



## Model Development of Sports Centers Service Management in Wuhan City under Next Normal Condition

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### Abstract

**Background and Aim:** This research on Developing the Next Normal Service Management Model of the Gymnasium at Wuhan is qualitative research with the following objectives: To develop the next level of normal service management model of the gymnasium in Wuhan after the outbreak of COVID-19.

**Materials and Methods:** The population size is about 25,000 people using a random sampling method. The sample is 394 people. The research tools are questionnaires and interviews. The quality of the tool was determined by content validity by 5 experts, the IOC was 0.8-1.00.

**Results:** The Wushu Sports Center's main components of the model include: (1) Basic information about the sports service provided by the stadium. (2) Service demand for Wushu sports center by exercise after COVID-19 outbreak. (3) The satisfaction of sports exercise on the service of sports centers after the COVID-19 outbreak.

**Conclusion:** The research findings were: (1) Problems, shortcomings, and service procedures of Wuhan stadium namely service quality issues and support facilities continue to improve. (2) Service process of Wuhan sports venues Service demand of sports organizations. Demand for sports guidance and physical monitoring. Demand for sports information consultation. (3) service model for Wuhan Sports Center after the COVID-19 epidemic. (4) confirm the service model of Wuhan Sports Center under the Next Normal situation.

**Keywords:** Model; Sports Centers Service Management; Wuhan City; Next Normal Condition

### Introduction

In the Spring Festival of 2020, a large-scale outbreak of novel coronavirus pneumonia broke out in Wuhan, causing widespread community transmission, a serious squeeze on medical resources, and many infected people traveling to and from hospitals and communities. The situation was very severe, and Wuhan quickly took measures to close the city and stopped large-scale collective activities in principle. In the face of the increasing number of suspected cases, prevention, and control at the source were strengthened to prevent the spread and cross-infection of the epidemic. According to a statement released on the official website of the Wuhan Municipal Health Commission in February 2020, the Wuhan government decided to turn Hong Shan Sports Center, Wuhan Sports Center, Wuhan Sports Center, Wuhan National Fitness Center, and other Sports Centers into makeshift hospitals. With the transition from "people waiting for beds" to "beds waiting for people", our passive position in epidemic prevention and control has also been reversed, and those renovated sports venues undoubtedly played a great role in the fight against the epidemic (Wuhan City Health Committee, 2020).

The 158 sports venues in Wuhan, as public service places, have also been significantly affected by the outbreak and have been closed for a long time. Sports Centers have been hit hard by the COVID-19 outbreak. The outbreak of COVID-19 has delayed many important matches and reduced the opening times of Sports Centers and Indoor Sports Centers. Spectators need to be concerned about the potential risk of infection while watching matches. This situation has caused some rational viewers to stay away from all kinds of games. In some cases, the games were canceled or postponed due to the COVID-19 outbreak. Even if some major events go ahead as scheduled, athletes participating in the games must worry about the risk of contracting the virus. The spread of the virus has led some competing teams to cancel their events.

After May 2020, the epidemic in Wuhan was well controlled. After the epidemic prevention and control situation in Wuhan basically leveled off, the lockdown began to be gradually lifted, and the Sports Centers began to be gradually opened. However, the global epidemic continues to spread, and there are still sporadic outbreaks in some parts of China. Regular, precise prevention and control and



local emergency response are the next priority. Wuhan sports venues have been actively implementing preventive measures such as peak displacement, reservation, and flow restriction, and gradually opening in an orderly manner. Later, some outdoor sports grounds popular with the public were reopened, and disinfection and epidemic prevention measures were taken in strict accordance with prevention and control requirements. Visitors were strictly required to wear masks, show the reservation code, scan the health code, and take their temperature before entering the Sports Center.

According to Wuhan News.com.cn, the number of people who come to sports venues has dropped significantly compared to before 2020. The vast majority of our large Sports Centers are funded by the government, some are built to meet the needs of large events, such as the Mouth Sports Center, and the World Military Games after the utilization rate is very low, the Sports Center's long-term losses, also have some school Sports Centers, mainly to meet the school's professional needs, most are not open to the outside, all expenses need financial allocations, the site generally idle. In the sudden outbreak of COVID-19, although some Sports Centers used as makeshift hospitals, more Sports Centers affected by the epidemic, unable to carry out sports activities until the end of the epidemic, which undoubtedly aggravated the Sports Center utilization rate is not a high problem (He Yi, 2021).

