



Consumer-Oriented Development Strategy Study of Red Sports Tourism in Shenzhen Dapeng Fortress based on Questionnaire and SWOT Analyses

Xinyi Dong^{1a}, Yifan Liu^{2b}, Yanhong Liu^{3c*}, Yifeng Qiu^{4d}

^{1,3,4}School of Physical Education, Shenzhen University, Shenzhen, China

²School of Business, University of Xuchang, Xuchang, China

^a 2264588338@qq.com, ^blyf1069950907@126.com

^d 289896472@qq.com,

Corresponding author: ^c*lucyliu@szu.edu.cn

Abstract. Red sports tourism has injected new vitality into localization of economic development and cultural heritage in historical sites. Based on the questionnaire survey to the consumers' preference, demand, and satisfaction degree with the red sports tourism, through field research and SWOT analyses, a series of consumer-oriented development strategy of red sports tourism in Shenzhen Dapeng Fortress are proposed, including the growth strategy (SO), torsion strategy (WO), multiple business strategy (ST) and defensive strategy (WT). The above strategies are designed to maximize the satisfaction of consumers' needs, enhance the comprehensive competitiveness of the tourism destination and provide reference for the sustainable development of Shenzhen Dapeng Fortress as well as other red sports tourism areas.

Keywords: Red Sports Tourism, Consumer Orientation, Shenzhen Dapeng Fortress, Development Strategy

1 Introduction

With the formulation of the Fourteenth Five-Year Plan for China Tourism Development in 2022, tourism development has been further integrated into the national development strategy, providing broader development opportunities for localities. Sports tourism and red tourism, as two important branches of tourism, has injected new vitality into localization of economic development and cultural heritage in historical sites. Sports tourism is a new type of tourism that meets the needs of travelers for participation, experience, fitness and other activities, and has gradually become an indispensable part of people's daily life [1]. Red tourism is a tourism activity based on the historical relics exhibition halls, red culture exhibition halls, red ruins, architectural facilities, red education bases and other places with the function of patriotism and revolutionary tradition education left behind by the Communist Party of China (CPC)

© The Author(s) 2024

Y. Chen et al. (eds.), *Proceedings of the 2023 3rd International Conference on Modern Educational Technology and Social Sciences (ICMETSS 2023)*, Advances in Social Science, Education and Humanities Research 784, https://doi.org/10.2991/978-2-38476-128-9_34

in the period of China's development and revolution[2]. Red sports tourism has gradually formed as a kind of innovative tourism mode that combines sports tourism and red tourism organically, integrating experience, participation and education as one of the thematic tourism activities, which is of practical significance to meet the needs of consumers and enhance the popularity of tourist destinations.

As one of the frontier cities of China's reform and opening up, Shenzhen focuses on the red sports tourism development in Dapeng Fortress with rich resources. Located in the southeastern part of Shenzhen, Dapeng Fortress is the first and only "National Key Cultural Relics Protection Unit" in Shenzhen as a military fortress for China's coastal defense during the Ming and Qing dynasties. It is known as the "root of Shenzhen culture" with many red cultural resources have been preserved and has close relationship with patriotic education.

This study synthesizes the methods of literature review, field research and quantitative analysis to deeply analyze the current situation of red sports tourism in Shenzhen Dapeng Fortress by assessing consumer preferences and needs as well as tourists' satisfaction. Meanwhile, it ensures the formation of consumer-centered development, puts forward relevant countermeasures and suggestions, continuously improves the quality of experience, and meets the diversified needs of consumers, enhancing the core competitiveness and formulating unique development plan for red sports tourism.

