

# Development Strategy Analysis of Chengdu Research Base of Giant Panda after COVID-19

Bingchan Xue<sup>a</sup>, Ling Zhang<sup>b</sup>

City University of Macao, Macao, 999078, China

<sup>a</sup>T21091125282@cityu.mo, <sup>b</sup>T21091125237@cityu.mo

**Abstract:** Due to the prevalence of COVID-19, the tourism economy around the world has been affected to a greater or lesser extent for a long time. Tourist attractions everywhere have become much less popular because of crowd restrictions, the impact of COVID-19 at the destination, etc. How can we build better destinations under the influence of COVID-19 and enhance the competitiveness of destinations has become an important topic. In this paper, Chengdu Research base of Giant Panda is selected as the research site, analyzed by using SWOT and market segmentation method, read and reviewed related literature and news reports to provide ideas for Chengdu Research base of Giant Panda to enhance its competitiveness.

**Keywords:** Chengdu Research base of Giant Panda, COVID-19, SWOT, Marketing strategy

## 1. Introduction

Chengdu is an important central city in western China, an important national high-tech industrial base, a trade and logistics center and a comprehensive transportation hub. Chengdu has a flat topography, a network of rivers, rich products and developed agriculture. With a humid subtropical monsoon climate, Chengdu has been known as the "Land of Heaven" since ancient times, and is a famous historical and cultural city, the birthplace of ancient civilization in Sichuan.

Chengdu Research Base of Giant Panda Breeding is located at 1375 Panda Road in the northern suburbs of Chenghua District, Chengdu, Sichuan Province, China, 10 kilometers from the city center and more than 30 kilometers from Chengdu Shuangliu International Airport. The base is known as the "Ecological Demonstration Project of Giant Panda Relocation Protection", covering 66.67 hectares, and is a world torchbearer for giant panda relocation protection, scientific research and breeding, public education and educational tourism. The base is a sanctuary for giant pandas, red pandas and other endangered wildlife unique to China. The scenery is breathtaking: Trees cover the hillsides, clear rivers meander down, forests line the trails, and birds chirp in harmony. A bastion of happiness, this base is China's worst kept secret - "a natural paradise for national treasures, our paradise".

COVID-19 is a zoonotic disease. The earlier cases were found in the South China Seafood Wholesale Market in Wuhan. The consumption of wild animals in China has aroused global concern about the relationship between wild animals and plants and human beings. In fact, the problem of wildlife protection in China has been concerned by the international community for a long time, because China has the richest biodiversity in the world and is also seriously threatened [1]. Chengdu research base of giant panda, as one of the main research bases for the Chinese government to implement the ex-situ conservation project of endangered wild animals such as giant pandas, is also facing unprecedented challenges in the face of sudden COVID-19 situation.

Human interactions with wildlife can be a source of zoonoses or animal-based diseases [2]. It is well known that people who have close contact with domestic or wild animals at home, zoo and nature can be subject to zoonotic diseases. The operation of the panda base requires contact with humans. In the case of COVID-19, staff may be reduced due to COVID-19 prevention, which will also affect the life of pandas.

The current COVID-19 crisis has had emotional repercussions for some animals like Giant Pandas that yearn for the attention they receive from the public. It is worth mentioning that visitors can have either negative, neutral or positive impacts on zoo animal behavior and welfare. Sherwen and Hemsworth pointed out that the variation of zoo animal's responses to visitors may be associated with several factors including the species-specific differences, the nature and intensity of the visitor

interactions, differences in the physical features of enclosures, and individual animal characteristics[3]. But the COVID-19 pandemic is sure to lead to a sharp decline in the number of visitors to the Chengdu panda base, and the pandas' mental health may also be affected.

