

# ***The Impact of Outdoor Sports Industry of COVID-19 in Changsha on Supply and Demand***

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**Abstract:** The outdoor sports industry plays an essential leading role in developing the sports industry. Based on the essential characteristics and current development status of the outdoor sports industry in Changsha, the impact of COVID-19 on the demand and supply of the outdoor sports industry was studied. It is concluded that the demand side of the outdoor sports industry is affected by weather factors, high risks, competitive products generated by the progress of new technologies, epidemic prevention policies and related policies supporting outdoor sports development, and the transformation of people's pursuit of nature. On the supply side, it is mainly affected by the workforce shortage and innovative talents, limited site development, inadequate material supply, weakened entrepreneurial enthusiasm, and government policy support for entrepreneurship and small and medium-sized enterprises. In the face of hazards and opportunities, we should focus on improving the management and service level of outdoor sports enterprises, giving play to the function and role of sports social organizations, scientifically deploying major outdoor sports activities and event preparation, and enterprises to carry out self-rescue, and strengthening the long-term tracking research on the development of outdoor sports enterprises after the epidemic.

**Keywords:** COVID-19; outdoor sports industry; the contradiction between supply and demand

## **1. Introduction**

Outdoor sports are a group of sports that experience adventure in a natural environment [1]. However, Changsha's outdoor sports industry is in its early stage. The COVID-19 epidemic spreads rapidly across the country at the end of 2019, The global outbreak of the epidemic has seriously impacted the world economy, and the trend of the global economy is also highly uncertain in the context of unclear development trend of the epidemic, which has severely affected outdoor sports domestically and internationally.[2] Changsha has canceled or postponed many outdoor activities, such as marathons, to implement epidemic prevention and reduce outdoor contact. Today, the epidemic's impact on outdoor sports is becoming more severe and complex. Therefore, it is bound to face various difficulties in the development process, which has hindered its pace of development. Scientific research and judgment of the contradiction between supply and demand of the outdoor sports industry caused by COVID-19 in Changsha will play an essential role in reducing the losses of the outdoor sports industry in Changsha and further promoting its high-quality development of it. On this basis, the current contradiction between supply and demand in this field is analyzed. Countermeasures and

suggestions were put forward on how to deal with COVID-19 scientifically and turn "crisis" into "opportunity," providing a scientific reference for the decision-making of the relevant interested parties of the outdoor sports industry in response to such emergencies [3].

## **2. Research Methods**

### **2.1. Literature Method**

A comprehensive and systematic study of Changsha's outdoor sports status is formed through the China Journal network, Google Academic, and other literature related to outdoor sports issues and referring to relevant professional works at home and abroad in recent years.

### **2.2. Questionnaire Survey**

According to the status quo of the Changsha outdoor sports design questionnaire survey. The questionnaire adopted the method of random sampling, selected 1000 citizens of Changsha city, and issued a total of 1000 questionnaires with 967 valid data, effective 96.7%.

### **2.3. Mathematical Statistics**

EXCEL was used to summarize the results and data of the questionnaire survey and make a logical analysis.

## **3. Analysis of Demand and Supply Side Affected by the Pandemic**

*What is the contradiction between supply and demand?*

The contradiction between the supply and demand of market commodities refers to the inadaptability and imbalance between the supply and the demand of market commodities in total amount, composition, time, and space. In a certain period, society can produce a certain amount of goods for the market, and the purchasing power in the same period represents a certain amount of demand. Supply and demand balance can only be achieved when two quantities adapt to each other [4].

*Demand-side impact*

The demand analysis of Changsha's outdoor sports industry is mainly based on the development of the current outdoor sports industry and the investigation of consumers' purchasing demand. Outdoor sports activities with large crowds at the beginning of the epidemic have been postponed or suspended due to the need for epidemic prevention and control. People's demand for the products and services of the outdoor sports industry has been affected due to the following three possible reasons.