2 Literature Review

Chinese scholars have explored the integrated development of red sports tourism. Liu and Qiao (2020) argued that red tourism has the cultural value of spreading red culture, inheriting and developing excellent Chinese culture, enhancing cultural confidence and improving the efficacy of cultural education[3]. Kim(2018) argued that red tourism has a significant positive impact on per capita GDP and consumption expenditure[4]. Yin and Liu (2023) argued that sports tourism is now a new strategic support point for the high-quality development of China's sports and tourism industries, and that China should further improve sports tourism policies, stimulate the vitality of the sports tourism market, and increase the degree of innovation support[5]. Zhao, Wei and Du (2022) believe that the deep integration of sports culture and red tourism resources is conducive to accelerating the development of the tourism industry, thus promoting the rapid development of red sports tourism and the economy of the old revolutionary areas[6].

The research of Chinese and foreign scholars on tourism consumers is also being gradually carried out. According to Liu and Shi (2021), consumers' perception of usefulness and ease of use of sports tourism plays a key role, while perceived riskiness plays a negative constraint, and consumer motivation is centrally dominant[7]. Gu (2022) emphasizes that an important initiative in triggering tourism consumption is the external environment driven by policy marketing and individual consumers, and event programs and advertisements play a role in facilitating consumption choices[8]. Hungenberg, Aicher and Sawyer (2016) argue that tourist attractions, elements of sports events and consumer services play an important role in youth sports consump-

tion[9]. Liu, Yang and Yuan conduct emotional analysis on tourists' reviews, including the satisfaction, emotional state, and the consumer evaluation, so as to put forward the marketing strategies[10].

To summarize, most of the domestic scholars' researches on red sports tourism focus on the level of resource integration and development mode, and there are fewer papers related to consumer-oriented red sports tourism. The above literature provides referable scientific research results and theoretical basis, this study takes consumer demand as the starting point, deeply excavate the red tourism resources of Shenzhen Dapeng Fortress, reasonably formulate consumer-oriented red sports tourism development strategy.

3 Research Methods and Analyses

This study takes the tourists of Dapeng as the survey object, collects data and analyzes the consumers' demand, preference and satisfaction with the red sports tourism, distributing the questionnaire on the site of Dapeng Fortress within one week. The design of the questionnaire is referred to Huang and Kang's Influence of Sporting Events on Tourist Consumption (2018), as well as the indicators of customer demand, preference and satisfaction in the 5-point Likert scale, and is implemented in conjunction with the characteristics of the red sports tourism in Dapeng Fortress[11].

Given that the results of the questionnaire could not fully understand the preferences and needs of various types of consumers for red sports tourism in Dapeng Fortress. Through field research to the development situation in Dapeng Fortress, interviewing with the local curators, staff, local residents and tourists, SWOT analyses are used to list the collected primary information. Based on the analyses of the internal and external competitive environment and the posture under the competitive conditions for the development of red sports tourism in Dapeng Fortress, a variety of major internal strengths, weaknesses, and external opportunities and threats are enumerated through the survey and arranged in accordance with the matrix form.

4 Questionnaires Analyses

350 questionnaires are distributed randomly and 342 valid questionnaires are collected, with an effective rate of 97.71%. Through Excel 2021 software to complete the data entry and preliminary analysis, using SPSS27.0 statistical software for the factor analyses of the samples, the collected valid questionnaires are statistically analyzed in the form of charts and graphs to explore the tourists' cognition of the red sports tourism in Dapeng Fortress and the influence of consumption.

4.1 Basic information of respondents

The information collected from the questionnaires was integrated to understand the basic information of the respondents in five parts: gender, age, occupation, education-

al background and income (monthly salary) as shown in Table 1. The survey shows that most of the tourists are under 25 years old, accounting for 62.50%. Most of them are mainly students and teachers, accounting for 33.33% and 24.21% respectively.

It can be seen that the women group and young generation are the market main targets of red sports tourism in Shenzhen Dapeng Fortress and have high degree of demand for red sports tourism. The main source of visitors is organized through schools and universities.

Table 1. Demographic characteristics of survey respondents.

