economy was under tremendous downward pressure due to the pandemic's impact, however, the development of capability dimensions of cruise economy resilience was relatively balanced after 2020, which can be taken as an opportunity to drive the high-quality development of the cruise economy. According to the actual development situation of the cruise industry in Asia, cruise economy resilience can be enhanced from the following aspects:

(1) Building a risk prevention and control system to adapt to different environments: Asian cruise organizations and cruise lines should develop and implement strict risk prevention and control systems by firstly setting health and safety standards, and cruise lines should establish complete crisis management plans. Asia's governments should strengthen transnational regulation and cooperation by establishing international standards and provisions.

(2) Accelerating the opening of international routes and enriching the routes: Asia's governments should relax policies on inbound tourism and restrictions on cruise ports and establish long-term strategic partnerships. In addition to opening international routes in Asia, they should also gradually attract international cruise lines back to the Asian market and provide routes to different destinations in Asia, to promote the prosperity of Asian cruise routes.

(3) Building a diversified market to enhance tourists' experience: Diversified families, luxury facilities and local tourists, etc. in the Asian market require flexible market strategies, and diversified Asian cultural and culinary experiences should be provided in conjunction, to attract tourists back to cruise ships. As people's demand for tourism grows with the relaxation of exit and entry policies, cruise routes of diverse themes can be launched to enhance tourists' experience of cruise tourism.

(4) Promoting ecotourism and increasing marine environment protection: Asia's countries should unite to protect the marine environment and stop Japan's release of nuclear wastewater into the ocean as this behavior will affect the marine ecological environment and have a negative impact on cruise tourism that relies on the ocean. Tourism destinations and travel agents can actively promote cultural and ecological tourism, to furnish tourists with more in-depth experiences.

(5) Investing in advanced technologies and fleets and promoting digital transformation: Cruise lines should be encouraged to invest in new-generation cruise technologies and provide safer and more environmentally friendly and efficient cruise services, so as to increase cruise business competitiveness. Cruise lines can use digital technology to improve customer experience, increase online sales and service channels, improve operations and provide more attractive convenient and rich experiences on board.

(6) Strengthening talent cultivation and improving service quality: Cultivation and attraction of professionals related to the cruise industry should be strengthened, including crew members, hotel management talents and ship maintenance talents, because a high-quality talent team can enhance business resilience and competitiveness. Cruise lines should be encouraged to provide higher-level services, including improvements in catering, entertainment and comfort, so as to attract more tourists and increase their satisfaction.

(7) Promoting sustainable development: Sustainable development represents a trend in the global cruise industry. Cruise lines should be encouraged to take environmental

protection measures, reduce waste discharge and promote the use of clean energy, so as to meet future environmental protection requirements, realize carbon peaking and carbon neutrality, make solid gains in the battle against pollution and actively advance the reduction of greenhouse gas emissions in international shipping.

Asia's cruise industry can enhance its resistance, recovery, reorganization and renewal capabilities by taking the above measures, to improve cruise economy resilience, better respond to future challenges and opportunities and promote the high-quality development of the cruise economy.

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New Stage of High-quality Development of China's Cruise Industry

Huang Xuezhong[1]

Abstract

China's cruise market is the fastest growing and highest potential market, but it experienced a suspension of operations of more than three years from year 2020. Since year 2023, China's cruise market has entered a new stage of high-quality development. China's cruise industry has transformed from a single tourism economy to a whole industry chain development pattern. China's cruise economy ascended to a higher quality level. The new development stage of China's cruise economy features a model of high-quality development supported by the design and building of domestic cruise ships and the operations of local cruise ships. China's cruise economy in the new stage has a new connotation and can be summarized as having the following five characteristics: building a cruise industry ecosystem, mastering cruise shipbuilding technology, possessing design and development capabilities, perfecting cruise operation functions and improving the supply chain system. China's advantages of a super-large market, a strong industrial base and complete industrial categories will make it the center of the global cruise industry.

Keywords

Cruise Industry, Cruise Construction, Cruise Operation

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The year 2023 is a year of transformation for China's cruise industry and also a milestone in the history of industry development. In this year, China's cruise market has fully resumed operations after more than three years of suspension, and China's first large cruise ship, Adora Magic City, has finally been named and delivered after ten years of layout planning and five years of design and building. These two events are the most representative ones in China's cruise industry in 2023 and have become landmark moments of the high-quality development of the cruise industry.

1. A New Era for China's Cruise Industry

China's cruise industry experienced a suspension of operations of more than three years from January 26, 2020, during which period, cruise-related enterprises not only lost their sources of income but also suffered from an "internal hemorrhage" of funds, and the entire industry faced a huge survival crisis. In order to accelerate the recovery of the cruise industry, the Ministry of Transport of China successively introduced the Plan for the Orderly Pilot Resumption of International Cruise Transport and the Notice on Work concerning the Full Restoration of International Cruise Transport. With the successive resumption of operations of Mediterranea and Dream cruise ships at the end of September 2023, the accumulated massive consumer demand will be centrally unleashed. With all six Chinese cruise ships expected to resume operations by 2024 and Spectrum of the Seas under Royal Caribbean and MSC Bellissima under MSC Cruises to return to the Chinese market, the Chinese market will begin a new round of prosperity. In this round, the Chinese market will be led by Chinese local cruise fleets, which will greatly enhance the value of China's cruise economy.

The completion and delivery of Adora Magic City bolstered the last area of weakness of China's cruise industry and marked a breakthrough from scratch in cruise research and development in China. The birth of Adora Magic City makes China the fifth country in the world with the ability to design and build large cruise ships, following Germany, France, Italy and Finland, and also makes China the only country in the world that can build LNG carriers, aircraft carriers and large cruise ships. With it, China's cruise industry will completely reverse its economic structure from over-reliance on consumption and operations in the past to the interconnected development of the supply side and the demand side, to realize a benign situation of the demand side leading the supply side and the supply side supporting the demand side, and China's cruise economy will transform from a single tourism economy to a cruise industry ecosystem, covering cruise operations, design, building and supporting supply chain, and ascend to a higher quality level.

2. New Connotation of High-quality Development of China's Cruise Industry

The new development stage of China's cruise economy features a model of high-quality development supported by the design and building of domestic cruise ships and the

operations of local cruise ships. China's cruise economy in the new stage has a new connotation and can be summarized as having the following five characteristics: building a cruise industry ecosystem, mastering cruise shipbuilding technology, possessing design and development capabilities, perfecting cruise operation functions and improving the supply chain system.

2.1 Building a cruise industry ecosystem, with a pattern of whole industrial chain development formed

Considering that the global cruise industry has an oligopoly feature, China State Shipbuilding Corporation embarked on the path of whole industrial chain development in the early stage of developing the cruise industry, using cruise operations as a guide to drive cruise research and development and local supporting system development. Currently, China has initially formed a pattern of development led by cruise operations, powered by design and building and supported by supply chain construction. China has fostered cruise "chain leaders" such as CSSC Cruise and Waigaoqiao Shipbuilding, developed a large number of on-chain enterprises such as Adora Cruises and R&M engaging in assembly manufacturing, research, development and design, operation services and core supporting facilities, driven the aggregation of cruise financing, insurance and legal resources and factors in China, cultivated a cruise technical management team with an international vision and initially formed a group of domestic standards and systems.

2.2 Basically mastering cruise shipbuilding technology, with assembly and manufacturing processes comprehensively improved

The building of the large cruise ship has driven the leapfrog development of shipyard informatization and effectively solved the problems of discrete shipbuilding work and data silos. On this basis, three-dimensional modeling, intelligent production lines and a digital cruise shipbuilding system have been realized. First, Smart3D software was used in the production design stage to realize the whole ship three-dimensional modeling of China's first large cruise ship, which effectively guided the building of the actual ship. Second, China's largest, world-class intelligent production line of cruise thin plates was built, and the full connection of production equipment and the interface connection with the design system were realized through the digital twin technology and based on full coverage of 5G signals in the workshop. Third, a digital cruise shipbuilding system was initially built and an integrated design collaboration subcontracting mode based on the Internet was successfully created, to achieve collaborative design and product lifecycle management across platforms, stages and disciplines; the application of welding, painting, sorting robots and other intelligent production equipment was promoted, to significantly increase production efficiency; a project general contracting management platform and a supply chain management platform were built, to greatly increase management efficiency.

2.3 Making breakthroughs in key technology research, with the formation of independent design capabilities accelerated

China State Shipbuilding Corporation has realized large cruise ship design and formed independent design capabilities in reliance on technology introduction, assimilation, absorption and re-innovation. In terms of talent team, the company has built a design team of more than 100 people from China and Italy, which completed the detailed design of China's first large cruise ship and possesses the capability for the detailed design of large cruise ships. In terms of key technologies, the company has successively made breakthroughs in the three core technologies related to weight and gravity center, vibration noise and safe return to port and solved 22 process difficulties such as thin plate welding deformation control, general section outfitting integrity and accuracy control. In terms of sci-tech innovation, the company, in reliance on cruise innovation projects, has driven dozens of participating research entities in China to tackle key technologies and has launched the conceptual design of 150,000- and 80,000-gross tonnage cruise ship types with independent intellectual property rights.

2.4 Initially forming an independent operation system, with the goal of full-capability development basically achieved

China State Shipbuilding Corporation has established Adora Cruises Limited and integrated the business and capabilities of Carnival in China, and it aims to build a flagship operator of cruise ships in China. Adora Cruises currently owns the largest cruise fleet in Asia with one existing ship of 86,000 gross tonnage and two ships being built of 135,000 gross tonnage, and it has built an international team of more than 100 people with full capabilities for independent operations, launched its own brand Adora Cruises and cultivated core capabilities in brand, sales management, financial control, product management and informatization. All these make it the largest cruise operator in the Asia-Pacific region with the most complete capabilities.

2.5 Strengthening the supportive role of the supply chain, with the local cruise supply chain system initially formed

The supporting supply chain for a large cruise ship can involve more than 100 strategic suppliers and more than 8,000 professional suppliers and cover nearly 120 kinds of complete equipment and about 25 million components. In the building process of the domestic cruise ship, China State Shipbuilding Corporation sorted out ten core supply chain systems related to cruise interiors, informatization, ship supply and digital audio and video and incorporated world-class supporting enterprises and domestically advanced manufacturers into the cruise supply chain system through acquisitions and joint ventures, which effectively supported the building of the domestic cruise ship. It is worth mentioning that China State Shipbuilding Corporation has completed the acquisition of R&M from

Germany, which enables it to form system integration, project general contracting and key and core product supporting capabilities in the field of interiors, and the company has built a cruise interior industry platform with RM at the core, which enhances the innovation and competitiveness of local supply chain enterprises.

3. China as a Future Center of the Global Cruise Industry

China's advantages of a super-large market, a strong industrial base and complete industrial categories will make it the center of the global cruise industry.

In terms of building, China will become the world's largest cruise shipbuilding base. Cruise development is a labor-intensive, technology-intensive and capital-intensive cause, and China's shipbuilding industry has all-round advantages in this regard. With continuous and stable orders, China's strong manufacturing capacity will support the country in building itself into the world's largest cruise shipbuilding base. In terms of operations, China and the U.S. will become the top operators. China is a super-large economy with the advantage of complete domestic circulation and has formed the largest market with the highest potential in the world with a population of 1.4 billion, a middle-income group of more than 400 million and per capita GDP of more than USD 10,000. According to the forecast of the Ministry of Transport of China, by 2035, China's cruise market will reach a scale of 14 million tourists every year and its cruise fleet will reach 100 ships, supporting the country to become an important pole in the global cruise industry.

The cruise industry is a "golden industry floating on the golden waterway" and a happiness industry that can meet people's needs for a better life. We firmly believe that, by solidly advancing cruise shipbuilding and fully promoting the recovery of cruise tourism, the cruise industry will become a vivid reflection of China's new industrialization, create a phenomenal new consumption scene and become an important supporting force for the building of a strong country and the realization of national rejuvenation.

Thoughts on the Interconnected Development of the Cruise, Pleasure-boat and Yacht Economy in Shanghai - Drawing on Experience from Domestic and Foreign Cases

Xu Juehui[1]

ABSTRACT

Currently, the cruise, pleasure-boat and yacht economy in Shanghai has insufficiencies in the mutual conversion of sources of market tourists and mutual extension of the industrial chain, with no overall interactive space formed. By summarizing the experience of Singapore and Shenzhen, two famous waterfront cities, in the development of the cruise, pleasure-boat and yacht economy, it can be concluded that the interconnected development of the cruise, pleasure-boat and yacht economy requires making cruise, pleasure-boat and yacht tourism the direct content and carrier to extend to waterfront commerce, service and entertainment and leisure economy and forming an economic agglomeration area around the core port and terminal as spatial nodes, thereby achieving the systematic development of diversified economic systems such as culture, tourism and commerce. Based on experience drawn on from cases and taking into account Shanghai's own advantages and conditions, Shanghai can achieve market-level linkage by creating diversified products and integrating resources, overall spatial-level linkage by optimizing terminal, consumption and leisure space layout and industry-level linkage by agglomerating factors, making breakthroughs in ship design and building and improving supporting service functions, thereby jointly promoting the interconnected development of the cruise, pleasure-boat and yacht economy.

KEYWORDS

Cruise; pleasure-boat and yacht economy; interconnected development; case analysis; countermeasure suggestions

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1. Introduction

In current theory and practice, the cruise, pleasure-boat and yacht economy refers to a comprehensive economy involving the design, building, sale, service and tourism of cruise ships, pleasure-boats and yachts, featuring labor-intensive, technology-intensive, knowledge-intensive, capital-intensive and culture-intensive characteristics. Cruise tourism, pleasure-boat tourism and yacht tourism are three business forms of water tourism [1]. In this paper, cruise ships include ocean cruise ships and river cruise ships, with the latter specifically referring to Yangtze River cruise ships; pleasure-boats are city leisure sightseeing boats, excluding liners, ferries, wherries and other tourism passenger ships, and owing to limited research scope and perspective, pleasure-boats studied in this paper are mainly sightseeing boats in the Huangpu River and Suzhou Creek systems, excluding pleasure-boats in urban and suburban park lakes; yachts are yachts used for leisure and entertainment.

The cruise, pleasure-boat and yacht economy is an important symbol of the developed tourism industry and economic prosperity in world-famous coastal cities and is highly distinctive in places like Singapore, London and New York. The cruise, pleasure-boat and yacht economy, as an important carrier connecting domestic and international, ocean and river and water and land tourism economies, not only has the advantages of the traditional tourism economy but also strong industrial agglomeration, radiation and driving effects, and is expected to become an important means for Shanghai to expand domestic demand, promote consumption and drive international and domestic market interaction, thereby further improving Shanghai's position as a node linking the "dual circulation" of domestic and international markets.

2. Comprehensive Analysis of the Current Interconnected Development of the Cruise, Pleasure-boat and Yacht Economy in Shanghai

2.1 The cruise, pleasure-boat and yacht market taking initial shape, but with insufficient interaction in tourist sources

The number of Shanghai cruise tourists increased from 13,000 in 2006 to 947,000 in 2019, with a total of about 7.65 million received [2], the Huangpu River pleasure-boat market maintained an annual reception scale of more than 3 million people before the pandemic [3], and the size of the mass yacht consumer market in Shanghai is slightly smaller [4], with the annual number of yacht users exceeding 100,000. The cruise, pleasure-boat and yacht market has taken initial shape in Shanghai, but the tourist sources of the cruise market, pleasure-boat market and yacht market are relatively independent and separated. Among them, the cruise

market mainly involves local tourists' outbound tourism and does not have many foreign cruise tourists, the pleasure-boat market mainly has tourists from other provinces and cities to Shanghai, while the yacht tourism market mainly involves club members' business and leisure consumption. Currently, consumer groups in the cruise, pleasure-boat and yacht market mainly spend money on single tourism experiences of single products and have no sufficient overall perception and understanding of cruise, pleasure-boat and yacht products, and there has been no effective mutual conversion between the groups, which restricts the further expansion of the economic scale of the cruise, pleasure-boat and yacht market.

