

# Study of the Ice Hockey Popularity and Future Planning in China

Mengxu Wang\*

Shanghai United International School, Jiaoke Campus, Shanghai, China

\*Corresponding author: 190929111@jkszs.com

**Abstract.** Ice Hockey had become a popular sport activity in Northern Countries like Canada. It has a long history in America and Europe, and people had established a mature system of competitions and games. It even derived other sports like floor hockey and roller hockey. Chinese government tried to import this kind of sport, encourage people to challenge themselves. This study describes the origins of ice hockey and analyses the geographical, economic, cultural and human constraints to the development of ice hockey in China. It finds that the sport is limited in China by the reasons, such as environment, the cost of equipment and the lack of professional staff. The article concludes with recommendations for the development of ice hockey in China from the perspectives of media, training and competition. Even though ice hockey has been slow to develop in China, with the opportunity of the 2022 Winter Olympics and the growing awareness of the sport, it is hoped that the diversity of ice and snow sports will enrich people's lives.

**Keywords:** Ice hockey; sports; future planning.

## 1. Introduction

In 1981, CIHA (Chinese Ice Hockey Association) was found in Beijing and became the only legal organization that joined the World Curling Federation. However, there's no big news about CIHA in decades, people in China didn't show much interest in ice hockey, most of them even never heard about CIHA or ice hockey. In 2022, China bid the Beijing Winter Olympic Games, winter sports got heeded in China, which is a good opportunity for popularizing ice hockey in China. From previous studies, it appears that ice hockey in China is inadequate in talents, poor in public influence and immature in business model. China can advertise ice hockey through Winter Olympic Games and fill the shortage of iced sports, encouraging people exchange culture. In the following, this article will analyze the reasons that make ice hockey unpopular in China in different ways and giving suggestions to help CIHA based on that.

## 2. Background Information of Ice Hockey

Ice Hockey is a kind of collective competitive sports against each other, which is carried out on a closed and marked ice rink with ice skates and hockey sticks as tools. It is composed of men and women.

Ice hockey originated in Canada in the middle of the 19th century. At the beginning of the 19th century, it was recorded that first nation of Canada was playing a similar game. They used a round cake that was stable and uncooked. Another theory is that ice hockey originated from an ancient American sport-lacrosse. However, the most popular and widely accepted theory is ice lacrosse. The ball evolved from hockey on the ground. Hockey originated in Northern Europe and has a history of more than 500 years. British soldiers stationed in Canada introduced the game to North America. Ice hockey originated in Canada. In 1855, a popular ice game was played in Kingston, Canada. The participants wore skates on their feet and held a hockey stick. On the frozen lake, they chased and hit the punk made of round pieces, and used two upright wooden poles as the goal. The number of participants was unlimited. This is the predecessor of modern ice hockey and sports.

As the sport of hockey has evolved, special requirements have been extended to include temperature, lighting, floor coverings and networks. Each rink will also be required to be equipped with a power clearing vehicle, ice shovel and other relevant tools.

### 3. Conditions for the Development of Ice Hockey

#### 3.1 Geography Factors

The history of ice hockey was started in Canada. There are advantages on geography take helps ice hockey become the major sport in Canada. Canada is located on the north of America, next to the Arctic Circle. There are many lakes in the territories, the Mackenzie River runs through the Northwest Territories, connecting Great Bear Lake and Great Slave Lake to the Beaufort Sea; near the city of Winnipeg, there's Winnipeg Lake; Ontario shares the Great lakes with the north areas of the US, all these lakes take a part on the map of Canada.