## 2. Existing tourism resources

Chengdu is the political, economic and cultural center of Sichuan Province. Chengdu is also a famous historical and cultural city in China. Tianfu scenery, hometown of pandas and Shu-Han culture are the three major tourist features of Chengdu. Xiling Snow Mountain, Qingcheng Mountain, Jiufeng Mountain, Jiulonggou, Tiantai Mountain, Chaoyang Lake, Longquan Lake, Gui Hu, Huanglongxi and farm pastoral scenery together constitute a beautiful "Tianfu scenery"; About 80% of the world's giant pandas live in the Anzi River in chongzhou city, Heishui River in Dayi County, Longxi-Hongkou Nature Reserve in Dujiangyan City and the Giant Panda Breeding Base in Chengdu. Visitors can not only see the embarrassing giant pandas, but also learn about the new research achievements about giant pandas. Chengdu not only has a unique natural landscape, but also has a rich cultural landscape.

The Chengdu Field Research Center for Giant Pandas — Panda Valley, covering an area of 133.6 hectares, it 50 km from Chengdu and 3 km or so from the Dujiangyan proper. The countless bamboo and trees afford glorious shade and lend the place a very leafy complexion, with the gurgling streams, chirping birds, and fragrant flowers. The cornucopia, blessed with the sui generis natural climate, is home to over 700 species of flora and fauna and a natural base for the reintroduction of giant pandas.

## 3. Introduction to Tourism Products

Chengdu research base of giant panda is one of the main research bases for the Chinese government to implement the ex-situ conservation project of endangered wild animals such as giant pandas, and it is a national 4A level tourist attraction. It is a well-known research institution for the protection of rare and endangered wild animals such as giant pandas, which integrates research and breeding of giant pandas, protection and education, education and tourism, and the construction of panda culture. The first batch of national primary and secondary school students' research and practice education bases.

## 4. Market segmentation method

### 4.1. Segment the market by geographic variables

Chengdu Research Base of Giant Panda Breeding is located at No. 26 Panda Avenue, Chengdu. The entrance of the tourist area is 3km away from the Third Ring Road of Chengdu City and 36km away from Chengdu Shuangliu Airport. Chengdu is the most continental road and air transportation hub in southwestern China. It has obvious transportation advantages, extending in all directions and extremely convenient. It has the prominent features of superior traffic location and strong accessibility necessary for the tourist area.

### 4.2. According to the characteristics of tourists

Table 1: Statistics of the number of tourists in Chengdu Research Base of Giant Panda Breeding from 2014 to 2018

Year	Statistics of overseas visitors (million)	Statistics of Domestic Tourists (million)	Total number of visitor statistics (million)
2014	16.2	11.8	28
2015	18	13.6	32
2016	21	15.36	36
2017	18.2	13	31
2018	25.63	19.81	45

After years of tourism development, the Chengdu Research Base of Giant Panda Breeding has become the first choice for Chengdu's inbound tourism with the theme of "Panda Conservation". The tourism reception of the base in the past four years is as follows (as shown in Table 1):

From 2014 to 2018, it received a total of 1.72 million Chinese and foreign tourists (of which about 60% of tourists were foreign tourists, and about 40% of tourists were domestic tourists).

About 60% of the tourists at the base are foreign tourists, and the proportion of domestic tourists is about 40%. Among them, foreign tourists are mainly tourists from Europe, America and Australia. In addition, tourists from Southeast Asian countries are mainly from Japan and South Korea. Among domestic tourists, tourists from Hong Kong and Taiwan account for more than 1/2, and the rest are tourists from the mainland. Foreign tourists dominate the total number of tourists, which is one of the biggest characteristics of the base source market. This shows that the base has a strong attraction to foreign tourists and has a great influence on the international tourism market[4].

#### **4.3. According to tourist education level**

Tourists at the base are generally highly educated. About two-thirds of the tourists have a college degree or above, some of them are graduate students, and some are members of relevant international environmental protection and animal protection organizations. In the survey, 68% of tourists paid high attention to issues such as panda nursery and the content and display methods of the panda museum. This situation may be closely related to the increasing development of global eco-tourism, higher education of tourists with higher ecological awareness, and greater emphasis on ecological protection.