2.2 Cruise, pleasure-boat and yacht facilities having complete basic functions, but not having an overall interactive space

Shanghai currently has complete facilities built for cruise ships, pleasure-boats and yachts and is a leader in China in ports and terminals for developing cruise ships, pleasure-boats and yachts [5], but it has not formed a sample space for the integration and linkage of cruise ships, pleasure-boats and yachts. Both Wusongkou and North Bund have diversified functional ports and terminals for cruise ships, pleasure-boats and yachts, but they have no superimposition and integration of cruise, pleasure-boat and yacht-related functions at the spatial level. Among them, Wusongkou International Cruise Terminal is in the outer suburbs of the Yangtze River estuary and does not have mature pleasure-boat and yacht business forms, and its cruise business is based on home port departures, with waterfront tourism and leisure and commercial service functions being cultivated; North Bund Bay is in the core of the Huangpu River, with complete regional tourism and commercial functions, covering cruise and yacht business forms, but it has not achieved the regular operation of high-end pleasure-boat products.

2.3 The cruise, pleasure-boat and yacht industry chains continuing to extend, but with insufficient intersecting interaction

The chain of the cruise, pleasure-boat and yacht economy in Shanghai has gradually extended from simple water tourism to upstream shipbuilding and repair, midstream ship operation management and downstream port and terminal development and comprehensive services, however, the interaction between cruise, pleasure-boat and yacht industries needs further exploring [6]. At the upstream level, the design, building and repair of cruise ships, pleasure-boats and yachts are relatively independent of each other: most shipyards focus on single ship type business among cruise ships, pleasure-boats and yachts, without an integrated water tourism ship design and building system, and shipbuilding enterprises are in a dispersed distribution, without strong industrial agglomeration in geographical space. Shipbuilding enterprises lack cooperative development of innovative design and building technologies and new products of cruise ships, pleasure-boats and yachts and have not

formed a supporting supply system for assembly parts of cruise ships, pleasure-boats and yachts. The comprehensive competitiveness of the industrial chain needs to be improved.

3. Domestic and Foreign Typical Cases of Interconnected Development of the Cruise, Pleasure-boat and Yacht Economy

3.1 Case of interconnected development of the cruise, pleasure-boat and yacht economy in Singapore

In Singapore, cruise, pleasure-boat and yacht business forms are mainly distributed in the integrated "long and narrow inland river + wide coastal area" formed by the connection of the Singapore River and Marina Bay (Area A) as well as the waterfront area between Sentosa and Singapore Island (Area B). The two areas are separately deployed with two core cruise terminals, the Marina Bay Cruise Centre Singapore and the Singapore Cruise Centre, and several scattered ferry, pleasure-boat and yacht terminals, with port and terminal hinterlands built with scenic spots, commercial facilities, CBDs and other functional spaces [7]; furthermore, with the Waterfront Promenade built to connect multiple functional spaces, the two areas echo each other and form a unity.

Functionally, both areas gather tourism, commerce, service, entertainment, leisure and office business facilities, but each has its characteristics. Area A at the core section of the downtown is a waterfront area where city business and waterfront tourism are highly integrated, with the core waterfront area formed along Singapore River by the nodes of famous Boat Quay, Clarke Quay and Robertson Quay, and there are several tour routes set up, with yachts, amphibious DUKWs, old-fashioned peddler fishing boats and other characteristic pleasure-boats arranged. Marina Bay formed by the estuary area of the Singapore River is built with a large cruise port as well as an urban super tourism functional area that combines ecological leisure, cultural art and landscape landmarks such as the Gardens by the Bay, Merlion Park and the Singapore Flyer. In Area B, the Singapore Cruise Centre is directly connected to commercial facilities and ecological scenic areas in Singapore Island, has a ferry terminal that directly reaches multiple offshore island scenic spots, and can also directly lead tourists to the famous scenic area Sentosa via the themed garden, Waterfront Promenade, in Singapore Island. Overall, both areas quickly divert tourists to the city's inland, inland rivers and offshore island tourist areas through the good layout and superposition of cruise, pleasure-boat and yacht ports and terminals in terms of functions and spaces, thereby achieving the effects of interconnected development in the tourism, commerce, business, entertainment and leisure aspects of the cruise, pleasure-boat and yacht economy.

3.2 Case of interconnected development of the cruise, pleasure-boat and yacht economy in Shenzhen

In Shenzhen, cruise, pleasure-boat and yacht business forms are mainly concentrated in the coastal area of Shekou, which spatially links Shekou Prince Bay and the shore of Shenzhen Bay. The area is built with Shekou Cruise Home Port and Shenzhen Bay Marina Club and overall forms a superposed and integrated cruise, pleasure-boat and yacht port and terminal system space for large international cruise ships, coastal cruise ships, "Bay Area Ocean Getaway" pleasure-boats, passenger liners and yachts [8].

From a spatial function perspective, the area's cruise, pleasure-boat and yacht port and terminal have perfect tourism functions. On the one hand, Shekou Cruise Home Port mainly accepts the berthing of international cruise ships in South China and acts as a hub for fast water transport in the Guangdong-Hong Kong-Macao Greater Bay Area and the entry and exit of "Bay Area Ocean Getaway" pleasure-boats, therefore, there is an outstanding wealth of cruise, pleasure-boat and yacht route products within the space. The cruise route products cover Japan and South Korea to the north and Vietnam and the Philippines to the south. Regarding pleasure-boats, unique "Bay Area Ocean Getaway" route products have been launched, including the Qianhai Bay route, Shenzhen Bay route, Hong Kong-Zhuhai-Macao Bridge route, and intelligent and eco-friendly modern high-end pleasure-boats, "Greater Bay Area No. 1" and "Greater Bay Area No. 2", have been custom-built, to provide complete and rich tourism functions. Furthermore, 268 yacht berths are built within Shenzhen Bay and operated by Shenzhen Bay Marina Club, to provide not only basic yacht berthing and sailing but also yacht driving training, marine sports, yacht bonded warehousing and a variety of service experience functions around yacht leisure and entertainment, which, together with the Shenzhen Bay International Boat Show launched by Shenzhen, realizes the complete functions of yacht tourism, leisure, entertainment, exhibition and exchange services in the Shenzhen Bay area.

On the other hand, the area also provides perfect onshore tourism and supporting functions related to cruise ships, pleasure-boats and yachts. Shekou Cruise Home Port itself is a modern international coastal port area that integrates functions of a passenger transport hub and functions of historical and cultural expositions, art performances, conventions and exhibitions, hotel supporting facilities, business offices, business apartments, catering, entertainment, maritime activities and celebrations, and meanwhile, the hinterland is equipped with diverse commercial, tourism, cultural and sports supporting functional spaces and complexes such as the art mall, business plaza, city park, sports and fitness facilities and scenic areas. The port area is conveniently connected to the onshore traffic so that cruise, pleasure-boat and yacht tourists can move quickly between the waterfronts, thereby achieving good linkage between cruise ships, pleasure-boats and yachts and between the

cruise, pleasure-boat and yacht economy and the onshore commercial, cultural and tourism economies.

3.3 Case summary: Experience related to the interconnected development of the cruise, pleasure-boat and yacht economy

Based on the above analysis of the connotation and value orientation of the interconnected development of the cruise, pleasure-boat and yacht economy and by referring to the cases of domestic and foreign cities with a developed cruise, pleasure-boat and yacht economy and interconnected development advantages, it can be concluded that the interconnected development of the cruise, pleasure-boat and yacht economy requires making cruise, pleasure-boat and yacht tourism the direct content and carrier to extend to waterfront commerce, service and entertainment and leisure economy and forming an economic agglomeration area around the core port and terminal as spatial nodes, thereby achieving the systematic development of diversified economic systems such as culture, tourism and commerce. Furthermore, the interconnected development of the cruise, pleasure-boat and yacht economy can further extend from the cruise, pleasure-boat and yacht economic chain to the field of shipbuilding equipment and drive the intersection and agglomeration development of cruise, pleasure-boat and yacht repair, building and assembly industries through the cruise, pleasure-boat and yacht market demand, thereby forming a more comprehensive and complete pattern of interconnected development of the cruise, pleasure-boat and yacht industry chain.

4. Strategic Suggestions for the Interconnected Development of the Cruise, Pleasure-boat and Yacht Economy in Shanghai

4.1 Creating a model high-quality cruise, pleasure-boat and yacht economy through market linkage

It is suggested that the common attributes of cruise, pleasure-boat and yacht water tourism and leisure be exploited to strengthen the reciprocity of resources, sharing of tourist sources and synchronous promotion of cruise, pleasure-boat and yacht tourism, drive the interaction of the cruise, pleasure-boat and yacht market and expand its scale. It is suggested that methods such as cooperation in tourism resource development, creation of cruise, pleasure-boat and yacht combination products and joint marketing and promotion of water tourism and leisure be employed to further develop and foster a high-quality cruise, pleasure-boat and yacht market, enhance the attractiveness of Shanghai's cruise, pleasure-boat and

yacht industry and promote the mutual conversion of local tourists, non-local tourists and foreign inbound tourists between cruise, pleasure-boat and yacht tourism projects.

It is suggested that Shanghai hub port's linking role in outbound and inbound cruise tourism, coastal and inland river water tourism and southern-northern regional interaction be played to comprehensively build a product matrix of international tourism, domestic tourism, regional tourism and city tourism. It is suggested that a water tourism product structure system that provides "short, medium and long" routes, "popular, high-end and luxury" grades, "outbound and inbound" types and "ocean, coastal and inland river" combinations be established. It is suggested that diverse water tourism combination products in the form of "cruise plus", "pleasure-boat plus" and "yacht plus" be launched to achieve the integration and linkage of cruise, pleasure-boat and yacht tourism products.

It is suggested that advantageous resources be effectively integrated to promote the development of Shanghai's cruise, pleasure-boat and yacht market: waterfront resources should be integrated to create highly attractive waterfront linkage products, various activities on destination waterfronts should be organized and domestic and international water sports events and high-end celebrations should be introduced and created, to enhance Shanghai's visibility and appeal as a cruise, pleasure-boat and yacht destination; cultural and tourism marketing resources should be integrated, cruise ships, pleasure-boats and yachts should be uniformly incorporated into water tourism themes to create international and professional industry exchange forums, trade shows, etc., an overall exchange platform for the cruise, pleasure-boat and yacht industry should be built to form a unified brand and overall image for the cruise, pleasure-boat and yacht industry in Shanghai, and cruise, pleasure-boat and yacht tourism should be promoted to the outside world as a unified whole of water tourism via various media channels; tourism information and data resources should be integrated to create a Shanghai water tourism public information platform that integrates information on cruise, pleasure-boat and yacht tourism products and activities and timely releases, updates and interactively promotes such information so that domestic and foreign consumers can timely understand and obtain cruise, pleasure-boat and yacht product information.

4.2 Building a hub-type consumption space for cruise, pleasure-boat and yacht tourism through spatial linkage

It is suggested that the existing port layout be relied on to continuously improve port service levels. It is suggested that the two core port areas, Wusongkou and North Bund, be interconnected to become the pivot of the cruise, pleasure-boat and yacht hub space, distributed port and terminal nodes should be arranged along the Huangpu River and the Suzhou Creek, and a multi-level port structure for cruise ships, pleasure-boats and yachts should be formed by connecting the nodes into lines and lines into planes, so as to build Shanghai into a comprehensive hub for water tourism. It is suggested that the characteristics

of the main terminals be exploited to realize the differentiated positioning of the cruise, pleasure-boat and yacht industry and create a national demonstration sample space of cruise, pleasure-boat and yacht interconnected development.

At the tourism and leisure space layout level, it is suggested that the cultural connotations and cruise, pleasure-boat and yacht elements of the Huangpu River and the Suzhou Creek be explored, the linkage between the cruise, pleasure-boat and yacht core areas in Wusongkou and North Bund and core terminal nodes along the Huangpu River and the Suzhou Creek and the onshore tourist destinations be strengthened, and the port and terminal resources and waterfront cultural and tourism resources be integrated, to develop high-quality cruise, pleasure-boat and yacht leisure spaces that meet modern leisure consumption needs, and attract domestic and foreign tourists.

At the waterfront consumption space layout level, it is suggested that personalized waterfront consumption spaces be created around the cruise, pleasure-boat and yacht core areas in Wusongkou and North Bund. It is suggested that commercial supporting facilities around ports be optimized, and the development of commerce and service industry in areas of commercial capacity, service functions, operation efficiency, business form structure and spatial layout be accelerated. Based on the development of the night economy, it is suggested that the quality of waterfront commercial carriers be further enhanced and diversified consumption festivals be created, to rejuvenate the commercial economy, improve the consumer experience and consumption possibilities of cruise, pleasure-boat and yacht consumers during the whole tourism process in Shanghai and enhance the consumption level.

4.3 Shaping a development highland for the cruise, pleasure-boat and yacht industry chain through industrial linkage

It is suggested that the extension of the cruise, pleasure-boat and yacht industry chain be comprehensively advanced, with industrial bases constructed with high standards to form new momentum, the chain extended to remedy shortcomings and foster new drivers, new business forms developed to expand new functions and multiple elements aggregated to enhance new efficiency, so as to effectively activate all elements of the chain and increase its economic contributions.

Firstly, building a cruise, pleasure-boat and yacht headquarters base to attract the aggregation of cruise, pleasure-boat and yacht industry elements. It is suggested that the spatial and functional aggregation of the relevant domestic and foreign cruise, pleasure-boat and yacht enterprises (including domestic and foreign cruise, pleasure-boat and yacht operating enterprises and other related supporting service enterprises) be promoted; measures such as policy support and business environment optimization be adopted to attract domestic and foreign cruise, pleasure-boat and yacht enterprises to set up regional headquarters or branches and to accelerate the cultivation of globally competitive world-class enterprises as

well as cruise, pleasure-boat and yacht industry "chain leaders" that lead the ecosystem, so as to further attract the aggregation of cruise, pleasure-boat and yacht industry elements.

Secondly, focusing on breakthroughs in the design and building of high-end cruise ships, pleasure-boats and yachts to continuously extend to the end of the cruise, pleasure-boat and yacht industry chain and the high-end value chain. It is suggested that the "Waigaoqiao cruise, pleasure-boat and yacht building and assembly gathering place" be built for spatial agglomeration and a cruise, pleasure-boat and yacht building center be constructed to accelerate breakthroughs in the core technologies for cruise, pleasure-boat and yacht building and set up a complete supply chain system for cruise, pleasure-boat and yacht building.

Thirdly, improving supporting services necessary for the cruise, pleasure-boat and yacht industry. It is suggested that the levels of comprehensive ship-related services be fully enhanced, such as ship material supply, fuel supply, ship accessories and spare parts supply and ship maintenance management, and an international ship material supply center, a water tourism ship management center and a ship repair and maintenance base be built, to explore the additional economic functions of the cruise, pleasure-boat and yacht industry.

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How to Construct IP Mascots for Cruise Tourism Destinations

Liu, Hsi-Lin[1], Hsuan-Ling Chen[2]

Abstract

This study establishes a framework by first obtaining secondary data through a literature review. Next, expert in-depth interviews are conducted to identify elements for constructing and developing mascots as primary data. Subsequently, all the collected data undergoes content analysis, leading to the synthesis of various dimensions and factors. Expert questionnaires are then created, and after collecting responses, the Analytic Hierarchy Process (AHP) is employed to assess the importance and ranking of the factors. Based on the literature review, expert interviews, and questionnaire results, a preliminary hypothesis model for the development of city mascots is proposed. Focus group interviews are then conducted with experts for collaborative discussions, obtaining relevant suggestions for the development model of city mascots. Following this, the content of the focus group discussions is analyzed, and the hypothesis model is adjusted accordingly. In conclusion, recommendations are derived from the study results. The research findings can serve as a reference model for island destinations to establish and develop tourist destination IP. Specific theoretical suggestions are also proposed for future research to contribute to the development of island city tourism, revitalizing local life, and enhancing tourism vitality.

