邮轮产业与邮轮经济

CRUISE INDUSTRY & CRUISE ECONOMY

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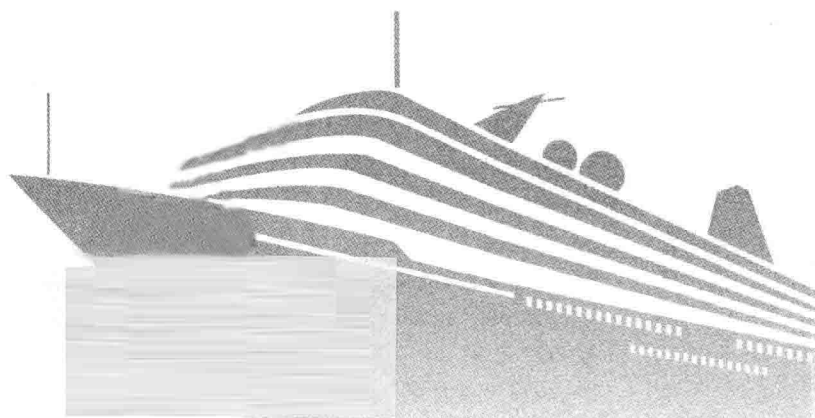# 邮轮产业与邮轮经济

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内容提要

近几年,邮轮产业已经成为现代旅游业中发展最为迅速的业务之一。邮轮旅游业是中国经济融入国际分工的典型产业之一。邮轮经济符合当前我国发展方式转型创新和产业结构优化升级的时代要求,有利于构筑功能高端、门类齐全的现代服务业体系,是转型发展和产业结构调整的重要抓手。

本书第一部分为宏观篇,主要介绍了邮轮产业与邮轮经济的全球布局、基本特征以及中国邮轮产业的发展;第二部分为微观篇,主要站在邮轮公司的立场,探讨了邮轮运营中的需求预测、舱位控制、动态定价以及竞争策略等收益优化问题,以期能为中国本土邮轮公司运营管理提供借鉴。

本书系"国家自然科学基金项目(71202134)"、"休闲专著系列"之一。可作为工商管理以及休闲、旅游、接待业管理等专业的本科生和研究生教材,也可作为邮轮业、旅游业、接待业和客运业等行业的培训教材。

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序　言

　　一般认为,有关休闲的理论自古希腊时起就已初步成型,至今已逾数千年。然而,作为一门相对独立的学科,休闲学科的发展历史并不很长,至今也就百余年的时间。由于休闲现象的复杂性,致使百多年来研究休闲的理论和方法总是处于不断的探索与完善之中,但从其演变的基本轨迹可以看出,休闲学科的发展勾勒了如下的发展和演变轨迹,由依附到独立,由单一学科到多学科,乃至由多学科到跨学科的发展过程。

　　休闲学科作为一个以跨学科为基础和特色的学科体系,一方面,在它发展的过程中,不断地对相关的学科进行整合并聚集于休闲学科的周围。与此同时,在休闲学科的发展过程中,在休闲学与其他相关学科之间形成了围绕休闲学的多个分支学科,诸如休闲社会学、休闲心理学和休闲经济学等。此外,还需指出的是,由于休闲活动的常态性和广泛性,导致以休闲为研究对象的休闲学科除了以其他学科为依托之外,还与社会经济领域的相关产业,如与交通、商业、餐饮、会展等行业发生紧密联系,成为推

动休闲学科发展的外部产业支撑因素。

　　根据国际经验,在一个国家或地区人均 GDP 达到 3 000～5 000 美元发展阶段以后,就将步入这样一个时期,即在居民生活方式、城市功能和产业结构等方面相继形成休闲化特点的一个发展时期。正是基于这样的大背景,才促进了近年来我国休闲活动的蓬勃发展、休闲产业的兴旺发达、休闲理论研究的不断深入。与此相适应,目前,在我国已有百余所高校设立了休闲学系或休闲专业,或开设了休闲学课程,据此,编辑本套丛书的初衷很明确,就是为我国高校休闲专业教材建设做一件实事。