From 2021 to 2022, the epidemic was resurgent in all regions, and Wuhan was no exception. Sports venues will also continue to be closed when the epidemic control situation is tight. Under the current situation, sports venues open to the public still provide limited sports services, making it difficult for sports services to meet the needs of the public (Chen Yuan Xin, Qiu Qian, 2020). All these situations indicate that the current service mode of Wuhan sports venues is relatively stiff, and targeted innovation and expansion are not well done under the background of the new era. Targeted challenges should be combined with the actual situation in the following time (Luo Ping, 2020). How to combine the experience and lessons of this epidemic, giving play to the advantages of sports venues, focusing on the long-term development of future sports venues, and improving the management level of future regular sports venues in the city has important practical significance. Based on this background, the paper puts forward the research on the development of the normal management mode of Wuhan Sports Center service.

## Objectives

The development of a management model can play a better role in promoting the development of a normalized management model of sports venues in Wuhan under the background of the COVID-19 era.

## Literature Review

Liang Jin (2021) The outbreak of COVID-19 has brought severe challenges to the management of cross-border floating population in Southeast Asian countries, which are mainly manifested in that regional migrant workers are faced with various difficulties, such as unemployment, lack of medical security and difficulties in returning to their hometowns. At the same time, the social problems brought by illegal cross-border labor become more prominent.

Research on Sports Center operation under the epidemic situation. Jiao Jianli and Zhou Xiaoqing (2020) pointed out in their research that the novel coronavirus pneumonia outbreak broke out in China in early 2020, and it was during the Spring Festival travel rush that the epidemic spread from Wuhan to most parts of the country, posing a huge threat to the lives and safety of Chinese people. Zhu Hailong (2020) pointed out in his study that during the period of COVID-19 prevention and control, residents could not go out during home quarantine, their activity time was significantly reduced, and the overall amount of exercise was significantly reduced, which seriously affected people's physical and mental health, especially children and the elderly, whose immune function was weaker than that of young and middle-aged people, and they did not exercise at home for a long time. This has a great impact on their physical and mental health. In May 2020, the National Health Commission issued the Notice of the General Office of the National Health Commission on the



issuance of nutrition and Health Guidance Recommendations for Key Groups during the novel coronavirus epidemic, which shows that the country attaches great importance to home-based sports. Enhance people's understanding of home exercise, so that home exercise can achieve sustainable development after the epidemic, but also provide a new direction for sedentary people and people at home in the future and contribute to the development of the national fitness movement.

He Yi, Chen Lei, Zhou Biao, et al. (2021) studied and analyzed the characteristics of Chinese public Sport Center services, and they pointed out the following three characteristics: first, the characteristics of general service products; Second, the spillover of public welfare benefits of Chinese public Sport Center services; Thirdly, the public Sport Center service has certain competition after the crowded point. Jin Yin Zhe and Wei Hui (2020) put forward that there are four problems in the service mechanism of public Sports Centers in China. First, the government, as the main body providing public Sport Centers services, is far from meeting the needs of the growing development of society. Second, the supply quantity of Sport Center services is insufficient, and the price is low on the whole. Third, due to the absence of cognition in the arrangement of service mechanism, the direction of service mechanism reform is not clear; Fourth, the organization cost of public Sport Center services is not considered much, and most of them are still based on the administrative purpose of the government.

According to Yang Xiaoyin, Zeng Jianming, Zhu Junpeng, et al. (2022), the operation and management modes of Sports Centers and Sport Centers can be divided into five categories: contract operation and management, leasing operation, and management, entrusted operation and management, enterprise-oriented management, and corporate governance. Fang Xuemo and Chen Yuanxin (2022) divided sports venues into full budget management, differential budget management, contracting and leasing, and modern enterprise management.

Research on the management mode of foreign sports venues. Luo Ping (2010) mentioned that Japan adopted a management system for the operation and management of public sports facilities. This system can widely attract private operators who can provide sports services, to meet people's diversified sport's needs. But at the same time, this system also has corresponding problems. A major reason for Japan to adopt this system is that it can reduce financial expenditure, and in the fierce bidding competition environment, it is easy to lead to the decline of the quality of sports services provided and the occurrence of safety accidents.

Cao Lu (2016) pointed out that the development of Sports Center naming rights is an effective means for British professional sports clubs to increase income and relieve financial pressure, which provides financial support for the development and consolidation of the status of football clubs. There are many examples of home Sports Centers of English football clubs participating in the development of naming rights, which provides rich returns for title sponsors. Masahiro, S. (2016) pointed out that the operation and management of various sports venues should adopt the latest technologies. New media technologies and tools can help sports venues attract audiences and improve their profitability. In many developed countries, public Sports Centers have been formed and operated for nearly a hundred years, which is far more mature than in China. Therefore, their experience in Sports Center construction, management, and operation is worth learning from.