Water from these lakes and oceans can be transformed by wind and bring into the cities. It will make the land humid, when the temperature cools down in winter, it will easily get iced on the roads and streets. Due to the cold climate and a number of lakes and rivers in Canada, ice hockey has an advantage on developing in that place because people could find natural field for ice sports. There's one thing that need to be mentioned: ice hockey combines multiple sports in the game: skating is the basic of playing ice hockey, before playing ice hockey, players need to be masters on skating, so that they can have preparation and take actions when they meet different accidents during the game. In Canada, skating is a common sport since the weather there is always freezing and icy, people can train their skating skill in daily life because they can find places for skating everywhere in the winter. However, the northern areas in China were inland, far from the oceans and those provinces didn't have so many lakes or rivers that can provide ice field for skating or ice hockey. The humidity is not enough for making the road icy in freezing weather. Even though the wind can blow the sea water in to modern cities like Beijing and Tianjin that are closer to the coast and increase the humidity, there still couldn't have natural ice field because the average temperature in winter is too high for keep the artificial lakes icy. The newest statistics in 2023 from the tianqi.com, a website made by China Meteorological Administration shows that the average temperature in Beijing in winter is between 2°C to 11°C, while the ice need to be formed at 0°C. Since there has no natural field for winter sports, people need costs to build indoor field and having regular checking and maintenance. Due to the special geographical location and climate, China didn't have the objective condition of creating or developing ice hockey or skating, government or company has to spend a lot of money to build ice rink for winter sports, and this leads to the next topic.

#### 3.2 Economy Factors

High construction and maintenance costs is a huge pressure on finance, this leads to a consequence that most cities in China didn't have ice rinks. Few shopping centers in large cities might have ice rinks, but the size of rink will be decreased to diminish the cost, it won't be big enough for hockey games. Most ice rinks in China are used for a public entertainment facility, there will have some people skating on ice rink, but that is the activity they allowed to have. If an ice hockey player wants to train, he/she needs to go to another city to find a gym for ice rink.

The cost on hockey equipment also be a major reason that make people dislike hockey. There are at least 11 players in a hockey team, and every player needs a set of guard to protect themselves. Ice hockey equipment will vary depending on the roles of each player. In a hockey game, players will be divided into three kinds of roles: forwards, defensemen and goalie. Forwards and defensemen need to be equipped with helmets, protectors, knee pads, gloves, skates, hockey sticks and other facilities, while goalkeepers need stronger protectors and larger hockey sticks.

Moreover, these equipment should not only be of good quality, but also fit well, which means that these equipment should be replaced frequently. For example, it may happen that the equipment is damaged in the course of the game or the players need to replace the protective gear when they grow taller. This means that it needs sufficient funds to deal with these situations.

According to the statistics, the average disposable income of China is 35128rmb, the median disposable income is about 29975rmb. Most of the money was used for food and housing, only 10 percent was used for education and entertainment, which includes playing sports. The average cost

for Chinese people in entertainment was only 2599 rmb, which is about 383 dollars. Which means that most people in China couldn't afford the cost on ice hockey.

### 3.3 Culture Factors

The sense of responsibility for the family will prevent people from choosing ice hockey as a career or even a hobby, because it may bring a great financial burden to the family. For the sake of the family, people will even reject such expensive sports as a hobby.

In addition, the Chinese people think that ice hockey is too dangerous. Not only the blades on skates, the ice hockey sticks needed for ice hockey, but also the various body collisions in the game give a dangerous signal. They don't want themselves or their children to face so many potential dangers, and naturally they will reject this "violent and dangerous" sport.

Ice hockey can also bring spiritual support to other sports, which can easily be replaced. Ice hockey mainly represents "teamwork, courage and fighting spirit", which are common to almost all sports. In this regard, ice hockey is not special enough to stand out from many sports.

Even, the behavior of showing masculinity through collision in ice hockey is in conflict with the concept of Chinese local education. In China, people do not think these are worthy of being respected. On the contrary, people will oppose these behaviors for the sake of safety and the observance of Chinese etiquette.

### 3.4 Hard for Learners

Ice hockey requires people to be familiar with how to skate first, and most Chinese people will not have the skill of skating, so they have to spend time training skating skills before playing ice hockey, which gives beginners a threshold.

