International Journal of Hospitality Management 42 (2014) 71–84

Contents lists available at ScienceDirect

International Journal of Hospitality Management

journal homepage: www.elsevier.com/locate/ijhosman

Review

The cruise industry in China: Efforts, progress and challenges

Xiaodong Sun [a,*], Xuegang Feng [a], Dinesh K. Gauri [b]

[a] School of Business, East China Normal University, Shanghai 200241, China
[b] The Martin J. Whitman School of Management, Syracuse University, Syracuse, NY 13210, USA

ARTICLE INFO

Keywords:
Cruise industry
Cruise tourism
Cruising
China

ABSTRACT

The cruise industry has evolved considerably and in recent years emerged to become one of the most rapidly developing segments of the global tourism industry, with millions of passengers cruising each year. On a global basis, the cruising sector is overwhelmed by North America. During recent years above average growth rates are reported in emerging cruise markets in the Asia Pacific region. As one of the core elements of the Asian cruise market, China is undergoing rapid growth in terms of both cruise ship visits and cruise tourists. However, limited research has been undertaken in regard to growth of cruising industry in China. The purpose of this article is to report current development of the cruise industry in mainland China. First, we briefly provide an overview of the worldwide cruise industry. Then, we summarize the history and the growth of the cruising sector in China; report characteristics of Chinese cruise passengers and compare them with others; highlight information on geographical distribution, berthing capacity and cruise business performance of each cruise port along China's coastlines; and introduce various cruise policy documents issued by Chinese governments. Finally, we discuss some issues, challenges and relevant managerial implications for developing this niche form of tourism in this country.

Contents

* Corresponding author. Tel.: +86 21 54344960.
E-mail addresses: xdsun@bs.ecnu.edu.cn (X. Sun), xgfeng@tour.ecnu.edu.cn (X. Feng), dkgauri@syr.edu (D.K. Gauri).

http://dx.doi.org/10.1016/j.ijhm.2014.05.009
0278-4319/

1. Introduction

In recent years, we have witnessed a period of rapid growth and remarkable change in the cruise industry, which is one of the fastest growing and most dynamic segments of the entire tourism and leisure travel market (Dwyer and Forsyth, 1998; Wie, 2004; Marti, 2004; Sun et al., 2011b). Annual passenger data from the Cruise Lines International Association (CLIA) indicated that the industry had grown at an annual rate of over 7% between 1990 and 2011, with 13.44 million passengers in 2009, 14.82 million in 2010 (CLIA, 2011a), 16.32 million in 2011 (see Fig. 1), and estimated 17.2 million in 2012 (CLIA, 2013). As measured by total capacity, the North American market alone increased from around 41,000 berths in 1981 to over 340,000 berths in 2012 at an average annual growth rate of over 7%, with 221 ships in 2012 (CLIA, 2013). For an industry with "explosive growth", however, the cruise tourism sector has "surprisingly little" academic literature (Wood, 2000; Lee and Ramdeen, 2013). Very limited research has touched this thriving tourism sub-sector. Recently, a large group of researchers have lamented the lack of research attention to this niche form of tourism (Teye and Leclerc, 1998; Marti, 2004; Toh et al., 2005; Biehn, 2006; Scantlebury, 2007; Papathanassis and Beckmann, 2011; Sun et al., 2011a,b). Particularly, as a foundational issue in developing the industry in emerging markets, research on cruise ports and cruise terminals has been neglected by the international literature (Lekakou et al., 2009).

In the cruise market, North America is acknowledged to be the largest in the world, with an average market share of over 90% before 2000 and over 70% between 2001 and 2011, in terms of cruise passengers (see Fig. 1). Although the cruising industry is dominated by the North American market, the Asia Pacific region is recording above average growth. In 2011, this market generated approximately 780,000 cruise passengers, and in total, represented 6% of the worldwide cruise capacity in 2012 (CINQ, 2012b). In Asia alone, the volume of cruise passengers increased by 40% in 2010, topping 1.5 million, and expected to climb to two million by 2015 (Goldstein, 2011). Many of the world's largest cruise companies (e.g. Royal Caribbean, Princes and Costa Cruises) have started deploying bigger ships in the Asian market (USA Today, May 20, 2014). In North America, statistical data from the CLIA demonstrated the phenomena that the number of cruise passengers is still increasing but at a sharply declining rate in recent years. This may be due in part to the global recession and financial crisis of key source markets starting in 2008, as well as the effect of cruise lines' focusing more outside of North America in last few years. These data suggest that this cruise region, to some extent, is starting to enter a maturing phase (Weeden et al., 2011; Jones, 2011).

Beyond the traditional areas in Europe and North America, the cruise sector has experienced exceptional growth rates to become a global industry. In recent years, in order to increase their passengers, international cruise companies are showing a great passion for emerging markets outside Europe and North America. One of these emerging destinations is the Australia and New Zealand region, which is undergoing rapid growth in both demand and supply (Dowling, 2011). For example, in Australia the cruising tourism grew by 26% in 2008, compared to 5% in the US and 12% in the UK (Dowling, 2011). Because of diverse culture and exotic destinations, cruising in the Asia-Pacific region has become more and more regular (Qu and Ping, 1999). In particular, due to great economic progress, various tourism options and huge market, the Asia region provides a concentrated cruise experience, and with no doubt, will become another new growth point of this industry. Although the North American cruise market shows continued growth, market share of this region is suffering a sharp decline since 2005, with proportions deceased from over 90% before 2000 to less than 70% in 2011 (see Fig. 1).

In the emerging cruise regions, cruise ports and cruise terminals play an important role in attracting visits from cruise ships especially as the industry is evolving. There are several potential benefits of cruise tourism for cruise ports and related regions. Possibly, this is the reason why destinations in these newly emerging markets strive to construct and improve their port infrastructures, in order to be chosen as part of the selected group of ports by major cruise lines (Brida et al., 2012a,b). To do so, in recent years, ports in Asia have stepped up to provide the cruise industry with new facilities to accommodate more and bigger ships, especially Singapore, Shanghai, Beijing (Tianjin) and Hong Kong (CINQ, 2012a).

For China, the cruise industry is experiencing the early growth stage. Projects of infrastructure constructions are approved all over the country. From now on, there are more than 20 ocean ports in China targeting cruise tourism. In order to promote the cruise sector, departments and ministries of China approved and issued a large number of cruise policies. Also, the Chinese academic community relating to tourism and hospitality expressed a great passion for this industry. Recently, Sun and Feng (2012) probably offered the most comprehensive overview of academic studies related to the Chinese cruise industry. From a macro-viewpoint, recent scholarship has examined the basic characteristics, development trends of the cruise tourism sector and relevant implications for China (Zhang et al., 2010a,b; Xu and Gao, 2010), the cruise tourism features from the viewpoint of supply chain (Xu and Gao, 2010), industrial cluster (Hu and Chen, 2004), industrial ecosystems (Li, 2009) and global value chain (Li, 2007), the contribution of cruise port to regional economy (Luan, 2008), the relationship of cruise economy and coastal regions (Wang, 2010), the economic effect of cruise tourism and its conduction mechanism (Zhang, 2008), the space strategy of the Chinese cruise industry from perspective of cruise ports and cruise cities (Yang, 2009) and the development of cruise ports in China from policy-making perspective (Liu, 2011). From a micro-view of point, Chinese researchers have studied some specific cruise issues, including the marketing and operating pattern of a given international cruise company (Wang, 2009), cruise ship inspection (Shao and Zhang, 2007), cruise shipbuilding (Sun and Wang, 2009), cruise port planning and design (Wang, 2008a,b), cruise counselor education (Ge, 2010) and several similar studies, to be discussed later in details, on competitiveness of cruise ports and cruise cities from different viewpoints (Chen, 2008; Wang, 2008a,b, Yu, 2008; Zhu, 2010a,b; Cai and Niu, 2010; Nie and Dong, 2010; Liu, 2010).

China has a cruising history of only around 10 years. Since 2002, cruising in China is attracting more and more attention from both researchers and practitioners. However, case and industry-based research is rare in existing literature. Therefore, the purpose of this paper is to report general progress in promoting the cruise industry in China, by bringing together the industry data and then raising some issues and challenges impacting the industry at this time. In

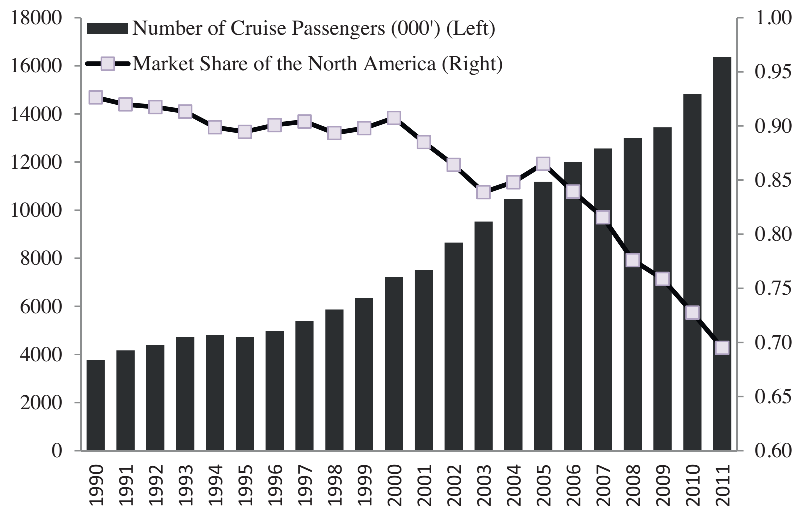

Fig. 1. Number of worldwide cruise passengers and market share of North America.

summary, the fast development and the lack of information of the cruising industry in China forms the basis of this study.

The rest of the paper is organized as follows. In Section 2, we provide an overview of the worldwide cruise industry. Section 3 outlines the current stage of the cruise industry in China, including its development phase. In the same section, we discuss the profile of Chinese cruise passengers, cruise port constructions (the cruise port system) in China and the policy documents approved by both central and regional governments in this country. At the end we identify several issues and challenges in developing the cruise industry in China and propose some relevant managerial implications and suggestions. Section 4 concludes the study.

2. Overview of cruise industry worldwide

A cruise liner or cruise ship is used for pleasure voyages (Sun et al., 2011b), both as a form of transportation and as a destination (Ahmed et al., 2002), by rolling two core elements of accommodation and resort entertainment into one (Hoseason, 2000). In addition to traditional function of providing transport and accommodation, cruise tourism, which is regarded as "*Marine Resorts*", now encompasses a wide range of enjoyable and comfortable activities for travelers (UNWTO, 2012). The voyage combines travel and accommodation, with a variety of facilities and amenities available both onboard and at resort destinations, including onboard entertainment, recreational activities, various dining, and shore excursions and tourism offerings at a set of domestic and foreign ports of calls (Teye and Leclerc, 1998). Recently, cruise tourists were found to be greatly motivated by the comfort and accommodation offered by cruise ships which have become well known for the luxury and high level of service (Jones, 2011). To attract passengers and satisfy different segments of market, cruise companies strive to provide a variety of combinations of durations and itineraries, and maintain a high level of accommodation and service on both their new-built and aging cruise ships.