Keywords

Island Hopping Cruise Tourism, Cruise Tourism Destination, Intellectual Property (IP), Mascot, Analytic Hierarchy Process (AHP)

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Research Background

Before the outbreak of the pandemic, Taiwan's cruise market mainly focused on itineraries to Hong Kong, Japan, and Korea, especially places like Okinawa and Ishigaki in Japan. In 2020, the global spread of the COVID-19 virus led many countries to implement travel bans. Numerous cruise ships experienced outbreaks, resulting in countries prohibiting cruise ships from docking or sailing. Fortunately, Taiwan's effective epidemic prevention measures mitigated the impact compared to the international situation. Taiwanese residents turned to domestic travel, and the cruise ship "Explorer Dream" implemented strict preventive measures. On July 26, 2020, it made its maiden voyage from Keelung Port, inaugurating island-hopping cruise routes connecting Taiwan, Kinmen, Matsu, and Penghu. Taiwan thus became the first country globally to resume cruise operations during the pandemic, marking the initiation of domestic island-hopping cruise tourism

In recent years, "In-depth tourism" has emerged as a new tourism trend, and small, exploratory cruise ships have the capability to visit islands around the world. The trend of island-hopping cruises has gained popularity globally, as evidenced by data from the Cruise Lines International Association (CLIA), which shows that out of the 16 new cruise ships deployed in the international market in 2022, as many as 9 of them were exploratory cruise ships. This indicates that island-hopping cruises have become a new frontier in the global cruise market. Taiwan is the second-largest source market in the Asia-Pacific region. With its advantageous geographical location surrounded by the sea and numerous islands nearby, each with its own unique characteristics, natural landscapes, and culture, "island-hopping cruise tourism" has become the ideal way to explore and experience these places.

"Island hopping cruise" has now become an implementation policy of the Taiwan government authorities.The Maritime and Port Bureau (MOTC), which is a government agency in Taiwan, is actively promoting the development of maritime passenger routes. Their goal is to attract cruise ships from around the world to dock at Taiwan's outlying islands. Through optimising the facilities for outlying island cruises, implementing incentives for promoting island-hopping routes, and promoting new types of tourism, the government aims to encourage the development of maritime passenger transportation to Taiwan's outlying islands. Going one step further, Taiwan actively cooperated with the Philippines, South Korea and other East Asian island chain countries to form the "Asian Island Hopping Cruise Alliance" (AACA) (Maritime and Port Bureau , 2023).The objective is to increase the number of passengers travelling by sea to the outlying islands, specifically targeting high-end cruise passengers for island-hopping tours in Taiwan, attracting more visitors to experience the beauty of Taiwan, and driving the development of tourism and the economy in Taiwan's outlying islands.

Research Motivation

The rise of island-hopping cruise tourism after the epidemic has brought considerable

economic benefits and new tourism opportunities to Taiwan's outlying islands.To enhance the popularity of tourist destinations, many cities utilize official mascots as their image ambassador. This not only effectively captures the attention of local residents and tourists but also succeeds in driving business opportunities. However, examples of successful city tourism marketing through the use of IP are rare, with most mascots facing issues such as low visibility, insufficient recognition, and the inability to achieve sustainable operation. In addition, there is a lack of relevant literature on the standardized construction of mascots in past studies. This study aims to explore fundamentally, focusing on cities, and establish a model for the development of tourist destination mascots.

Research Goals

This study explores the needs and determinants of benefits in constructing city mascots. By understanding the participants, industries, economies, fans, and media involved in city mascots, it provides theoretical and practical significance. The survey results offer a blueprint for how to develop a destination as the best city or region for mascots. Therefore, the main objectives of this study are:

1. Explore the variables or factors determining the success of city mascots.
2. Analyze the relative importance and ranking of the development aspects and factors of city mascots.
3. Provide the optimal construction model for city mascots.

Literature Review

1. Island Hopping Cruise Tourism

Cruises have evolved beyond being merely a mode of transportation and have transformed into fully equipped facilities offering a comprehensive range of entertainment, accommodation, shopping, dining, and fitness services. They represent a 24 hours mobile seaside resort, providing a wide array of gourmet food and abundant entertainment facilities on the move (Davia, 2016). Cruise tourism, as defined by using ships as transportation, lodging accommodations, dining services, and various recreational facilities, has become a trendy form of travel (Lau and Yip, 2020). Cruise tourism involves activities such as sightseeing, cultural exploration, and other related tourism activities while on board. It has three main sources of revenue: cruise companies, cruise passengers, and the ship's crew. According to a report released by the Cruise Lines International Association (CLIA) in 2020, the economic impact of the cruise industry in 2019 amounted to 1.17 million job opportunities and $500 billion in wages and salaries, with a total economic impact of $1.5 trillion (CLIA, 2020). The report demonstrates that increasing the time spent at destinations can be translated into more job opportunities and income from tourism-related services. Cruise tourism serves as a significant economic catalyst for ports and port-related cities,

contributing to the overall economic development of the destination.

Island Hopping is a key travel mode between two islands (Baldacchino, 2016) and serves as a tourist method connecting various islands. This mode of travel is suitable for regions with densely distributed islands, allowing convenient exploration of each island. Compared to traditional large cruises, island-hopping itineraries are mostly operated by small cruise ships. Internationally recognized island-hopping cruise destinations include Greece, Croatia, and the Maldives. In Asia, rich resources for island tourism are found from Northeast Asia's Japan and Korea to Taiwan, Hong Kong, connecting to Southeast Asia's Philippines, Vietnam, and Indonesia. However, there is still a lack of complete exploration cruise routes, making it a virgin territory for island-hopping tourism. Therefore, it is predicted that Asia will have significant development opportunities in island-hopping cruises in the future.

Taiwan is strategically located at the intersection of Northeast Asia, Southeast Asia, and mainland China, making it an ideal location. Before the pandemic, the number of Taiwanese passengers taking cruises increased annually, and the cruise market, with Princess Cruises under the Carnival Group as the largest source market in Asia, achieved remarkable growth. In 2018, Taiwan ranked as the second-largest cruise market in Asia and the 11th globally (CLIA, 2020). In 2019, the total number of cruise passengers in Taiwan reached a historic peak of 1.05 million, showcasing the tremendous potential for cruise market development. However, due to the impact of the COVID-19 pandemic, Taiwan closed its ports to international cruise passengers for nearly three years starting from February 6, 2020. This led to major international cruise companies such as Princess Cruises, Star Cruises, Dream Cruises, and Genting Dream temporarily leaving the Taiwanese market.

In 2020, the first cruise to return to Taiwan, Explorer Dream's "Island-hopping Cruise," demonstrated the potential of domestic island-hopping tourism. According to statistics from the Taiwan International Ports Corporation, Ltd., from its resumption on July 26, 2020, until its suspension on May 12, 2021, the cruise completed 91 island-hopping and circumnavigation voyages, carrying about 96,000 passengers, with a procurement amount of approximately 140 million NTD and an estimated output value of about 5 billion NTD. The cruise industry brought astonishing peripheral benefits.

2. IP and Destination Brand

Intellectual Property (IP) originally refers to rights created by law concerning the use of human intelligence to produce something with economic value. In this context, the term "IP" is extended to refer to "culturally industry products available for multi-domain development." The extension of IP arises from the use of the concept of "licensing" in intellectual property, where obtaining licenses not only generates revenue but also sustains corporate value. This integration leads to the convergence of initially independent domains and media, forming a dense path for commercial realization (Chen, 2022).

In modern urban management, marketing concepts are gradually introduced, making it more commercialized and shaping regional images through brand construction. The construction of brand elements is primarily for providing consumers with information cues when making choices and helping establish brand associations. It is a necessary condition for

constructing brand assets (Keller, 1998). The construction of a tourism brand is a systematic and standardized operational process. After analyzing the history, culture, environment, etc., of the tourist destination, the core values of the destination are excavated for positioning. The image of brand identity is then refined through various aspects such as humanities and the environment, making it personalized and allowing tourists to intuitively understand and become interested in the brand.

In recent years, the concepts of marketing and branding have been widely applied in the tourism industry to develop a destination brand (Dahiya & Batra, 2017). Instead of promoting tourist attractions through traditional tourism industries, operators choose to highlight local characteristics to avoid being replaced by emerging destinations. Thus, "branding" becomes the basis for tourists selecting destinations (Gacia et al., 2012). Cai (2002) proposed the concept of destination branding, stating that branding is a process that combines a series of brand elements and services, forming in conjunction with imagery. This increases brand strength and the uniqueness of brand symbols. The framework of destination branding is based on a combination of brand elements, brand identity, and brand image building. It can be reflected in attributes, affective aspects, and attitudes. When these elements begin to trigger the desired brand associations and further use appropriate secondary link management, marketing communications created by marketing organizations, and marketing programs to build brand image, it reinforces destination brand identity.

3. Mascots

Mascots belong to the category of IP. Dolley (2003) found that mascots can inspire enthusiasm, evoke loyalty, and create unity and cohesion. Temperley & Tangen (2006) found that celebrity benefits from mascots lead to brand recall, brand trust, brand image, brand personality, brand identification, brand connection, purchase intent, and likability. Therefore, only good IP possesses high commercial value, as IP can leverage emotional triggers to form strong brand memories.

The mascot, as one of the most important elements of a destination (Wattanacharoensil et al., 2020), has long been considered useful tools for tourism development (Occhi, 2010；Yamamura, 2018).and praised for their effectiveness as a brand communication tool (Radomskaya & Pearce, 2021). Radomskaya and Pearce (2021) further point out that destination mascots serve five basic functions as tourism development tools: participatory strategy, connectivity tool, information carrier, cultural establishment, and identity marker. Therefore, many cities and attractions are beginning to enhance their overall tourism image by designing their own brand mascots. Through the design of mascot images, they aim to promote the development and publicity of local tourism culture.

Mascots are becoming increasingly intertwined with the tourism industry, conveying information about the represented tourist destination's culture, social aspects, and geographical diversity. They have become more proactive in educating the public and media. In addition to driving economic development, educating the public, enhancing city visibility and exposure, maintaining a positive city image, and promoting sustainable tourism, their growing popularity and influence enable them to take on new roles, such as public figures,

celebrities, pop culture idols, and even participating in policy advocacy and implementation processes. In this way, they not only enhance city marketing but also contribute to the development of the local IP industry, expanding onto the international stage.

Research Method

This research process is divided into three stages. To contrust the brand IP of Taiwan's outlying island destinations(Matsu, Kinmen, and Penghu), this study first utilized a literature review to acquire secondary data to support the research background. It was used to cover the assumed dimensions and factors of the city mascot development model and provided expert in-depth interviews as a basis for discussion. This process was used to summarize the dimensions and factors that a tourist destination needs to possess when developing a city mascot.

During this research, it was found that the construction of the destination brand for cruise tourism is also part of the urban tourism brand. Its relationship is similar to the sub-brands in corporate branding, and to establish a cruise tourism brand, it is necessary to integrate the major destination tourism brands to achieve consistency and recognition in domestic and international marketing and promotion, closely linking with destination tourism. Therefore, the model for constructing mascots for island-hopping cruise tourism destinations can also be considered as a model for developing city mascots.

Second stage, interviews were conducted with a total of 25 experts from various sectors, including industry, government, and academia, who possessed knowledge about the assumed dimensions and factors of this study. The transcripts of these in-depth interviews were organized, coded, and analyzed. The various dimensions and factors of the city mascot development model were extracted from the transcripts. Operational definitions were provided for each dimension and factor, and a questionnaire was designed using the Quantitative Analytical Hierarchy Process (AHP). The questionnaire was distributed to the same experts who participated in the in-depth interviews, facilitating the statistical assessment of the importance and ranking of each dimension and factor. The AHP hierarchical analysis questionnaire was utilized to obtain the relative importance and ranking of the dimensions and factors necessary for developing a city mascot in a tourist destination.

The Analytic Hierarchy Process (AHP) was pioneered by Saaty in 1971. Its purpose is to systematize complex problems by organizing them into a hierarchy, breaking down problems into layers and decomposing them. Similar attributes are grouped into the same dimension or level, and each level can be further subdivided into the next layer. Through quantitative methods, the AHP method is used to analyze and comprehensively evaluate these layers, providing decision-makers with appropriate solutions (Saaty, 1980). Through continuous application, modification, and validation, the theoretical framework of AHP became more complete after 1980 (Deng Zhenyuan, Zeng Guoxiong, 1989a, 1989b). AHP evaluation involves nominal scale execution of pairwise comparisons between factors. The results of these comparisons are filled into the main diagonal of a matrix, and after completing the positive and inverse value matrix, the largest eigenvalue is calculated to determine the relative importance of each factor, which represents its relative weight. This

research's second phase selected AHP as the method for screening and selecting the important dimensions and factors in constructing city mascots.

Finally, by organizing an expert panel discussion to integrate the opinions and recommendations of 7 experts, conclusions and suggestions regarding the city mascot development model were collectively discussed. This aims to assist destinations in efficiently establishing distinctive and attractive mascots, fostering the development of the most popular Intellectual Property (IP) economy, driving tourism development, and enhancing the willingness of domestic and international tourists to choose the destination as their tourist destination.

Comprehensive Evaluation Analysis

Comparing the aforementioned research methods, the research results include three parts: "Expert In-depth Interview Analysis Results," "AHP Hierarchy Analysis Results," and "Focus Group Discussion Analysis Results."

1. Expert In-depth Interview Analysis Results

This study uses semi-structured in-depth interviews. An interview outline and key points are drawn up before the interview. However, the method and order of questions are quite flexible, and the interviewer does not need to use specific words or semantics for the interview. The interview process is mainly based on the interviewee's answers. The purpose of using this method is to obtain first-hand information that is professional and in line with the latest trends during the interview process, and to collect relevant factors and aspects for the development of mascots through the professional knowledge and rich experience of experts.

Through the preliminary exploration of the research questions, core themes were identified, resulting in five dimensions of the city mascot development model: "A Construction," "B Marketing," "C Branding," "D Sustainability," and "E Participants," along with 21 assessment factors. In the "Construction" dimension, assessment factors include "A1 Tourist Destination Analysis," "A2 Mascot Development Positioning," "A3 Intrinsic and Extrinsic Mascot Design," "A4 Establishment of Usage Norms," and "A5 Budget Allocation." In the "Marketing" dimension, assessment factors include "B1 Promotion Channels," "B2 Trendiness," and "B3 Creativity." In the "Branding" dimension, assessment factors include "C1 Establishment of Identification System," "C2 Adhesion to the City," and "C3 Industrial Strength." In the "Sustainability" dimension, assessment factors include "D1 Personification," "D2 Innovation," "D3 Mass Communication," and "D4 Health Check." In the "Participants" dimension, assessment factors include "E1 Attitude of Stakeholders," "E2 Fan Support," "E3 Management Team Operation Attitude," "E4 Local Resident Identification," "E5 Puppeteer's Puppeteering Style and Technique," and "E6 Collaborating Partners."

2. AHP Hierarchical Analysis Results

According to the Analytic Hierarchy Process (AHP) questionnaire framework for the " City Mascot Development Model," pairwise comparisons were conducted for the dimensions and factors in the framework to obtain the relative weightings. A total of 25 questionnaires were distributed, and 25 were collected. After excluding one invalid questionnaire due to inconsistent or incomplete responses, 24 valid questionnaires were obtained.

This study utilized the AHP method, employing the geometric mean, to comprehensively consider the 24 expert questionnaires. After integrating all the questionnaires, the data were input into Microsoft Excel for analysis. Pairwise comparison matrices were constructed, and the Consistency Ratio (C.R.) was tested. If C.R. ≤ 0.1, it indicates the acceptance of the consistency check, demonstrating that the evaluation of the hierarchical structure is within an acceptable range.

Analyzing the main five dimensions of the Urban Mascot Development Model, namely "A Construction," "B Marketing," "C Branding," "D Sustainability," and "E Participants," the weightings were ranked with "B" at 0.334, followed by "C," "A," "D," and "E" in sequence. Overall, the results showed a C.I. value of 0.03 and a C.R. value of 0.03, both passing the consistency check (C.I. ≤ 0.1 and C.R. ≤ 0.1). Among the main dimensions, "B" had three evaluation factors, with "B3 Creativity" having the highest weight at 0.480.