　　本套丛书包括:《休闲概论》、《休闲经济学》、《休闲社会学》、《休闲文化学》和《休闲服务管理学》等 5 本。丛书编委会做了选题与审读的工作。

　　本套丛书是整个《休闲研究系列》出版计划的第一部分,其后还将陆续推出休闲研究报告与休闲研究著作两部分内容。

　　我国正在迈向休闲时代,我国的休闲学科体系也趋于不断完善之中。希望我们的出版计划能够对我国的休闲时代建设与休闲学科体系的完善尽微薄之力。

楼嘉军

2013 年 5 月 8 日

前　言

　　近年来，世界邮轮产业的发展速度有目共睹，经济效益十分显著。随着北美市场的日渐饱和以及消费者对邮轮旅游新颖性和多样性需求的增长，世界邮轮市场开始由北美向欧洲和亚太地区倾斜。特别是具有丰富旅游资源和新奇人文景观的亚太地区，越来越受到邮轮公司的青睐。新加坡和中国香港率先捕捉到邮轮产业的第一缕芬芳，分别以大手笔相继打造成为亚太地区两大邮轮中心。上海则以北外滩邮轮中心、吴淞口国际邮轮港口和外高桥邮轮码头"两主一备"的邮轮母港布局模式正式参与邮轮市场竞争，努力实现向亚太邮轮中心的跨越。

　　本人相信，邮轮旅游有望成为中国经济增长的新方式和新领域。中国邮轮产业将在"十二五"期间正式跨入快速发展期。但同时也要清醒地认识到，邮轮产业在我国起步较晚，在产业承接引入、基础设施建设、港口规划与功能定位、港口接待、区域合作与目的地开发等方面还缺少理论基础和实践经验。中国邮轮业拥有前所未有发展机遇的同时，也面临巨大

的挑战。

目前,我国邮轮产业仍然处在以港口接待为主的初级阶段,邮轮港口及配套设施的设计和规划是重中之重。但专用邮轮码头建设不仅耗资巨大,而且占用岸线资源。在邮轮经济的起步阶段,过多专用邮轮码头和多功能港口的建设会造成资源浪费。近年来,沿海港口城市都将母港建设作为大工程来抓,造成"母港之争"、"以港论港"和"重竞争轻合作"等问题,成为制约中国邮轮产业发展的巨大障碍。从当前形势来看,我国大部分港口在短时间内不具备发展成为邮轮母港的条件。循序渐进,统筹兼备,区域合作和注重邮轮目的地开发才是现阶段中国发展邮轮产业的合理路径。

世界邮轮产业的发展经验告诉我们,邮轮目的地建设是发展邮轮产业、深化邮轮经济的关键所在,必须重视邮轮旅游目的地建设和开发。因此,港口城市一方面应该重视邮轮港口配套设施的建设和服务能力的提升,从竞争走向合作;另一方面更应该注重邮轮港口腹地的建设和规划,将发展眼光从邮轮港口转变到邮轮目的地上来,将经济效益从港口接待扩展到腹地旅游服务上来,通过发展邮轮旅游,切实推动旅游目的地建设。

从邮轮产业的全球价值链来看,我国仍处在低附加值的邮轮接待环节,而组建和运营本土邮轮公司和邮轮制造企业,将成为我们拓宽邮轮产业链的重要切入点。在邮轮运营方面,如何通过服务与营销从有限的邮轮舱位中获得最大收益,成为决定邮轮经营成功与否的关键问题。然而在邮轮运营和管理方面,我国还缺少必要的理论探索和实践经验。目前,我国造船业主要集中于标准化船舶,在高附加值的豪华邮轮建造和设计方面几乎还是空白。豪华邮轮的建造应该建立在对邮轮设计理念及外观、舱室艺术设计等关键技术的突破以及对西方邮轮文化的深刻理解之

上。因此,在拓宽我国邮轮产业链条时,合理路径可能是以邮轮接待为基础,积极参与邮轮公司和旅游提供商的经营活动,从交流和合作中学习先进经验,最终创建具有独特竞争力的本土邮轮企业;努力发挥我国在船舶制造领域的竞争优势,积极开展与国际邮轮制造与邮轮设计企业的合作,坚持技术引进与自主创新相结合,坚持成本控制与质量提升相结合,力争在全球邮轮制造市场上占有一席之地。