The origin of cruise can be traced back to 1840s (Hoseason, 2000). Over the past four decades the cruise industry evolved considerably with incredible growth (Sun et al., 2011b). In 1970, about half a million tourists vacationed onboard worldwide (Hobson, 1993), growing to more than 16 million in 2011 (CLIA, 2011). During the period of 1990–2010, the industry has experienced an annual passenger growth rate of 7.6% (CLIA, 2011a). Although the modern cruise industry is young, its market potential is strong (CLIA, 2011a). Only about 24% of the U.S. population has ever taken a cruise (CLIA, 2011a), which provides the industry with huge room for development (Sun et al., 2011b). Coinciding with the strong overall growth of the industry, international cruise lines are adding significant vessel capacity (Goldstein, 2011a). From 1981 to 2010, average capacity rose at a rate of 7.67% in order to meet North American demands (CLIA, 2011a). In 2010, the total number of the CLIA ships in the North America was 205 (CLIA, 2011a) with an increase of 10.8%, compared to 185 in 2007. By 2015, number of net ships in the CLIA fleet will be 239 (CLIA, 2013). In recent years, one of the emerging trends in the global cruise market is that cruise ships are increasing in size and have evolved from "big to bigger to jumbo". For example, Royal Caribbean's *Oasis of the Seas* is 360 meters long, carrying over 6000 passengers and a crew of 2700. The growth of vessel sizes and the upgraded amenities onboard has shifted the perception of cruise ships from 'floating hotels' to 'floating resorts' (Papathanassis, 2012).

In terms of markets, the cruise industry is a highly concentrated business (Rodrigue and Notteboom, 2013). North America is the largest market for cruise activities. The region represents the most mature market of cruising, with majority of passengers originating from U.S. and Canada. In 2012, the CLIA members serviced 16,365,000 cruise guests, with 69% sourced from U.S. and Canada, 31% from other parts of the world (CLIA, 2013). Between 1980 and 2012, estimated 225 million cruise passengers will have been carried by the CLIA fleet, with 188 million guests, accounting for 83.56%, sourced from the North America and 37 million passengers sourced internationally (CLIA, 2013).

Europe is the second largest market after North America, representing over 23% of the annual cruise capacity, and continues to increase its share of the global cruise market. Particularly, in recent years, cruising in the Mediterranean has grown markedly. As cruise passengers continue to be drawn to its year round attractions, soaring demand has made the Mediterranean the second most popular cruise destination after the Caribbean. In 2012, a total of 168 cruise ships were active in this region with a capacity of 221,214 lower berths, carrying a potential 3.78 million passengers on 2650 cruises (ECC, 2013). Between 2006 and 2011, the Mediterranean market experienced an average annual growth rate of 12% in terms of cruise passengers (ECC, 2011). In 2012, 5.7 million cruise passengers embarked on their cruises from European ports. UK, Germany, Italy, Span and France are the top five cruise countries in Europe with over 5.15 million cruise passengers, totally accounting for 85% of the European market, with respective market share of 28%, 23%, 15%, 12% and 7% (ECC, 2011). In UK, cruise ship calls increased from 1244 in 2010 to 1321 in 2011 with an increase of 6%, accompanied by a 5% and a 15%

increase in embarked and transit passengers, respectively (IRN, 2011).

In terms of players, the cruise industry is also a highly concentrated business (Rodrigue and Notteboom, 2013). At present, the cruise market is an oligopoly that is dominated by three groups of companies (Carnival Group, Royal Caribbean International and Norwegian Cruise Lines/Star Cruises), following a number of consolidations and takeovers (Lekakou et al., 2009). These three groups control about 80% of the total cruise market (CLIA, 2011a), by operating a portfolio of widely recognized cruise brands that cater to different lifestyles and budgets and also target different cultures and demographic groups (Datamonitor, 2012).

For economic impacts of the industry, in recent years, many international metropolises have been affected by the element of “cruise economy” (Sun et al., 2011b) and economically dependent on the industry (Teye and Leclerc, 1998). The U.S. cruise industry provided $40.4 billion cruise-included output and about 347,787 jobs in 2011. Over the period of 2000–2011, the impact on total output peaked in 2008 at $40.2 billion and declined by 12.7% in 2009 due to the global recession, and then began to recover from 2010. From 2000 to 2011, the total output in the U.S. has risen from $16.6 billion in 2000 to $40.4 billion in 2011, an increase of 143.4% or an average annual growth rate of 8.79% (CLIA, 2011b). With regard to employment, the total impact of the industry also steadily increased by 35.3% from 257,067 jobs in 2000 to 347,787 in 2011 (CLIA, 2011b). For the European market, in 2012 the economic contributions of cruise tourism included €15.5 billion in direct spending by cruise lines and their passengers and crew, €37.9 billion in total output, over 327,000 jobs and €10.1 billion in employee compensation. The five countries of Italy, Germany, UK, Spain and France accounted for 81.9% of the direct expenditures of the cruise industry, with respective proportion of 28.8%, 19.1%, 19.0%, 8.1% and 5.5% (ECC, 2013).

3. Cruise industry in China

3.1. Big picture

Because of favorable geographical position, unique charm of oriental culture, rich tourism resources and huge potential of tourist market, China is attracting more and more attention from international cruise lines and has become one of the focuses of the Asian cruise market. Recently, in order to expand its international business, the global cruise industry is looking toward Asia as a major growth engine with long-term potential. “*We see Asia in general, China in particular, as a strategic objective*”, Richard Fain, chief executive officer of Royal Caribbean Cruises Ltd., said on May 28, 2012.

With the growing middle class group and the increasing interest of people in cruising activities, China provides ample growth opportunities for the cruise industry. During recent years some cruise companies have set their sights on the Asian region, especially the Eastern and Southeast Asian countries. On February 18, 2009, the *People’s Daily Overseas Edition* stated in the article “The Rise of Cruise in China” that, with the coming blossom of cruise in China, as well as China’s relevant commitments to World Trade Organization (WTO), more and more cruise companies will build their wholly-owned branches in this nation. To date, many cruise companies have established regional and local operating offices in China to extend this emerging market both as a cruise destination and as a source of passengers. It is worth noting that, the first wholly foreign-owned enterprise for cruise shipping, Costa Cruises Service (Shanghai) Company Limited, was launched in Shanghai in 2011.

For fuelling a cruising boom in China, the China Cruise and Yacht Industry Association (CCYIA; www.ccyia.com), which is one branch of China Communications and Transportation Association (CCTA),

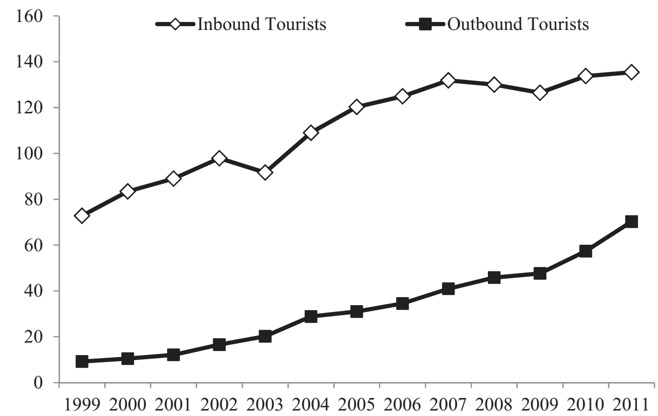

Fig. 2. Number of inbound and outbound tourists of China (million).

was launched on 22 November 2006 in Shanghai, with two versions of “cruse business” and “cruise vacation” on its website. It is essentially either a marketing body or a government department involved in development issues. According to the first year data from the CCYIA, income derived from cruise accommodations in China was approximately $240 million in 2007. Although this number only occupied 1.3% of worldwide income of the industry, China is still a huge market to be developed. It is projected that by 2020 the number of outbound tourists in China will reach 100 million (WTO, 2000), which offers potential for considerable demand.

In early 2007, after investigation and forecast, the CCTA divided basic development of Chinese cruise industry into three stages. The first stage, before 2008, mainly focuses on reception of international cruise ships and cruise passengers. More and more cruise infrastructure projects have been started or completed. More and more cruise companies choose China as their ports of call or homeports. In the second phase, from 2008 to 2015, the mainland continues to expand the scale of cruise accommodation business. The number of cruise calls will continue to increase, with continuously improved quality of services. In this stage, we will witness the first boom of cruise tourism in China. In the third stage, after 2016, the Chinese cruise industry is expected to enter in maturity phase. The international business will be close to or exceed the world’s average level. It will be very common for Chinese people to take cruise travel. In this phase, we will see competition among native fleets and cruise ship manufacturers in China. To realize these objectives, in 2008, the China National Development and Reform Commission (CNDRC) added the cruise industry into the national industrial catalog to encourage the development of this industry.

3.2. Evolution of cruise industry in China

China has a population accounting for one-fifth of the world, and has more than 1800 km coastlines. Since the beginning of economic reforms started under the leadership of Deng Xiao-ping at the beginning of 1978, China has continued a high speed economic growth. Due to its experimentation with the market economy, the country has enjoyed political stability and increasing economic prosperity (Lim and Pan, 2005). The incomes of Chinese people are rising and the overall consumption is increasing as well. In 2006, the per-capita GDP of China exceeded $2000 for the first time and reached $5414 in 2011 (NBSC, 2012). In the same year, the per-capita GDP of some coastal cities has been over $10,000, reaching the level of moderately developed countries. Currently, there are more than 300 million middle class citizens in China, most of which are near coastal cities.

After entering the era of economic reform, tourism in China has greatly expanded over the last few decades. As shown in Fig. 2, in recent years, both inbound and outbound tourism of China maintained a steady growth trend. Over the period of 2000–2011, the number of inbound tourist into China has grown at an annual rate of 5.54%. The number of outbound Chinese tourists has experienced an annual growth rate of 18.90%. In 2011, the total number of inbound tourists into China was 135 million with an increase of 1.2% over the previous year, of which 5.08 million entered by sea (CNTA, 2012). Right now, China has become one of the most competitive tourism destinations in Asia and an important international tourism source market, especially for countries in the Asia-Pacific region (Lim and Wang, 2008). From 2005 to 2011, the number of outbound Chinese tourists has more than doubled. The number reached to 70.25 million in 2011, up 22.4% on the year-on-year basis (CNTA, 2012). Although the percentage of Chinese people traveling abroad relative to their population is small, with strong economic performance and the expanding middle class in China, the growth potential of outbound travel is tremendous (Lim and Wang, 2008). As forecasted by the World Tourism Organization (WTO), by 2020 China will be the world's fourth largest international tourism market with nearly 100 million outbound travels (WTO, 2000). The country is on track to become the world's largest outbound market and one of the most popular tourist destinations in the world. In terms of the competitiveness in Asian countries and regions, based on six assessment criteria of availability of attractions, availability of service, affordability, positive market image, peace and stability and cultural links, Huang and Peng (2012) conclude that mainland China ranks first, followed by Japan, Hong Kong, Malaysia, Thailand, Singapore, Taiwan, Korea and the Philippines.