Variant	Categorization	Number (persons)	Percentage (100%)
Gender	Male	215	62.90%
	Female	129	37.10%
Age	18 below	116	34.20%
	18-25	97	28.30%
	26-35	49	14.30%
	36 to 45	55	16.10%
	45 above	25	7.10%
	Occupation	Student	114
	Teacher	82	24.21%
	Employee	59	17.30%
	Freelancer	32	9.35%
	Retiree	55	15.81%
Educational background	Middle school and below	95	27.80%
	Senior high school	101	29.53%
	College	59	17.24%
	Graduate students and above	87	25.43%
Income(monthly salary)	3,000 RMB and below	121	35.38%
	3,000 to 5,000 RMB	72	21.10%
	5,000 to 8,000 RMB	82	24.20%
	8,000 RMB above	67	19.32%

4.2 Consumer demand for participation in red sports tourism

Consumers' demands for participation in red sports tourism as shown in Figure 1, in order from the largest to smallest, includes research and education demand up to 29.53%, the need for sports activities accounting for 26.02%, diversified and personalized demand to 19.29%, while the thematic tourism demand accounting for 14.64%, with historical and cultural identity demand as 10.52% .

Through data analysis can understand different needs of consumers which help us to grasp the basic situation. No.1 demand for research and education in Dapeng Fortress emphasizes the main sources of tourists are from schools with cultural background and patriotic education propositions. No.2 need for sports activities shows that the surrounding coastal sports, marathon and other sports activities are so popular that Dapeng Fortress are driven as the surrounding tourism. No.3 diversified and personalized demand leads consumers to experience Dapeng Fortress tour in a variety of ways. No.4 and No.5 demand for thematic tourism and historical and cultural identity assume that tourists are seeking unique and immersive experience by participating in red-themed performances, competitions, interactive experiences and other activities.

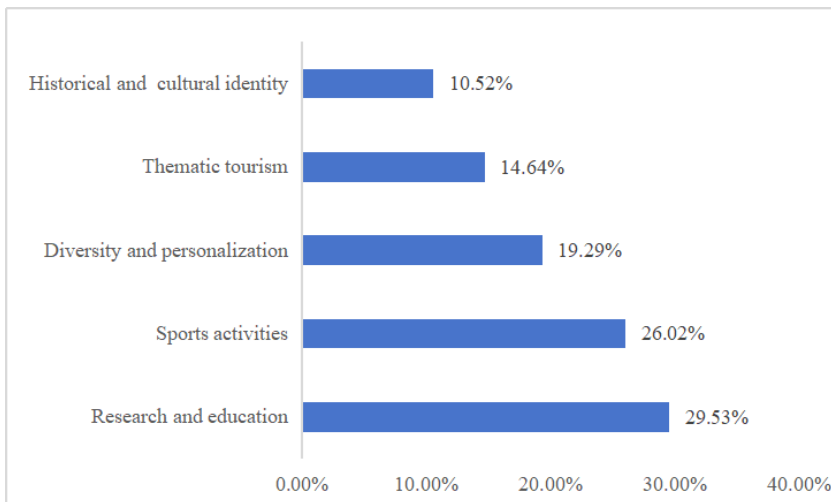


Fig. 1. Consumer demand for participation in red sports tourism

4.3 Consumers' Preferences for Red Sports Tourism in Dapeng Fortress

According to the analysis of the survey results, tourists' preferences for red sports tourism in Dapeng Fortress varied by age, education level, occupation, etc. As shown in Figure 2, in order from the largest to smallest, 32.99% enjoy in red sports tourism activities, 21.03% love immersive experience activities, 19.12% of the tourists are interested in the patriotic ancient buildings, while 16.74% prefer challenging sports events, 10.12% like historical stories and folk customs. It shows that the red sports tourism in Shenzhen Dapeng Fortress have high degree of preference.

