

J. Resour. Ecol. 2023 14(1): 207-216
DOI: 10.5814/j.issn.1674-764x.2023.01.020
www.jorae.cn

Current Situation and Future Development Trend of Global Skiing Tourism Market

Laurent VANAT¹, LI Yu²

1. Laurent Vanat Consulting SARL, Geneva 1224, Switzerland;

2. Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing 100101, China

Abstract: The global ski tourism market has been in a relatively mature period. However, passenger flows are stagnating in many countries and the growth perspectives are not very appealing. This change of the tourism market troubled the entire ski industry with new challenges, leading to the ski tourism industry model established in the 20th century failing to meet the current development needs. According to multiple data sources, including relevant industry reports and the latest data from internetm, this article based on a variety of these reports and the latest data from website, analyzed the ski tourism market's both sides of supply and demand, systematically summarized the evolution of ski tourism industry since the 21st century, discussed the process of the ski tourism industry's development and the economy's growth, and revealed the relationship between the influencing factors of ski tourism market's potentials. Meanwhile, the main problems and challenges in the ski market were also summarized. The results showed that global ski tourism had entered a mature stage since the beginning of 2000. Moreover, there was a specific correlation between skiing participation rate and GDP, which varied with the regional economic level and the maturity degree of skiing industry. Despite some impacts from COVID-19, the ski industry in most regions exhibited signs of recovery in 2021. The Winter Olympic Games in China have brought new opportunities to the skiing industry and have been expected to encourage global participation in skiing. However, some existing ski resorts in different countries and regions may not significantly contribute to the future development of global ski tourism, and the potential growth of ski tourism market might be small and mainly concentrated in China. At present, the biggest threat to the ski market is baby boomers having long been the bulk of ski resort visitors. The ski market is faced with this aging problem and the widespread phenomenon of ski culture fault. How to meet the needs of this new generation of customers who lack ski backgrounds or cultures is a severe challenge for all emerging and existing ski resorts around the world. Besides, public transport accessibility, service quality and resorts operation capacity have also been the improvement direction of the ski market in dire need.

Key words: globality; mountain tourism; ski tourism; ski market; development trend

1 Introduction

Ski industry is relatively poor in data about its development before the 21st century. As surprising as it may be, most ski markets had not paid a lot of attention for a long time to gathering visitation data. Systematic data collection about the global ski business started only 13 years ago, when the *International Report on Snow & Mountain Tourism* was published for the first time. Some previous attempts were

revealed as inaccurate and remained unrepeatable. The most reliable tentative was conducted by Lazard in 1999 (Hudson, 2000). Even in some long-existing markets, no centralized data collection or national ski resorts associations had concentrated on reporting the consolidated revenues. It is therefore difficult to make any globally quantitative analysis which would date back to the mid of 20th century when the ski industry experienced a big boom in most of the markets leading to today's monopolies.

Received: 2022-04-08 **Accepted:** 2022-07-08

First author: Laurent VANAT, E-mail: lvanat@bluewin.ch

Citation: Laurent VANAT, LI Yu. 2023. Current Situation and Future Development Trend of Global Skiing Tourism Market. *Journal of Resources and Ecology*, 14(1): 207–216.

In recent years, the research on ski industry has ranged from the ski trip to the ski tourism management and its development pattern (Goncalves, 2013), the ski tourism market and its development strategy (Konu et al., 2011), the skiing demand and the tourists' consumer behaviour (Falk, 2015), the ski industry's impacts on regional economic and social developments (Lasanta et al., 2007), the sustainability of ski tourism (Moreno-Gene et al., 2018; Kuscer and Dwyer, 2019), and the influences from global climate changes and responses (Knowles and Scott, 2021; Willibald et al., 2021).

2 Materials

The present document compiled data from numerous sources, together with estimates made with the absent or insufficient reliability of available statistics. Besides the personal historical database assembled by the author, there were extensive data from web research, while the sources of these detailed data are as follows (Table 1).