### **3.1. Weather Factors**

Weather conditions such as air pressure, temperature, humidity, wind speed, precipitation, and sunshine will affect outdoor sports. They play a comprehensive role in regulating physiological functions. Appropriate weather conditions can put the body in a good and comfortable state. When the change of weather conditions exceeds the range of regulating the ability of the body, it can cause the decrease of compensatory energy of the body. In addition, weather factors affect the diffusion of air pollutants [5].

The weather has the most significant impact on outdoor sports. Generally, outdoor sports can be carried out on sunny or cloudy days, but not in stormy weather. So it is necessary to predict good weather before outdoor sports.

### 3.2. High Risk

As many as 92.7 percent of people in the survey think outdoor sports are dangerous. Although outdoor sports sometimes have accidents, especially during the epidemic, people will pay more attention to their health and may be afraid of being infected, so they reduce outdoor activities. However, 49.3 percent of the respondents said that the most attractive aspect of outdoor sports is the lack of orientation and stimulation.

### 3.3. Competitive Products

Changsha's outdoor sports industry is still in the development period. Nowadays, with the gradual opening of indoor stadiums and gyms, these goods and services are likely to become the first choice of people who have the habit of exercising or who have the idea of exercising. The blow to the outdoor sports industry is vast. At the same time, with the progress of technology and the promotion of technological products during the epidemic [6,7]. For example, with VR goggles, people can wear glasses at home to experience the feeling of being outdoors, and they can also be used when doing sports. This has led many consumers to think that wearing VR goggles are more convenient than going outdoor and doing sports. VR glasses can also switch scenes at will, which fills the limitation of Changsha's outdoor venue type. Therefore, developing and promoting various competitive products have significantly reduced consumers' demand for outdoor sports.

However, the outdoor sports industry is starting to make its voice heard with people staying at home for long periods during the COVID-19 pandemic. People's desire to be close to nature is growing stronger, which is a good turnaround for the nature-based outdoor sports industry. The following two factors are pushing its development further.

### 3.4. Policy Support

With the support of national policies, all sectors of society actively respond to the national health plan, national fitness program, outline for building a leading sports nation, and other policies, which effectively stimulate the growth of people's outdoor sports consumption [8]. As a result, 67.1% of the population said that, affected by social publicity and advocacy, they began to have an enthusiasm and changing attitude to outdoor sports.

### 3.5. Improved Awareness

As many as 87.9% of people believe that being confined at home for a long time causes them to want to get closer to nature and relax. People's awareness of sports and health has been continuously improved. Due to the outbreak of the epidemic, people's awareness of physical health has been raised. They have a new understanding of health, begin to pay attention to physical exercise, and are more and more willing to go out of the house [8].

According to the final survey, although people's demand for outdoor sports fluctuates, it shows a rising trend. Before the epidemic, the number of people who 'liked and had more understanding' of outdoor sports in Changsha reached 55% [5]. Now the data obtained from this questionnaire survey has reached 87.9%. (This does not contradict the previous figure that 92.7 percent of people think outdoor sports are dangerous. When people want to go out to do outdoor sports and experience nature, they can wear professional equipment to take protective measures to avoid danger. In addition, some outdoor extreme sports fans like the excitement brought by sports, which is also an attractive feature of outdoor sports.) Under the influence of the epidemic, people have been staying at home for a long time, yearning for nature and paying more attention to health. Therefore, although epidemic

prevention and control are objectively inevitable and the outdoor industry has its uniqueness, people's demand for the outdoor industry is increasing.

#### *Supply-side impact*

The epidemic outbreak has forced many industries to stop production and institutions from closing for rectification. Meanwhile, the supply side of the outdoor industry has also been impacted. The main influencing factors include labor supply, site support, material support, entrepreneurial enthusiasm, and policy support.