在中国邮轮产业为新兴行业,参考资料极为有限。希望此书能起到抛砖引玉的作用,能够吸引更多研究者和实业者的目光,来辩证地看待和审视邮轮产业和邮轮经济,共同探索适合中国国情的邮轮产业发展道路。本书大部分内容出自近年来的研究所得,难免在观点阐述和资料分析方面存在不妥之处,敬请广大读者批评指正。

本书得以完成,首先应该感谢美国锡拉丘兹大学(Syracuse University)惠特曼(Martin J. Whitman)管理学院的 DINESH GAURI 教授和目前已加盟亚利桑那州立大学(Arizona State University)凯瑞(W. P. Carey)商学院的 SCOTT WEBSTER 教授。2008 年,在 WEBSTER 教授和 GAURI 教授的邀请下,我远赴美国从事邮轮收益管理方面的研究,第一次真正认识和理解邮轮产业。可以说没有两位教授的邀请,本人可能在相当长的时间内无法真正接触、了解和审视这一行业。本书得以完成,最应该感谢本人攻读博士期间和从事博士后研究期间的两位导师:上海交通大学安泰经济与管理学院的田澎教授和华东师范大学商学院的冯学钢教授。两位导师分别从管理科学和旅游管理两大学科将我引领进这一备受瞩目的新兴领域,为我提供了从学科交叉的角度认识邮轮产业的机会,并在众多科学研究中给予我莫大的支持。此外,华东师范大学旅游学系楼嘉军教授的鼎力相助使本书荣幸地加入到了楼教授领衔的"休闲研究专著系列"出版计划,在此表示真诚的谢意。最后,感谢上海交通大学出版社倪华老

师对本书出版所付出的心血，倪老师细致深刻的审校令我受益匪浅。

谨以此书献给我的家人！

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孙晓东

2014 年 2 月 11 日

于华东师范大学，上海

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Preface

The cruise line industry has become one of the fastest growing and most dynamic segments of the entire travel and tourism industry. In recent years, it had experienced an annual growth rate of over 7% in terms of the total number of cruise passengers. Cruising has become a major part of the tourism industry with millions of passengers each year. However, more and more researchers have noticed that this industry has received very limited research attention.

As one of the biggest and hottest tourism destinations in the Asia Pacific region, China reported considerable progress in developing the cruise sector and will become a new growth point of this industry. The Chinese cruise industry is experiencing the stage of port receptions and tourism services. More and more coastal cities begin to pay attention to development of cruise economy. The purpose of this book is to introduce

and analyze the cruise industry and cruise economy from both macro and micro prospects.

At macro level, this book discusses the cruise industry and cruise economy from global prospect. Firstly, overview of the industry, mainly including definition and features of the cruise industry, definition and characteristics of cruise economy and market value of the Hotel, Resorts and Cruise Lines sector, is conducted; also overview of the literature on the cruise industry is discussed; industry pattern of the global cruise economy, including distribution and economic impacts of cruise manufacturing, cruise operating, cruise marketing and cruise service/supply communities in North America, Europe, Oceania and Asian Pacific regions, and seasonality of the biggest cruise torism market in the world (North American cruise market), are analyzed. Finally, overview of the studies on Chinese cruise industry is conducted; current development situations and problems of the Chinese cruise industry are discussed, and some relevant managerial implications and suggestions are presented.

As the foundation of the industry, cruise ports or cruise terminals have been neglected by the international literature. Very limited studies have touched this field. Then, cruise port issues from global prospect are discussed in this book. Distribution pattern and characteristics of global cruise ports are analyzed; several managerial implications in site and situation issues of cruise ports are proposed by empirical studies on global famous cruise ports and terminals, such as Miami, Southampton and Barcelona, located in America, UK and Spanish, respectively. Particularly, development foundations, including market targets, geographical locations, tourism

recourses, culture, characteristics and service facilities of cruise terminals and cruise ports in Miami, Southampton and Barcelona are compared, and some managerial suggestions in cruise ports planning and establishments are derived.