3 Quantitative evolution of markets since early 2000's

Globally, the ski industry has reached a very mature stage in most of its markets since the early beginning of the 2000's. This was even emphasized in the 7 biggest ski resorts representing about 72% of the global ski market in visitation. Since winter season 2008/09, the global volume of 5-year average skier visits had been oscillating between 355 and 370 million. Even at the aggregated regional level, the trend curve had been rather flat, as some countries performed better than the others even from the same region (Fig. 1). The traditional ski tourism market in the Alps declined significantly, while eastern Europe and Central Asia grew substantially from 2008 to 2011. After then, China became a

country rapidly rising in the global ski market. This was typically reflected in the Asia & Pacific region's flat evolution. Despite the tremendous growth experienced by the ski industry in China, the global regional figure looked stagnant. This was due to the declining Japanese and South Korean markets.

Table 1 Data sources

Sources
Reports, web-pages and news from national or regional associations in ski areas
Annual reports from large ski resorts' operators
ATOUT France
China Ski Industry White Book
China Ski Resort Encyclopedia
CIA 2020 Factbook
Doppelmayr
Mechanical elevator
RRC Associates
Ski Afghanistan
Skiing around the world
Snow business
Snow Hunter's World Weekly Snow News
South America Ski Guide
Cable car statistics OITAF 2009
The Story of Modern Skiing
UNWTO World Tourism Barometer
skiofpersia.com
skileb.com
skiinghistory.org
Webpages (among others) wikipedia.org
Wintersport analyse in Europa

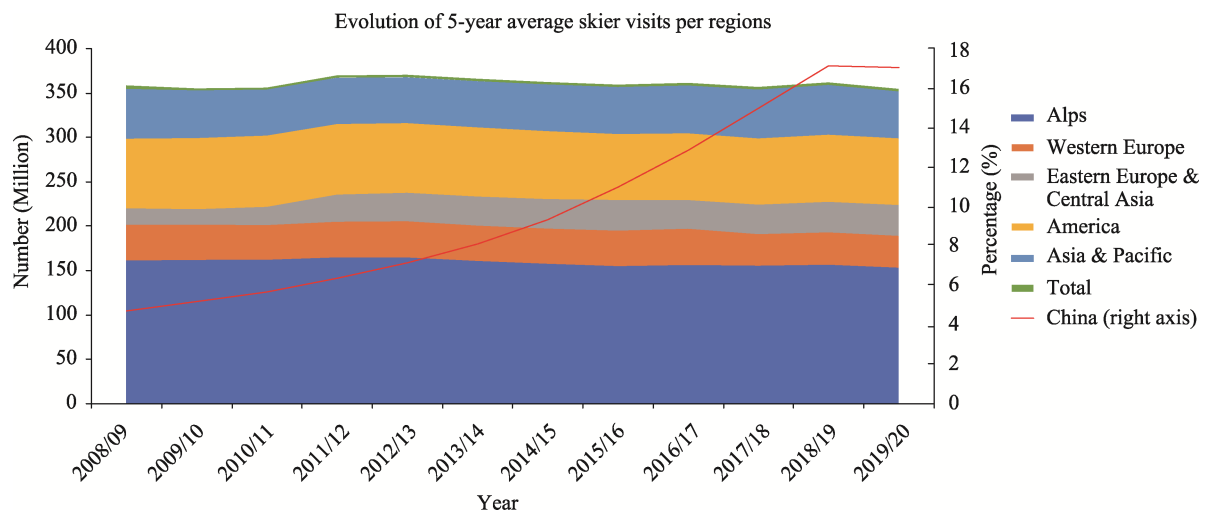


Fig. 1 Evolution of 5-year average skier visits per regions

Note: Total: The total number of skiers in the statistics of this article; China: The number of skiers in China/The total number of skiers in the statistics of this article. The same below. Source: Vanat, 2020.

Despite this stagnant global trend, the market has been growing both on the demand and the supply sides. The number of skiers has also been rising overall. From an estimated 110 million skiers worldwide in 2009, the current estimate escalated to 135 million. The hard fact that this growth failed to improve the visitation is a pain in the neck of the industry. It is indeed a consequence of some issues and challenges the industry faced today, which will be further explored as below.

In Western and Japanese markets, some small ski areas with limited equipment went out of business, either because they were running out of the snow lines, or because of financial problems (often a combination of both). But the global number of ski areas still significantly increased over the last decade (Fig. 2). Roughly 1000 new ski areas have popped up since 2009. Most of them however were of limited sizes, because the number of those considered resorts (owning 5 lifts of more) only rose by 40. China accounts for a large part of new ski areas, with a 10-year rise by 570 ones. The other major regions with the increase in ski areas is

Eastern Europe & Central Asia, where a lot of new ones were also developed.