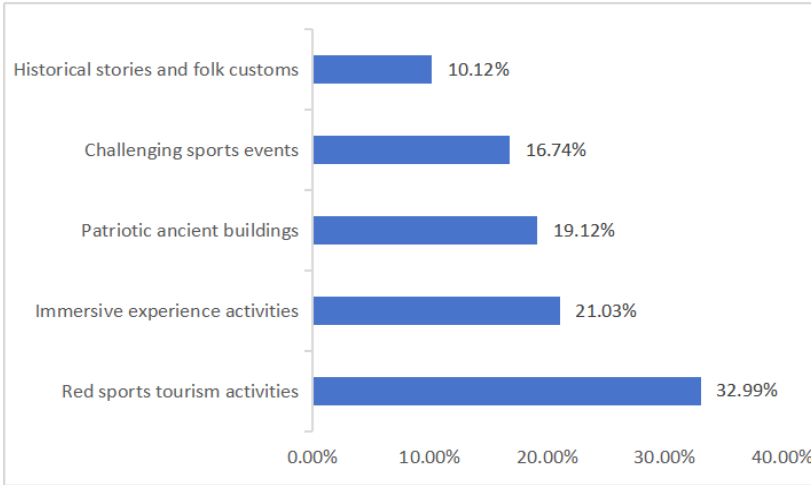


Fig. 2. Consumer preferences

4.4 Consumer Satisfaction with Red Sports Tourism in Dapeng Fortress

Several dimensions of consumer satisfaction with red sports tourism are investigated in Dapeng Fortress, including quality of service, quality of attraction, transportation convenience, cost performance and sense of security. Participants scored 16 items in 5 dimensions according to their experience as Table 2 shown (1 is very dissatisfied, 2 is dissatisfied, 3 is average, 4 is satisfied and 5 is very satisfied). Meanwhile, descriptive statistical analysis of relevant variables concludes that consumers are the most satisfied with admission fee of cost performance aspects in the red sports tourism in Shenzhen Dapeng Fortress (with a score of 4.62), and least satisfied with traffic guidelines of transportation convenience(with a score of 3.15).

Table 2. Descriptive statistical analysis of tourist satisfaction.

Dimension	Sports event	Average value	Standard normal distribution (SND)
Quality of service	Reception services	3.81	0.69
	Guided tours	3.56	0.65
	Meal	3.89	0.72
	Accommodation	3.62	0.66
Quality of attractions	Red sports tourism resources	4.23	0.85
	Red sports program	3.51	0.62
	Display effect	3.91	0.75
Transportation convenience	Public transit	3.77	0.64

	Parking lots	3.62	0.61
	Traffic guidelines	3.15	0.57
Cost performance	Meal	3.56	0.65
	Accommodation	3.21	0.55
	Admission fee	4.62	1.21
	Souvenirs	4.11	1.01
Sense of security	Public security	4.25	0.98
	Safety of tourism facilities	3.31	0.59

5 SWOT Analyses

Through field research in Dapeng Fortress, SWOT analyses are used and finally arranged in accordance with the matrix form in corresponds to the dimensions of the questionnaire.

5.1 Strengths (S)

5.1.1 Educational significance.

Dapeng Fortress is the first and only “National Key Cultural Relics Protection Unit” in Shenzhen, and is one of the important memorial sites in the history of the Chinese revolution. According to the survey, customers participate in Dapeng Fortress red sports activities which can enhance visitors' patriotism and historical consciousness, which has educational significance. The young generation is the main market target of red sports tourism in Dapeng Fortress.

5.1.2 Abundant tourism resources.

Dapeng Fortress and the surrounding attractions provide unique brand and resource advantages for red sports tourism, such as revolutionary relics, museums, revolutionary memorials, and former residences of generals' mansions, such as General Lai Enjue's House, one of the best-preserved revolutionary sites. There are beach, jungle and other natural resources nearby available to carrying out cycling, surfing, yachting, sailing and other outdoor sports and natural adventure.