Though the Chinese cruise industry is still in its infancy stage, its prospects are quite promising. An emerging middle class could support a robust cruise industry in China. Although cruising has not yet been widely accepted in China, with the increase of disposable income and the increasing interest of people in cruising, it will be very common for Chinese people to choose cruise tourism as an important form of vacationing. Cruising, which represents a higher standard of living and a better life, becomes attractive to Chinese people. Without doubt, the emergence of a newly rich middle class and the expansion of an outbound source market provide the cruise tourism industry in China with huge opportunity for development.

At present, the Chinese cruise industry is experiencing strong growth. In 2008, there were about 110,000 Chinese citizens who took cruise vacation. In 2009, the number approached to roughly 380,000 (Sun and Feng, 2012). According to the '2011–2012 China Cruise Industry Development Report' (the 4th version of annual report of the Chinese cruise industry, which is jointly published by the Municipal Government of Shanghai Hongkou District, Shanghai International Shipping Institute and the CCYIA), the number of cruise ships called at ports in mainland China increased from 223 in 2010 to 262 in 2011. Of which, the homeporting cruise calls increased by 49.5% to 142 compared to 2010, while the transit cruise calls was 120, with a decreasing annual rate of 6.2% (CCYIA, 2012). During the period of 2002–2012, international transit cruise calls in China experienced an average annual growth rate of over 30%. From 2006 to 2012, the number of homeporting departures from China increased nearly 6 times, from 25 voyages in 2006 to around 166 voyages in 2012, with an average annual growth rate of over 40% (see Fig. 3). Especially, in 2011, the number of homeporting calls overtook international transit calls for the first time. It is projected that the homeporting departure cruise in China will reach to 180 voyages by year of 2013.

It was estimated by the CCYIA that the number of cruise passengers could reach to 820,000 in 2011. However, due to the earthquake and nuclear disaster in Fukushima Japan, 718,563 vacationers were observed in that year, with a decrease of 12.4%. As shown in Fig. 4, between 2002 and 2011, the number of cruise tourists rose from around 100,000 in 2002 to over 700,000 in 2011,

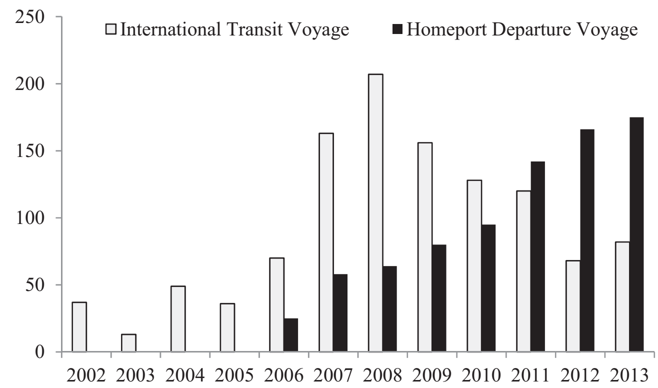

Fig. 3. Number of cruise calls in China from 2002 to 2013.

at an average annual rate of 46%. It is worth mentioning that in 2011 both cruise ships and passengers received in Mainland China exceeded to Hong Kong (104 cruise ships and 213,981 passengers) for the first time. With the 2008 Olympic Games in Beijing and the World Expo 2010 in Shanghai, China expected to attract 3 million cruise passengers (UNWTO, 2012).

In terms of cruise supply, the Chinese market is mostly supplied by international cruise lines with large ships, including Royal Caribbean International, Costa Cruises and Star Cruises as well as many small and middle lines. The biggest supplier of cruising products in China is Royal Caribbean Cruises Ltd., whose world-famous 137,308-tonnage *Voyager of the Seas*, 311 meters long and 38 meters wide, with a passenger capacity of 3114 and a crew of 1185, made its first voyage from Shanghai in July 2012. Another large tonnage cruise liner from the company, 3114-berth *Mariner of the Seas*, will also start sailing from Shanghai in the next July. At that time, shipping tonnage of the company will increased to 280,000 tons, accounting for over 70% of the entire Chinese cruise industry (Zheng, 2012). In 2012, another newcomer from Costa Cruises, the 75,200-tonnage and 2394-guest *Costa Victoria* started to sail from Shanghai to Expo 2012 Yeosu Korea. Successively, Costa will add a second cruise ship, the 85,700-ton and 2680-guest *Costa Atlantica*, to exploit the Chinese market in 2013. Additionally, a number of medium-sized and smaller cruise ships are also making their Chinese debuts, and opening routes from China to cities in Japan, South Korea and Southeast Asia. With these newcomers, the cruise industry in China will be promoted to another level in coming years.

3.3. *Cruise passenger profiles (Chinese vs. others)*

It is well known that understanding and targeting existing customers, and attracting potential new ones are important in the

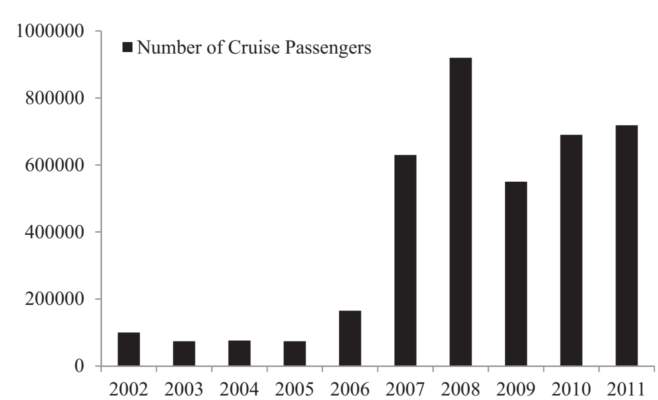

Fig. 4. Number of cruise passengers in China over the past decades.

emerging market-oriented economy. Throughout Asia, China figures as the emerging cruise market with less than 200,000 cruise passengers in 2010. In order to win customers in China, it is an urgent need for the whole market to know better who Chinese cruisers are, and how the cruise as a "product" being adapted to Chinese tourists. However, to date, very limited information has been disclosed on customers cruising from coastal cities of China. In line with Mondou and Taunay (2011), we feel that it is not easy to conduct an analysis, especially a quantitative analysis, to know exactly the profile of Chinese cruise passengers, as long as the market is not democratized. Therefore, to fill this gap, in this section we qualitatively analyze the characteristics of cruise passengers in China by summarizing the data available and comparing related results with other regions reported in existing literature. Additionally, we conducted several qualitative semi-structured interviews with experts in organizations including colleges/universities, official tourism organizations (Tourism Bureau Shanghai), port authorities (Shanghai, Xiamen, Tianjin, Sanya, etc.) and cruise companies (Royal Caribbean, Costa and Star Cruises).

3.3.1. Demographics

Since 2004, the cruise market profile study of CLIA is conducted every 2 years to collect demographic information of cruisers and identify their behavioral characteristics. Based on the core target market (25 years old with a minimum household income of $40,000) selected in 2011, the CLIA identified that the cruise tourism market is dominated by discretionary and leisure travelers. Compared to the total population, cruisers are usually older, more educated and richer. The median age is 48 (46 non-cruisers), the proportion of college graduates is 76% (67% non-cruisers) and the median household income is $97,000 ($75,000 non-cruisers) (CLIA, 2011c).

In terms of Chinese cruisers, to the best of our knowledge, only Royal Caribbean International (RCI) disclosed such kind of market profile information. On 15 November, 2013, the largest cruise theme expo in Asia, the 8th China Cruise Shipping & International Cruise Expo, was held in Shanghai, China. At the meeting, the RCI vice president and managing director of Asia and China, Liu Zinan, revealed the basic results of the market profile study on Chinese cruisers departing from China mainland, Hong Kong and Taiwan. The study was based on three samples of 536 cruisers, 600 potential cruisers for interview survey and 100,000 for whole year guest satisfaction survey. In this research, a questionnaire was given to passengers of *Voyagers of the Seas* and *Mariner of the Seas*, homeported in Tianjin (Beijing) and Shanghai respectively, during the period of March to October, 2013. The respondents' demographic information showed a younger and higher educated market which is dominated by middle class customers. In the whole sample, the "23–55 years" cruisers accounted for 81.5% and the "over 55 years" accounted for 15.4% (RCI, 2013). Around 65.5% of respondents had a bachelor's or graduate degree, 54.7% and 10.8%, respectively (RCI, 2013). Over 75% respondents have monthly income over RMB 14,000 (RCI, 2013). The profile information indicated that the majority of Chinese cruise travelers are apparently a new generation of the cruise market.

3.3.2. Preferences

Compared with American group, Chinese cruisers preferred shorter cruises. In the North American market, the average length of cruises was over 7 days, 7.3 days in 2010 (CLIA, 2011a) and 7.2 days in 2012 (FCCA, 2013). Data from the Maritime Administration indicated that 6–8 night cruises were more popular in that market, with market share of 52.4% in 2008, 51.9% in 2009, 54.7% in 2010 and 54.5% in 2011, respectively, in terms of cruise passengers (MA, 2012). According to RCI's study, in China, cruises over a week are rare in the companies' program listings. The average cruise duration in Chinese market is 4.5 night. Cruises less than 6 nights were more welcome by Chinese tourists, in which 2–3 night cruises accounted for 44%, followed by 4–6 night sailings (32%). The reduction of cruise duration was reasonable due to the holiday institutions in this country. The majority of cruise passengers in China were employees (Mondou and Taunay, 2011), who have four 3-days breaks over the year (the Qingming Festival in early April, the Labor Day on May 1st, the Dragon Boat Festival in June, the Mid Autumn Festival in September) and two 7-days holidays called "golden weeks" (the Spring Festival in January or February and the National Day on October 1st). In China, since the paid holiday system is not yet popular and mature, the longer sailings do not meet the expectations of the Chinese tourists. Time constraints should be specially considered by all cruise companies in itinerary design procedure. Except for the holiday issue, high price sensitivity of Chinese tourists is another important constraint for cruise lines to offer longer cruises.

In the marketing context, a large number of studies have illustrated that customer satisfaction is vital for companies to stimulate customer loyalty (e.g., repurchase) and behavioral intentions (e.g., word of mouth). The CLIA market profile showed a high customer satisfaction level in the North American market, where 94% of cruise passengers expressed satisfaction, 45% were extremely satisfied and 35% were very satisfied in 2010 (CLIA, 2011c). According to RCI's study, Chinese cruisers showed high satisfaction degrees in aspects of cruise service (98.3%), entertainment (97.7%), children's center and programs (95.1%), ship outline (94.2%) and food/beverage (91.1%). The findings are partially in conformity with the results of an empirical study by Xie et al. (2012) that, both potential cruisers and cruisers attached high importance to cruise ships' entertainment attributes, core attributes (cabin, restaurants, food and room service) and crew attributes(crew service). In contrast, Chinese cruise passengers who reported satisfaction with shopping experience (89.8%) and sports platform (89.3%) were fewer (RCI, 2013).