### **3.6. Lack of Labor Force**

As a new industry, the outdoor sports industry lacks talented trainers. For most of the team members, practical outdoor skills were lacking. There are two main reasons for many employees to leave their jobs due to the impact of the epidemic:

a) They predicted that the epidemic would severely hit the outdoor sports industry in advance, so they chose to leave first, and some would continue to look for large outdoor sports companies.

b) Some occupational mobility employees will seek employment opportunities in other industries. At the same time, many small and medium-sized enterprises (SMEs), which rely on activities as their primary source of income, will be at risk of going out of business, forcing them to cut wages and lay off workers. However, the situation is also an opportunity for companies that have survived the pandemic, with a large (reserve) workforce interested in employment in the outdoor sports industry.

#### **3.6.1. Insufficient Venues**

Compared with other sports industries, outdoor sports have special requirements for venues and natural conditions. Therefore, outdoor sports resources need to be developed with the rapid rise of outdoor sports. Moreover, to satisfy their inner desire, people will be more inclined to go to some mysterious environment exploration, which requires the relevant departments to provide a more natural environment [5]. However, the synthetic analysis of Changsha city for people to participate in outdoor activities shows the homogenization of outdoor sports site resources and the lack of environmental characteristics for people to Participate in outdoor sports all over the country. Because the repeated use of most developed natural sites will reduce the freshness and excitement of people's experience, people are reluctant to engage in outdoor sports in open venues but more inclined to some undeveloped primitive environment. At the same time, due to the impact of the epidemic, responding to the national epidemic prevention policy and cooperating with the government to control the epidemic further strengthens the difficulty of site development, and the existing sites that have been opened cannot be opened for supply.

#### **3.6.2. Material Supply**

Most outdoor sports have different degrees of risk and specificity, so they will be equipped with some special professional equipment. These require large-scale production of factories, such as orienteering cross-country finger cards, professional mountaineering sticks, shoes, etc. However, due to the impact of the epidemic, most factories could not operate normally except for the production of medical appliances, and all equipment had to stop production [7]. However, from the added value of sports goods manufacturing in China, according to data from the National Bureau of Statistics, the added value of sports goods and related products manufacturing increased year by year from 2014 to 2017 and reached 326.46 billion yuan in 2017. In 2018, the National Bureau of Statistics adjusted the accounting classification of the sports industry and adopted the Statistical Classification of Sports Industry (2019). Under the new statistical classification, the added value of manufacturing China's sports goods and related products was 339.9 billion yuan in 2018 and 342.1 billion yuan in 2019. It

is estimated that the added value of China's sports goods and related products will be about 350.2 billion yuan in 2020. Therefore, the added value of sports goods manufacturing increased year by year.

### **3.6.3. Entrepreneurial Enthusiasm**

According to data from China Net Finance. Due to the epidemic's impact, the outdoor sports industry has been affected. Undoubtedly, those with entrepreneurial ideas about the outdoor sports industry need to reconsider the entrepreneurial prospects of this industry. This will reduce the incentive for people who want to start a business. Then the outdoor sports industry will be challenged to have new blood flow into the market, which is also a loss for the innovation and development of the industry.

Furthermore, as the outdoor sports industry is in its infancy, the city's natural and labor resources are limited, and the phenomenon of homogenized products and services is evident. Therefore, without the addition of new enterprises, the market's competitiveness will be reduced, and the innovation enthusiasm of existing enterprises will not be stimulated. This is detrimental to the whole industry's sustainable development and innovative development.

### **3.6.4. Policy Support**

The State Council has issued a statement supporting "mass entrepreneurship and innovation" and supporting self-employment and flexible employment. We will implement policies on mass entrepreneurship and innovation. On May 5, 2022, Premier Li Keqiang presided over an executive meeting of The State Council, which made plans for further bailout measures for micro, small and medium-sized enterprises and individual businesses to ensure stable employment of market players. Local governments should provide for those enterprises and individual businesses that are struggling. Various subsidy policies help small and medium-sized enterprises to tide over difficulties and encourage everyone to start their businesses. All kinds of tax cuts for small and medium-sized enterprises and the help to enterprises to resume work and production have played a supporting role in the supply shortage [9].