5.2 Weaknesses (W)

5.2.1 Single tourism product.

The red sports tourism products of Dapeng Fortress are relatively single, lack of high-quality compounding tourism projects, with the project content monotonous, small scale. Dapeng Fortress's traditional red sports projects are so scattered that it is difficult to meet the needs of different types of tourists with the choice of diversification. Its unique characteristics need to be fully developed and utilized.

5.2.2 Inadequate tourism infrastructure.

Compared with mature tourist destinations, Shenzhen Dapeng Fortress still has many deficiencies in tourism infrastructure that affects tourists' experience. These deficiencies include insufficient basic public facilities in the attraction, which affects the comfort and convenience of tourists, incomplete tour facilities and poor professional tour guide services, which result in tourists being unable to obtain in-depth interpretation of red culture and history.

5.2.3 Lack of popularity.

Relative to other well-known red tourist attractions, the popularity of Dapeng Fortress is low, lack of effective public promotion and sufficient brand influence, resulting in the public's understanding of the Dapeng Fortress red sports tourism is limited with the adverse effect of the popularity of the promotion.

5.3 Opportunities (O)

5.3.1 Policy support.

The "14th Five-Year Plan" for China Tourism Development in 2022 pointed out that vigorously develop red tourism, highlighting patriotism and revolutionary tradition education as well as creating sports event brand system to promote the development of sports tourism. The release of the relevant policies to promote the development of red sports tourism in Dapeng Fortress play a guiding norms and safeguards.

5.3.2 Sports events.

With the opening and full recovery of the sports event held in Shenzhen, it sets off a national sports boom with all kinds of sports events ushered in a spurt of momentum which develops Dapeng Fortress red sports tourism. Sports events activities can not only meet the demand for sports and fitness, but also invariably to promote the local tourist attractions. Dapeng Fortress, as one of the "Shenzhen's top eight scenic spots", is the first choice for people from home and broad to conduct red tourism which greatly contributed to the local development.

5.4 Threat (T)

5.4.1 Short of travel around linkages.

There are various natural and cultural landscapes and tourist attractions around Dapeng Fortress. However, Dapeng Fortress has not joined hands with the surrounding resources to develop red sports tourism, but rather develops it in isolation. Therefore, it has not yet formed large-scale and systematized red sports tourism destination, resulting in problems such as insufficient attraction to travelers and short stay of tourists.

5.4.2 Lack of high-quality development path.

According to the field research and analysis, most of the red sports tourism products in Dapeng Fortress, just a simple stack, superimposed, most of them are still in a primitive or semi-finished state, only a single display and set up a simple sports projects which can not meet the high-quality and individual needs of tourists. The red cultural connotation of the excavation is not enough, only offer red culture of the revolutionary history simply, without digging deep into the unique attraction of the tourist destination, which is likely to bring tourists the feeling of fatigue while visiting, ultimately leading to the results of “just one-time tourism consumption”.

5.5 SWOT Matrix Analyses

Adopting SWOT analysis method, the collected first-hand information is listed, and the SWOT analyses matrix is constructed to form the growth strategy (SO), torsion strategy (WO), multiple business strategy (ST), and defensive strategy (WT), and the above four strategies are screened and selected to determine the specific strategies and tactics for Dapeng Fortress as shown in Table 3.

5.5.1 SO strategy.

First, grasp the policy advantages and build a unique red sports tourism system. Taking advantage of current policies, cooperate with tourism organizations to incorporate red sports tourism activities into their product lines and provide all-around services, including reception, guides, transportation and accommodation, to save tourists' time and expenses.

Second, make full use of the rich historical, sports and cultural resource. Cross-border cooperation with sports organizations and cultural institutions to jointly plan red-themed sports events and lectures.

Third, cooperate with surrounding universities and relevant departments to hold seminars and events, and join hands with enterprises to launch red sports tourism packages, provide more cost-effective consumption package.