An empirical study on Asian cruise passengers identified "facility", "food/beverage", "entertainment" and "staff" as four important dimensions of cognitive perceived value, which affect cruisers' overall satisfaction, both directly and indirectly through affective perceived value (Yi et al., 2014). Therefore, in order to attract Chinese customers, international cruise lines should adjust their strategies to meet expectations of Chinese customers. For instance, to stimulate the interaction between tourists and crew, and engage passengers in cruise activities, Costa and RCI increased their crew members speak Chinese and offered more Chinese language services. Previous study revealed that, for the Chinese customers, two important major attractions on cruise ships were shopping and gaming. The general shopping experience requires the attention of cruise policy makers (Brida et al., 2012a). To meet the desire of Chinese cruisers to shop, Costa dedicated more than 50% of the shopping space by removing the sunbathing area on their Costa Allegra since the attraction for sunbathing and swimming was limited (Mondou and Taunay, 2011), and offered more duty-free items onboard and shopping opportunities during excursions ashore. Since 36% of Chinese cruisers were looking for fun (animations, games) onboard (Mondou and Taunay, 2011), the quality of entertainment and gaming are essential for the success of the cruise in China. Additionally, the study of RCI in 2013 indicated that almost 100% of Chinese passengers took onshore excursions. Therefore, attractiveness of ports of call and tourism products offered by onshore travel agents would significantly influence Chinese customers' choice of cruise. Conversely, Chinese cruisers gave a small importance to the quality of the food and preferred traditional Chinese food to international dish. The study of RCI reported that less than 30% of Chinese passengers were completely used to western food; 17.4% could only endure to eat western-style food for 2–3 days

(RCI, 2013). Therefore, authentic Chinese food should be prepared on all cruise ships operating in the China Sea.

3.3.3. Motivation and information source

It is acknowledged that travel motivation has been identified as a fundamental force behind tourist behavior (Hung and Petrick, 2011). In the emerging cruise market, motivation data are vital for managers and marketers to plan for the future (Jones, 2011). With regard to motivation to cruise, few studies have touched this field. A study on 306 North American cruisers showed that cruisers' desire to cruise is primarily driven by the need for stimulus-avoidance. This is similar to the findings of an empirical research on cruisers embarking from Florida (USA) that "Escape/Relaxation" was the strongest factor to motive tourists to cruise (Hung and Petrick, 2011). Consistent with previous findings, Andriotis and Agiomirgianakis (2010) also identified "exploration" and "escape" as the main motivations of visitors in the Mediterranean market. With the fast development of the whole society, Chinese people are facing fierce competition and high life of the pressure. Escaping from the daily routines motives more and more Chinese people to travel, particularly during the "golden week".

A face-to-face survey conducted by Tourism Research Australia on 430 cruise passengers at four cruise ports in Western Australia showed that the main motivations influencing tourists' decision to cruise were "the general appeal" and "always wanting to visit the destination" (TRA, 2012). In relation to information source, Jones (2011) found that personal- and internet-based information sources were deemed most influential. The CLIA market profile study indicated that the destination website (39%), word of mouth (35%), always wanted to go there (31%) and spouse/travel companion (36%) were four most influencing information sources to motive tourists to take cruise (CLIA, 2011c). In the Western Australian market, TRA (2012) revealed that information sources used most frequently were the cruise operator (36%), travel book, guide or brochure (33%) and the cruise tour desk (32%). According to RCI (2013), for the Chinese cruisers, "friends/relatives" (54.1%) was identified as the most influencing information source in their decision to take a cruise, followed by "websites" (26.7%) and "travel agents" (17.5%). Although only 6.2% of Chinese passengers mentioned that television commercial and internet advertising were their promotional channels, television should be an efficient tool to promote the cruise business in China, since watching TV is one of the main entertainments for Chinese people at their leisure time. Recently, we have witnessed the promotion advertising of Costa, Princess and RCI on Dragon TV of Shanghai.

3.3.4. Recommendations for Chinese market

In China, the key for the success in winning the cruise market is to identify a fitting business model based on better understanding the characteristics of Chinese customers. From previous analysis we can conclude that the cruise line business in China is different from the Western world. In order to explore the untapped market potential, cruise products should be modified to meet the perceptions and expectations of the Chinese customers.

For example, gambling/casinos, shopping, language services and traditional Chinese food should be emphasized on cruise ships when operating in China Sea. The lively atmosphere onboard would be welcome by Chinese cruisers. In contrast, swimming pools, sunbathing areas and sports facilities can be paid less attention to. When designing itineraries, international cruise lines should carefully take into consideration the leisure time constraints (usually shorter than one week) as well as the high price sensitivity of Chinese tourists. It is expected that cheap cruises and discounted package travel products would be acceptable and preferable to Chinese tourists. Since Chinese people have the unique culture of respecting for family, friends and co-operation (collectivistic nature), family-oriented entertainment and children programs should be well-designed onboard. Additionally, because Chinese customers are known as brand aware, cruise companies should focus on the awareness and brand positioning more carefully (Ahola, 2011).

Therefore, a modified cruise line business model, which could be defined as escaping from the mundane life and family-oriented experiences with casinos, gardens, duty-free shops onboard and beautiful natural scenery at ports of call ashore in other cultures, should be more effective than the old one used in the North American and European markets.

3.4. Importance of cruise ports

Ports of call, or destinations, can be regarded as one of the most important reasons why tourists choose specific cruises (Brida et al., 2013). According to their use by cruise companies, cruise ports are commonly categorized into three categories of homeports which are the starting or/and ending ports for a cruise, ports of call which are the ports visited by a cruise ship and a combination of the previous two classes, hybrid ports, which are used for both the starting and ending ports for some cruises and intermediate points for others (Lekakou et al., 2009). A port city is, in principle, interested in building one or more cruise terminals in the port area and being a point for one or more cruise itineraries. This is due to the serious economic impacts of cruising on ports and local communities. Recently, it has been estimated that a cruise passenger spends 6–7 times more money at a homeport than at a port-of-call (Lekakou et al., 2009). To be a port of call, specially a homeport, the port and related regions could enjoy significant economic benefits arising from following five principal sources (CLIA, 2011b): (1) spending by cruise passengers and crew for goods and services in relation to their cruise, mainly including transportation services between their residential places and embarkation ports, pre- and post-cruise vacation expenditures; (2) employment (jobs) and employee compensations offered by cruise lines for their headquarters, marketing and voyage operations; (3) expenditures of cruise lines' purchases and logistics in support of their necessary cruise operations, mainly including food/beverages, fuel, hotel supplies, navigation and communication equipment's; (4) expenditures by cruise lines for port services at ports-of-embarkation and ports-of-call; (5) spending by cruise lines for construction of new cruise ships, maintenance and repair of vessels, office facilities and other capital expenditures.

With regard to the global port system, most popular cruise ports are located in North America and Europe, particularly the Caribbean, the Mediterranean and the Alaska region. In 2010, 9.7 million cruise passengers embarked on their cruises from a U.S. port, and the top fifteen U.S. cruise ports accounted for 90.7% of embarkations (CLIA, 2011b). As the dominant region of cruising in the United States, Florida accounted for 54.2%, 57.0%, 59.0% and 59.7% of all U.S. embarkations in 2007, in 2008, in 2009 and in 2010, respectively (CLIA, 2011b). The top three ports in Florida are Port of Miami, Port Everglades and Port Canaveral, which boarded over half (53.8%) of all U.S. cruise embarkations in 2010. Outside of Florida, other popular ports in California are Los Angeles, Long Beach, San Diego and San Francisco, which boarded 11% of all U.S. embarkations (CLIA, 2011b). In the European region, Barcelona in Spain and Civitavecchia in Italy have emerged as the top ranking ports (Soriani et al., 2009), with respective embarkations of 2.41 million and 2.19 million in 2012 (ECC, 2013). Other cruise ports performed million-level passenger throughputs are Piraeus (Athens), Venice and Southampton, with embarkations of 1.20 million, 1.78 million and 1.53 million, respectively (ECC, 2013).

From the distribution of world's cruise ports we can see that the global cruise port system is characterized by a high level of regional concentration as well as a clustering of port visits (Rodrigue and

Notteboom, 2013). The Caribbean and the Mediterranean are the most concentrated cruise regions in the world, with significant clusters of cruise activities, followed by Northern Europe, US Northeast and Atlantic Canada, Alaska and Hawaii areas. Although limited cruise activities take place in Asia, as cruise lines continue to launch more and larger ships into this region, a lot of infrastructure constructions occurred all over the region in recent years. It could be indicative that a new cruising cluster would emerge in Asia in a near future.

3.4.1. Chinese cruise port system

As cruise tourism expands in this country, China intently focuses on establishing and upgrading its port facilities to meet the cruise boom. Chinese governments spared no effort to promote the development of the cruising industry by improving the berthing capacity for cruise ships in each existing or potential cruise port. Recently, a large number of programs with regard to cruise port infrastructure has been approved by both national and local governments of China. Many ports along coastlines of China are vying for a position as turntable or hub in the cruise industry. The vast majority of seaports along China's coastlines, such as Shanghai, Tianjin (Beijing), Sanya, Dalian, Qinhuangdao, Qingdao, Weihai, Ningbo, Zhoushan, Xiamen, Shenzhen, Guangzhou, Haikou and Beihai, have put their eyes on the element of "cruise economy" and started to build and improve their port areas for berthing of cruise ships.

From now on, China has completed the constructions of Shanghai Port International Cruise Terminal (SPICT), Xiamen International Cruise Terminal and Sanya Phoenix Island International Cruise Terminal. Simultaneously, Tianjin Cruise Terminal and Shanghai Wusongkou International Cruise Terminal (WSK) have also been put into use. Additionally, Dalian, Qingdao, Ningbo, Zhuhai, Guangzhou, Shenzhen, Haikou and other coastal cities actively targeting the cruise sector, have undertaken or completed the cruise terminal constructions. In 2011, there were totally 12 cruise ports in mainland China serving international cruise ships. Fig. 5 demonstrates the spatial distribution and the basic berthing capacity including total length of wharf, depth of water and maximum displacement tonnage, as well as the business performance (number of cruise calls and passengers in 2011) of each cruise port in China.

In the next few years, more and more cruise lines are paying attention to China, one of the burgeoning and most dynamic markets in Asia, and have established China-based routes from Shanghai, Tianjian, Qingdao, Xiamen and Sanya, all of which satisfy the corresponding infrastructure requirements to host large cruise liners. Table 1 illustrates the number of cruise ships and passengers calling at Chinese cruise ports (from north to south) over the period of 2008–2011 (CCYIA, 2012).

Due to very limited information on the numbers, growth and impacts of cruising in mainland China, Table 1 only illustrates the data accessible to the authors. In the table, ports with no any data, including Yingkou, Yantai, Taizhou, Ningbo, Shantou and Zhuhai, mainly are potential cruise ports, which are under construction and going to be ports of call for some cruise itineraries. Other ports with partial data are either newly completed ports or old ports having limited data reported. Actually, accessibility of the data, to some extent, reflects the famousness and cruise business performance of a cruise port in China. From the data matrix we can note that Shanghai, Hong Kong, Tianjin, Sanya, Dalian, Qingdao, Beihai and Xiamen are the most preferable ports when cruise ships and passengers choose their ports of call in mainland China. In 2011, the four major cruise homeports Shanghai, Hong Kong, Tianjin and Sanya covered almost 80% of the total cruise tourist flow. In the Taiwan region, Port of Keelung is the largest cruise ports, with 121 cruise calls and 302,943 cruise passengers in 2011, 120 calls and 306,532 passengers in 2010, and is projecting 152 ship calls and around 296,000 passengers for 2012 (CIN, 2012b).

