Scientific and Social Research, 2025, Volume 7, Issue 6
https://ojs.bbwpublisher.com/index.php/SSR
Online ISSN: 2981-9946
Print ISSN: 2661-4332

A Comparative Study of Soft and Hard Facilities at Ski Resorts in China and the Republic of Korea

Ran Chen[1], Qing Nian[1]*, Sangbum Kim[2]

[1]School of Physical Education, Northeast Normal University, Changchun 130024, Jilin, China
[2]Kyungil University, Daegu 41566, Republic of Korea

**Author to whom correspondence should be addressed.*

Abstract: This study compares the soft and hard facilities of ski resorts in China and the Republic of Korea. In terms of hard facilities, some large ski resorts in the Republic of Korea feature advanced equipment such as cable cars, which are well-maintained, and offer diverse slope designs. In China, large ski resorts also provide a variety of slope types, including beginner, intermediate, advanced, and professional competition slopes, with hard facilities undergoing continuous upgrades and improvements. In terms of software facilities, the Republic of Korea's ski resorts have highly professional staff with a well-established training system, a wide range of support services, and strong foreign language reception capabilities; however, the professionalism and refinement of services at Chinese ski resorts still need to be strengthened. Through this comparison, insights can be gained to optimize China's ski resort facilities and promote the development of the winter sports industry.

Keywords: China; Republic of Korea; Ski resorts; Hardware and software facilities; Comparative study

Online publication: June 13, 2025

1. Introduction

With the global popularity of winter sports, both China and the Republic of Korea are actively developing their ski industries, leveraging their geographical and climatic advantages. The hardware and software facilities of ski resorts not only impact visitor experience and safety, but also influence the promotion of skiing and the improvement of competitive levels. This paper conducts a comparative analysis of the hardware facilities (such as ski runs, cable cars, snowmaking systems, etc.) and software facilities (such as services, management, training, etc.) of ski resorts in China and the Republic of Korea, aiming to provide references for the optimization and upgrading of ski resorts in the two countries [1].

2. Comparison of natural resources between ski resorts in China and the Republic of Korea

The northeastern region of China and the Republic of Korea share many similarities in climate and terrain, with abundant natural resources for skiing, making them parts of the "snow and ice golden latitude belt" for skiing tourism [2]. The winter snow season is relatively long, with abundant snowfall and deep snow accumulation, lasting 80–150 days. Based on the soft and hard facilities, service functions, and target customer base of ski resorts, they can be classified into three categories: advanced, intermediate, and beginner [3–4].

A high-end ski resort refers to one that offers a complete range of advanced, intermediate, and beginner ski slopes, diverse routes, high-quality cable cars that complement the slopes, high-standard and sufficient quantities of ski equipment, ski instructors, star-rated hotels, and various recreational facilities. Such ski resorts have multiple integrated functions, including ski training, competitions, and ski tourism, and can fully meet the diverse needs of athletes, coaches, and domestic and international tourists, making them capable of hosting international events. Currently, China's advanced ski resorts include Yabuli in Heilongjiang Province and Beidahu in Jilin Province, accounting for approximately 10% of the total number of ski resorts nationwide. The Republic of Korea's advanced ski resorts include Yongpyong and Muju, accounting for approximately 20% of the total number of ski resorts nationwide [5].

Intermediate ski resorts refer to those that feature advanced, intermediate, and beginner slopes, ample ski equipment, high-standard facilities, and corresponding hotels and recreational amenities, capable of meeting the skiing needs of athletes and domestic and international tourists. Examples include Erlongshan, Jihua, and Changchun Jingyue Lake ski resorts in Heilongjiang Province, China, which account for approximately 20% of the total number of ski resorts nationwide. The Republic of Korea's Yongshengniao, Daming, Xingyu, and ALPS ski resorts account for approximately 60% of the total number of ski resorts nationwide [6].

Beginner-level ski resorts refer to those with small scales, low standards, rudimentary facilities, and incomplete functions, capable of providing skiing services only for beginners. Approximately 70% of China's ski resorts are beginner-level, while the Republic of Korea has only 20% of such resorts.