5.5.2 WO strategy.

First, organize events to promote red sports tourism with personalized experiences, improve the sense of participation and experience of tourists through the design of interactive links, such as simulated battles and scenario reenactment, to enhance the effect of display and interactivity to enhance the depth of their memory of red culture.

Second, strengthen traffic infrastructure to improve quality and efficiency. Establish the linkage of multiple modes of transportation, install intelligent navigation facilities around important transportation hubs and attractions through public numbers, apps, and other applications. Optimize parking facilities, improve traffic guidance, signs and guidelines.

Third, use internet technology and social media widely, make publicity plans, strengthen the brand image. Actively use social media platforms to publish interesting

and fascinating content, interact with fans, increase brand exposure, cooperate with sports events and star athletes to expand brand influence.

5.5.3 ST strategy.

First, strengthen the linkages tightly with the surrounding area to form classic red sports tourism destination. Help tourists better explore sports events around the scenic area, enhance the sense of experience of tourists.

Second, enrich tourism products with different themes routes for customers. Collect tourists' comments and suggestions, improve their favorite tourism routes and services.

Third, establish experience activity center and enrich regular historical performances and sports events. Set up interactive red history and culture display area with intelligent guide system, establish feedback mechanism, explore the red historical tour routes, red-themed cycling, field development activities and other sports events.

5.5.4 WT strategy.

First, Optimize customers experience. Design immersive experience programs such as travelling and interacting with historical figures, simulate historical scene experience area, red sports sensing game. Increase the diversity of red tourist attractions, enrich the wonderful and unforgettable experience of customers.

Second, increase promotional efforts to raise the visibility of the destination. Use Produce brochures, posters, promotional videos and other exquisite promotional materials through multi-channel publicity. Ensure coverage of different groups, attract the attention of potential consumers to expand their popularity through word-of-mouth.

Third, establish emergency systems and safeguard tourists. Utilize scientific and technological means to continuously establish and keep safe and stable tourism environment.

Table 3. SWOT matrix analyses of red sports tourism development in Shenzhen Dapeng Fortress.

Dimension	Strength (S)	Weaknesses (W)
Dimension	SO strategy	WO strategy
Opportunity (O)	Grasp the policy advantages and build a unique red sports tourism system. Make full use of the rich historical, sports and cultural resource (attraction Dimension). Cooperate with surrounding universities and relevant departments to hold seminars and events (cost-performance dimension).	Organize events to promote red sports tourism with personalized experiences (cost-performance dimension) . Strengthen traffic infrastructure to improve quality and efficiency (Transportation dimension). Use internet technology and social media widely, make publicity plans, strengthen the brand image.

Dimension	ST strategy	WT strategy
Threat (T)	Strengthen the linkages tightly with the surrounding area to form classic red sports tourism destination (attraction dimension). Enrich tourism products with different themes routes for customers (attraction dimension). Establish experience activity center and enrich regular historical performances and sports events (service quality dimensions) .	Optimize customers experience (service quality dimensions). Increase promotional efforts to raise the visibility of the destination (service quality dimensions). Establish emergency systems and safeguard tourists (safety dimension).

6 Conclusion and Discussion

The results show that although there are still some shortcomings, consumer-oriented strategic measures will be key factor to promote the local economic and social development for Dapeng Fortress in Shenzhen to grasp the policy advantages in the growth process of red sports tourism. The growth strategy (SO), torsion strategy (WO), multiple business strategy (ST), and defensive strategy (WT) proposed in this study based on questionnaire survey and SWOT analysis have certain limitations, and may face some potential limitations or challenges in the implementation of the strategy, including insufficient funds, policy changes, and market competition. In addition, red sports tourism may be affected by seasonality, which is also one of the factors to consider. The implementation of the proposed strategy may also have economic, social and environmental implications. On the economic front, sports tourism development may bring job opportunities and promote the development of local industries, but it may also face financial pressure in the initial investment stage. On the social front, the strategy may improve the quality of life of local residents and increase community participation, but it may also trigger sociocultural conflict. In terms of the environment, large-scale tourism may have an impact on local ecology and require sustainable development measures. Implementation of the strategy will have a direct impact on local communities and the environment. Positive impacts may include increased tourism revenue, employment opportunities, improved infrastructure, etc. However, it may also face community backlash, as tourism may bring environmental pollution, culture shock and other issues.