3.4.2. Cruise port competitiveness

In terms of cruise port competitiveness in China, Table 2 illustrates the literature touching this issue from different points of view. By considering eight aspects, including tourism resource, berthing capacity, cruise business performance, tourism enterprise, economic development, financial and insurance service capability, transportation capability and city construction level, Cai and Niu (2010) evaluate development potential of the cruise industry in principal cruise cities and conclude that mainland China's cruise tourism would form a spatial pattern with two regional markets in the north and the south respectively, with Shanghai as a homeport and Shenzhen, Tianjin as regional hub ports. Based on criteria of city economic level, city service capacity, port development capacity and tourism recourse, Zhu (2010a,b) evaluates the competitiveness of Chinese cruise ports' tourism. The results show that Shanghai in the Yangtze River Delta, Tianjin in the Bohai Sea Rim region, Xiamen in the Pearl River Delta and Sanya in the southwest coast are the most competitive cruise ports in respective regions. By considering a criterion system consisting of cruise business performance, tourism resource, supporting factor and demand factor, Chen (2008) categorizes Chinese cruise cities into four classes with Shanghai the fist-class, Tianjin the second-class, the third-class Qingdao, Dalian and Xiamen, and the forth-class Haikou and Ningbo.

By taking criteria of tourism resource, berthing capacity, cruise market size, port location and environment protection into consideration, Nie and Dong (2010) examine development situations of cruise tourism in Chinese port cities. The results indicate that the selected port cities can be divided into four echelons: Shanghai the first echelon, Tianjin, Shenzhen and Qingdao the second echelon, the third echelon Dalian and Ningbo, followed by Xiamen, Haikou and Sanya. Additionally, Wang (2008a,b) takes three aspects of port competitiveness, tourism competitiveness and service competitiveness into account, and Yu (2008) considers criteria of port location, tourism resource, port service and hinterland situation, respectively, explore comprehensive competitiveness of Chinese cruise ports/cities in exploiting cruising tourism. In terms of homeport identification, based on characteristics of exiting cruise terminal, economic development level and resource of tourism, Liu (2010) recognizes that Shanghai, Tianjin, Xiamen and Sanya are mature enough and suitable for homeport functions, while Dalian, Ningbo, Shenzhen, Qingdao are suitable to be visiting points for cruises. To give an integrated evaluation, we offer a combined ranking result by averaging the order numbers of each port in all studies as the new measure. Our results show that Shanghai, Tianjin, Shenzhen, Guangzhou and Xiamen are the most competitive ports for developing the cruise tourism. It is particularly notable that, all the above discussions suggest that Shanghai is the most developed cruise city in China with great long-term potentials for development. Now we provide a detailed description of the most dynamic city in the cruise market in China.

3.4.3. Shanghai case discussion

Located in the center of the Yangtze River Delta in eastern China, which is China's most developed coastal economic region with rich islands, coastal resources and tourism resorts, Shanghai sits at the mouth of the Yangtze River in the middle portion of the Chinese coast. The location of Shanghai is one of the most ideal operating regions for cruise in Northeast Asia. At the moment, Shanghai has become the fastest developing and the largest cruise hub in

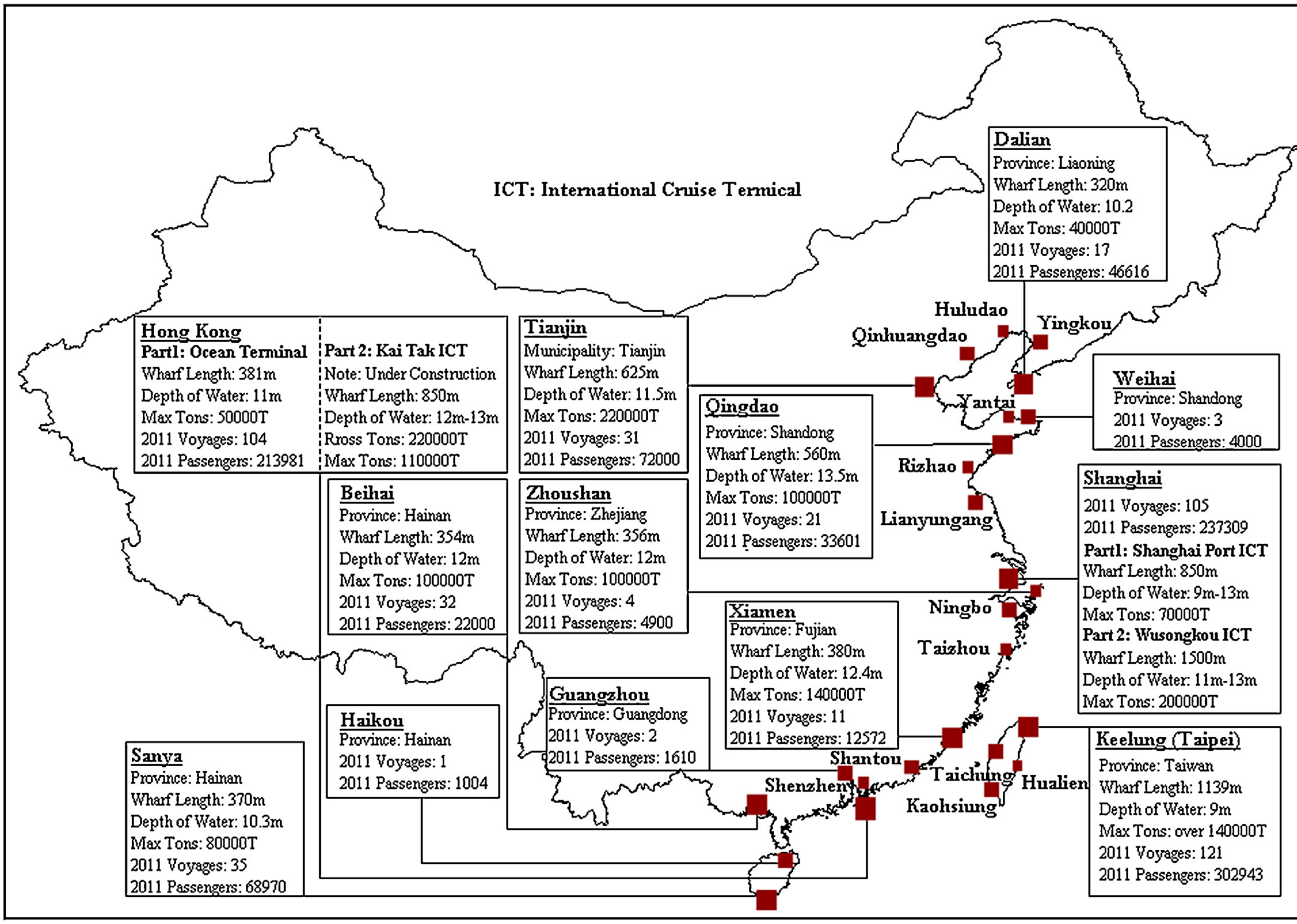

Fig. 5. The cruise port system in China.

mainland China. It is well-known that source of passengers and demand of cruising are two important factors affecting decisions of homeport selections for international cruise lines. Shanghai is the largest city by population with more than 20 million urban inhabitants. Its per-capita GDP, around two times of the country's average level, has reached $10,827 in 2012. For the cruise line industry, Shanghai not only has enough potential cruise passengers, but be able to satisfy tourism demands very well.

Table 1
Cruise calls and passengers in Chinese cruise ports (2008–2011).

Port	Province/municipality	Cruise calls				Passengers			
		2008	2009	2010	2011	2008	2009	2010	2011
Yingkou	Liaoning	–	–	–	–	–	–	–	–
Dalian	Liaoning	4	–	11	17	–	–	19794	46616
Tianjin	Tianjin	15	26	40	31	20000	–	100,000	72,000
Weihai	Shandong	–	1	–	3	–	–	–	4000
Yantai	Shandong	–	–	–	–	–	–	–	–
Qingdao	Shandong	13	10	15	21	16,000	–	–	33,601
Taizhou	Jiangsu	–	–	–	–	–	–	–	–
Shanghai	Shanghai	60	79	178	105	130,000	183,000	341,808	237,309
Zhousan	Zhejiang	–	–	–	4	–	–	–	4900
Ningbo	Zhejiang	–	–	–	–	–	–	–	–
Xiamen	Fujian	56	26	58	11	73,668	20,247	19,656	12,572
Shantou	Guangdong	–	–	–	–	–	–	–	–
Guangzhou	Guangdong	–	–	–	2	–	–	–	1610
Zhuhai	Guangdong	–	–	–	–	–	–	–	–
Haikou	Hainan	–	–	–	1	–	–	–	1004
Beihai	Hainan	160	100	88	32	63,430	26,113	21,881	22,000
Sanya	Hainan	132	34	15	35	339,670	75,474	39,384	68,970
Hong Kong	Hong Kong	184	94	87	104	782,475	605,711	1,078,404	213,981
Hualien	Taiwan	–	11	2	28	–	27,852	6822	13,861
Kaohsiung	Taiwan	–	5	8	–	–	4473	16,335	24,284
Taichung	Taiwan	–	20	28	10	–	31,804	31,804	28,514
Keelung	Taiwan	–	100	111	–	–	266,345	300,000	302,943

Table 2
Literature on evaluation of cruise ports/cities in China.

Cruise ports	Chen (2008)	Yu (2008)	Wang (2008)	Zhu (2010)	Cai and Niu (2010)	Liu (2010)	Nie and Dong (2010)	Average ranking
Shanghai	1	1	1	1	1	1	1	1
Tianjin	3	7	6	4	3	2	2	2
Shenzhen	2	×	8	3	2	7	3	3
Guangzhou	×	4	3	6	×		×	4
Xiamen	6	5	5	2	6	3	8	5
Dalian	5	2	4	9	7	5	5	6
Sanya	×	×	2	7	×	4	9	7
Qingdao	4	6	7	5	5	8	4	8
Ningbo	7	3	9	8	4	6	6	9
Haikou	8	×	×	10	8	×	7	10

As a key project in Shanghai, the Shanghai Port International Cruise Terminal (SPICT) was fully completed by the end of 2008. With total investment of $260 million and an annual passenger throughput of 1 million, the terminal will become a leading base for cruise lines in Asia. In April 2008, Royal Caribbean, the second largest cruise group, announced that Shanghai would be her homeport for exploiting China-Japan-South Korea routes. So far, the world's three major cruise corporations (Carnival Cruises, Royal Caribbean and Star/NCL Cruises) have entered Shanghai. In 2011, Shanghai hosted a total of 105 cruise calls with 237,309 passengers. For 2012, the forecast is for 83 homeported cruises and 41 transit calls with a total of 300,000 passengers (CINQ, 2012a).