#### **4.4 SWOT analysis**

##### **4.4.1. Strengths**

###### **A. High international reputation and influence**

At present, the Chengdu Research Base of Giant Panda Breeding has developed into an internationally renowned and influential giant panda breeding, protection, and research center, a high-grade environmental education and science education center in line with international standards, and an eco-tourism destination that conforms to the international tourism boom. It has significant advantages in tourism resources, and has a high degree of extensive international exchanges and cooperation, and has been highly valued by governments at all levels[5].

###### **B. Online live broadcast attracts tourists**

Under the influence of COVID-19, although many tourists cannot visit offline, the volunteer team of ChengDu Research base of Giant Panda has opened webcasts, online Q&A and other activities in different forms.

##### **4.4.2. Weaknesses**

###### **A. The influx of tourists cannot guarantee the safety of pandas**

Giant pandas are endangered animals. From the perspective of protection of pandas, great attention must be paid to the natural growth and breeding of endangered animals such as pandas in tourism development, and the adverse effects of the increase in tourists on the protection and breeding of pandas must be fully considered. If a large number of tourists come in, it is likely to affect the breeding of giant pandas, increase the probability of giant pandas being infected with cat plague, canine plague and other outbreaks of infectious diseases, and threaten the overall safety of the giant panda population.

###### **B. Daily disinfection is not suitable for open air environment**

Chengdu Research base of Giant Panda is basically an open outdoor natural landscape, covering a very large area, and daily disinfection cannot fully guarantee the hygiene and safety of the base. Chengdu recently released the concept of "time-space companion", which has even more affected the security issues of Chengdu Research base of Giant Panda.

##### **4.4.3. Opportunities**

###### **A. Eco-tourism market opportunities**

In the 1980s, as environmental problems became more and more prominent, the world faced environmental degradation and human survival environmental crises. The original tourist flow, mainly

flocking to industrial and commercial cities, turned to nature and rural areas. "Tourism" came into being. After COVID-19, people are more eager to get in touch with nature, and tourism has become a rigid demand for people. Eco-tourism of "return to nature" has become an important demand for people seeking spiritual comfort and spiritual purification.

#### B. Strengthening of media publicity

Since the outbreak of COVID-19, all major news media in my country have provided real-time reports on the latest situation of the COVID-19 and key points of prevention and control. At the same time, mobile communication companies have also sent the latest COVID-19 and prevention and control news through text messages. Computers and mobile phone terminal software also share real-time information through pushes, providing the masses with good prevention and control knowledge. The vigorous propaganda of the mainstream media has enabled visitors to increase their awareness of the COVID-19 and ensure basic self-protection. Able to wear masks according to the standard, and cooperate with scanning code, temperature measurement and other procedures[6].

#### 4.4.4. Threats

##### A. Coordination of the relationship between animal protection and tourism development

Chengdu Research Base of Giant Panda Breeding is an eco-tourism area. The tourism planning of the base should not only focus on the protection and management of endangered animals such as giant pandas, but also integrate animal protection and scientific research functions with tourism development to promote tourism development; on the other hand, tourism development and large numbers of tourists must enter It will bring negative impacts on the ecological environment of the base, and even threaten the reproduction of giant pandas and other endangered animals.

##### B. The loss of customers and the vigorous development of surrounding areas after the COVID-19

Due to the impact of the COVID-19, foreign tourists will temporarily avoid the Chengdu area for a period of time, resulting in a serious loss of tourists. In the context of the booming tourism industry, the construction and utilization of tourist attractions throughout the country are also booming, and the competition among tourist areas is also increasing. Take the surrounding areas of Chengdu as an example. The Yufu Hot Springs, Zhougongshan Hot Springs, Dead Sea of China, and Luofushan Hot Springs have been developed and built successively, which has almost completely divided the tourist source of Huashui Bay, the traditional hot spring resort of Chengdu; The completion of a number of fashionable tourist areas such as the Lake and the Dead Sea in China has attracted a large number of young and high-consumption groups.