Luo, P. (2020) studied the service quality of the Sports Center. He took the satisfaction of the public as the starting point, analyzed the problems existing in the service quality and management of the Chinese Sports Center and their causes, and put forward the countermeasures to improve the service quality of the Sports Center, such as building a service quality management system that is in line with international standards, strengthening the quality awareness, improving management efficiency and so on. The research has great enlightening significance and reference value for me to put forward the elements of the Sports Center's serviceability.

The new public service theory holds that: first, the government should go into the public to conduct an opinion survey, clarify the immediate needs of the public, and provide relevant services on this basis, to establish a service-oriented government. To follow the law of supply and demand in the market economy, residents' needs are the needs in the relationship of supply and demand, and the



government is to solve the supply in the relationship of supply and demand, constantly enhance the ability of supply, meet the demand, and strive to balance supply and demand. Second, the government's innovation function should be changed from the depth of thought, to liberate practitioners from the traditional redundant and complex logical affairs, reduce the cost of human resources, and establish a scientific innovation service management system. Third, to better adjust the balance of supply and demand, to prevent the emergence of monopolistic behavior, the service management to absorb different natures and different industries to participate in the government and non-governmental organizations to form competition, and jointly establish a benign development system. Fourthly, standards should be set for public services. All participating organizations should be judged by their professional quality in service work, establish evaluation levels, and realize rewards and penalties for good and bad (Iversen, Cuskelly, 2015).

### Conceptual Framework

From the above elements as statement and significance of the problem, research objectives, research problems, scope and limitations of the study, and definition of terms, the conceptual framework can be defined as follows.

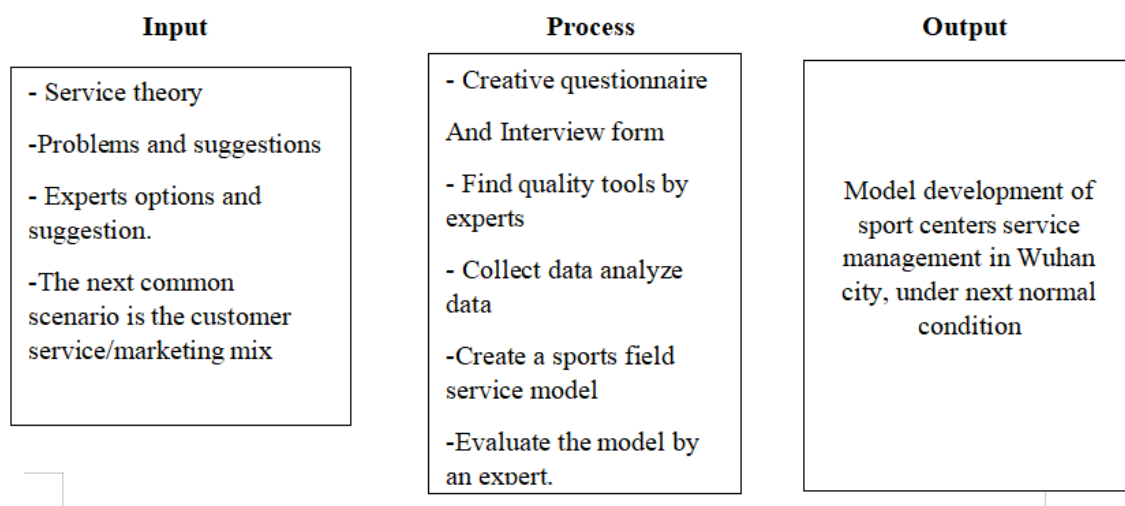


Figure 1 Conceptual Framework

### Methodology

The sample size includes sports centers in Wuhan, such as the Hong Shan Sports Center, Optics Valley International Tennis Center, Ta Zi Hu Sports Center, and the Zhong Nan University of Economics and Law Sports Center, with 25,000 people exercising, making up the study population. For the research, 394 people were sampled using the Taro Yamane Sample Size Table. The research method is outlined as follows:

Step 1: Conduct a literature review of relevant theoretical literature and research related to new Sport Center services. Use literature analysis to study relevant books, teaching materials, publications, and research terms on sports services at home and abroad.

Step 2: Prepare a questionnaire to investigate the problems, obstacles, and status quo of Sport Center services in the era of COVID-19 using the Delphi questionnaire method. A questionnaire survey was conducted to obtain relevant data on the service status of Wuhan sports venues. A total of 394 questionnaires were distributed using a third-party platform.