As another huge project worthy of attention in Shanghai, the first phase of the Shanghai Wusongkou (WSK) International Cruise Terminal was fully completed and put into use in July 2011, with a berthing capacity of holding a 100,000-ton and a 200,000-ton cruise ship simultaneously, and an annual passenger handling capacity of over 600,000 (CINQ, 2012a). According to the Asia Cruise Terminal Association (ACTA), WSK is forecasting a throughput of 300,000 passengers in 2012. By doubling the cruise wharf length to 1500 m in the second phase, the terminal would allow four to five cruise ships to berth at the same time by 2013. Based on the expansion, WSK is expecting the number of throughput to grow to 800,000 by 2016. In addition to SPICT and WSK, a supplementary cruise terminal was established in Waigaoqiao Port. Because of the low bridge on Huangpu River, ships larger than 87,000 tons cannot get to SPICT, and will have to berth at the Waigaoqiao (WGQ) Cruise Terminal, which is located in Pudong New Area in Shanghai, about 7 km east to WSK, 30 km from downtown Shanghai, and 85 km west to the estuary of Yangtze River. In terms of berthing capacity, WGQ can handle four cruise ships at any time.

The operation of WSK, SPICT and its supplement WGQ at the same time, which is also known as the "two-primary and one-supplementary mode", significantly increased the ability of accommodating cruise ships in Shanghai. In 2012, the cruise flow of Shanghai grew considerably. The number of cruise calls increased by 4% to 247 in 2012, with 503,000 passengers and crew, an increase of 52% compared to the previous year. In 2013, the number of Shanghai-involved cruises already scheduled will increase by 34% to 330. With the effects of 2008 Olympic Games and the 2010 World Expo, more and more cruise lines considered Shanghai as their homeport. Cruise economy of Shanghai is moving into "homeport era". In 2013, there will be 5 homeported cruise ships from Shanghai, including Royal Caribbean's *Voyager of the seas* and *Mariner of the Seas*, Costa's *Costa Victoria* and *Costa Atlantica*, and *SuperStar Gemini* belonging to Star Cruises. According to the "12th Five-year Plan" of Shanghai, at the end of the 2011–2015 span, Shanghai is expected to achieve 5–8 homeported cruise ships with roughly 300,000–500,000 embarked passengers and around 500 cruise calls with around 1–1.2 million cruisers.

3.5. *Chinese cruise policy issues*

Fast development of the cruise industry in China is inseparable from the support of Chinese government. In recent years, in their efforts to maximize development of the industry, Chinese government issued a variety of policies in relation to cruising activities both at state level and at local scale. Table 3 illustrates the list of such various documents issued by different departments and ministries of China year by year.

From the state level we can note that over the period of 2007–2012, Chinese government made more efforts than ever before to push development of the cruise industry in diversified areas, ranging from overall planning to special aspects, including cruise educating, entry & exit (customs clearance), inspection & quarantine, cruise service standard of onshore accommodations, international cruise operations and foreign-owned cruise company launching in China, native cruise operations and shipbuilding, etc. It is worth mentioning that in 2012 and 2013 the China Cruise Tourism Development Experimental Zone was approved in Shanghai and Tianjin (Beijing) respectively. Since then, Shanghai and Tianjin can play the first try in issues of cruise policy-making, product development and service improvement.

From the local level we can see that, to boost the regional cruise economy, many coastal cities in China are competing to invite foreign cruise ships to call at their ports, by undertaking projects of cruise ship terminals in their seaports, and issuing a lot of relevant policies. For example, as the most developed cruise city in mainland China, Shanghai, with two large cruise terminals, made the "12th Five-year Plan of Shanghai Cruise Industry Development" (the 12th Five-year Plan) for 2011–2015, in order to achieve the goals of being the third Asia Pacific cruise center after Hong Kong and Singapore, and becoming a first-class international cruise hub port in East Asia area. As a national major strategy project and the biggest construction target for Hainan government, by 2020, Hainan International Tourism Island will be established as the world's top-ranking island leisure resort, where cruise tourism is planned to be a symbolic part. To enhance the development level of the cruising sector, in recent years, both Hainan province and ministries of China have made a number of policies and posted several strong cruise ports of Beihai, Haikou and Sanya.

With comprehensive and continuous support of Chinese government, the cruising industry has advanced greatly in recent years. Three major representative events could adequately reflect the significant progress in recent years. The first event was related to luxury cruise ship construction. On 26 July, 2012, China began construction on its first luxury cruise liner in Xiamen, which could be a strong indication that, China as a new player entered the field of cruise ship manufacturing. It is predicted that Chinese shipbuilders will not only build ships for the Chinese market but ultimately for international brands outside Asia (CIN, 2012a). The second progress was associated with native cruise ship operation. The first Chinese-owned cruise ship 200-berth China Star, formerly known

Table 3
Cruise policy & regulation documents issued by Chinese governments.

Time	Documents	Issued by	Level
June 2008	Guidance of promoting the development of the cruise industry in China	China National Development and Reform Commission (CNDRC)	State
January 2009	Cruise major be added first time into China National University Admission List	Ministry of Education	State
February 2009	The cruise tourism was added into waterfront tourism planning system	National Tourism Administration	State
March 2009	Response options of international cruise group disease emergency	General Administration of Quality Supervision, Inspection & Quarantine	State
October 2009	Management Measures of exit and entry frontier inspection	Ministry of Public Security	State
October 2009	Bulletin of special permission of international cruise multi-ports calling in China	Ministry of Transport	State
October 2009	Construction and operation policy of China international cruise fleet	Ministry of Transport	State
November 2009	Research of cross-strait cruise industry development policy	Ministry of Transport	State
December 2009	Suggestions for promoting the construction and development of Hainan international tourism island	The State Council of P.R.C	State
January 2010	Specification for tourism service of international cruise ports (LB/T 017-2011)	National Tourism Administration	State
February 2010	Research of customs clearance policy for international cruise	General Administration of Customs	State
January 2011	Planning of development of Shandong Peninsula blue economic zone	The State Council of P.R.C	State
2009–2013	China Cruise Industry Development Report	China Cruise and Yacht Industry Association (CCYIA)	State
March 2014	Guidance of promoting the sustainable and healthy development of the cruise shipping industry in China	Ministry of Transport	State
July 2007	Research of promotion of Zhuhai cruise port development	Zhuhai Municipal Government, Guangdong Province	Provincial
July 2007	Plan of Xiamen cruise economic recovery	Xiamen Municipal Government, Fujian Province	Provincial
August 2008	Outline of promotion of Shenzhen cruise industry development	Shenzhen Municipal Government, Guangdong Province	Provincial
December 2008	Research of cross-Taiwan strait cruise fleet policy	Shanghai Municipal Government, Shanghai	Provincial
September 2009	Overall planning of Qingdao (Tsingtao)cruise tourism development	Qingdao Municipal Government, Shandong Province	Provincial
May 2010	Research of Hongkou District cruise industry chain	Shanghai Municipal Government, Shanghai	Provincial
October 2010	12th five-year plan of Shanghai cruise industry development	Shanghai Municipal Government, Shanghai	Provincial
February 2011	Memorandum of cooperation signed to promote the construction of international tourism island	General Administration of Customs & Hainan provincial government	Provincial
March 2011	Announcement of policy of passengers' tax-free shopping in Hainan Island	Ministry of Finance	Provincial
October 2011	Overall planning of Haikou cruise and yacht industry development	Haikou Municipal Government, Hainan Province	Provincial
February 2012	Permission of travel agencies owned by foreign cruise companies to undertake cruise business of Chinese mainland residents from Shanghai	National Tourism Administration	Provincial
December 2012	Sanya cruise tourism development planning	Sanya Municipal Government, Hainan Province	Provincial

as the Radisson Diamond, homeported from Zhejiang province, has begun operating 4- and 5-day cruises from Hong Kong and Zhoushan. The third event was in relation to onboard supply for cruise ships. In 2011, the International Cruise Procurement Alliance (ICPA) was established during the Cruise Expo at 6th China Cruise Shipping. The ICPA, contributed by Tianjin municipal government and Royal Caribbean Cruises Ltd., Costa Cruises and Genting Hong Kong Ltd., organized more than 50 well-known local suppliers from food sections to hospitality products to satisfy requirements of cruise purchasing & logistics and offer other diverse supplies to the onboard service.

3.6. Challenges, issues and implications

Over the past decades, the cruise industry has experienced rapid development and been extensively developed in North America with highest level of market penetration, around 3% of the population taking a cruise each year (Rodrigue and Notteboom, 2013). However, it is indicated that North America is on the way to maturing stage, reporting a continuous declining proportion of world's cruise passengers, particularly since 2005. On the other way round, the Asian market is undergoing incredible growth with increasing market share of the global industry. In order to expand their global business, international cruise companies are posting more and larger cruise ships into this region where the penetration levels remain only 0.1–0.2% (Rodrigue and Notteboom, 2013), with huge room for development.

In recent years, because of economic advance, diverse culture and attractive destinations, Asia in general, China in particular, attracts more and more attention from international cruise lines. Although, cruise travel is still relatively small in China as cruising is generally not perceived to be an accepted mean of vacationing by Chinese people, the growth potential is strong as long as the respective affluence surges of the country remain strong. With combination of the fast growing middle class, the gradually increasing interest of people in cruising activities and the various efforts made by Chinese governments, China promises to drive ample growth opportunities for the global cruise industry. As one of the core elements of the Asian cruise industry, China is on its way to become the second-largest consumer market in the world (CINQ, 2012b), with total number of outbound tourists reaching 100 million by 2020 (WTO, 2000) and current 300 million middle class as potential cruise vacationers. Along the way, cruise lines have the opportunity to infiltrate into the Chinese market and create enormous demand for their products (CINQ, 2012b).

At present, the Chinese cruise industry is still in its infancy stage. Most business of China with regard to the cruise industry focuses on accommodating international cruise ships and their passengers. The economic benefits, with limited contribution to the local economy, are mainly derived from businesses of cruise accommodations, tourism services on shore, as well as a small number of cruise ship onboard supply services. Remarkably, in 2011 great progress was observed in the areas of China-based luxury cruise ship constructions and China-owned cruise ship operations. However, the cruise industry chain of China is quite narrow still. On a global value chain basis, China is still at the bottom. China still lacks experiences in cruise ship design and construction, cruise ship operation, ticketing and channel coordination, route scheduling and development, market cultivation and personnel training, etc. In short, the rapid rise in the Chinese cruising industry generates great opportunities for both China and rest of the world, and meanwhile comes with issues and challenges for this country.

3.6.1. Infrastructure challenges

Infrastructure is not adequate in China to satisfy the expansion of cruising tourism in Asia. Port infrastructure has emerged as an important issue especially for cruise-developing regions. In recent years, a trend toward larger ships puts forward significant expansion of port capacity, including length of shoreline, water depth, offshore space, security barrier, wharf construction, passenger distribution and engineering technology. Given the trend, cruise lines have expressed a preference for ports of call with a pier structure to facilitate larger ships with increasingly greater volumes of passengers at rapid offloading and unloading speed (Goldstein, 2011), in order to effectively fulfill their “Mass Cruise” strategies. These higher equipment’s make cruise destinations evolve significantly and expand from basic piers to comprehensive structures with tourism, transportation, entertainment, retail, and dining facilities.