### 5. Target market positioning

Comparing the different characteristics of the Chengdu Research Base of Giant Panda Breeding and the scenic spots and scenic spots in Chengdu and its surrounding areas, the main basis for the base's positioning of its tourism image comes from the following aspects.

#### 5.1. The characteristic development model of Chengdu Research Base of Giant Panda Breeding

The base adopts the characteristic tourism development model of "education, fun, and panda home in bionic state". Advanced environmental education concepts, advanced ecological education facilities, coupled with close contact with giant pandas, are the characteristics and highlights of the base as the largest artificial giant panda population park in the world, bringing Chinese and foreign tourists.

#### 5.2. Unique resource endowment of Chengdu Research base of Giant Panda Breeding

The base has developed into an internationally renowned and influential giant panda breeding and animal protection research center, a high-grade environmental education and popular science education center in line with international standards, and an eco-tourism destination that conforms to the international tourism boom, with significant advantages in tourism resources.

At present, giant pandas are mainly distributed in the six mountain systems of Sichuan, Shanxi and Gansu, of which 85% are distributed in Sichuan. There are giant pandas in Qionglai, Dayi, Chongzhou and Dujiangyan in Chengdu, making them a veritable "hometown of pandas." . After years of development, the base has now developed into a comprehensive tourism destination integrating

scientific research, environmental education, and eco-tourism functions. With "Giant Panda" as the eco-tourism brand, it has a unique resource endowment.

### **5.3. The trend of tourism development**

After the 1980s, as environmental problems became increasingly prominent, "eco-tourism" came into being. With the rise of the global eco-tourism boom, Sichuan's eco-tourism has also developed rapidly. Eco-tourism, which emphasizes protection, individuality, independence, and pursuit of experience, is favored by people. Eco-environmental protection and eco-tourism experience components in tourism are increasingly valued. As a special tourism product, eco-tourism is in hope and glory.

## **6. Marketing strategy**

### **6.1. Product strategy**

Currently tourists are moving in a new context[7], which has transformed tourism-brokering and changed the way tourists consume[8]. Marketing faces a crucial moment, in which new theoretical approaches try to redefine its activities, steering it towards methodologies that, beyond commercial aspects, are concerned with establishing new mechanisms of communication with complex human beings[9]. The following are some helpful suggestions for the Chengdu Giant Panda Breeding base's marketing and establishing deeper connections with potential customers.

At present, Chengdu Research base of Giant Panda Breeding has developed into an internationally renowned and influential center of giant panda breeding, protection and research, a high-quality environmental education and popular science education center in line with international standards, and an eco-tourism destination conforming to the international tourism boom. Chengdu, where the base is located, is the largest land and air transportation hub in southwest China, with prominent traffic location advantages and convenient access. Starting from Chengdu, the railway network and highway trunk lines cover a large area, forming a dense traffic network on the Chengdu plain. Chengdu is also the largest airport in southwest China. Shuangliu International Airport is one of the international airports with the largest passenger throughput in China. It has opened 30 international routes and nearly 200 domestic routes. The prominent tourism location advantage has laid a solid foundation for the tourism development of the base.

### **6.2. Pricing strategy**

A. Customer segmentation: Different tourism products have different attractions for tourists of different ages and identities, and tourism enterprises also set different prices to attract certain tourists[10].

B. Differentiated pricing of product image: when tourism enterprises provide the same service, they set different prices due to the differences in specific implementation methods.

C. Location-based pricing: Price the product differently depending on its location, even though the cost of each location offered is the same.

D. Time differential pricing: different prices are formulated according to the different time of tourists' demand. In this case, different prices can be adopted in different seasons, different periods and even different hours.

E. Quantity discount: tourism enterprises will give different discounts according to the purchase quantity of buyers. The larger the purchase quantity, the greater the discount.

F. Seasonal discount: tourist attractions implement off-season and peak season prices respectively in a year, and some hotels also have prices of ordinary times, weekends and holidays, so as to maintain stable production and sales.