3. Focus Group Discussion Analysis Results

In this section, based on the issues addressed in the focus group discussions, the content of the discussions was processed. Initially, the transcripts of the discussions were compiled to create a text. The researcher carefully read the text, identifying and organizing important statements made by the participating experts. The researcher also noted key information emerging from the paragraphs, marking and annotating important messages, or providing personal reflections on the text. These actions facilitated the later identification and organization of the overall text structure.

Once the researcher had a preliminary understanding of the overall meaning of the text, a detailed review began. At this stage, the coded sentences of the text were classified into two categories: "Suggestions for the Presentation of the City Mascot Development Model" and "Suggestions for the City Mascot Development Process." The central concepts of the semantic paragraphs were marked, summarizing the meaning of all discussions, responses, and shared content. After confirming the convergence of meaning, expert suggestions were organized based on the above classification, forming the research results of this section. According to these results, recommendations were presented for the modification of the assumptions of the City Mascot Development Model set before the discussion, leading to the generation of new models.

Research results

Summing up the research, the following urban mascot development model is proposed, as shown in Figure1, which can serve as a reference model for cities aiming to establish and develop tourism IP.

This study uses the important factors derived from the questionnaire results to present this cycle, incorporating "innovation," "mass communication," and "health diagnosis" into "branding" as part of a sustainable operational cycle. The lifecycle of urban mascots includes the creation phase, introduction phase, growth phase, maturity phase, and mechanisms corresponding to construction, marketing, branding, urban intellectual property (IP), and retirement.

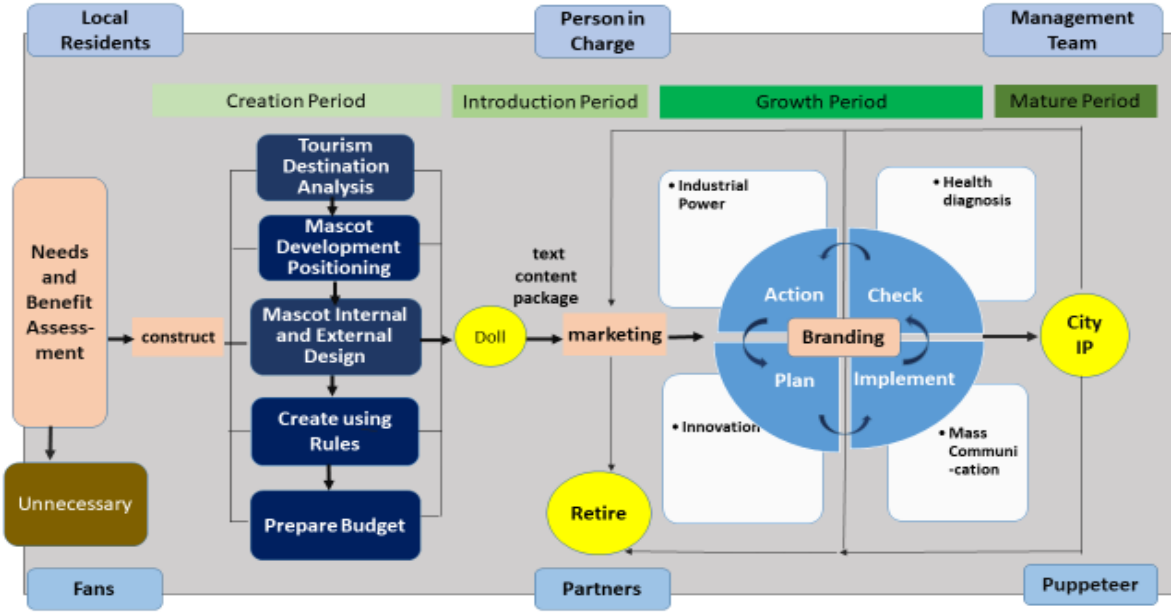

Fig. 1. City Mascot Development Model

The growth phase is presented in a Plan-Do-Check-Act (PDCA) cycle because, after introduction to the market, a cyclical growth process begins, termed "branding" in this study. Similar to the PDCA cycle in quality management, this process involves planning, executing based on the plan, which includes "mass communication," with each action forming tangible and intangible elements of interaction, communication, relationship building, and maintenance with the public and various sectors. Next, a check is conducted, reviewing effectiveness and devising solutions and adjustments to address issues. Taking action based on these improvements (Act) enhances "industrial strength." As the branding process typically evolves toward greater industrialization, it becomes a key factor in sustaining the mascot's life. The process may then enter this cycle repeatedly and undergo rolling adjustments to stay current. Through this cycle, mascot management is optimized.

Additionally, during the introduction, growth, and maturity phases, various factors may lead to the end of the mascot's lifecycle, directly entering the "retirement" mechanism.

Conclusion And Suggestion

The definition criteria for a successful tourist destination IP lie in whether it can endow

a tourist destination with unique vitality, bringing derivative value to it. The development of city mascots for tourist destinations should begin by assessing whether there is a need for a mascot in the city and evaluating the potential benefits it might bring. If there is no need, no further action is necessary. If there is a demand or related target benefits, detailed planning is essential, especially as quantifying these benefits is a crucial factor in constructing destination mascots.

The construction of IP for island cities should closely follow the characteristics and policies of the destination. The first step is to conduct resource inventory and analysis for island tourist destinations to fully understand the available local resources, and then focus on the market status, tourism resources and people (businessmen, residents, public departments, tourists, etc.) to conduct comprehensive data collection and analysis to find out its attractiveness with the connotation of "locality". The mascot appearance design should strengthen its difference and improve recognition, and the convenience and operability of future applications should be taken into consideration.

The development of cruise tourism on islands involves many roles. Participants must communicate in multiple directions, and good communication platforms and channels should be established to reach a multi-directional communication model and consensus.The enthusiasm of the management team, the attitude of those in charge, the support of stakeholders (such as representatives, congressmen, legislators), the love and stickiness of fans, the recognition of local residents and businesses, all affect an IP key factors in construction or development.

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Which is More Attractive, Cruises or Cruise Destinations?

Dan Wang[1], Hsi-Lin Liu[2], Ching-Cheng Shen[3]

Abstract

The cruise industry, as a significant part of the global tourism sector, stands as a crucial area for international growth, especially within the Asian region. Today, cruises are no longer merely seen as transportation; they are primarily driven by the value of leisure. This study aims to explore which factor, between the appeal of the cruise itself and the destination, predominantly influences passengers' decisions to embark on cruises. Employing PLS-SEM as the primary analytical tool, the study uses convenience sampling, collecting a total of 146 valid responses through an online questionnaire survey. The findings demonstrate that the attractiveness of the cruise exerts a greater influence on passengers' decision to embark on a cruise compared to the appeal of the destination. This indicates that the allure of the cruise itself significantly impacts passengers' behavioral intentions. The research contributes not only academically to the related subject matter but also provides practical recommendations for travel agencies or cruise companies in their direct sales strategies. This insight guides cruise operators and travel industry players on how to attract more tourists in their collaborative efforts and strengthens the appeal of cruises during promotional activities.

Keywords

Cruise Tourism Industry, Destination Attractiveness, Cruise Attractiveness, Behavioral Intention

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1. Introduction

The cruise industry can be traced back to the 1920s, and the role of cruises has shifted from being a mode of transportation to a leisure activity centered around a "holiday experience." Starting in the 1960s, fixed routes have been replaced by pre-arranged itineraries that stop at various ports, with onboard time being occupied by a mix of dining and entertainment. The ports of call allow passengers to explore, engage in shore excursions, and sightsee [1]. Before the 1980s, ocean liners were not primarily seen as a leisure vacation option but were major long-distance transportation vessels. People used them to travel between countries or even continents, crossing from one nation to another. However, after that period, the cruise industry completely transformed from being a mode of transportation to becoming a comprehensive travel destination offering luxury and entertainment for tourists [2].

While the value of cruises as a mode of transportation remains significant, the predominant aspect of the cruise experience today is its leisure and entertainment value. Cruise itineraries are comprised of three main components: cruise ports, cruise routes, and cruise destinations [3]. Cruise tourism necessitates a supply-driven approach, such as expanding vessel sizes and employing targeted, proactive, and multifaceted methods to generate service conditions. Innovative aspects related to itineraries, destinations, facilities, services, and available ranges of shore excursions are attractive sources that meet the demands of passengers [4]. The cruise service setting encompasses internal services, entertainment, and the social environment onboard the ship, as well as the external natural environment (the sea and onshore locations), creating a comprehensive experiential environment [5]. This multi-day, multifunctional, comprehensive, and continuous experiential service contributes to the uniqueness of the cruise service setting [6].

The attractiveness of destinations is crucial in the tourism industry because people have travel visions based on motivational drivers, yet a pull effect is needed to bring them to any specific destination [7]. In recent years, an increasing number of cruise passengers have chosen the Asian region as their destination for cruise travel. This area offers exotic Eastern cultures, rich tourism resources, and a warm climate, serving as attractive resources [8]. Abbasi, Kumaravelu, Goh and Dara Singh [9] pointed out tourism attractiveness serves as an indicator to measure the capacity to attract visitors, and it may vary due to destination attributes. In essence, the more attractive a destination is, the more likely it is to be selected as a travel destination [10]. Current research places greater emphasis on motivational factors, often overlooking the pull factors (as destination attractiveness), yet this attractiveness plays a crucial role in ensuring visitor satisfaction with the destination [11, 12]. Furthermore, destination attractiveness may influence the intention to revisit [13, 14] and destination loyalty [15, 16].

Some travelers regard the port of call as their primary destination rather than the cruise itself [6]. However, in terms of the cruise destination attributes (pull factors), the cruise itself offers unique pull factor attributes, therefore, the cruise itself can be seen as a

destination [17]. Although cruises maintain monopolistic control during voyages, upon reaching the port of call, cruise passengers also contribute to the port's tourism income [18]. In other words, to analyze the true perceptions of cruise passengers towards destinations comprehensively and effectively, it's necessary to consider both the cruise destination and the port of call as shared destinations.

Reitsamer and Brunner-Sperdin [19] suggested that attractiveness is a subjective factor, depending on a visitor's perception of destination attributes. However, many tourists might have impressions or imaginations about both the cruise and the destination, yet it might not objectively clarify which attractiveness attributes significantly influence their behavior. Therefore, understanding which attractiveness factors impact a traveler's willingness to embark on a cruise is the primary motivation behind this study.

Behavioral intention is an important concept in tourism research as it reflects the likelihood of tourists engaging in certain behaviors, such as revisiting a destination, recommending it to others, or participating in specific activities while at the destination [20, 21]. Therefore, understanding the factors that influence tourists' behavioral intentions is crucial for developing effective tourism strategies [22]. In international marketing and tourism literature, various theoretical frameworks have been studied to analyze the relationship between destination image, satisfaction, and behavioral intentions [21, 23, 24]. However, they haven't directly explored tourist behavioral intentions from the perspective of destination attractiveness. Additionally, research related to cruise destination attractiveness is already scarce, and there is almost no research from this angle to understand its impact on tourist behavioral intentions.

Based on the analysis above, this study categorizes destination attractiveness into two types: cruise attractiveness and port attractiveness. For these two forms of attractiveness, the research organizes, analyzes, and evaluates their respective indicators. By independently discussing these two distinct attributes of attractiveness, it can assist individuals in better understanding attractiveness. This approach helps in identifying which specific attractiveness attribute influences their purchasing behavior effectively and generates a meaningful behavioral impact [25]. This research not only provides academic reference value on related topics but also offers practical suggestions for travel agencies or cruise companies in their future direct sales. It holds instructive significance for cruise companies and travel agencies in understanding how to attract more tourists in their collaboration and how cruise companies can strengthen their attractiveness in promotional efforts.

2. Literature review

2.1 Destination attractiveness

According to Hu and Ritchie [26], "the attractiveness of a tourist destination reflects an individual's perceptions, beliefs, and opinions about how well the destination satisfies their vacation needs," and this attractiveness can be comprised of tangible resources or visitors' perceived expectations [27]. Destination attractiveness is crucial because the "pull factors" influence tourists to choose one destination over another [28]. Attractions and activities can enhance the uniqueness of a destination's product attractiveness, becoming a key driver in choosing one destination over another [29]. Furthermore, the natural form and landscape of a destination constitute the most fundamental elements that attract tourists to a particular location [30, 31].

In today's global tourism market, destinations are no longer solely perceived as places with unique natural, cultural, or environmental resources; they are seen as a product with overall appeal within a specific region [32]. For instance, research by Ćulić, Vujičić, Kalinić, Dunjić, Stankov, Kovačić, Vasiljević and Anđelković [33] found that tourists are attracted to factors such as developed infrastructure, good transportation connectivity, tourism signage, accommodations and dining options, overall service quality, safety measures, and a friendly local community. These factors represent the tangible facilities of emerging destinations, and these convenient amenities and friendly services are crucial elements that attract tourists [34]. Additionally, regions with significant historical and cultural determinants utilize these features to cater to tourists' demands for everyday life, architecture, or traditional elements [35]. Besides the prerequisites of natural and historical heritage, other economic factors are also considered drivers of destination attractiveness. For instance, Chen, Htaik, Hiele and Chen [36] argued that modernized telecommunication technology is deemed essential for attracting repeat visitors to a destination.

2.2 Cruise attractiveness

The definition of cruise attractiveness is analogous to destination attractiveness, signifying that cruise attractiveness reflects an individual's perceptions, beliefs, and opinions regarding the fulfillment of their needs during a cruise journey. This attraction can encompass tangible material resources or the expectations and perceptions of the tourists. Additionally, it's essential not to overlook that the destinations visited by the cruise and the ports of call are significant attractions for Chinese cruise passengers. They seek to experience the local customs and culture ashore, hence this study's definition of cruise destinations includes facilities onboard the cruise ship, the itinerary routes, and the ports of call.

The research on factors influencing cruise attractiveness remains relatively limited. Kwortnik [5] and Lewin [37] have noted that the design, layout, facilities within the internal spaces of a cruise ship, along with the service scenes, significantly impact passengers' perceptions and participation in the cruise experience. Additionally, the onboard staff is considered part of the cruise service scene, and their outward influence is also seen as a component of cruise attractiveness [38]. Chang, Wang and Chen [39] discovered in their study on the preference of Taiwanese passengers regarding cruise choices that a combination of

Michelin-starred restaurants, ocean-view rooms, international entertainment events, leisure activities, and refund mechanisms contributes to the attractiveness of cruise travel for passengers. Shim, Kang, Kim and Hyun [40] found that in the context of the luxury cruise market, emotional branding and distinctive branding significantly impact the attractiveness of choosing a cruise. Sun, Kwortnik, Xu, Lau and Ni [41] also observed that the attractiveness of onshore excursions during cruise destinations is influenced by differentiation factors, such as product categorization, resource allocation differences, and regional differences.

Additionally, it's worth noting that the accessibility of a destination (the relative ease or difficulty for tourists to reach it) has long been considered a primary driver of tourism attractiveness [10]. However, accessibility is an overall issue encompassing convenience facilities like the quality of accommodations and restaurants, as well as infrastructure such as transportation systems. This includes travel costs and the time required to reach the destination [10, 30]. In the case of cruise travel, this becomes even more pronounced. Not every province or city has a port, and coupled with the extended duration and higher costs of cruise trips, the accessibility and ease of cruising also become another driving factor in cruise attractiveness.