Currently, China is at the early stage of the industry emphasizing on accommodating cruise ships and cruise vacationers. In recent years, a large number of cruise terminals were under construction or completed in principal ports of China. But inadequate infrastructure both in quantity and in quality is still inhibiting the growth of the industry in this country. The berthing capability becomes a big challenge for many operators, at which some larger cruise ships cannot berth. For example, as mentioned previously, because of the low bridge on Huangpu River in Shanghai, ships larger than 87,000 tons cannot reach SPICT, and have to berth at either WSK or WGQ instead. As the most famous destination in Hainan Island, the southernmost province of China, with only one 80,000-ton cruise terminal, Sanya cannot host more than two ships at the same time. For further development, Sanya Phoenix Island International Cruise Port is undertaking the phase 2 of the terminal to build one 30,000-ton, one 100,000-ton, two 150,000-ton and one 250,000-ton cruise piers. After this, Sanya will have a berthing capacity of handling 6 cruise ships ranging 30000-ton to 250,000-ton simultaneously, and is expected to be one of the best homeports in Asia.

3.6.2. Early stage of development

Cruising tourism in China remains in the product-introduction phase with comparatively small consumer base. For China, another serious bottleneck in developing this industry is that, unlike countries that have a maritime tradition with a higher share of the population taking cruises (Rodrigue and Notteboom, 2013), this form of tourism has not yet been widely accepted by Chinese people, even the middle class group. Awareness of cruising by local people is one of the most import issues in exploiting this burgeoning market. With purpose of cultivating cruise market in China, a variety of efforts were made by different Chinese organizations. For example, in 2012, the 7th China Cruise Shipping and International Cruise Expo were held in Tianjin, with the conference theme “create cruise market, development cruise industry”. For the same purpose, 2012 Wusongkou Cruise Carnival and China Shanghai Aquatic Tourism Forum 2012, with a consequence of activities including first sailing ceremony, cruise forums and cruise experiences, were celebrated to spread the conception of “Ocean Culture, Aquatic Tourism”. With the opening ceremony of the Shanghai Cruise Tourism Development Experimental Zone, the 2012 Shanghai Tourism Festival was held at WSK to consider market cultivation of the cruise industry. Additionally, to expand customer base, cruise lines should also invest more into China in terms of distribution and advertising to capture a better understanding of preferences of Chinese holiday makers and offer them packages that meet their needs. As Adam Goldstein, CEO and president of Royal Caribbean International, argued, “the consumer awareness and the distribution system that have supported the industry in North America and in Europe do not really exist in China, at least not to the same degree” (CINQ, 2012).

3.6.3. Lack of support service

The problem of cruise personnel shortage is very prominent in China. It is acknowledged that preparation and operation of cruises involve a wide variety of aspects, including economics, management, transportation, hospitality, entertainment, technology, logistics, navigation, safety, environmental protection, languages and cultures, all of which must be planned and integrated based on professional knowledge. At present, educating for the cruise industry is not satisfied with the fast development of the sector in China.

To solve this problem, cruise education has begun to emerge in China. In April 2012, as the first training base for the cruise sector in China, Asia Cruise Academy, jointly contributed by Seatrade International Inc., Shanghai Maritime University and Shanghai International Port (Group) Ltd., was established in Shanghai, mainly targeting at EMBA and MBA program. Additionally, universities and colleges in coastal cities of China, such as Tianjin Maritime College, Ocean University of China and Shanghai University of Engineering Science began to accept students majoring in cruise operations and management.

3.6.4. Long term commitment needed

Right now, China has no overall plan for development of the cruise industry. In early 2004, India issued the national cruise tourism development plan, followed by ASEAN in 2008 and South Korea in 2010. By considering the life circle of the industry, China National Development and Reform Commission (CNDRC) is recommended to formulate a long-term overall plan to define development positioning, development goals and development stages of the cruising industry in China, and address important issues of cruise port layout, international cruise itinerary, domestic cruise destination, cruise purchase and logistics, cruise education, cruise ship design and manufacture, cruise consumption and marketing, cruise policy and regulation, etc.

Particularly, at present, overall planning in cruise port coordination in China is neglected. China has a number of ‘proclaimed homeports’. Developing an outstanding homeport can require a significant investment in terms of land acquisition and infrastructure development. However, due to restricted resources of tourism, source of market, capacity of berthing and development of itinerary, not all ports are allowed to be homeports. To avoid waste of resources and maintain moderate competition, it is necessary for China to clarify a functional, flexible and harmonious cruise port system.

3.6.5. Environmental and related issues

Besides benefits, negative impacts generated by the cruising activities should be emphasized in advance in the process of industry introduction and further promotion in China. Cruising is one of the fastest growing and most profitable segments of the entire tourism industry, generating significant revenue and creating considerable jobs in many regions. The impacts of cruising on a location are not only positive, however. Even there are debates about the economic benefits of cruise tourism, when considering the significant investment (Klein, 2011).

As cruise tourism uses the natural environment as key product, the most serious negative impact of the sector is environment threat. A cruise ship produces a number of waste streams, including waste water treatment, air emissions from engine and solid waste (Klein, 2011). In addition, to create and maintain a responsible and sustainable cruise tourism in China, the equitable distribution of economic benefits to all segments of the community, sociocultural impacts of the industry including pollution, homogenization of the port experience, sociocultural authenticity (Klein, 2011), should also be considered carefully.

4. Conclusion

Recently, in the global travel and tourism field, the cruise industry is undergoing rapid expansion toward developing countries in Asia and the Pacific. As one of the biggest source markets of outbound tourists and the hottest tourism destinations in the Asia-Pacific region, China reported considerable progress in the cruise sector and is expected to become a new growth point of this industry. At present, research and practice in cruise tourism experiences in China is at the exploratory stage. Limited existing information on cruising in this country is available. It is very useful to present a case study for this budding and promising cruise market.

This research presents a brief snapshot of the cruise industry in China during a time of unprecedented growth, by summarizing the cruise information on the numbers, the policy and regulation documents, the academic efforts, the port system and infrastructure constructions in this country. In addition, a number of challenges that China is facing in developing cruise tourism are highlighted. This research highlights that there is a lack of published data on economic impacts of the cruising sector on cruise ports and related regions in this country. Anyhow, the comprehensive review of existing academic and practitioner work presented in this study indicate that although cruising in China is still young and evolving, its long-term market potential is strong.

Acknowledgements

This study was supported by grants from the National Natural Science Foundation of China (No. 71202134), the National Social Science Foundation of China (No. 12AJY008), the Shanghai Philosophy and Social Science Planning Project (No. 2012EGL001), the China Postdoctoral Science Foundation (No. 2012M520859), the China Postdoctoral Science Special Foundation (No. 2013T60431) and the Shanghai Postdoctoral Science Foundation (12R21413100). The authors would like to acknowledge the many helpful suggestions of Professor Scott Webster in the W.P. Carey School of Business, Arizona State University, USA.

References

Ahmed, Z.U., Johnson, J.P., Ling, C.P., Fang, T.W., Hui, A.K., 2002. Country-of-origin and brand effects on consumers' evaluations of cruise lines. Int. Market Rev. 19 (3), 279–302.
Ahola, A., 2011. Creating a consumer-driven business model for the cruise line industry: Case Royal Caribbean Cruise Lines Ltd. Master's thesis. Aalto University.
Andriotis, K., Agiomirgianakis, G., 2010. Cruise visitors' experience in a Mediterranean port of call. Int. J. Tourism Res. 12 (4), 390–404.
Biehn, N., 2006. A cruise ship is not a floating hotel. Rev. Pricing Manage. 5 (2), 135–142.
Brida, J.G., Garrido, N., Devesa, M.J.S., 2012a. Cruise passengers' satisfaction: Cartagena de Indias. Benchmarking Int. J. 19 (1), 52–69.
Brida, J.G., Pulina, M., Riaño, E., Zapata-Aguirre, S., 2012b. Cruise passengers' experience embarking in a Caribbean home port. The case study of Cartagena de Indias. Ocean Coast. Manage. 55, 135–145.
Brida, J.G., Pulina, M., Riaño, E., Zapata-Aguirre, S., 2013. Cruise passengers in a homeport: a market analysis. Tour. Geogr. 15 (1), 68–87.
Cai, X., Niu, Y., 2010. Analysis on development potential of China's cruise tourism industry. Progr. Geogr. 10, 1273–1278.
Chen, Z., 2008. A Study on Evaluation of Port City's Cruise Tourism Industry Competitiveness. (Master's thesis). Xiamen University, Xiamen.
China Cruise and Yacht Industry Association (CCYIA), 2012. 2011–2012 China Cruise Industry Development Report. Shanghai Pujiang Education Press, Shanghai.
China National Tourism Authority (CNTA). http://www.cnta.com (accessed 3.12.12).
Cruise Industry News (CIN), 2012a. CHINA: Cruise industry report highlights the China phenomenon, Retrieved from http://www.cruiseshipportal.com/news/archive/cruise-news-from-2012/may.html
Cruise Industry News (CIN), 2012b. Asia-Pacific: Broader Development, Retrieved from http://www.cruiseindustrynews.com/cruise-news/7645-asia-pacific-broader-development.html
Cruise Industry News Quarterly (CINQ), 2012a. Ports are Stepping Up, Retrieved from http://www.cruiseindustrynews.com/files1/CIN_Fall_AsiaSpecial.pdf
Cruise Industry News Quarterly (CINQ), 2012b. Fact and Fiction, Retrieved from http://www.cruiseindustrynews.com/files1/CIN_Fall_AsiaSpecial.pdf
Cruise Lines International Association (CLIA), 2011a. 2011 cruise market overview, Retrieved from http://www.cruising.org, accessed (12.27.2011).
Cruise Lines International Association (CLIA), 2011b. The contribution of the North American cruise industry to the U.S. economy in 2011, Retrieved from http://www.cruising.org/sites/default/files/pressroom/2011EconomicStudies/EconStudy_Full_Report_2011.pdf
Cruise Lines International Association (CLIA), 2011c. Cruise lines international association 2011 cruise market profile study, Retrieved from http://www.cruising.org/sites/default/files/pressroom/Market_Profile_2011.pdf
Cruise Lines International Association (CLIA), 2013. Cruise lines international association (CLIA) 2013 North America cruise industry update, Retrieved from http://www.cruising.org/sites/default/files/pressroom/CruiseIndustryUpdate2013FINAL.pdf
Datamonitor, 2012. Hotels, resorts & cruise lines industry profile: global, Retrieved from http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=80f38797-d0ab-431c-8885-7fd9f70a23bf%40sessionmgr113&vid=5&hid=126
Dowling, R., 2011. Research note: the growth of cruising in Australia. J. Hospitality Tour. Manage. 18 (1), 117–120.
Dwyer, L., Forsyth, P., 1998. Economic significance of cruise tourism. Ann. Tour. Res. 25, 393–415.
European Cruise Council (ECC), 2013. Contribution of Cruise Tourism to the Economies of Europe 2013 Edition, Retrieved from http://www.irn-research.com (accessed 02.25.14).
European Cruise Council (ECC), 2011. Statistics and Markets 2011, Retrieved from http://www.irn-research.com/sector-specific-services/travel-and-tourism
Florida-Caribbean Cruise Association (FCCA), 2013. Cruise Industry Overview-2013, Retrieved from http://www.f-cca.com/downloads/2013-cruise-industry-overview.pdf
Ge, Y., 2010. On development of international cruise counselor – strategies on cruise counselor development in China. J. Tianjin Univ. Commerce 4, pp. 56–59+69.
Goldstein, K.A., 2011. Current Trends & Considerations in Cruise Destination Development, Retrieved from http://www.coastalsystemsint.com (accessed 12.27.11).
Hoseason, J., 2000. Capacity management in the cruise industry. In: Ingold, A., McMahon-Beattie, U., Yeoman, I. (Eds.), Yield management: Strategies for the service industries, 2nd ed. Thomson, London, pp. 289–302.
Hobson, J., 1993. Analysis of the US cruise line industry. Tour. Manage. 14 (6), 453–462.
Hu, J., Chen, J., 2004. An economic analysis of the development of Shanghai's cruise industry. Tour. Tribune 19 (1), 42–46.
Huang, J.-H., Peng, K.-H., 2012. Fuzzy Rasch model in TOPSIS: a new approach for generating fuzzy numbers to assess the competitiveness of the tourism industries in Asian countries. Tour. Manage. 33, 456–465.
Hung, K., Petrick, J.F., 2011. Why do you cruise? Exploring the motivations for taking cruise holidays, and the construction of a cruising motivation scale. Tour. Manage. 32 (2), 386–393.
IRN Research (IRN), 2011. Cruise Port Statistics Summary 2011, Retrieved from http://www.irn-research.com/sector-specific-services/travel-and-tourism
Jones, R.V., 2011. Motivations to cruise: an itinerary and cruise experience study. J. Hospitality Tour. Manage. 18 (1), 30–40.
Klein, R.A., 2011. Responsible cruise tourism: issues of cruise tourism and sustainability. J. Hospitality Tour. Manage. 18 (1), 107–116.
Lee, S., Ramdeen, C., 2013. Cruise ship itineraries and occupancy rates. Tour. Manage. 34, 236–237.
Lekakou, M.B., Pallis, A.A., Vaggelas, G.K., 2009. Which homeport in Europe: the cruise industry's selection criteria. Tourismos: Int. Multidisciplinary J. Tour. 4 (4), 215–240.
Li, B., 2009. The study of cruise industrial ecosystems. Econ. Geogr. 6, 1000–1004.
Li, C., 2007. Global value chain expansion and regional tourism upgrading: an empirical study of cruise industry. J. Shandong Univ. (Phil. Social Sci.) 4, 96–100.
Lim, C., Pan, G.W., 2005. Inbound tourism developments and patterns in China. Math. Comput. Simul. 68 (5–6), 498–506.