The above factors need to be taken into account in order to develop strategic plan that can balance economic, social and environmental impacts. This requires in-depth understanding of consumers from multiple perspectives, expanding the sample size of the survey, and making the research result more persuasive. There is also a need to ensure that strategies are implemented in a way that not only boosts local economies, but also respects community culture and protects environmental resources from the perspective of sustainability, social responsibility and long-term development.

Acknowledgment

This research was funded by Guangdong Provincial “13th Five-Year” Plan 2020 Discipline Co-construction Project, National First Class Curriculum Construction Project, National Senior Top Tour Guide Studio Project and Shenzhen University Creativity and Innovation Competition Project.

References

1. Tang Jia, Zhang Luqiu. Sports tourism development strategy in the context of rural economic revitalization[J]. Journal of Shanxi University of Finance and Economics,2023,45(S1):31-33.
2. Fu Lu. High-quality development of red tourism in the perspective of cultural power[J]. Social Scientist,2022(08):39-43.
3. Liu Liqiong, Qiao Xuan. Cultural value and nurturing function of red tourism--Taking Hongqiqiu as an Example[J]. Social Scientist,2020,(04):63-67.
4. Kim Joon Ho.The effect of red tourism on the balanced development of the regional economy in China[J].Korean Journal of Hospitality & Tourism,2018,27(6): 225-241.<https://doi.org/10.24992/kjht.2018.08.27.06.225>.
5. Yin Bichang, Liu Peifeng. Econometric analysis of sports tourism policy in China--Based on the perspective of policy tools[J]. Journal of Wuhan Institute of Physical Education,2023,57(07):30-37.DOI:10.15930/j.cnki.wtxb.2023.07.003.
6. Zhao Guangyong,Wei Ningning, Du Zhijuan. Research on the dilemma and countermeasures for the integration construction of sports culture and red tourism resources in old revolutionary areas[J]. Contemporary Sports Science and Technology, 2022,12(01):149-152.DOI:10.16655/j.cnki.2095-2813.2110-1579-3343.
7. Liu Lei,Shi Xiaoqiang. Influence mechanism of sports tourism consumption behavior in the context of the new coronary pneumonia epidemic--an empirical analysis of the MOA-TAM integration model based on the S-O-R framework[J]. Journal of Tourism, 2021,36(08):52-70.DOI:10.19765/j.cnki.1002-5006.2021.08.010.
8. Gu Jiuxian.Research on the impact of the hosting of the 2022 Winter Olympics on regional consumer demand and behavior - Hebei ice and snow sports tourism as an analysis case[J]. Sports and Science,2016,37(03):114-120.DOI:10.13598/j.issn1004-4590.2016.03.018.
9. Hungenberg Eric, Aicher Tommy, Sawyer TaylorA glimpse into the experience of a youth sport tourism consumer: an analysis of parents vs. coaches[J].Journal of Sport & Tourism,2022,26(01):1-21. <https://doi.iog/10.1080/14775085.2022.2026809>.
10. Liu Yanhong, Yang Qianlin, Yuan Jun. An empirical study on marketing strategy of Shenzhen coastal tourism resort based on SWOT and ROST CM6 Text Analysis[C]. In: Proceedings of the 2021 International Conference on Education, Information Management and Service Science (EIMSS2021), Xian, China,16-18 July 2021:483-489.DOI 10.1109/EIMSS53851.2021.00110
11. Huang Haiyan, Kang Yikun. The effects of sports events and Fortress image fit on spectator satisfaction and revisit intention[J]. China Sports Science and Technology,2018,54(04):12-20.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