Despite the increase in ski areas, there has been a decline in the total number of lifts. It is however insignificant of a shrinkage of the supply. On the contrary, the new lift technology developed in the 1990's and sophisticated in the 2000's, which has achieved a tremendous increase in individual capacity of new lifts. This made numerous older lifts redundant, without reducing a resort's total hourly capacity. Very often, a new lift replaced several older ones, bringing the benefit of a higher capacity. Alpine ski resorts have sometimes been reported as running an arms' race for the most sophisticated lifts. These improvements have most drastically increased the lift inventory in the Alps. Furthermore, a number of new ski areas developed in China were only equipped with magic carpets (which were not accounted in lift figures, usually limited to ropeways). Thus, the impressive growth in Asian resorts number has not been reflected in lifts figures.

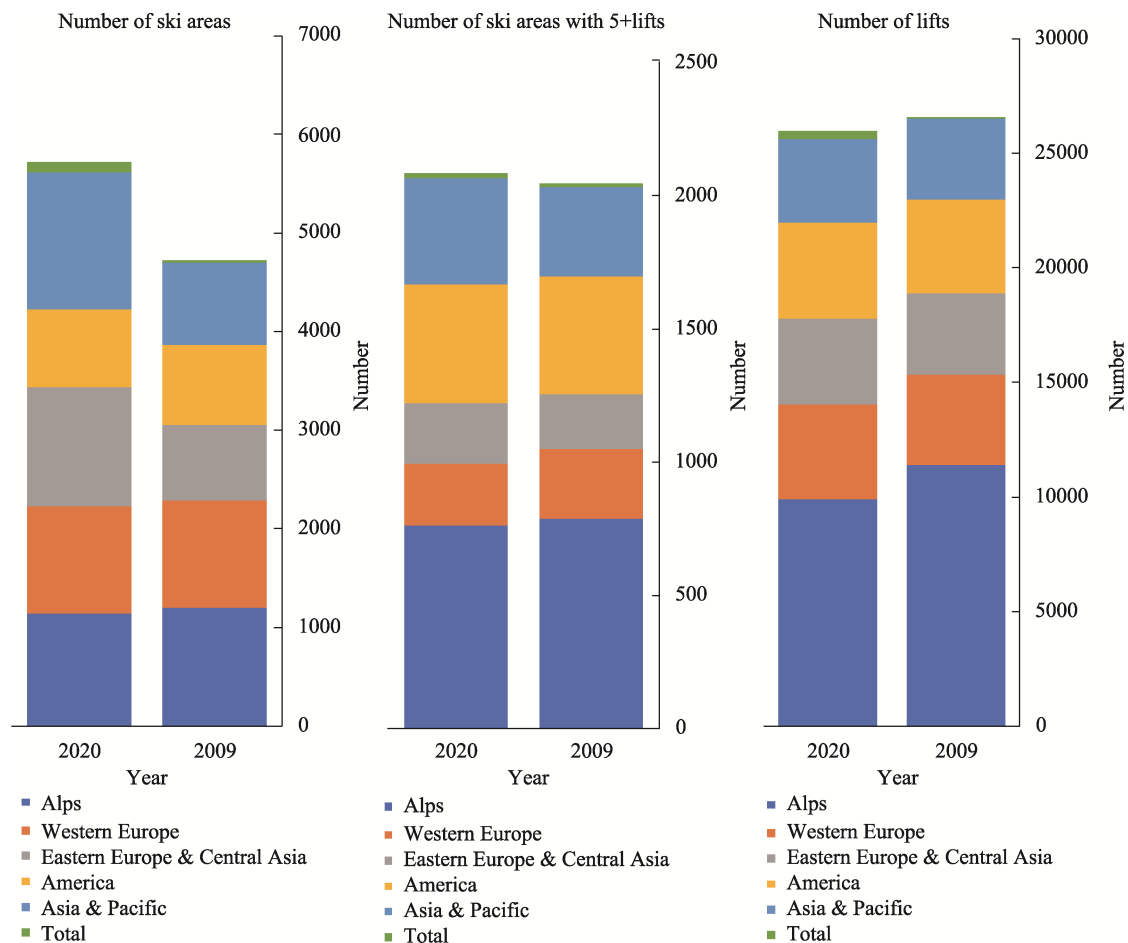


Fig. 2 Evolution of ski resort infrastructure

Note: Total: The total number of skiers in the statistics of this article. Source: Vanat, 2021.