2.3 Research hypotheses

The attractiveness of a destination encourages people to visit a place and spend time there; therefore, attractiveness significantly influences tourists' destination choices, experiences, and anticipated behaviors [42]. Yacob, Johannes and Qomariyah [43] study in 2019 validated from tourists' subjective perceptions that the destination attractiveness has a positive impact on their intentions for travel behavior. The better a destination meets the needs of tourists, the more attractive it is perceived to be, ultimately increasing the likelihood of it being chosen as their destination. The influence of destination attractiveness extends beyond the destination selection phase; it also affects the overall behavior of tourists. In other words, destination attractiveness is the most significant predictor of revisit intentions [44]. Mursid and Anoraga [45] confirmed the impact of destination attractiveness on intentions through functional value and emotional value. Based on this, our study proposes the following two hypotheses, respectively from the perspectives of destination attractiveness and cruise attractiveness:

H1: Destination attractiveness has a significant positive impact on tourists' intention to purchase cruise travel products.

H2: Cruise attractiveness has a significant positive impact on tourists' intention to purchase cruise travel products.

3. Research methods

This research employed "WenJuanXing" to create an online questionnaire and distributed the survey link through various social media platforms in mainland China, such as Xiaohongshu, Douyin, Weibo, WeChat Moments, and Kuaishou, to locate participants for the study. The scope of participants was defined as Chinese citizens aged 20 and above who had not previously traveled by cruise. To prevent the submission of invalid responses, initial preventive measures were incorporated into the questionnaire link design, including mandatory response fields, restricting each account to one response, and requesting names matching the account name within "WenJuanXing." Convenient sampling was utilized, conducting the online survey from August 8th to August 14th, 2023. A total of 180 questionnaires were distributed, resulting in 146 valid responses after removing invalid submissions (the effective response rate of 81.11%).

The main purpose of this study is to explore the effects of destination attractiveness and cruise attractiveness on behavioral intent. The Partial Least Squares Structural Equation Modeling (PLS-SEM) is used as a method for constructing predictive analyses, utilizing multiple regressions and structural equation modeling. PLS-SEM, based on principal component structures, examines and explains the predictive and explanatory relationships between components using regression principles. It's known as a principal components-based structural equation model and serves as an analytical method for exploring or constructing predictive models, especially for causal models between latent variables [46]. Therefore, this study employs PLS-SEM as the primary empirical analysis tool.

4. Statistical Results

4.1 Demographic Variables

The demographic characteristics of 146 respondents show that there were more female participants (67.1%) than males (32.9%). The majority fall within the age range of 20–30 (71.9%), followed by 31–40 (12.3%). Furthermore, there were more unmarried participants (65.8%) than married ones (32.2%). A significant proportion (76.7%) hold a university degree, while the remainder (13.0%) completed master degree. The average monthly income of the participants is less than 3,000 RMB for 32.2% of respondents, followed by incomes 3,001-6,000RMB for 26.7%. The largest occupation is students, accounting for 33.6%, followed by the Industry and Commerce sector (15.8%). In terms of their place of residence, the majority live in the East China region (37.7%), followed by those residing in the North China region (17.8%).

4.2 Results of the measurement model

Destination Attractiveness (DA) initially consisted of 11 items. After removing one item (Item10) with a factor loading below 0.5, 10 items were retained, with factor loadings ranging from 0.542 to 0.693 for this construct. In Cruise Attractiveness (CA), there were initially 10 items. After removing two items (Item6 and Item9) with a factor loading below

0.5, 8 items were retained, with factor loadings ranging from 0.571 to 0.773 for this construct. All items within the Behavioral Intention (INT) construct ranged between 0.828 to 0.888, with no items removed due to factor loadings below 0.5. Post-deletion, all items exhibited significance (P Values=0.000), with t-Values exceeding 5.612 (t-Value greater than 1.96). The Cronbach's α for all three constructs was greater than 0.7, indicating high reliability.

Variance Inflation Factor (VIF) of the observing variables is a fundamental indicator to assess collinearity among independent variables in a multiple linear regression model. Lower VIF values are preferred, and if VIF values exceed 5, it suggests potential multicollinearity issues, recommending the removal of related variables [47]. As shown in Table 1, the VIF in this study ranges from 1.245 to 2.827, all below 5, indicating the absence of collinearity issues.

Table 1. Results of the measurement model

Code	Items	Factor Loadings	VIF	t-Value	Standard Deviation (STDEV)	P Values	Cronbach's α
Destination Attractiveness (DA)	DA1	0.583	1.509	7.276	0.080	0.000	0.889
	DA2	0.542	1.481	5.612	0.079	0.000	
	DA3	0.589	1.549	7.252	0.097	0.000	
	DA4	0.615	1.562	7.440	0.081	0.000	
	DA5	0.693	1.422	11.929	0.083	0.000	
	DA6	0.645	1.525	8.440	0.058	0.000	
	DA7	0.588	1.610	5.992	0.076	0.000	
	DA8	0.736	1.826	10.279	0.098	0.000	
	DA9	0.590	1.371	7.515	0.072	0.000	
	DA11	0.577	1.310	6.992	0.083	0.000	
Cruise Attractiveness (CA)	CA1	0.591	1.443	7.179	0.082	0.000	0.804
	CA2	0.571	1.374	6.219	0.092	0.000	
	CA3	0.733	1.887	9.150	0.080	0.000	
	CA4	0.665	1.563	9.934	0.067	0.000	
	CA5	0.656	1.588	8.820	0.074	0.000	
	CA7	0.643	1.346	10.937	0.059	0.000	
	CA8	0.653	1.492	9.417	0.069	0.000	
	CA10	0.632	1.254	9.543	0.066	0.000	
Behavioral Intention (INT)	INT1	0.828	2.186	20.730	0.040	0.000	0.829
	INT2	0.887	2.495	45.631	0.019	0.000	
	INT3	0.888	2.827	38.846	0.023	0.000	
	INT4	0.858	2.194	28.422	0.030	0.000	

4.3. Structural Model

4.3.1 Path analysis

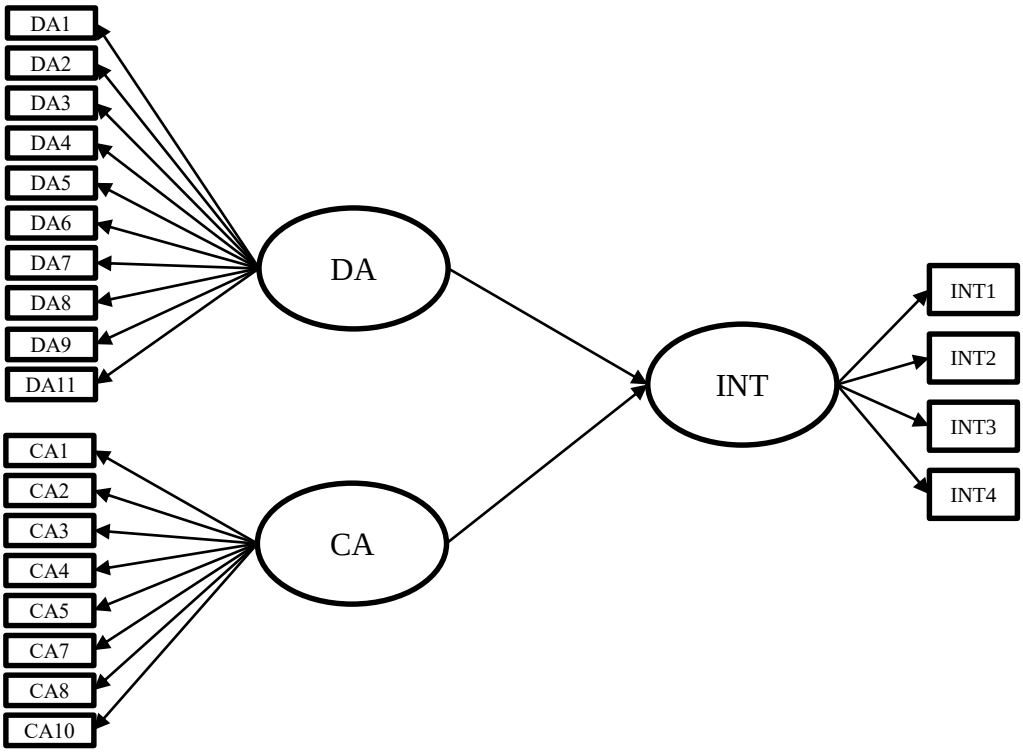

Figure 1. Path coefficients of the structural mode

The path leading to the dependent variable INT comprises two components: DA on INT and CA on INT, as shown in Table 2. In the path analysis from DA to INT, the impact is 0.231. For the path analysis from CA to INT, the impact is 0.261. The p-values for these two paths are 0.026 and 0.013, respectively, both less than 0.05. The t-values are 2.230 and 2.501, respectively, both exceeding 1.96. This indicates that both H1 and H2 of this study are supported, and the impact of cruise attractiveness on the behavioral intention of tourists is greater than the impact of destination attractiveness on their behavioral intention.

Table 2. Path coefficient

Path	Coefficient	Standard deviation	*t*-value	*p*-value	Result
DA -> INT	0.231	0.103	2.230	0.026	accept
CA -> INT	0.262	0.105	2.501	0.013	accept

4.3.2 Model assessment

Cohen [48] proposed that effect size (f 2) represents the influence of an exogenous variable on an endogenous variable. Values of f 2 at 0.02, 0.15, and 0.35 respectively indicate small, medium, and large predictive relationships. This study assessed the effect sizes for two sets of variables. As shown in Table 3, both DA and CA exhibit a moderate effect on INT, with effect sizes of 0.033 and 0.042, respectively. Additionally, this study's SRMR is 0.088, meeting the criteria for model fit [49].

Table 3. Effect size

Construct	INT	effect size
DA	0.033	medium
CA	0.044	medium

5. Discussion and Implications

5.1 Discussions

Through data analysis, both H1 and H2 of this study are confirmed. The impact of cruise attractiveness on tourists' behavioral intention is greater than that of destination attractiveness. Thus, cruise attractiveness emerges as the primary factor influencing tourists' willingness to take a cruise. Within the realm of destination attractiveness, the top four influential factors are: the economic prosperity of the cruise destination attracts me (DA8), the infrastructure (such as transportation, medical facilities, service facilities, etc.) of the cruise destination attracts me (DA5), the service of the cruise destination attracts me (DA6), the climatic conditions at the cruise destinations attract me (DA4). The top three influential factors within cruise attractiveness are: the luxurious decor and amenities within the cruise (CA3), the high-quality services offered onboard (CA4), and the exotic cultural facilities on the cruise (featuring diverse nationalities, food, entertainment, services, etc.) (CA5).

5.2 Implications

5.2.1 Theoretical Implications

In China, the cruise industry is seen as one of the fastest-growing source markets. Understanding the factors that attract Chinese passengers is crucial to drive the development of the cruise industry in China. Only by comprehending these elements can suitable products be designed for the market and strategies formulated to attract consumers. Currently, there is relatively limited formal academic research published on cruise-related

topics, especially on the development of cruise tourism. Therefore, the literature presented in this study contributes significantly to the academic field on this topic.

Many tourists may have certain impressions or imaginations about cruises and destinations. In reality, the ports of call, final destinations, and the cruise itself can all serve as a type of destination. However, it is not straightforward or rational to clarify which attractiveness attribute is the primary factor. This study organizes, analyzes, and evaluates various indicators or elements within its content to establish a more comprehensive analysis and examination of these attractions. This contribution is reflected not only in redefining, clarifying, and organizing the distinctions between these attractions but also in providing researchers with a basis for judgment and professional references in this subject literature for future studies.

5.2.2 Practical Implications

Based on the analysis results of this study, it was found that the attractiveness of cruises to tourists is greater than that of destinations. However, despite this, the attractiveness of destinations still has a significant impact on tourists' intention to take a cruise. Therefore, this study provides practical recommendations for both aspects.

In terms of cruise attractiveness, it is recommended that marketing strategies should be based on diverse cruise service experiences, emphasizing distinct service experiences from other forms of travel. Additionally, marketers play a crucial role in guiding consumers' perceptions of cruise travel. This includes highlighting the differences and advantages of cruise travel over other forms, promoting the concept that the cruise itself is a destination. Finally, enhancing the allure of experiencing diverse cultures during a cruise trip can increase tourists' willingness to embark on a cruise.

In terms of destination attractiveness, it's no longer a singular indicator but a comprehensive measure to entice travelers. The attractiveness indices of cruise ports or final destinations also display diversity. Based on the research data, this study recommends that cruise companies or travel agencies emphasize the unique, exclusive (differentiated), and appealing aspects specific to the port of call or homeport destination in itinerary design or arrangements. For instance, focus on well-developed entertainment facilities, theme-based tourism, shopping hubs (luxury or economic development), culinary attractions, historical and cultural landmarks, and exclusive experiences. Notably, the analysis from this study suggests that economically prosperous destinations (cruise ports) and climates have a higher appeal for attracting passengers, suggesting the promotion of these highlighted unique elements in future marketing efforts.

6. Limitation and Future Research

The main objective of this study is to explore the impact of cruise attractiveness and destination attractiveness on tourists' intention to take cruises. Although the research has

extensively investigated this objective, different research directions could yield additional profound conclusions or valuable industry insights. Therefore, it is suggested that future research could explore the following directions: 1. Investigate whether different demographic variables (such as age, gender, occupation, etc.) have differential effects or act as moderating factors on the research outcomes. 2. Select specific themed cruises, such as adventure, slow travel, anime, female-oriented, family-oriented, solo, or culinary cruises, to delve deeper into a particular thematic cruise. This approach can provide more specific and customized recommendations for cruise marketing strategies.

7. Conclusions

This study subdivides destination attractiveness into cruise attractiveness and port attractiveness. By organizing, analyzing, and evaluating the various indicators of these two types of destination attractiveness, we believe that this differentiated discussion of attraction attributes will help customers more effectively understand and discern which specific attractiveness attribute drives their purchasing behavior.

This study's theoretical contribution lies primarily in confirming the significant impact of cruise attractiveness on the intention to board a cruise, thus enriching related literature. Additionally, it offers a certain academic contribution to the thematic content of cruise and destination tourism development. Regarding practical contributions, it provides marketing recommendations for cruise brands and travel agencies collaborating on cruise attractiveness and destination attractiveness. These suggestions can serve as references for cruise companies in their future direct sales efforts.

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Concerns from Port Area Residents about the Resumption of International Cruises and Attempts to Build a Port Policy Model after COVID-19

Mitsuo Kubo[1]

Abstract

In November 2022, three years after the spread of the COVID-19 infection, the Japanese Government announced its decision to resume accepting international cruise ships in March of the following year. This decision brought about a mix of hope for the resumption of economic activities and fear of a re-spread of the infection. The memory of the shipboard infection that gained global attention was still fresh in the minds of the citizens. Consequently, it was crucial for cruise ship operators and port administrators to address and alleviate this ambiguous anxiety in order to ensure a safe and secure resumption of cruises.

Against this backdrop, this paper aims to analyze the changes in residents' willingness to embark on international cruises and their concerns about port calls. A web-based survey was conducted in November 2022, immediately after the government's announcement of reopening the ports, with participants from across the country.

Regarding the changes in citizens' willingness to embark on international cruises, the study identified seven inhibitory factors through factor analysis, which classified participants based on age, gender, experience of embarkation, income, and other features. Additionally, a new measurement scale specifically designed for Japanese citizens was developed during the survey, based on earlier studies on the Leisure Constraints hypothesis.

In terms of citizens' concerns about receiving visitors at the ports of call, the study found that two anxiety factors and two expectation factors were intertwined, leading to a vague sense of concern. This was determined through factor analysis, which categorized subjects into similar groups and utilized a unique measurement scale for this survey. Furthermore, by comparing the anxiety factors affecting citizens living near ports such as Yokohama, Kobe, Hakata, Sakai, and Kanazawa, regional differences in the level of concerns were also identified.

This paper aims to provide a conceptual model for port policy for the resumption of cruises, as well as a policy model for future infectious disease outbreaks.

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1. Research Context and Methodology

1.1 Previous Studies

In studies conducted in Japan and the United States, researchers investigated consumer attitudes towards cruise travel after the COVID-19 pandemic. In Japan, Futaba et al. (2021) [1] used a web questionnaire to survey impressions of cruises during the novel coronavirus infection epidemic and attitudes towards the resumption of future cruises. Morisaki et al. [2] (2022), examined the likelihood of using cruise travel and factors that influence the intention to use cruise travel. taking into account personal attributes and impressions of cruise travel.