Lim, C., Wang, Y., 2008. China's post-1978 experience in outbound tourism. Math. Comput. Simul. 78 (2–3), 450–458.
Liu, J., 2011. On Development of Cruise Homeports in China from Policy Making Prospect. (Ph.D dissertation). Fudan University, Shanghai.
Liu, X., 2010. Study on the port choice of China cruise ship terminal. Master's thesis. Dalian Maritime University, Dalian.
Luan, H., 2008. Study on the contribution of the cruise ship port to regional economy. Master's thesis. Dalian Maritime University, Dalian.
Maritime Administration (MA), 2012. North America Cruise Summary Data, Retrieved from http://www.marad.dot.gov/library_landing_page/data_and_statistics/Data_and_Statistics.htm
Marti, B.E., 2004. Trends in world and extended-length cruising (1985–2002). Mar. Policy 28 (3), 199–211.
Mondou, V., Taunay, B., 2011. The adaptation strategies of the cruise lines to the Chinese tourists. Tourism 60 (1), 43–54.
Nation Bureau of Statistics of China (NBSC). http://www.stats.gov.cn/ (accessed 3.12.12).
Nie, L., Dong, G., 2010. A study on competitiveness of cruise tourism in port cities based on Entropy-TOPSIS. Tour. Forum 3 (6), 789–794.
Papathanassis, A., 2012. Guest-to-guest interaction onboard cruise ships: exploring social dynamics and the role of situational factors. Tour. Manage. 33 (5), 1148–1158.
Papathanassis, A., Beckmann, I., 2011. Assessing the 'poverty of cruise theory' hypothesis. Ann. Tour. Res. 38 (1), 153–174.
Qu, H., Ping, E.W.Y., 1999. A service performance model of Hong Kong cruise travelers' motivation factors and satisfaction. Tour. Manage. 20 (2), 237–244.
Rodrigue, J.-P., Notteboom, T., 2013. The geography of cruise shipping: itineraries, not destinations. Appl. Geogr. 38, 31–42.
Royal Caribbean International (RCI), 2013. The Chinese cruise market profile study. In: Presented to the 8th China Cruise Shipping & International Cruise Expo, Shanghai, China, 15–17 November 2013.
Scantlebury, M.G., 2007. Cruise ship tourism. Ann. Tour. Res. 34 (3), 817–818.
Shao, L., Zhang, L., 2007. On ways of raising inspecting efficiency for cruise ships. J. Shanghai Police Coll. 2, 76–79.
Soriani, S., Bertazzon, S., DI Cesare, F., Rech, G., 2009. Cruising in the Mediterranean: structural aspects and evolutionary trends. Maritime Policy Manage. 36 (3), 235–251.
Sun, L., Wang, C., 2009. Study on development of China's cruise building industry. J. SSSRI 2, pp. 65–69+73.
Sun, X., Feng, X., 2012. Cruise tourism industry in China: present situation of studies and prospect. Tourism Tribune 27 (2), 101–112.
Sun, X., Gauri, D.K., Webster, S., 2011a. Forecasting for cruise line revenue management. J. Rev. Pricing Manage. 10 (4), 306–324.
Sun, X., Jiao, Y., Tian, P., 2011b. Marketing research and revenue optimization for the cruise industry: a concise review. Int. J. Hospitality Manage. 30 (3), 746–755.
Teye, V.B., Leclerc, D., 1998. Product and service delivery satisfaction among North American cruise passengers. Tourism Manage. 19 (2), 153–160.
Toh, R.S., Rivers, M.J., Ling, T.W., 2005. Room occupancies: Cruise lines out-do the hotels. Int. J. Hospitality Manage. 24 (1), 121–135.
Tourism Research Australia (TRA), 2012. Destination Visitor Survey–Western Australia: Evaluating the WA cruise visitor experience, Retrieved from http://www.tra.gov.au/documents/SRR_WA_Cruise_visitor_experience_FINAL.pdf
USA Today, 2014. Royal Caribbean sets epic journey for new ship, Retrieved from http://www.usatoday.com/story/cruiselog/2014/05/20/royal-caribbean-epic-cruise/9318953/
Wang, F., 2010. Study on the relationship of cruise economy and the coastal economic belt of Liaoning. (Master's thesis). Dalian Maritime University, Dalian.
Wang, G., 2009. A study on market layout and operating benefits of Carnival Cruise Lines. (Master's thesis). East China Normal University, Shanghai.
Wang, W., 2008a. Planning and design of cruise ship homeport. Port Waterway Eng. 12, 88–93.
Wang, W., 2008b. The analysis about the regional cooperation of the cruise economy in China. (Master's thesis). Dalian Maritime University, Dalian.
Weeden, C., Lester, J-A., Thyne, M., 2011. Cruise tourism: emerging issues and implications for a maturing industry. J. Hospitality Tour. Manage. 18 (1), 26–29.
Wie, B-W., 2004. Open-loop and closed-loop models of dynamic oligopoly in the cruise industry. Asia-Pacific J. Operat. Res. 21 (4), 517–541.
Wood, R.E., 2000. Caribbean cruise tourism: globalization at sea. Ann. Tour. Res. 27 (2), 345–370.
World Tourism Organization (WTO), 2000. Tourism 2020 Vision-A New Forecast. Madrid.
World Tourism Organization (UNWTO), 2012. Special report: cruise tourism current situation and trends in Asia and the Pacific. UNWTO Asia-Pacific Newsletter., pp. 28–31.
Xie, H., Kerstetter, D.L., Mattila, A.S., 2012. The attributes of a cruise ship that influence the decision making of cruisers and potential cruisers. Int. J. Hospitality Manage. 31 (1), 152–159.
Xu, H., Gao, L., 2010. The cruise tourism based on the perspective of supply chain. J. Beijing Int. Stud. Univ. 1, 58–62.
Yang, L., 2009. Space strategy of Chinese cruise economy – the perspective of cruise ports and cities. (Master's thesis). Jinan University, Guangzhou.
Yi, S., Day, J., CaiA, L., 2014. Exploring tourist perceived value: an investigation of Asian cruise tourists' travel experience. J. Qual. Assur. Hospitality Tour. 15 (1), 63–77.
Yu, D., 2008. Research on competitiveness of Dalian cruise ship homeport. (Master's thesis). Dalian Maritime University, Dalian.
Zhang, X., 2008. A research on Cruise's Economic Effect and Conduction Mechanism. (Master's thesis). Xiamen University, Xiamen.
Zhang, Y., Ma, B., Fan, Y., 2010a. Basic characteristics, development trends and implications of cruise tourism. J. Beijing Int. Stud. Univ. 7, 26–33.
Zhang, Y., Ma, B., Liu, T., 2010b. Characteristics of international cruise tourism market and Chinese prospect. Tour. Forum 3 (4), 468–472.
Zheng, J., 2012. China to boost cruise travel revenue with more domestic ports set to open. The China Post, May 28, 2012, Retrieved from http://www.chinapost.com.tw/china/china-business/2012/05/28/342460/China-to.htm
Zhu, L., 2010a. Evaluation of cruise ports' tourism competitiveness based on factor analysis. J. Huaihai Inst. Tech. 9, 40–42.
Zhu, W., 2010b. Research on structure and optimization of cruise Tourism system. Master's thesis. Shanghai Normal University, Shanghai.

Xiaodong Sun (Ph.D.) is an associate professor in the School of Business, East China Normal University, China. He holds a BS in Information Management and an MS in Management Science from Qingdao University, and a Ph.D. in Management Science from Shanghai Jiao Tong University. His research interests are in the areas of cruise ship tourism, the cruise industry, decision-making analysis and marketing science. His research has been published in journals such as *International Journal of Hospitality Management*, *Journal of Revenue and Pricing Management* and *Tourism Tribune.*

Xuegang Feng (Ph.D.) is a professor at East China Normal University, China. He is the dean of the School of Business and the director of the Center for Tourism Planning and Development at ECNU. Professor Feng has published a number of papers relating to tourism industry in journals such as *Tourism Management* and *Tourism Tribune*. His research interests include tourism planning and development, tourism economics, hospitality management and service management.

Dinesh K. Gauri (Ph.D.) is an Associate Professor of Marketing at Syracuse University, USA. His research and teaching interests are in the areas of retailing, pricing, branding, marketing analytics, store performance measurement and revenue management for cruise lines. His research has been published in journals such as *Journal of Marketing*, *Journal of Marketing Research*, *Journal of Retailing*, *Marketing Science*, *Journal of Revenue and Pricing Management* and *European Journal of Operational Research*.