4 External drivers of the ski market and their impacts on market potential

Above data mostly refer to 5-year average visitation figures.

In fact, the change from one season to another varied around plus 6% to minus 4% on worldwide numbers (with the exceptions of a few seasons, such as the 2006/07 down 13% under awful snow conditions everywhere, the 2007/08 up

14% returning to normal after the awful last season and the 2019/20 down 18%, the worst on record for the last 20 years, because of Covid-19 impact). Beside the pandemic issue in 2019/20 (and this also happened for 2020/21 when France, Italy and Germany deciding to lock their ski areas), weather and snow conditions became the strongest drivers shaping the attendance at ski resorts, in the short term. These were mostly connected to good snowfalls (but with the minimal snowstorm), enough cold (but possibly not too much) and nice sunny days (but not too warm). All these happenings were at the right moment in the season (snow with cold on the lowly attended days and sun on the peak days). Not every year has the good alchemy in this regard. However, despite the indisputable issue of global warming, it is difficult to state if it imposed a major long-term negative impact on the ski business. Several analysts predicted declines in the number of resorts operating and in the number of operating days, but snow-making and wise snow management mitigated the recent effects. As mentioned above, some ski areas certainly ran out of the snowline. However, these were minor, usually very small and unviable businesses. Impacts on global visitation remain imperceptible.

The states of the economy imposed few short-term impacts on visitation. The best example of it was the 2008 crisis. Despite the economy was severely hit after summer 2008, the ski season 2008/09 followed still made the second best on record of 21st century. A sample limited to the major ski markets for which yearly visitation records were available in the International Report on Snow & Mountain Tourism. They showed that the season was globally up by 2% on the former one (which was already very good), while GDP was globally down by 5% (World Bank Open Data, 2020).

GDP however exerted some long-term impacts on attendances at ski resorts because it has been a driver for market penetration of the ski industry. However, it has become the diversely influential by the regions and the maturity stages of both the ski industry and the local economy.

When per capita GDP was within a certain range, the ski resort's passenger flow grew with the increase of per capita GDP. After reaching a certain level, the increase of per capita disposable income no longer significantly impacted the number of skiers. From a dynamic point of view, over the last two decades, for the 7 monopolies of the ski business, visitation curves have been rather flat, or even declining, when GDP per capita has been growing over the first decade then stagnating over the second one at the level around USD 50000 per capita. This reflected that the highly mature markets with middle classes no longer grew significantly and the GDP growths no longer impacted the ski resort visitations.

For the other markets of the above sample, which could be considered the challengers, skier visits continued to grow over the first decade, even at a slower pace than GDP growth. Over the second decade, when GDP began to flatten

or even slightly decline, at an average of USD 40000 per capita, skier visits also stopped growing.

China is the exception of the research sample. Its GDP per capita has been multiplied by 10 over the two decades to excess USD 10000 and its skier visits rose from 1 million to 20 million.

This empirical observation would enable this researcher to assume that there was a range of GDP per capita where skier visits became more sensitive to increase in population's revenues. Up to a certain level, the increase in the disposable income no longer significantly impacted the curiosities for skiing.

This can be supported by some static empirical observations. Countries with ski resorts and a high GDP per capita tended to generate a higher participation rate. Correlation was not very good, as some other key drivers also imposed major impacts on the participation rate. Although participation rate per country tended to increase with the growth of GDP per capita, it seemed to stop at a cap near 20%. In fact, very few countries exhibited higher participation rates. On average, these rates in Europe and Central Asia seemed to step by 2.5% for each USD 1000 of additional GDP per capita. In Asia & Pacific, the steps seemed closer to 1.1% participation rate for USD 10000 GDP per capita. It is interesting to argue that, if participation rate correlated in some distant way with GDP, consumption per skier will present a very low correlation. In several places, it seemed that the number of skier visits per domestic skier did not increase with the growth of GDP per capita.