At the same time, because ice hockey is not very popular in China, there are almost no factories producing ice hockey equipment in China, and it is difficult for people to buy the facilities they need in China, which means they need to import from abroad, not only to spend time waiting for the goods to arrive, but also to pay customs duties. Such a troublesome process will also cause a lot of trouble for those who want to get into ice hockey.

### 3.5 Lack of Ice Hockey Filed Factors

In Canada, there's 8300 ice field for hockey, more than 20 times of ice field number in China (Table 1). Canadian people can find an ice hockey filed in any place; however, Chinese people can't find ice hockey filed so easily.

**Table 1.** Data of HHF in 2019 (the data of China doesn't include Taiwan)

Country	Total No. of Hockey rink	No. of Indoor ice hockey rink	No. of Outdoor ice hockey rink
Canada	8300	3300	5000
China	410	213	197

At the same time, ice hockey competition also requires high facilities and equipment. A hockey field needs at least this equipment (Table 2):

**Table2.** Equipment needs of ice field

Equipment	Numbers	Remark
Gate	2	At least two
Hockey net and blotter	2	two
High chair	1	
Flag	2	
punk	at least 60 punk	25pairs
acoustic equipment	1	
Punk bucket	2	2 for each team
Fridge	1	For storing punk

### 3.6 Lack of Professional Ice Hockey Staff Factors

In recent years, with the warming up of the concept of the Winter Olympics, China's ice and snow sports have developed rapidly, and the related problem of the scarcity of ice and snow professionals is particularly prominent. Referring to the experience of the Winter Olympic Games, only 5000 sports functional personnel are needed to complete the delivery of a high-level event. China's ice and snow industry has a 70% gap in sports professional and technical personnel, and professional posts need targeted training. However, the current situation of China's ice and snow development is that there are more ice and snow rinks than coaches. Taking figure skating as an example, the number of national professional team athletes who are engaged in coaching after retirement in 2019 is less than 100, and up to now it is about 200. Only relying on the retirement and transformation of athletes cannot meet the market foundation for the rapid development of the ice and snow industry, and talent is the key to support the huge ice and snow industry chain. There will be a huge gap in the demand for snow and ice professionals in the future. The shortage of talent in China can be seen in Table 3 and Table 4 in terms of the comparison of professional coaches and participants in hockey in China and Canada.

**Table 3.** Data of HHF in 2019

Country	Total No. o professional ice hockey coaches
Canada	31415
China	92

## 4. Suggestion

Based on these reasons, the goal of solution can be summarized as: simplify the rules of hockey, decrease the cost, clear up the misunderstanding that people have and make hockey have a special role in China. Here are the concrete measures.

### 4.1 Media

Publicize the CIHA, change the layout of the official website, and add popular elements. The existing official website pages are too monotonous and uninteresting. Combine ice hockey with popular elements to attract people's attention and increase their interest in ice hockey. Designing mascot for CIHA and making productions like clothes, cups and hats. Making other people become a fan of the organization.

Through network publicity, use the influence of the Winter Olympics to attract people's interest in ice sports, let them know what kind of sport ice hockey is, and resolve their misunderstanding of ice hockey. Remove people's idea that ice hockey only exports violence, and let them see the positive and interesting side of the energy represented by ice hockey. Let them enjoy the positive effects of team cooperation, tactical chess and technical competition represented by ice hockey. In addition, there could be activities in popular software such as Weibo and Tiktok. The content contains interesting video shooting competitions, set up certain bonuses, adds special effects about ice hockey, and promotes ice hockey with online celebrities.