Through the analysis, it can be seen that although the state has launched various policies to support the resumption of work and production of the sports industry, and the number of sporting goods is also on the rise, the outdoor sports industry is built on the action of special activities in contact with nature. Therefore, the lack of innovative talents and a labor force, the shortage of COVID-19, limited space supply, and other adverse effects are the main reasons for the severe shortage of supply. Therefore, due to the inevitable objective limitations of epidemic prevention and control, it is difficult for enterprises to meet the supplied standard, and the supply capacity is significantly reduced.

## **4. Conclusions**

According to the analysis, people's demand for the outdoor industry in Changsha is on the rise, and the epidemic has dealt a significant blow to the supply side. Although there are opportunities and the epidemic has not disappeared, it will be a continuous blow. This shows that in a certain period, a certain amount of goods and services produced in the Changsha outdoor sports industry market cannot meet a certain amount of demand represented by the purchasing power of goods in the same period, forming the supply and demand contradiction.

Based on the characteristics of the outdoor sports industry, COVID-19 is bound to have a lasting impact on the development of outdoor sports in Changsha, especially the negative impact on economic development. However, from the perspective of the macro development of our city and even the future development of China's outdoor sports, it provides opportunities and market space. In addition, it will further stimulate and enhance the consuming desire of relevant outdoor sports groups.

Therefore, the COVID-19 epidemic will not bring fundamental changes and impacts to the development of outdoor sports in Changsha. In this regard, the relevant sports departments and competition subjects should recognize the reality, grasp the development opportunities, timely adjust the relevant policies, and help the long-term development [10].

## References

- [1] Du Yangting, Yu Xing, Liu Mingkun. *Analysis of the definition of outdoor sports development [J]. Modern sports science and technology*, 2019,9(11):228-229. DOI: 10.16655 / j.Crocarroll NKI. 2095-2813.2019.11.228.
- [2] Hu Yiping, Lin Congcong & Hu Mengqi.(2022). *Challenges and opportunities posed by the COVID-19 pandemic to China's sports industry and its operation. Sporting Goods and Technology* (16),10-11.
- [3] Li Yuanhao (2022-06-15). *The "Difficulties" and "Changes" of Sports Industry. Workers' Daily*,008.
- [4] Chen Duanji. *Study on Marx's Effective Supply Theory [J]. Tianzhong Academic Journal*, 2004.
- [5] HU Zhaoyong. *Research on the present situation and countermeasures of outdoor Sports in Changsha City [J]. Stationery and Technology*,2013(16):12-13.
- [6] hong-bo zhao, Liu Zelei Cai Yuqiong & Hu Shunding. (2022). *The outbreak era of our country "sports tour industry + Internet" fusion innovation development research. Liaoning sports technology* (03), 19-23 + 42. Doi: 10.13940 / j.carol carroll nki lntykj. 2022.03.003.
- [7] Qiao Qiwei.(2022). *Research on the high-quality development of sports industry in China under the COVID-19 pandemic by digital economy.. (EDS.) "Shou Zheng · Innovation: Returning to the Basic Theory of Sports" Proceedings of the First International Conference on Basic Theory of Sports (Wall Journal Exchange) (pp.66).*
- [8] Chen Yiyuan & Qin Cong.(2022). *New opportunities and challenges for the development of sports industry in the context of COVID-19. (EDS.) "Shou Zheng · Innovation: Returning to the Basic Theory of Sports" Proceedings of the First International Conference on Basic Theory of Sports (Wall Journal Exchange) (PP.8).*
- [9] Wang Jingtao. *Research on the Impact of National Policies on outdoor sports Industry [D]. China University of Geosciences (Beijing)*,2021.
- [10] Yin Bowen, Wang Xiaofan, Tai Feng & Yu Shibo.(2022). *Supply-demand contradiction and solution of China's traditional sports industry under the background of Supply-side reform. Anhui Sports Science and Technology* (02),1-5+13.