G. Trade discount and commission: the result of this discount is the formation of purchase and sale price difference and wholesale and retail price difference, its purpose is to encourage middlemen to order in large quantities, expand sales, win customers, and maintain a good and stable cooperative relationship with enterprises.

### **6.3. Sales channel strategy**

#### **A. Independent promotion mode**

The model focuses on selling products from the base, improving the competitiveness of the product market and accounting for power.

There is a special film for tourism image of the base, and a complete set of main publicity printed matter with VI logo. The special film or brochure is required to highlight the theme image of the base, so as to achieve a clear effect of image building and image recognition.

Postcard, audio and video products, guide maps, travel brochures, etc., use model ads, balloon ads, physical ads to promote the tourism image of the base, make pandas and cartoon shapes into mascots and rubber inflatable objects, and display them at the entrance of the site.

Invest and shoot films and cartoons related to base tourism, marry with TV media, sponsor or use to produce TV programs. Use film and television to promote tourism.

#### **B. Use the media public relations model**

The model focuses on the publicity of the whole base tourism image, improve the attractiveness of the area.

Make and broadcast the base scenery TV theme propaganda video; Press, radio and television media should be used to increase publicity.

Make use of news events, create news topics, borrow boats to go to sea, increase hype, such as panda birth, the base to obtain a certain industry award, Ken pro action, new activities, etc.

#### **C. Horizontal joint promotion horizontal**

##### **a. Integration between scenic spots**

Within the scope of Chengdu, together with Dujiangyan, Sanxingdui, Wuhou Temple, Du Fu Thatch Hall to create the overall image of Chengdu tourism brand, give full play to the role of chengdu tourism products existing sales channels.

##### **b. Union with civil aviation**

Cooperate with civil aviation to exert comprehensive promotion force; Carry out public marketing, with the help of popular channels.

##### **c. Cooperate with travel agencies**

Preferential ticket prices for travel agencies, Free distribution of panda base and related panda information, improve service quality and send tickets to travel agencies, strengthen communication, feedback information positively, help to coordinate the relationship between customers and travel agencies, cooperate with travel agencies to receive tourists, provide professional training to travel agency guides, Awards will be given to travel agencies with large annual travel volume.

##### **d. Feedback and evaluation mechanism**

Base management office to carry out effective marketing communication research work, and establish tourists feedback analysis mechanism. Carry out statistical research, establish tourist source database, do a good job in information collection.

### **6.4. Safety strategies to protect pandas and tourists**

#### **A. Tourist self-management**

When entering the scenic spot, we should take self-prevention measures, detect nucleic acid in advance or ensure the normal passage of health codes, wear masks at all times, and stagger the rush hour for viewing.

#### **B. Base Management Measures**

a. To enhance the management intensity of tourists, online booking and two-dimensional code ticket exchange are adopted at the entrance of the base, which greatly improves the service efficiency of tourists and alleviates the problem of excessive tourist density at the entrance to reduce the risk of COVID-19 contact. To strengthen the construction of tourism infrastructure, traffic in scenic spots can

be divided into internal traffic and external traffic. As for the transportation outside the scenic spot, tourists' comments show that the transportation is convenient, and there are various ways of arrival. Public transportation includes subway, taxi and bus. Provide necessary sightseeing trails and related facilities in the area, and provide perfect notices, signs and popular science knowledge. Visitors can't touch pandas, they can only watch from a distance. Strengthen the supervision of panda habitat, establish protection and isolation measures, reduce contact and interaction with tourists, prohibit tourists from feeding pandas independently, and avoid or clean up risky pollutants in time. Adjust the view of panda scenic spot to balance with the tourist activities that tourists can carry out.