### 4.2 Professional Talent Training for Future Athletes

The training of professional colleges, industry associations, clubs, enterprises and other platforms and the participation of amateurs are important measures for long-term planning of ice and snow talents. However, in view of the gap of qualified ice and snow coaches, China has not formed a training and management system for ice and snow talents due to the limited knowledge and technology. Taking the mature ice and snow talent system of Canada, the "ice and snow power", as a reference, the combination of sports and education may be a good recipe to help the development of the industry. That is, some people can be trained to become competitive sports talents, while others can be divided into coaches, referees and managers with professional qualifications. Whether it is the

reserve of competitive talents or the training of market management service talents, we need to start from the talent system training, based on the long-term and careful layout, and help the ice and snow industry to take advantage of the situation.

### 4.3 Competitions

As an important platform for the development of ice hockey, ice hockey events are conducive to improving the strength of China's ice hockey, while stimulating the enthusiasm of the public to participate. Through the analysis of China's events, creating high-quality events, integrating the popular characteristic culture into the ice hockey competition, etc., to improve the influence of China's ice hockey events and promote the spread of ice hockey culture. At the initial stage, some small ice hockey competitions with 4 to 5 people could be organized, then people could participate in the promotion of ice hockey activities through the competition, turn ice hockey into a simple activity that can be played anytime and anywhere, and make ice hockey more popular. Meanwhile, set up places to borrow hockey facilities could reduce people's economic pressure. Increase the activities and free courses to experience ice hockey, let people experience this sports project personally and artificially create some special memories about ice hockey, so that ice hockey has a different status in their hearts.

### 4.4 Education Encouragement for Teenagers

Before promoting ice hockey, ice skating and ice hockey should be introduced simultaneously, because ice hockey strictly integrates two sports, which also makes it difficult for beginner ice hockey. When people can skillfully skate on the ice or have a certain understanding of hockey before promoting hockey, people will be more receptive. Put posters near the ice rink or play videos about ice hockey near the ice rinks and attract those skaters to become ice hockey players.

In order to further strengthen the integration of sports and education, attract more teenagers to be interested in ice hockey, and then participate in ice hockey, the school can interact with students by organizing primary and secondary school students to watch competitions or organizing teams or ice hockey knowledge competitions.

Canada's youth hockey talent training mechanism and system is relatively well established, and the organization of hockey events is perfect, and there are many young hockey players. Canada's youth ice hockey training system is mainly composed of three stages, namely, the minor ice hockey stage (also known as the happy ice hockey stage), the junior ice hockey stage and the senior ice hockey stage. The three training stages are relatively independent, but there is a strong correlation between the Minor stage and the junior stage. Therefore, by learning from the talent training system of Canada and other powerful ice and snow sports countries, and combining with China's own actual situation, people can establish and improve their ice hockey reserve talent training system. Starting from the youth ice hockey students, we will build a complete ice hockey education and training system, an event standard system and an athlete's future career development system.

## 5. Conclusions

The evidences prove that ice hockey has a shortage in being common in China, but these problems can be solved. Through various ways of publicity and promotion and talent training, more and more people will be interested in ice and snow sports and promote China's ice hockey to enter a new stage of development.

## References

- [1] Song Hemin, Research on the current situation, problems and countermeasures of China's ice hockey events in 2019, Chinese Ice Hockey Development report during 2019 to 2020, September, 2020. Accessed on February 15th, 2023.

- [2] Song Hemin, 2022 Beijing Winter Olympic: Opportunities and challenges to Chinese Ice Hockey Team”, “Chinese Ice Hockey Development report during 2019 to 2020, September, 2020. Accessed on February 15th, 2023.
- [3] Zhang Haoyu, Chinese Ice Hockey development in 2019: callback and future planning, Chinese Ice Hockey Development report during 2019 to 2020, September, 2020. Accessed on February 15th, 2023.
- [4] Fang Dong. Research on the development dilemma and strategy of campus dryland ice hockey in China in the post-Winter Olympics era. *Liaoning Sports Science and Technology*,2023,45(02):136-140.
- [5] Lu Heng,Mao Lijuan,Wang Ran. A review of ice hockey game characteristics, physical demands and its testing methods. *China Sports Science and Technology*,2022,58(11):43-50.