Additionally, this section focuses on two studies in details. One is evaluating berthing capacity of cruise ports in Japan, Korea and China, the other is measuring seasonality of cruise tourism in North American market. In terms of evaluation of cruise ports' berthing capacity, in this book, both quantitative and qualitative methods are applied to evaluate berthing capacity of 30 cruise ports in China (8), Japan (11) and Korea (11). The evaluation index system consist of gross acceptable deadweight of the port, max acceptable deadweight of the port, route width, wharf length, mean water depth of the port and port distance from the airport. The results show that among the three countries, China has the highest overall berthing capacity, especially in aspects of gross acceptable deadweight and max acceptable deadweight. From the results of this research, China's eight major cruise ports could be divided into three levels, among which Shanghai Wusongkou Port and Tianjin Port are at the first level.

In terms of cruise tourism seasonality, in this book, two seasonal adjustment methods X-12-ARIMA and TRAMO/SEATS are used to identify and compare quarterly and monthly seasonality features, including the seasonal component, the trend component, the cyclical component and the irregular component, in the North American market. The results derived from seasonal adjustment illustrate a long-term trend of expansion in North America in terms of cruise passengers. In the North American

cruise market, moderate cruise tourism seasonality is observed. The monthly seasonality with an average seasonal component value less than 4% is stronger than the quarterly seasonality with a much higher (but less than 10%) average seasonal component value. January, March, July and December are proved as peak seasons for cruise tourism, while May, September, October and November are identified as low seasons. Additionally, the findings show that the irregular component has insignificant impacts on the cruising sector in North America.

At micro level, the book mainly discusses the problems of cruise line revenue management (CLRM), where cruise companies optimize their decisions of demand forecasting, capacity allocation and dynamic pricing through the theory and practice of revenue management (RM). Over the past decade, both revenue management and the cruise line industry have experienced rapid development. RM techniques have been extensively developed in the airline and hotel industries. However, as the traditional RM industry, the cruise line industry has received very limited research attention from revenue management perspective. Particularly, past research has not focused on demand forecasting and evaluation, and dynamic pricing issues for cruise lines.

In this section, using data from a major North American cruise company, firstly, we apply a variety of (24) forecasting methods, which are divided into three categories (non-pickup methods, classical pickup methods and advanced pickup methods), to generate forecasts of final bookings for the cruises that have not departed at a particular reading point, and also focuses on finding the optimal parameters for each

method. A two-stage framework is presented to test alternative forecasting methods and compare their performance. Also, we apply a variety of (8) probability distributions, such as Normal distribution, Log-normal distribution, Exponential distribution, Poisson distribution, Gamma distribution, Weibull distribution, Rayleigh distribution and Negative Binomial distribution, to test the real distributions behind the data. After testing, we offer evidence of a reasonable fit for the Normal distribution and Gamma distribution to cruise line data.

Secondly, normal distribution is used to estimate the demand, and EMSR-a and EMSR-b are applied to determine protection level for each cabin type. We simulate four demand situations of combinations of high and low total demand with high low-priced demand and high high-priced demand. The performance of these two heuristics algorithms is compared. The results show mixed performance, with neither method dominating the other under different demand situations.

Thirdly, we present a method, which has a two-stage price adjustment mechanism in each reading period, for dynamically setting and adjusting prices over the selling horizon for non-departed cruises through demand learning, and we evaluate the method using data from a major North American cruise company. In the first stage, the parameters of demand function in each reading period is adjusted over time by re-running the regression problem when the new data is observed, rather than assumed known in advance. In the second stage, a constrained nonlinear programming is solved to determine the optimal prices for remaining periods. Actually, in each reading period, although all the demand functions and prices are

updated after new demand data is added to the database, only the price for next adjacent period is applied to accept future demands. The prices for remaining periods will be updated again.

Finally, this book considers the duopoly service quality level-price competition in the cruise market with two kinds of consumers: price-sensitive consumers and service quality-sensitive consumers. The characteristics of consumers are reflected by both the price sensitivity and the service quality sensitivity. In this context, the utility function for each kind of consumers, from which the demand function is derived for every firm is established based on the Hotelling model. Under both uniform pricing and discriminatory pricing strategy, a duopoly quality-price competition is analyzed. The results show that under price discrimination the service quality is higher than under the uniform pricing strategy; cruise companies set lower prices for price-sensitive consumers and higher price for quality-sensitive consumers. By comparisons, we conclude that the firms should carry out discriminatory pricing when consumer's transportation cost is high, should adopt uniform pricing when consumer's transportation cost is low. Additionally, the proportion of different kinds of consumers has significant impacts on equilibrium prices and service qualities.

目　录

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