Exchange rate was also quoted as another driver of economic impacts on the ski tourism. However, its global effects on worldwide visitation numbers was not very significant. Indeed, exchange rate issues mostly concerned intra-regional skiers' flows and could give advantage to one country over another, as long as they did not use the same currency, which was for instance seldom in Europe. It was of most concern for United Kingdom outbound skiers, Switzerland inbound skiers and Canadian/United States cross-boarder skiers.

Nevertheless, significant international flows of skiers were limited to a handful of Western nations. Those flows over 200000 annual skiers are listed in Table 2 below by descending order.

Table 2 International skiers flows over 200000 annual skiers, ranked in descending order

Inbound country	Outbound country					
	Germany	United Kingdom	Netherlands	Belgium	Denmark	Switzerland
Austria	1	5	4	13	21	9
France	14	3	7	8	70	20
Italy	2	11	17	42	86	40
Switzerland	6	19	18	35	66	N/A

Note: Source: Vanat, 2021.

A minimal number of countries welcome the maximal share of foreign skiers. The large flows were concentrated within the Alpine countries. It was estimated that the global proportion of international skiers (those go skiing in another country than their home) has been limited to 10%, meaning a worldwide total of only about 14 million skiers.

Thus, skiing was mostly a domestic practice and the change in international tourist flows has been posing small impacts on the visitation of ski resorts over the last decade. Despite international tourists' arrivals growing by 43% in the countries featuring ski areas over the last decade, the worldwide total of skier visits kept stagnating (UNWTO, 2020).

Another major driver impacting visitation in ski areas over the world is the global competition against the ski industry. Rivalries from multiple sources diverted skiers from the resorts. Over the last 20 years, it has been strongly increasing. On the one hand, numerous tourist destinations competed against each other increasingly within the ski business. For a long time, sunny beaches have already presented a warmer alternative to the coldness of the winter. However, since the development of low-cost carriers, competition was multiplied. The seaborne destinations became even more affordable and more challenged by city breaks and other such competitions. The cruise industry was much less popular 20 years ago. Today, shipowners compete to build the largest possible ships, welcoming the increasing passengers. From 10 million in 2000, cruise passengers grew to 30 million in 2019 (CLIA, 2021). The theme park industry also worked hard over the last 20 years to not only construct new parks, but also turn them into genuine 4-season destinations, extending the stay duration by adding new attractions and accommodations. World's top 25 major parks' attendances escalated from 135 million visitors in 2000 to 254 million in 2019 (9 of these parks even did not exist in 2000) (AECOM, 2019). These are just some examples of the exploration of competing destinations against ski resorts.

On the other hand, competition were not limited to other destinations. The leisure industry also developed massively, first at home with the expansion of video games, videos on demand and whatever the Internet could offer. On top of this, mobile phones and apps also captured the increasing utilisation time. Out of home, urban leisure centres have been offering short breaks from daily life, enabling zapping customers to switch easily from one activity to another. All these competitions often provided much more conveniences than ski resorts and enhanced customers' expectations.

At the beginning of 2020, a new external driver impacted the ski industry: The Covid-19 pandemic. Until now, it can be considered only a fading impact. In fact, because of the worldwide lockdown between February and March 2020, the 2019/20 ski season was shortened. Attendance ended up being the lowest of the last two decades. However, 2020/21

ski season already showed some good recoveries in many countries. As ski was basically a domestic business, locals were eager to escape the various lockdowns and restrictions to enjoy fresh air on the slopes. The COVID-19 may have greatly impacted the international skiing tourism, but it may have also imposed a much smaller influence on the domestic one. Numerous countries witnessed a rebound of domestic visitation, which partially compensated the lack of foreign guests. Countries without high dependency on international skiers managed to harvest a decent season or even better. Worldwide attendance nevertheless suffered from the lacks of overnight and foreign guests in Austria and the closure of ski areas by some European Governments. Without these restrictions, businesses would have returned to some kind of new normal in the ski resorts worldwide, certainly with protective measures and some manageable limitations to their capacities. It remains too early to know, but it can be hoped that the ski business will accommodate with any future pandemic's restrictive measures, without being forced to closure. Thus, pandemic could be considered as a mitigated disruption rather than a threat to the ski industry.