b. When purchasing food, the food supply department shall ensure the safety of the source of feed purchase, ensure that the feed is fresh, clean and of good quality, and do a good job in the preservation and cleaning of the feed. The Food Supply Department will strictly perform disinfection protection during the production, storage and distribution of feed to prevent secondary pollution. The staff cleans and disinfects the feed storage room and the production and configuration studio every day, and lays disinfection pads at the door. Breeders and giant panda food preparation personnel strictly abide by the breeding operation rules and the giant panda food preparation and distribution rules. They must wear work clothes, masks and gloves, and do a good job of cleaning and disinfection. Under the condition of ensuring the quality of fruit and vegetable food, increase the single purchase quantity to reduce the frequency of supply. The Panda Center also requires food suppliers to strictly wear masks and disinfection during the process of purchasing food ingredients and food delivery. Effectively guarantee the food supply of giant pandas. In the period of high incidence of infectious diseases, in order to improve the resistance and immunity of giant pandas, scientifically provide nutritious meals, and formulate corresponding management for the habits and health management of giant pandas at different ages. Care measures are taken to achieve "one-to-one" meticulous maintenance of special and sick pandas.

## 7. Conclusion

Under the impact of COVID-19, tourist attractions will need to adjust their strategies in line with the anti-epidemic policy, and the focus of tourist conversions. ChengDu Research base of Giant Panda, although some adjustments have been made so far, such as daily disinfection, crowd restrictions, and the opening of accounts on various social media platforms for promotion, will need to be improved in more ways in the ever-changing and competitive 21st century. Through SWOT and marketing analysis, this paper proposes ways that ChengDu Research base of Giant Panda can take to improve its competitiveness in terms of product, price, sales channels and safety, in order to contribute to the subsequent efforts of ChengDu Research base of Giant Panda to better stand out among many tourist attractions.

## References

- [1] Lu, F., Cai, Q., Bai, Y., Liao, W. *China's wildlife management policy framework: Preferences, coordination and optimization*[J]. *Land*, 2021, 10(9): 909.
- [2] Lowry T, Smith S A . *Aquatic zoonoses associated with food, bait, ornamental, and tropical fish.*[J]. *J Am Vet Med Assoc*, 2010, 231(6):876-880.
- [3] Sherwen S L, Hemsworth P H. *The Visitor Effect on Zoo Animals: Implications and Opportunities for Zoo Animal Welfare*[J]. *Animals : an Open Access Journal from MDPI*, 2019, 9(6).
- [4] Cantlay J C ,Ingram D J , Meredith A L . *A Review of Zoonotic Infection Risks Associated with the Wild Meat Trade in Malaysia*[J]. *Ecohealth*, 2017, 14(2):361-388.
- [5] Quadros S , Goulart V , Passos L , et al. *Zoo visitor effect on mammal behaviour: Does noise matter*[J]. *Applied Animal Behaviour Science*, 2014, 156:78-84.
- [6] Hamed M , Nada S . *An Economic Pattern for Non-Digital Marketing in Cairo Based on Energy Consumption During COVIT-19*[J]. *Journal of Marketing Research*, 2020, 6(3):37-48.
- [7] Fang-Yong H E . *Empirical study of visitors'identity to environmental education of Chengdu Research Base of Giant Panda Breeding*[J]. *Journal of Northwest Normal University(Natural Science)*, 2015,51(01):114-118.
- [8] Liao J , Wang G , Fu Y . *Practice and Reflection on Landscape Renovation of Chengdu Research Base of Giant Panda Breeding*[C]. *The 14th China-Japan-South Korea Seminar on Landscape Architecture: Landscape Garden Amplifier; Beautiful Urban and Rural Areas.*2014:53-66.
- [9] Yang Juan. *Tourist satisfaction survey during short holidays — Take the Chengdu Research Base*

*of Giant Panda Breeding as an example[C]. The second International Symposium on Educational Innovation and Economic Management in 2017 (SEIEM 2017). Atlantis Press, 2017:123-127.*  
[10] Lindhout P, Reniers G. *Reflecting on the Safety Zoo: Developing an integrated pandemics barrier model using early lessons from the Covid-19 pandemic[J]. Safety Science, 2020, 130:104907.*