Comparing ski resorts in China and the Republic of Korea, the Republic of Korea has fewer ski resorts, but they are mostly advanced and intermediate-level resorts. With the successful hosting of the Beijing Winter Olympics, the number of ski resorts in China has surged in recent years, far exceeding the Republic of Korea, with an increasing number of ski resorts being developed annually.

3. Comparison of hardware facilities between China and the Republic of Korea ski resorts

3.1. Ski trail design and scale

3.1.1. China ski resorts

Diverse slope types: Large Chinese ski resorts, such as the Zhangjiakou Chongli Taiwu Ski Resort and the Jilin Vanke Songhua Lake Ski Resort, emphasize slope diversity, offering beginner, intermediate, advanced, and professional competition slopes suitable for visitors of all skill levels.

Advantage of long slopes: Some ski resorts feature longer slopes with straight routes, gentle gradients, and open vistas, ideal for speed-oriented skiers and athletes engaged in high-speed, large-radius turns for competitions and training.

3.1.2. Republic of Korea ski resorts

Scale and professionalism: Large-scale Republic of Korea ski resorts (such as the Busan Yangyang Ski Resort and the Gangwon Province Yongpyong Ski Resort) are renowned for their extensive ski runs, offering a wide variety of run types, wider run widths, and more uniformly designed slopes, with numerous international standard runs. Their run designs cater to the needs of skiers of all levels with a natural transition from gentle beginner runs to steep advanced runs. They are suitable for both international competitions and family tourists and beginners.

Terrain utilization: Republic of Korea ski resorts are often built on mountainous terrain with significant elevation differences between slopes (e.g., the maximum elevation difference at Yongpyong Ski Resort reaches 700 meters), making them ideal for advanced skiers seeking challenges.

3.2. Lifts and transportation facilities

3.2.1. China ski resorts

Quantity and types: Large ski resorts have advanced cable car facilities, such as the Chongli Yunding Ski Resort, which has introduced detachable gondola lifts to enhance capacity, comfort, and safety. Some ski resorts also have various types of magic carpets to facilitate beginners' access to and from low-slope areas. However, overall adoption rates remain limited. Some medium-sized and small ski resorts may have relatively basic transportation facilities, with limited cable car capacity and a small coverage area for magic carpets.

3.2.2. Republic of Korea ski resorts

Widespread adoption of high-speed, comfortable cable cars: Republic of Korea ski resorts are renowned for their efficient and comfortable cable car systems. Most Republic of Korea ski resorts are equipped with high-speed cable cars, which offer strong capacity and short waiting times, making them ideal for peak-hour passenger flows. For example, the cable cars at Busan Yangsan Ski Resort not only accommodate a large number of visitors but also feature cabin designs that prioritize passenger views and comfort, allowing riders to enjoy the surrounding scenery during their journey.

Indoor cable cars: Large Republic of Korea ski resorts have installed cable cars in indoor waiting areas (e.g., Gangwon-do Ski Resort), significantly enhancing the visitor experience and reducing discomfort caused by cold weather and queuing.

3.3. Snowmaking and snow preservation management

3.3.1. China ski resorts

Snowmaking capacity: The snowmaking systems of large ski resorts are becoming increasingly sophisticated, with many resorts introducing advanced snowmaking machines from abroad to ensure sufficient snow depth on slopes even when natural snowfall is insufficient [7].

Snow conservation facilities: In addition to basic measures, such as windbreak nets, some ski resorts have begun constructing indoor ski halls or using insulation membranes to reduce snow melting.

3.3.2. Republic of Korea ski resorts

Efficient snowmaking systems: Republic of Korea ski resorts have also developed mature snowmaking technology. They generally use imported snowmaking equipment (such as Italian Prinoz systems), which are highly efficient and emphasize integration with the natural environment to ensure uniform snow quality. They strategically deploy snowmaking machines based on terrain and climate conditions to achieve efficient snowmaking operations.

Snow preservation facilities: The Republic of Korea fully leverages its cold winter climate advantage, combined with scientific site planning, such as locating ski runs in wind-protected areas to reduce snow preservation pressure. Additionally, advanced geothermal insulation technologies are employed to assist in snow preservation.