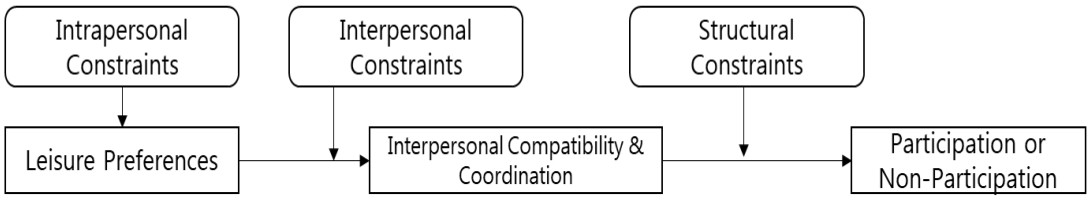
In the United States, Hung et al. (2010) [3] used the pre-pandemic 2010 Leisure Constraints theory to derive questionnaire items (measurement scales) to investigate intrinsic or extrinsic constraints that prevent cruise participation, and Pan et al. (2021) [4] conducted a questionnaire survey combining Leisure constraints theory [5] and Prospect theory among cruise inexperienced and repeat cruisers to identify consumer perceptions of cruising in the pandemic, and recommended market recovery strategies for the cruise business.

Leisure Constraints theory and other leisure research [6] finds three main factors that interfere with participation in leisure activities that are supposed to be enjoyable. The first is "Intrapersonal Constraints," meaning psychological conditions that arise within the individual, such as personality factors, attitudes, or more transient psychological states such as mood. The second is “Interpersonal Constrains”, which arise from interactions with other companies, such as family, friends, colleagues, and neighbors. The third is "Structural Constraints," which include phenomena such as lack of opportunities or lack of money for activities that arise from external factors in the person's environment. [7]

It then states that people consider these three types of constraints as a continuous and sequential process (hierarchical constraint model), and that intra-individual constraints affect leisure preferences, while structural constraints affect the decision to participate or not after a preference decision. Finally, Crawford, Jackson & Godbey states that participation or non-participation is determined by whether these constrains can be overcome by constraining adjustments that reduce them (Crawford, Jackson & Godbey,1991).

Thus, Leisure Constraints theory is not only a method for social psychological analysis of the factors that contribute to leisure non-participation, but also a pathway for clarifying what kind of constraining adjustments lead to participation. [8]

Leisure Constraints Hierarchical Model (Crawford et al., 1991).



The Prospect Theory proposed by Kahneman and Tversky (1979) synthesizes previous findings in behavioral decision theory and Nonlinear Utility Theory (or Generalized Expected Utility), initially proposed as a descriptive theory to handle decision-making under risk (Kahneman & Tversky, 1979), but it was later developed into a theory that can also explain decision-making under uncertainty (Tversky & Kahneman, 1992). [9]

While previous research has primarily focused on exploring the willingness to embark on cruises and devising strategies for market recovery, there is a notable dearth of studies examining individuals' attitudes towards receiving visitors at ports of call.

This paper aims to address this research gap by investigating individuals' intentions to embark on cruises, as well as their concerns and expectations regarding the acceptance of cruise ships at ports of call. Furthermore, this study seeks to analyze the response of shipping companies and government policies in order to develop a comprehensive model of countermeasures against various infectious diseases.

In conducting the survey, based on previous studies in social psychology, the questions were specifically designed with the unique cultural context and preferences of Japanese individuals in mind. Furthermore, the reliability of the questionnaire items is also verified.

1.2 Survey Summary

This survey was collaboratively undertaken by Kanazawa University, Ishikawa Prefecture, Kanazawa City, and Kanazawa Port Promotion Association. It was conducted in compliance with the Ishikawa Prefectural Act on the Protection of Personal Information, and the details were duly communicated to the participants.

For the purposes of this study, a web-based questionnaire survey was administered to a nationwide sample of 1,600 individuals between the ages of 20 and 79. The sampling procedure involved the selection of 600 participants, with 120 residing in close proximity to each of five designated ports: Kanazawa (Kanazawa City), Yokohama (Yokohama City), Kobe (Kobe City), Sakaiminato (Sakaiminato City, Yonago City, Matsue City, Yasugi City), and Hakata (Fukuoka City). These ports were chosen as representatives of both major and regional ports in Japan where frequent visits by cruise

ships are commonplace. In order to mitigate potential biases, each port's population was stratified into six age groups spanning from individuals in their 20s to those in their 70s, and efforts were made to ensure an equal gender representation at a 1:1 ratio.

The survey was conducted over a period from Wednesday, November 16, 2022 to Friday, November 18, 2022. The timing of the survey was strategically planned to coincide with the substantial relaxation of the government's COVID-19 border control measures on October 11, 2022. This relaxation included the removal of the cap on visitor numbers, the lifting of the ban on individual foreign tourist entry, and the government's subsequent announcement on November 15th that international cruise operations would resume. These developments received extensive coverage in the media, garnering widespread public attention, thereby fostering a highly conducive environment for the expression of attitudes towards cruises and foreign tourism. Consequently, the survey was carried out at a time when it was easier for attitudes toward cruises and foreign tourists to be openly expressed. This presented a valuable opportunity to expand the scope of the attitude survey and observe emerging trends.

1.3 Methodology and Measurement Scales

1.3.1 Composition of Survey Items

The survey items comprised 7 items indicating the characteristics of the respondents (gender, age, place of residence, occupation, family structure, etc.) and 25 items related to their experience, intention and awareness of international travel and cruise trips, as well as their household income and assets (Table 1).

In addition to this, two specific measurement scales were posed: Q14, to assess potential concerns or obstacles to cruise embarkation, and Q23 to assess how the respondents perceive about international cruise ships calling at Japanese ports.

Table 1: Survey Items
SC1. Please indicate your gender. SC2. Please indicate your age. (Please use single-byte numbers) SC3. Please indicate the province in which you live. SC4. Please indicate your postal code. SC5. Please indicate your occupation. SC6. Please select the most applicable information about your marital status. SC7. Do you have children? Please answer for each of the following: 'Children living with me' and 'Children living separately or independently'.
Q1. How often have you travelled overnight in the past? Please answer before and after the impact of new coronavirus infection (COVID-19). Q2. Do you plan to travel 'abroad' or would like to travel abroad in the next 12 months?

Q3. Do you think 'travelling abroad' is more dangerous than everyday life in terms of new-type coronas?
Q4. Compared to before the impact of the new type of coronavirus infection, has your attitude towards 'travelling abroad' changed?
Q5. Please read the following description of cruise ships carefully. To what extent did you know about cruise ships?
Q6. Please select all cruise companies (ships) that you know about/ have travelled on a cruise.
Q7. Please select any cruise ship ports of call in Japan that you are aware of. (as many as you like)
Q8. When was the last time you went on a 'cruise trip'?
Q9. Have you ever considered taking a 'cruise trip'?
Q10. To what extent are you 'interested' in 'cruise travel'? And to what extent would you like to go on a cruise holiday?
Q11. Do you plan to go on a 'cruise holiday' or would you like to go on a 'cruise holiday' in the next 12 months?
Q12. Do you think cruise travel is more dangerous than everyday life in terms of new-type coronas?
Q13. Compared to before the impact of the new coronavirus infection (COVID-19), have your attitudes towards 'cruise travel' changed?
Q14. Below is a list of items that may cause anxiety about 'cruise travel' or prevent you from embarking on a 'cruise trip'. For each of these, please indicate your feelings.
Q15. What sources of information lead you to choose a 'cruise trip'? (any number of answers)
Q16. If you were going on a 'cruise trip', what would be important to you?
Q17. If you were to tell someone else about the attractions of 'cruise travel', what would you recommend?
Q18. If you were to take a 'cruise trip', who would you prefer to take it with? *Please choose only one that best describes your feelings.
Q19. If a briefing on the attractions of cruises, basic knowledge of travel and travel products were to be held in the future, would you be interested in attending?
Q20. Are you aware that there are special value product packages that combine transport to the port (plane, train, etc.) with a cruise?
Q21. If you were to take a 'cruise trip', from which of the following ports would you like to embark? If you also want to do domestic sightseeing, which ports (sightseeing spots) would you like to call at? *Please assume that you can enjoy sightseeing at the port of embarkation.
Q22. If you were to take a 'cruise trip', which areas would you like to cruise? (Any number of answers)
Q23. How do you feel about foreign cruise ships calling at ports in Japan?

Q24. Please indicate your household income. If you are retired, please indicate your highest (household) annual income when you were working.
Q25. What is the total amount of financial assets that you and your household currently have? Financial assets are the sum of savings, securities (stocks/bonds/mutual funds) and insurance. Do not take into account mortgages or other borrowing.

1.3.2 Measurement Scale for Anxiety Factors related to Embarking on a Cruise

Regarding item Q14, in order to identify the potential anxiety experienced by respondents regarding cruise travel, and obstacles to embark on a cruise, we conducted a comparative analysis of the measurement scale utilized in prior research studies by Hung et al. (2010, 2020) and Pan et al. (2021) and a tailored measurement scale was developed specifically for the Japanese population, encompassing 36 new items. The response format for each item involved a 5-point Likert scale. These items and their respective details are presented in Table 2.

Table 2: Measurement Scale for Anxiety Factors Associated with Cruise Embarkation
Q14. Below is a list of items that may cause anxiety about "cruise travel" or prevent you from boarding a cruise ship. For each of these, please indicate your feelings.
1. I don't know what exactly cruise travel is like.
2. Not interested in cruise travel
3. Cruise travel does not fit my lifestyle.
4. Little information on cruise travel products
5. I don't know what to expect from a cruise vacation.
6. I don't know where to sign up for a cruise vacation.
7. A cruise travel seems to be inaccessible/unreachable
8. Worried about dress code
9. Seems like a lot of procedural hassle.
10. It seems expensive
11. Cruise trips are not worth the money.
12. The trip seems too long
13. Lack of time
14. There are no ports of call (tourist attractions) that I wish to visit
15. The ports of call (tourist attractions) that I wish to visit are not covered.
16. Short docking time at ports of call (tourist attractions) / Inability to stay in tourist attractions for long periods of time
17. I want to get to tourist attractions quicker (e.g., flying is faster).
18. Poor access to the port
19. Other domestic and international travel has higher priority.
20. Fear of water and the sea in the first place.

21. Concerned about the safety of ship operations
22. Cannot find a companion (friend or partner)
23. It is bothersome to be involved with other passengers and crew members on the cruise ship.
24. Worried about seasickness
25. Concern about your or your companion's physical condition (e.g., chronic illness)
26. Language concerns.
27. few Japanese people seem to be living in the area
28. I am not particularly fond of the food.
29. Facilities and services on board the cruise ship are not attractive.
30. Concerned about COVID-19 infection on board.
31. Inadequate COVID-19 infection control measures in shipping companies
32. I don't trust shipping companies regarding COVID-19
33. Inadequate COVID-19 measures at the port
34. I do not trust the port (municipality) with respect to COVID-19
35. I do not want to embark until the COVID-19 infection situation is better than it is now.
36. Do not want to embark until there is an adequate explanation of the shipping company's COVID-19 infection control measures

A post-questionnaire exploratory factor analysis utilizing the main factor method was performed on the survey data to validate its consistency with respect to the 36 items in Q14. The pattern matrix, generated through varimax rotation and employing a factor loading criterion of 0.40 or higher, yielded the final identification of seven latent factors (F1-F7). The analysis employed Bell Curve for Excel (version 4.03). The obtained factor loadings are presented in Table 3.

The findings from the analysis support the classification of the 36 items into seven distinct factors. These factors encompass intrapersonal constructs (interest), intrapersonal constructs (anxiety), interpersonal constructs, structural constructs (external factors), structural constructs (cognition), structural constructs (itinerary), and structural constructs (infection). The survey's outcomes affirm the consistent assignment of the seven factors into seven distinct categories. This serves as the original measurement scale employed in this study.

Table 3 - Q14 Measurement Scale to assess Anxiety Factors related to Cruise Embarkation (N=1600)

Q14 Measurement Scale (Survey Items)	F1	F2	F3	F4	F5	F6	F7
Intrapersonal constructs (Interest)							
2. Not interested in cruise travel	**0.754**	0.163	0.138	0.146	0.169	0.187	0.157
3. Cruise travel does not fit my lifestyle.	**0.721**	0.186	0.135	0.248	0.200	0.168	0.121
11. Cruise trips are not worth the money.	**0.408**	0.017	0.297	0.173	0.076	0.312	0.236
29. Facilities and services on board the cruise ship are not attractive.	**0.459**	0.081	0.461	-0.037	0.119	0.316	0.193
Intrapersonal constructs (Anxiety)							
20. Fear of water and the sea in the first place.	0.163	**0.657**	0.258	0.051	0.095	0.105	0.211
21. Concerned about the safety of ship operations	0.195	**0.632**	0.265	0.057	0.165	0.133	0.310
24. Worried about seasickness	0.082	**0.439**	0.297	0.233	0.144	0.115	0.147
Interpersonal constructs							
22. Cannot find a companion (friend or partner)	0.117	0.035	**0.373**	0.134	0.095	0.126	0.067
23. It is bothersome to be involved with other passengers and crew members on the cruise ship.	0.296	0.170	**0.439**	0.156	0.090	0.180	0.187
25. Concern about your or your companion's physical condition (e.g., chronic illness)	0.102	0.282	**0.476**	0.072	0.040	0.155	0.221
26. Language concerns.	0.010	0.179	**0.629**	0.296	0.121	0.046	0.139
27. Few Japanese people seem to be living in the area	0.013	0.120	**0.632**	0.215	0.158	0.128	0.137
28. I am not particularly fond of the food.	0.170	0.117	**0.616**	0.040	0.151	0.208	0.204
Structural constructs (External factors)							
7. A cruise travel seems to be inaccessible	0.084	0.045	0.115	**0.794**	0.163	0.057	0.078
8. Worried about dress code	-0.006	0.035	0.238	**0.668**	0.155	0.054	0.118
9. Seems like a lot of procedural hassle.	0.075	0.020	0.295	**0.583**	0.298	0.102	0.128
10. It seems expensive	0.088	0.030	0.064	**0.803**	0.113	0.051	0.117
12. The trip seems too long	0.278	0.123	0.187	**0.454**	0.135	0.231	0.124
13. Lack of time	0.181	0.092	0.143	**0.504**	0.166	0.190	0.088
Structural constructs (Cognition)							
1. I don't know what exactly cruise travel is like.	0.193	0.099	0.250	0.208	**0.530**	0.110	0.075
4. Little information on cruise travel products	0.095	0.133	0.049	0.372	**0.541**	0.192	0.157
5. I don't know what to expect from a cruise vacation.	0.347	0.124	0.184	0.223	**0.640**	0.171	0.104
6. I don't know where to sign up for a cruise vacation.	0.030	0.070	0.192	0.287	**0.737**	0.115	0.058
Structural constructs (Itinerary)							
14. There are no ports of call (tourist attractions) that I wish to visit	0.240	-0.008	0.287	0.005	0.160	**0.621**	0.137
15. The ports of call (tourist attractions) that I wish to visit are not covered.	0.125	0.017	0.259	0.029	0.141	**0.694**	0.171
16. Short docking time at ports of call (tourist attractions) / Inability to stay in tourist attractions for long periods of time	0.048	0.030	0.170	0.081	0.078	**0.709**	0.148
17. I want to get to tourist attractions quicker (e.g., flying is faster).	0.235	0.216	0.056	0.248	0.072	**0.494**	0.163
18. Poor access to the port	0.062	0.177	0.109	0.255	0.090	**0.537**	0.125
Structural constructs (Infection)	0.141	0.212	-0.139	0.359	0.038	**0.366**	0.126
30. Concerned about COVID-19 infection on board.	0.048	0.204	0.036	0.287	0.035	0.063	**0.672**
31. Inadequate COVID-19 infection control measures in shipping companies	0.132	0.093	0.157	0.069	0.081	0.172	**0.800**
32. I don't trust shipping companies regarding COVID-19	0.175	0.082	0.198	0.006	0.093	0.183	**0.795**
33. Inadequate COVID-19 measures at the port	0.145	0.042	0.238	0.034	0.092	0.158	**0.819**
34. I do not trust the port (municipality) with respect to COVID-19	0.153	0.020	0.233	0.012	0.100	0.150	**0.786**
35. I do not want to come aboard until the COVID-19 infection situation is better than it is now.	-0.006	0.151	0.052	0.213	0.011	0.100	**0.750**
36. Do not want to board the ship until there is an adequate explanation of the shipping company's COVID-19 infection control measures	0.012	0.146	0.084	0.165	0.056	0.079	**0.804**

Note: Item 22 in F3 and item 19 in F6 were considered to belong to the factor with the highest loadings, although they were below the factor loading of 0.4.