Step 3: Ensure the tool quality and interview forms have content validity obtained by experts to determine the questionnaire's reliability. Data analysis methods were employed to gather relevant data on Wuhan Sport Center services through Internet channels and questionnaire surveys.



Step 4: Collect comprehensive data on the service mode of Wuhan sports venues under the background of the epidemic using qualitative analysis. Qualitative analysis was also utilized to study the basic status quo and existing problems of Wuhan Sport Center services. Additionally, seven expert interviews were conducted to understand the development status and direction of the new normal service management of Wuhan sports venues, covering the content range and testing types of the service management mode of sports venues.

Step 5: Analyze the data, collect, and collate information, establish a model, and develop the normal service management mode of Wuhan Sports Center.

Step 6: Confirm the model by submitting the collected data to experts to verify the authenticity of the service model of Wuhan Stadium.

Step 7: Summarize the research results, construct a form to collect data, evaluate the services of Wuhan sports venues, and formulate standards to improve the service management mode of Wuhan's new normal sports venues.

## Results

Under the new normal, the service model of the Wuhan Sports Center needs to adapt to new challenges and requirements to ensure the safety and well-being of visitors, athletes, and staff. The following measures can be expected in the service model:

1. Basic information about the sports service provided by the stadium
  - 1.1 Opening hours and customer reception of sports venues.
  - 1.2 The basic situation of the equipment and environment of the stadium.
  - 1.3 Types of services provided by the stadium.
2. Service demand for Wuhan Sports Center by exercisers after the COVID-19 outbreak
  - 2.1 Demand for supporting facilities of sports venues.
  - 2.2 Service demand of sports organizations.
  - 2.3 Demand for sports guidance and physical monitoring.
  - 2.4 Demand for Sports Information Consultation.
3. The satisfaction of sports exercisers with the service of sports venues after the COVID-19 outbreak.
  - 3.1 Comprehensive evaluation of fitness functions and fitness programs of the stadium by exercisers
  - 3.2 The satisfaction of exercisers with the hardware facilities of venues.
  - 3.3 The satisfaction of exercisers with the stadium staff.
  - 3.4 Exercise exercisers' satisfaction with the overall service quality of the venue.

Base on the service model for the Wuhan sports center after the COVID-19 epidemic can be summarized as follows:

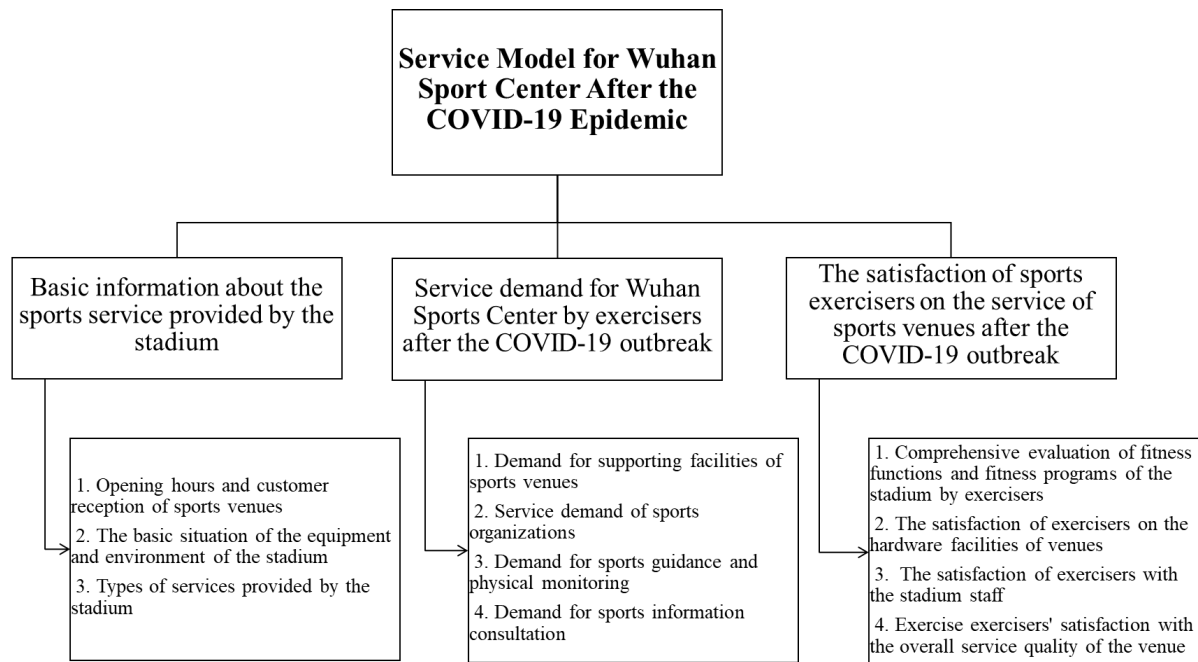


Figure 2 Service Model of the Wuhan Sports Center

## Discussion

The construction of self-service ecology is still in the initial stage of exploration, and exercise exercisers experience self-service with a kind of curiosity psychology. The experience of exercise exercisers is very important in the initial stage of self-service construction, which not only includes the "framework layer" (service content) and "performance layer" (visual effect) but also includes the "strategic layer" (what we want and what sports exercisers can get). Therefore, the development of regular services in sports venues should grasp the construction goals of self-service, take the exercisers' experience as an important index to measure the quality of self-service, from service process leading to service efficiency leading, and take this as the direction of service improvement. From the aspect of sports demand, functional demand, and interactive experience demand of sports exercisers, the demand of sports exercisers is analyzed in detail. (Iversen, Cuskelly.2015)

In the process of introducing and implementing the self-service project, Wuhan sports venues should not copy the practice of developing normal services in other cities, but should take the feedback of sports exercisers' needs as the basis for decision-making, and provide self-service services that sports exercisers are more interested in. Through self-service exercise, exercisers perceive the pleasure experience and improve the use intention of exercisers.

The self-efficacy of exercisers is the result of measuring and evaluating their ability, which in turn affects the behavior choice of exercisers. Therefore, the development of normalized services in Wuhan sports venues should not only pay attention to the self-service of service items and the intelligence of the service system but also pay attention to training and leading the information literacy ability of sports exercisers, to reduce the tension and avoidance emotions caused by the use of new technologies. (He Yi, Chen Lei, Zhou Biao, et al. 2021)

The sense of self-efficacy is not only reflected in the experience needs of exercisers in the process of using self-service but also reflected in the sense of control and self-realization needs of exercisers that traditional services do not have. This is the high-level self-service needs of exercisers. In the personal efficacy structure of self-efficacy, individuals will compare their performance with the past. Therefore, the self-service model of Wuhan sports venues should take the initiative to pay attention to and analyze the use habits of different exercisers and the change in the use needs of the same exerciser at different stages, make full use of the behavioral data of exercisers, and build a three-



dimensional portrait of exercisers. Combining with cloud big data analysis, it provides scenario-based self-service scientific solutions and personalized customized resource orientation push for sports exercisers, to meet the personalized demands of sports exercisers. In addition, pay attention to the self-service of service items and the intelligence of the service system, to minimize the difficulties in the operation of self-service. In addition, we should also pay attention to the realization of service efficiency, in the introduction of self-service facilities, according to the human, material, and financial resources to introduce relatively mature technology, relatively prominent utility projects, from simple to complex, step by step planning self-service facilities, and gradually meet the "expectation chain" of exercise exercisers, so that exercise exercisers are often enthusiastic about the use of self-service. (Luo, P.,2020)

At the same time, Wuhan sports venues should also pay attention to the publicity and guidance of self-service, give full play to the position advantages of Wuhan sports venues in the development of normal services, and adopt active marketing methods to attract sports exercisers to actively use. For example, in the hall of the development of regular services in the stadium, the promotion poster of the self-service project is placed, the Flash promotional film with animated visual effects is produced, and the WeChat push and web logo are combined with the self-media platform, so that the sports exercisers have a clear understanding of the self-service of the development of regular services in the stadium, and the community influence is fully exerted. Let sports exercisers become the media of communication, encourage other friends around them to try, so that sports exercisers from self-service "observers" into self-service "users", expand the coverage of self-service exercise exercisers, and enhance service efficiency. (Cao Lu, 2016)

## **Recommendation**

### **1 Application of research**

1.1 The new normal self-service model for the development of Wuhan sports venues can not only be applied to Hong Shan Sports Center, Optics Valley International Tennis Center, Ta ZiHu Sports Center, and Zhong Nan University of Economics and Law Sports Center proposed in the research but also other sports venues in Wuhan.

After the trial operation of the new normal self-service model for the development of sports venues in Wuhan has achieved certain results, it can also be promoted to other cities if it is unanimously recognized by the exercisers.

### **2 For further study**

2.1. Extensively collect in-depth data on the development of the new normal self-service model of stadiums, use more rigorous program software to model, analyze the data, and obtain new help to support the operation of the self-service model.

2.2 In the section of self-service mode operation, open the automatic gathering and automatic team exercise section, led by professional fitness experts, let sports exercisers join its team, to achieve fitness and meet their needs.



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