Precision management: Snow groomers are equipped with GPS navigation and intelligent scheduling systems, ensuring high-frequency snow maintenance, which results in smoother and safer ski runs.

3.4. Supporting facilities

3.4.1. China ski resorts

Basic services and accommodation transportation: Large ski resorts are equipped with rental centers, dining areas, and rest areas, with surrounding hotels and transportation infrastructure gradually improving, such as the direct high-speed rail connection from Chongli High-Speed Rail Station to the ski resort. However, some facilities have insufficient capacity, potentially leading to queues during peak periods.

Ski Equipment Rental: Rental centers at large ski resorts offer a variety of brands and models of ski equipment, with professional staff assisting visitors in selecting suitable gear. However, rental equipment at some medium and small ski resorts may not be updated promptly, and even its quality may vary [8].

3.4.2. Republic of Korea ski resorts

Full-service amenities: Republic of Korea ski resorts emphasize “one-stop” services, offering comprehensive amenities from ski equipment rental and dining to hot springs and shopping, with high service quality. Major ski resorts (such as Yangyang and Yongpyong) are adjacent to highways and high-speed rail stations. Some resorts provide free shuttle buses to facilitate visitor access.

Ski equipment rental: The rental process at the Republic of Korea ski resorts is more standardized and professional. The equipment is well-maintained and precisely matched to visitors’ height and weight, with detailed usage instructions and safety guidelines provided.

4. Comparison of software facilities between China and the Republic of Korea ski resorts

4.1. Service and management

4.1.1. China ski resorts

Service attitude and safety management: The service awareness of staff at Chinese ski resorts has improved significantly, with the ability to provide basic guidance and instruction to visitors, as well as professional rescue teams and monitoring systems. However, during peak tourist seasons, due to the large number of visitors, there may be issues with delayed service responses and insufficient foreign language service capabilities [9]. Some smaller ski resorts have inadequate safety signage and insufficient guidance for beginners.

4.1.2. Republic of Korea ski resorts

Standardized service and safety management: Republic of Korea ski resorts have highly standardized service processes, providing comprehensive care from the moment visitors enter the resort. Staff members have undergone professional training. English and Chinese language services are widely available. For example, at Yongpyong Ski Resort, staff proactively assist visitors with luggage handling and answer questions. There are also dedicated

personnel on the slopes to maintain order and ensure safety. The slopes are zoned, with dedicated safety officers and electronic monitoring systems in place. Emergency response times are swift, enhancing visitors' sense of security.

4.2. Training and guidance

4.2.1. China ski resorts

Instructor resources: Large ski resorts have professional ski instructor teams, but their fees are relatively high, and the qualifications of some instructors vary. Small ski resorts primarily select instructors from residents and skiing enthusiasts with good skiing skills for basic training. There is an imbalance between supply and demand for skiing social instructors, whose capabilities need improvement.

Training system: Some ski resorts collaborate with training institutions to offer youth skiing courses, but the reach is limited, while the professional standards have not been rigorously evaluated.

4.2.2. Republic of Korea ski resorts

Professional training: Republic of Korea ski resorts generally establish skiing schools offering graded instruction (e.g., beginner, intermediate, and children's classes), with certified instructors and standardized teaching systems.

Low-cost experiences: Some ski resorts offer "trial lesson packages" to lower the barrier for beginners to try skiing, promoting widespread participation.

4.3. Information technology and intelligence

4.3.1. China ski resorts

Online services and data management: Large ski resorts provide functions such as reservations, navigation, and real-time weather updates through mini-programs or apps, but intelligent applications (such as facial recognition and unmanned rentals) are still in the pilot phase [10]. Some ski resorts have begun collecting visitor data but have not yet established a comprehensive user profiling system or precise marketing framework.

4.3.2. Republic of Korea ski resorts

Smart skiing and data analysis: Republic of Korea ski resorts have fully embraced intelligent services, such as unmanned equipment rentals, AI-powered slope monitoring, and real-time queue status checks via mobile apps, to enhance visitor experiences. They optimize operations through membership systems and consumption data, such as dynamically adjusting cable car capacity and precisely targeting promotional offers.