1.3.3. Measurement Scale to Assess Anxiety Factors related to International Cruise Ship Calls (Questionnaire Item)

Regarding Q23, a measurement item of the survey on residents' anxiety levels associated with port calls by international cruise ships in Japan and the disembarking of foreign visitors, a set of 13 items was newly formulated due to the absence of previous studies addressing this issue. Participants were requested to provide their responses on a 5-point Likert scale, as shown in Table 4.

Table 4 - Q23 Measurement Scale to assess Anxiety Factors related to International Cruise Ships Visiting Ports in Japan (Acceptance)

Q23. How do you feel about foreign cruise ships calling at ports in Japan?

1. I am concerned about the impact on public safety as the number of foreign tourists increases.
2. I am concerned about the environmental impact of an increase in foreign tourists.
3. I am concerned about the impact of more foreign tourists on traffic congestion.
4. I am concerned about the impact of an increase in foreign tourists on tourist attraction congestion.
5. Expectations for purchasing souvenirs and other items as the number of foreign tourists increases.
6. There is an expectation that more foreign tourists will use the transportation system.
7. There is an expectation that more foreign tourists will use the accommodations.
8. There is an expectation that more foreign tourists will use restaurants.
9. My business benefits greatly from the arrival of the cruise ship..
10. I look forward to cruise ships coming to the port (cruise ship tours, strolling around the port, etc.)
11. Concern about the spread of COVID-19 infection as the number of foreign tourists increases.
12. Concern about infectious diseases other than COVID-19 as the number of foreign tourists increases.
13. Anxious about the increase in the number of foreign tourists who do not wear masks

A post-questionnaire exploratory factor analysis utilizing the main factor method was performed on the survey data to validate its consistency with respect to the 13 items in Q23. The pattern matrix, generated through varimax rotation and employing a factor loading criterion of 0.40 or higher, yielded the final identification of four latent factors (F1-F4). The analysis employed Bell Curve for Excel (version 4.03). The obtained factor loadings are presented in Table 5.

The results of the survey confirmed that residents have consistent sentiments regarding the port call (reception) of international cruise ships, which can be categorized into two disadvantages or anxieties, namely "Anxiety on Environmental Degradation and Public security" and "Anxiety on spread of infection," as well as two advantages, namely "Expectations on Economic Effects" and "Personal Expectations." It is worth noting that these categorizations are original to this survey.

Table 5 - Factor loadings on the measurement scale for the anxiety factor of Q23 international cruise ship call (reception) (N=1600)

Q23 Measurement Scale (Survey Items)	F1	F2	F3	F4
Anxiety on Environmental Degradation and Public Security				
1. I am concerned about the impact on public safety as the number of foreign tourists increases.	**0.768**	0.035	0.039	0.316
2. I am concerned about the environmental impact of an increase in foreign tourists.	**0.778**	-0.014	0.060	0.285
3. I am concerned about the impact of more foreign tourists on traffic congestion.	**0.817**	0.063	0.076	0.198
4. I am concerned about the impact of an increase in foreign tourists on tourist attraction	**0.780**	0.135	-0.001	0.234
Expectations for Economic Effects				
5. Expectations for purchasing souvenirs and other items as the number of foreign tourists increases.	0.065	**0.860**	0.030	0.075
6. There is an expectation that more foreign tourists will use the transportation system.	0.035	**0.813**	0.149	0.062
7. There is an expectation that more foreign tourists will use the accommodations.	0.054	**0.886**	0.070	0.070
8. There is an expectation that more foreign tourists will use restaurants.	0.063	**0.897**	0.037	0.088
Personal Expectations				
9. My business benefits greatly from the arrival of the cruise ship.	0.065	-0.028	**0.774**	-0.039
10. I look forward to cruise ships coming to the port (cruise ship tours, strolling around the port, etc.)	0.034	0.248	**0.670**	0.000
Anxiety on spread of infection				
11. Concern about the spread of COVID-19 infection as the number of foreign tourists increases.	0.329	0.099	-0.055	**0.885**
12. Concern about infectious diseases other than COVID-19 as the number of foreign tourists increases.	0.384	0.066	0.035	**0.750**
13. Anxious about the increase in the number of foreign tourists who do not wear masks rt (cruise ship tours, strolling around the port, etc.)	0.334	0.141	-0.046	**0.800**

2. Survey Results

The outcomes derived from the survey have reveled four notable observations that warrant specific attention.

Firstly, there exists a significant contrast between concerns expressed by inexperienced and experienced individuals when it comes to embarking on a cruise.

Secondly, both inexperienced and experienced cruisers have expressed a decline in interest in cruising post Covid-19, accounting for approximately 20% of respondents in both groups.

Thirdly, over 20% of the general population harbors a lack of trust towards the municipal authorities responsible for handling Covid-19 related matters at the port.

Lastly, when it comes to concerns related to international cruise ship calls and reception, it becomes evident that each port exhibits varying degrees; however, the outbreak of Covid-19 infections and prior encounters with over tourism have exerted a significant influence.

A comprehensive examination of these findings shall be undertaken in forthcoming sections and subsequent analyses.

2.1. Attitudes and Concerns about Embarking on a cruise

First, we will analyze two aspects that were most prominent in terms of attitudes and concerns about embarking on a cruise.

2.1.1. Difference in Anxiety Factors between Experienced and Inexperienced Cruisers

Based on the survey conducted, individuals with previous cruise experience demonstrated the following characteristics in comparison to those without any cruise experience:

1) High household income and financial assets.

2) When it comes to travel habits, individuals with cruise experience tend to exhibit a strong desire to explore overseas destinations.

3) In spite of the awareness of infection risks, there remains an interest and willingness to engage in cruise travel.

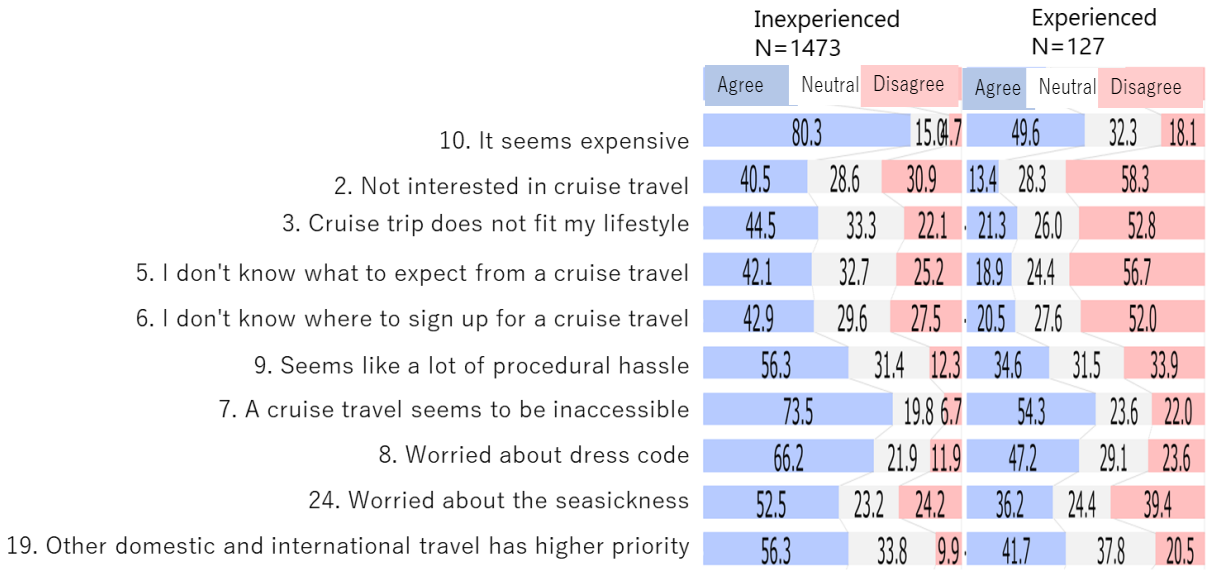
The survey findings indicate that having prior cruise experience greatly influences individuals' perceptions of cruises. Additionally, Figure 1 illustrates that inexperienced cruise travelers tend to encounter certain factors (constraints) more frequently compared to those with cruise experience.

When analyzed through the lens of the constraint factors discussed in Chapter 1 pertaining to the measurement scale, it is evident that more than half of respondents from the inexperienced group expressed concerns or constraints regarding specific structural factors. Specifically, respondents identified 10. It`s expensive, 7. Cruise trip is only for the wealthy, and 8. I am worried about the dress-code as significant concerns, with higher values compared to the experienced group. These findings indicate a greater level of concern among the less experienced group compared to their more experienced counterparts.

Based on the framework of the hierarchical Leisure Constraint theory, it can be inferred that the less experienced group has the potential to address their personal barriers, such as seasickness, language concerns, finding a companion, and fulfilling their interests (Intrapersonal Constraints). However, despite overcoming these intrapersonal constraints, they may still have reservations about engaging in cruise vacations due to more practical obstacles associated with Structural Constraints, indicating the possibility of abandoning

the cruise trip due to practical issues such as cost, unreachability, and attire (which belong to the Structural Constraints).

Figure 1 - Items that cause anxiety or restrictions on embarking on a cruise [by experience].



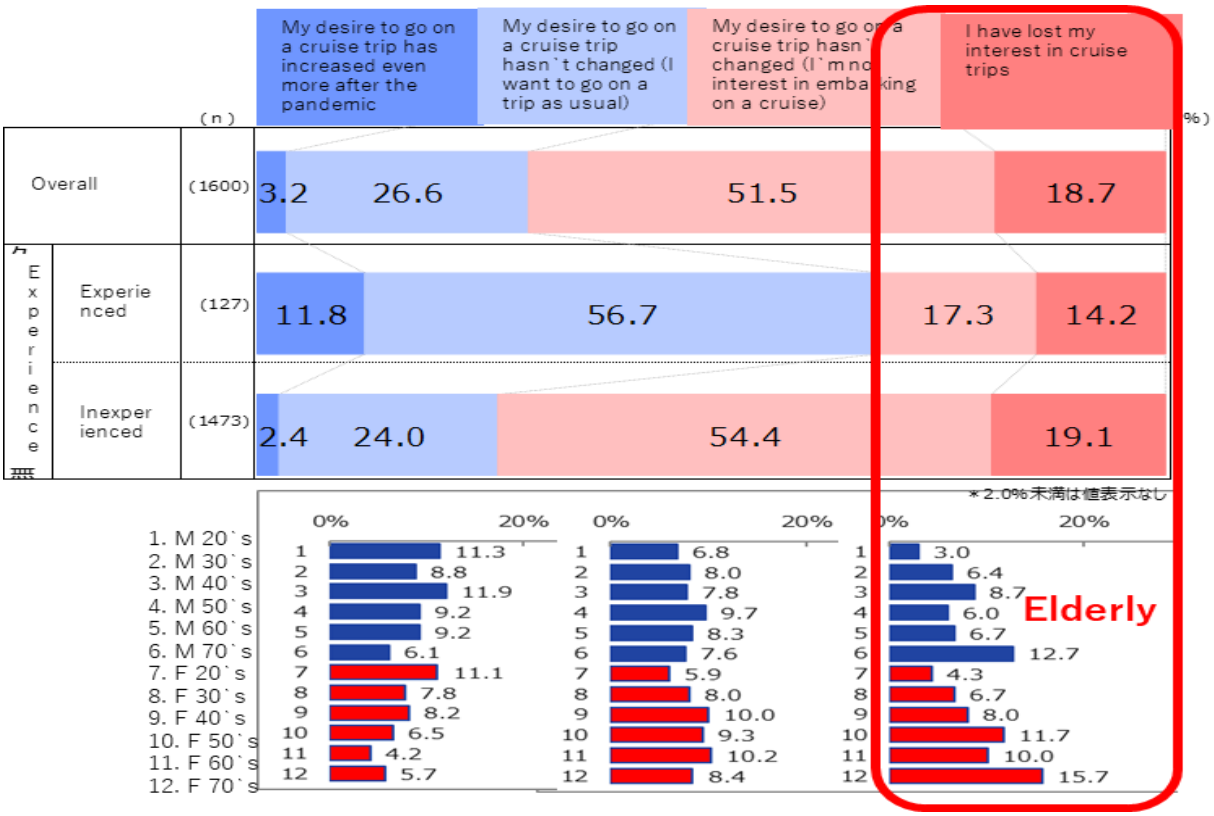
For this reason, it is considered effective to overcome the constrains by providing inexperienced people with opportunities to engage in active listening sessions with experienced individuals. Additionally, implementing cost-reducing initiatives, such as discounted campaigns, can serve to diminish the obstacles associated with boarding experience.

2.1.2. Specific Demographic Group with Declined interest in Cruising

According to the survey, a specific demographic group showed a decline in interest in cruising after the Covid-19 pandemic. This group, consisting mainly of elderly individuals, accounted for 18.7% (N=299) of the total respondents. Among those who had previous cruising experience, 14.2% showed decreased interest, compared to 19.1% among those who had no cruising experience. These results indicate that there has been an approximate decline of 20% in the market for cruising at this stage.

In investigating the factors contributing to the reduced interest among the aforementioned demographic, it is evident that concerns surrounding potential Covid-19 infections onboard and the progression of the overall infection situation, in addition to the provision of thorough explanations regarding Covid-19 infection control measures, play pivotal roles (Figure 3).

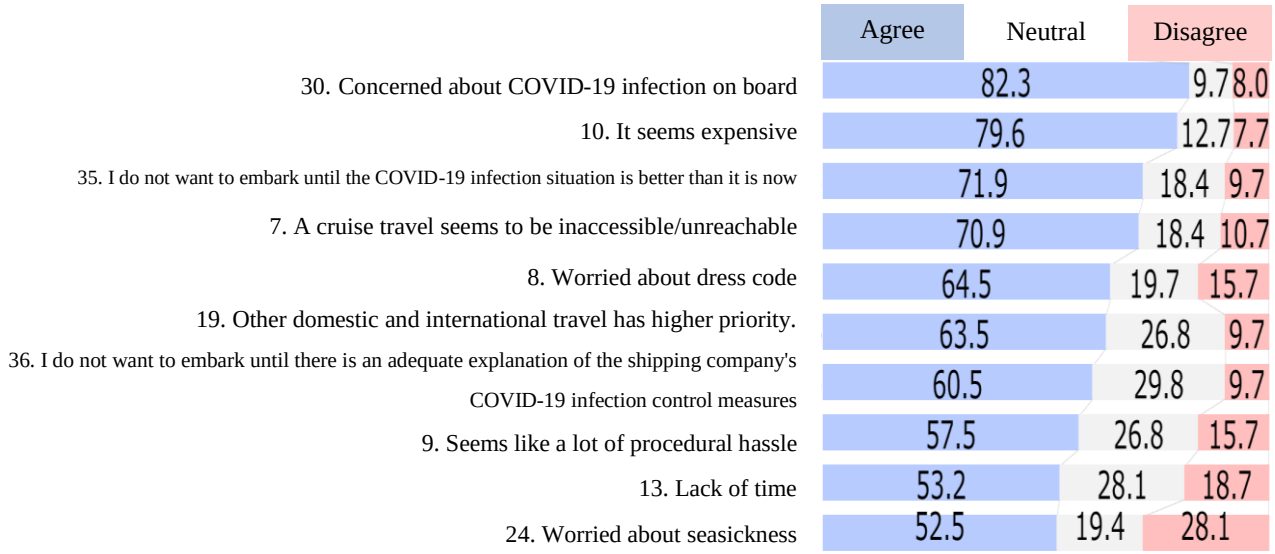
Figure 2 - Change in Attitude towards cruise travel after Covid-19



These findings highlight that the segment of the population that has experienced a decline in interest primarily comprises elderly individuals, who historically constituted the primary customer base of the cruise industry, given their heightened susceptibility to onboard infections and general cautiousness regarding infections.