5. Comparison, summary, and recommendations

5.1. Advantages and shortcomings

5.1.1. China ski resorts

Advantages: Large-scale and diverse ski trails; large-scale ski resorts are gradually aligning their hardware facilities with international standards; under the support of national and local policies, transportation and accommodation infrastructure have improved significantly.

Shortcomings: Small and medium-sized ski resorts have outdated facilities and limited intelligent service capabilities; service standards and safety management require further standardization.

5.1.2. Republic of Korea ski resorts

Advantages: Highly refined and intelligent infrastructure, mature service systems, and extensive international experience.

Disadvantages: Some ski resorts are limited in scale, with slope designs geared toward mass appeal and few specialized competition venues.

5.2. Development recommendations

5.2.1. China Ski Resorts

Enhance intelligent levels: Promote technologies, such as unmanned rentals and AI monitoring, to optimize visitor experiences.

Strengthen service standardization: Establish national unified service standards for ski resorts and enhance foreign language service capabilities.

Promote regional collaboration: Integrate surrounding tourism resources (such as hot springs and homestays) to create an integrated ice and snow cultural tourism complex.

5.2.2. Republic of Korea ski resorts

Expand professional slopes: Increase advanced slopes and competition venues to attract international events and professional visitors.

Deepening cooperation with the Chinese market: Collaborate with Chinese ski resorts on joint promotions (such as mutual recognition of tickets and coach exchanges) to share customer resources and technical expertise.

6. Conclusion

Ski resorts in China and the Republic of Korea each have unique strengths in terms of hardware facilities. The Republic of Korea leads in terms of refined management and intelligent services, while China has greater potential in large-scale slopes and scaled development. In terms of software facilities, the Republic of Korea's standardized service and training systems are worth learning from. In the future, the two countries can collaborate through technical exchanges, customer base sharing, and joint marketing to jointly promote the upgrading of the skiing industry and provide a model for the global development of winter sports.

Disclosure statement

The authors declare no conflict of interest.

References

[1] Kan JC, Jiang LJ, 2013, A Comparative Study of the Soft Power of Winter Sports in China and the Republic of Korea. Journal of Shenyang Institute of Physical Education, 32(1): 125–128.

[2] Kim BS, Wang FD, Li QW, 2007, A Comparative Study of Ski Resort Access Systems in China and the Republic of Korea. Journal of Beijing Second Foreign Studies University, 2007(5): 67–72 + 9.

[3] Wu LL, Yin RC, Chen ZJ, et al., 2012, Analysis of the Influencing Factors of Enterprise Ecological Management Strategies: A Case Study of Ski Resort Enterprise Management. Resource Development and Market, 28(10): 934–937

+ 903.

[4] Yang LH, Dong L, 2021, The Impact of the Wanlong Ski Resort in Datong City on Mass Skiing. Journal of Shanxi Datong University (Natural Science Edition), 37(3): 90–92.

[5] Zhang DC, 2004, Cooperation and Development of Ski Tourism Among China, Japan, and the Republic of Korea. Ice and Snow Sports, 2004(5): 35–38.

[6] Yang LH, Dong L, 2021, The Impact of the Wanlong Ski Resort in Datong City on Mass Skiing. Journal of Shanxi Datong University (Natural Science Edition), 37(3): 90–92.

[7] Yang LH, Dong L, 2021, The Impact of the Wanlong Ski Resort in Datong City on Mass Skiing. Journal of Shanxi Datong University (Natural Science Edition), 37(3): 90–92.

[8] Lyu C, Wang S, Yao XL, 2013, A Study on the Construction Models of Overseas Alpine Ski Resorts. Journal of Harbin Institute of Physical Education, 31(6): 34–39.

[9] Yang LH, Dong L, 2021, The Impact of the Wanlong Ski Resort in Datong City on Mass Skiing. Journal of Shanxi Datong University (Natural Science Edition), 37(3): 90–92.

[10] Yan LL, Du P, 2014, Investigation and Countermeasures on the Safety Conditions of the Chongli Ski Resort. Sports and Cultural Goods and Technology, 2014(22): 17 + 19.