In contrast, Figure 2 shows data indicating a notable surge in interest among individuals in their 20s, regarding their awareness and desire to travel abroad and embark on cruise trips. This surge can potentially be attributed to the travel constraints imposed as a result of the Covid-19 pandemic. This suggests that future marketing strategies may be to shift target from the older generation, which has historically constituted the primary customer base, to the younger generation.

Figure 3 - Top 10 Constraint Factors Influencing the Group of Declined Interest in Cruising



2.2. Residents' Anxieties and Expectations Regarding International Cruise Ship Calls

Next, we will analyze two aspects that were most prominent in terms of residents' concerns and expectations regarding the port calls of international cruise ships.

2.2.1. Lack of Trust towards Port Administration/Municipality in regards of Covid-19 infection measures

It has been three complete years since the onset of the coronavirus pandemic, and throughout this duration, governmental bodies and local authorities have introduced various infection control measures. However, the findings from this survey bring to light a concerning lack of trust in these measures among a specific segment of the population, particularly towards local authorities.

Illustrated in Figure 4, the data shows that around 30.7% of people who have taken cruises have a lack of trust in the Covid-19 safety measures implemented by the Port/Municipality. On the other hand, among those who have not been on a cruise, the percentage is around 22.0%. This suggests that individuals with previous cruising experience tend to have a higher level of distrust compared to those who haven't been on a cruise.

Figure 4 - Lack of trust towards Port/Municipality

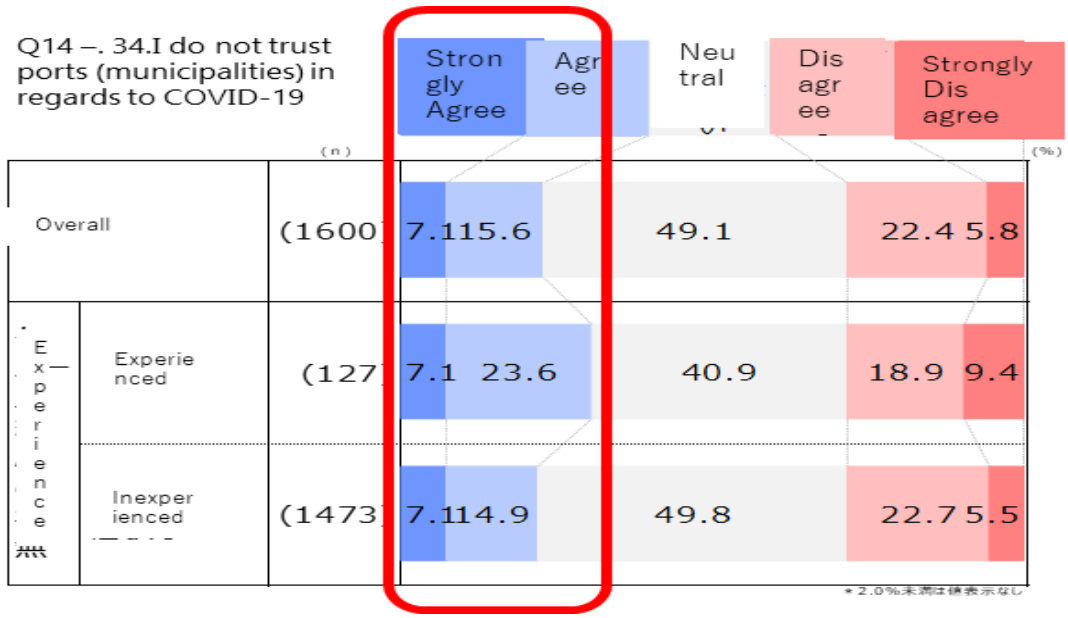


Figure 5 displays the findings from the analysis of this unreliability factor using the four latent variables presented in Table 5 of Chapter 1.

The group that exhibited a lack of trust towards Port/Municipality expressed concern about the environment, security, and traffic congestion. Although they acknowledged the economic benefits, their primary worry was the potential for infection spread due to foreign tourists not adhering to safety measures such as wearing masks. The survey results indicated that they did not anticipate the arrival of the cruise due to minimal impact on their own businesses. The results of the survey show that this group is not eager for the cruise.

To facilitate the resumption of international cruises and their acceptance at ports, effective risk communication with residents is crucial, alongside the implementation of infection prevention measures and the development of a contingency plan in case of an outbreak.

2.2.2. Residents' awareness and concerns about international cruise ship calls

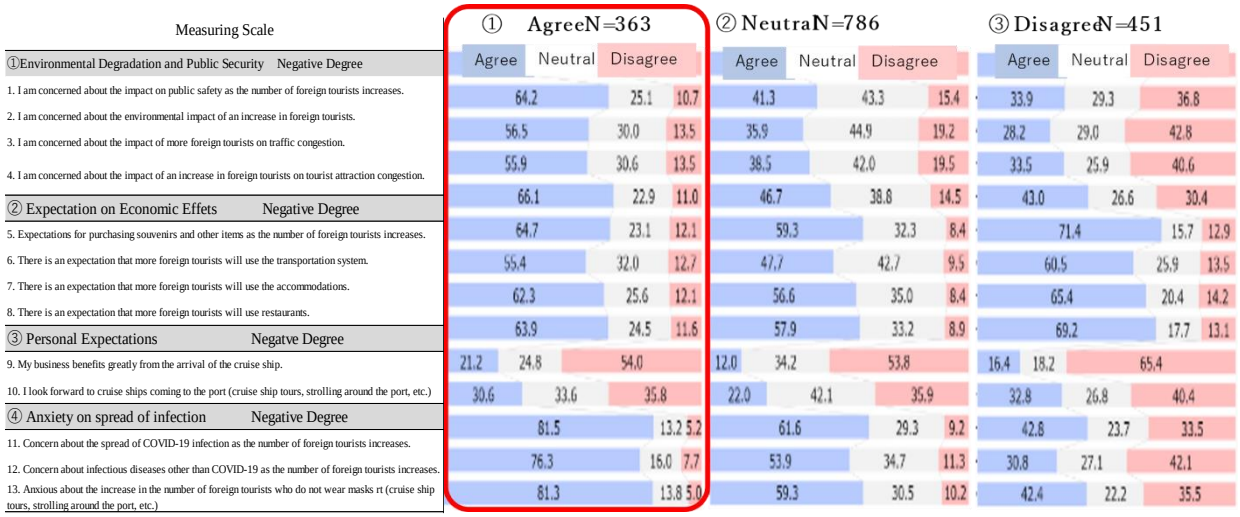
We conducted a survey to understand the concerns related to the arrival of international cruise ships, which can lead to resident unrest and potential spread of infections when thousands of foreigners disembark at once.

Figure 6 - Residents' Perspectives and Concerns on Port Calls by International Cruise Ships (Acceptance)

A post-pandemic survey conducted in three European countries (Austria, Germany, and the U.K.) revealed that anxiety over the pandemic heightened xenophobia and ethnocentrism [10], leading to a preference for domestic travel and negative perceptions toward welcoming foreign tourists [11]. If these concerns are not addressed in Japan, it may lead to a negative public opinion about accepting foreigners.

To address this, we analyzed residents' attitudes toward international cruise reception at five distinct Japanese ports where international cruise ships frequently visit: Kanazawa Port (Kanazawa City), Yokohama Port (Yokohama City), Kobe Port (Kobe City), Sakaiminato Port (Sakaiminato City/Yonago City/Matsue City/Yasugi City), and Hakata Port (Fukuoka City).

Figure 5: Factors for the lack of trust towards port (municipality) in regards of Covid-19 safety measures (N=1600)



As a result, there was a notable level of concern about "Anxiety on Environmental Deterioration and Public Security" in Hakata Port, whereas this apprehension was less prominent in the regional cities of Kanazawa and Sakaiminato. While there were high expectations for "Expectations on Economic Effects" across all ports, many individuals at Hakata Port had no such expectations. As for "Personal Expectations," although there were elevated expectations at Kobe Port, a substantial number of people were not eagerly anticipating cruise ship arrivals at Hakata Port and Sakaiminato Port. This could be linked to the fact that concerns about over tourism's adverse effects had been raised specifically in Hakata Port even before the onset of the Covid-19 pandemic. The level of anxiety regarding the spread of infection was high in all ports, but relatively low in Kanazawa Port.

3. Summary and Issues

3.1. Development of Measurement Scales for Residents Survey on Cruise Embarkation and Acceptance

The present study has developed two novel measurement scales to assess anxiety factors related to Cruise embarkation and International cruise ships visiting ports in Japan. These scales can be applied in various ways in the future to analyze marketing and participation limitations for cruise travel. Additionally, they can serve as a valuable tool for making policy decisions in response to the expanding cruise market, specifically by understanding the perspectives of local residents. These scales are anticipated to be particularly useful in guiding the expansion of port calls and effectively addressing the concerns voiced by the residents.

The survey results were categorized as YES for "Strongly Agree" and "Agree", and NO for "Strongly Disagree" and "Disagree". The sample size for each category was 120 people per port (in %).

For anxiety items ① and ④, YES had a negative value and NO had a positive value. For expectation items ② and ③, YES had a positive value and NO had a negative value. A lower value indicates a more negative response

The table below highlights the most negative values for each of the YES and NO categories among the 5 ports. Calculation of the negativity: Σ(anxiety items ① and ④) = (-YES + NO) + Σ(expectation items ② and ③) = (+YES - NO)

Measuring Scale	Port of Kanazawa		Port of Yokohama		Port of Kobe		Port of Sakai		Port of Hata	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
①Environmental Degradation and Public Security Negative Degree	-162.4	99.2	-176.9	83.8	-176.7	91.5	-141.5	85.4	-183.4	85.5
1. I am concerned about the impact on public safety as the number of foreign tourists increases.	-40.8	20.8	-43.8	18.1	-43.4	20.2	-38.2	17.9	-46.2	22.1
2. I am concerned about the environmental impact of an increase in foreign tourists.	-42.4	26.4	-37.5	24.4	-37.2	27.1	-31.7	23.6	-38.6	24.8
3. I am concerned about the impact of more foreign tourists on traffic congestion.	-35.2	29.6	-41.9	25.0	-42.6	27.9	-32.5	24.4	-44.8	22.1
4. I am concerned about the impact of an increase in foreign tourists on tourist attraction congestion.	-44.0	22.4	-53.8	16.3	-53.5	16.3	-39.0	19.5	-53.8	16.6
② Expectation on Economic Effets Negative Degree	241.6	-49.6	261.9	-46.3	260.5	-36.4	229.3	-39.0	234.5	-49.6
5. Expectations for purchasing souvenirs and other items as the number of foreign tourists increases.	64.8	-12.0	70.6	-11.3	70.5	-7.8	60.2	-8.1	63.4	-12.0
6. There is an expectation that more foreign tourists will use the transportation system.	55.2	-11.2	55.0	-13.8	54.3	-10.1	53.7	-10.6	53.1	-11.2
7. There is an expectation that more foreign tourists will use the accommodations.	58.4	-16.8	68.8	-9.4	68.2	-8.5	54.5	-10.6	57.9	-16.8
8. There is an expectation that more foreign tourists will use restaurants.	63.2	-9.6	67.5	-11.9	67.4	-10.1	61.0	-9.8	60.0	-9.6
③ Personal Expectations Negatve Degree	45.6	-88.8	43.8	-101.3	45.0	-91.5	48.8	-87.8	35.9	-102.8
9. My business benefits greatly from the arrival of the cruise ship.	16.0	-57.6	12.5	-61.9	16.3	-58.1	17.9	-52.8	15.2	-56.6
10. I look forward to cruise ships coming to the port (cruise ship tours, strolling around the port, etc.)	29.6	-31.2	31.3	-39.4	28.7	-33.3	30.9	-35.0	20.7	-46.2
④ Anxiety on spread of infection Negative Degree	-169.6	52.8	-160.6	58.8	-160.5	52.7	-182.1	39.0	-169.0	56.6
11. Concern about the spread of COVID-19 infection as the number of foreign tourists increases.	-60.0	13.6	-53.8	19.4	-60.5	14.0	-65.0	12.2	-57.2	17.9
12. Concern about infectious diseases other than COVID-19 as the number of foreign tourists increases.	-51.2	21.6	-51.9	19.4	-46.5	19.4	-56.1	12.2	-52.4	22.8
13. Anxious about the increase in the number of foreign tourists who do not wear masks rt (cruise ship tours, strolling around the port, etc.)	-58.4	17.6	-55.0	20.0	-53.5	19.4	-61.0	14.6	-59.3	15.9
Total （=①+②+③+④）	-44.8	13.6	-31.9	-5.0	-31.8	16.3	-45.5	-2.4	-82.1	-10.3
Negative Degree (Total)	△ 31.2		△ 36.9		△ 15.5		△ 48.0		△ 92.4	

3.2. Attitudes and Concerns associated with Cruise Embarkation

The concerns of experienced and inexperienced cruisers differ significantly, with inexperienced cruisers' concerns being more intrinsic to the individual, such as lack of

interest, lifestyle fit, and fear of seasickness, which represent psychological barriers to considering a cruise.

On the other hand, both experienced and inexperienced cruisers encountered structural hurdles, such as high costs, complex procedures, attire concerns, and competing priorities with other domestic and international travel.

However, both groups displayed a high resistance to the threat of infection, irrespective of their experience. Although 20% of the traditional clientele, primarily the elderly, have lost interest in post-Covid-19 cruises, the survey also indicated a strong desire among young people in their 20s to take a cruise, suggesting a potential new target market for future cruises.

These findings suggest important marketing strategies for shipping companies, which include:

1) Developing package products that provide access to ports and cruise travel, appealing to travelers who enjoy moving around.

2) Promoting to younger customers by offering discounted tours, monitoring tours, using influencers, and utilizing owned/earned/paid media, until the older customers, who have traditionally been the customer base, recover.

3) It may be possible to promote safety and security measures to the elderly through information sessions and TV commercials.

3.3. Residents' awareness and concerns about port calls (acceptance) by international cruise ships

The reopening of the port to international cruise ships is met with a blend of hope and fear from residents living nearby, making it essential to carefully address their feelings.

Therefore, potential measures for port administration include thorough waterfront and infection prevention measures in collaboration with the government and relevant agencies, as well as adequate corona control measures, including possible isolation on land in the event of an outbreak. Moreover, it is important to engage in risk communication with residents and inform foreign passengers of Japan's characteristics while encouraging them to adhere to the necessary safety measures.

Furthermore, tailored measures are needed for each characteristic of Japan's international cruise ports. For instance,

1) The Port of Yokohama and Port of Kobe require historical understanding of cruise reception and improved infection control measures

2) Hakata Port needs to take further steps to enhance measures against overtourism, encompassing environmental and public safety measures, traffic congestion, and overcrowding of tourist attractions, among others

3) Sakaiminato Port needs to address concerns about the spread of coronavirus due to an increase in foreign tourists.

4) The Port of Kanazawa should focus on efforts to bring cruises closer to residents rather than emphasizing higher-altitude attractions.

When cruise ships visited ports of call, the initial focus was on the economic benefits, with little consideration given to the feelings of the local residents. Ignoring the economic advantages of cruise ship visits will not allow us to understand the perspective of the local residents. It is essential to establish a strong relationship with the local community in order to properly prepare for the arrival of international cruise ships.

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