In addition to the above factors, the development of the ski industry was found also closely related to the local ski culture. Culture is the start of the skiing's popularity, and also is an internal driving force to promote the development of the entire industry. For example, the Alpine region with the most developed ski areas has created special cultural customs from its special ecological environment. Skiing has gradually evolved from a daily way of local travel into a leisure sport for the rich. In the post-war economic development, it has gradually matured into a popular leisure project.

5 Major issues and challenges in the ski market

5.1 Major issues

Japan is an example of a declining ski market. Despite its exceptional powder in snow, the attendances at Japanese ski resorts has been falling since the 1990's. It is considered that Japan was the largest ski market in the world, clocking visitation number beyond what the best performers are doing nowadays. Aging population, structural problems of the local ski industry, competitions from the leisure industry and home entertainment, all led to a slump in visitation by 50% over the last 20 years (TEA/AECOM, 2020).

South Korea is another example of a magnificent boom in the ski industry failing to last. Between 1975 and 2007, South Korea developed 19 state-of-the-art ski resorts. Following a growing pattern up to winter 2011/12, visitation began to plummet. The drop reached 36% for the winter 2018/19 (disregarding 2019/20, which was even worse due to Covid-19 lockdown). Even the 2018 Winter Olympics did not revive the domestic enthusiasm for skiing. This sport became highly fashionable in South Korea on early days,

with TV series shot in famous ski resorts, which considerably popularized skiing. However, it has merely been adopted as a fun leisure activity, not a sport of dedication. As soon as becoming less fashionable, it lost a substantial part of its customer base who turned to other entertaining activities.

The newly emerging markets did not realize the expected potential either. With the improvement of GDP and the upgrade of ski resorts infrastructures, several Eastern European countries looked promising. Some destination resorts were developed into state-of-the-art and appealed to an international clientele. However, except Russia, their domestic customer bases did not develop sufficiently and their attendance rates remained rather low over the years. Similarly, not every expected project in Central Asia turned into reality either, but the successful ones still missed to attract parts of the foreign customers they anticipated. Attendances never grew to their economic viable levels.

Turkey also illustrated as a country making lots of efforts to develop skiing. The number of ski areas doubled between 2000 and 2013. Some resorts were also constructed into state-of-the-art, with numerous detachable lifts and snow-making, good grooming, good hotel accommodation, easy and short access to airports. Despite various initiatives to increase participation, such as ski training clinics and holiday camps, skiing only attracted a small fraction of the population (an estimated 1% participated in skiing). Thanks to the 2011 Winter Universiade which brought together 58 nations, this country got the chance of attracting more Europeans. There were clearly over-expectations for the rising number of foreign guests. Turkish ski resorts could entice a figure of 10 million tourists quoted by some government officials (as mentioned above, there were only 14 million international skiers in the world and no way Turkey could manage to catch more than 70% of this market). Currently, attendance does not seem to develop as expected. Relying excessively on unrealistic expectations for foreign visitors' arrivals, Turkish resorts failed to initiate a broader domestic interest for skiing.

Despite different backgrounds, all these markets also experienced the same pregnant issues as the other markets. The challenge was to build or renew the customer base in an environment that no longer matched with the traditional ski-learning pattern. But they did not catch up with the paradigm shift.

The most threatening issue for the ski business is its own market. In mature markets, ski business is still significantly reliant on baby-boomers, which has been the most numerous generation on the slopes for a long time. Although its numeric weight already began to slightly decrease some years ago, it remained significant in terms of ski consumption. With improved carved skis and more comfortable lifts, this generation remains keeping up longer than expected. However, the days will come when more baby-boomers start disappearing the slopes. Many mature ski markets fea-

tured the ageing populations and fight to renew their customer bases.

The demographic changes on these markets have not only been affected by the average age of the population, but also by its social mix. The melting pot of Western population and the decrease in nationals' birth rate resulted in a large number of younger population, lacking of ski culture. In the past, parents taught ski skills to their children. This was the optimal way of ski learning. However, it was no longer effective. Part of the youngsters do not have parents able to teach them skiing.

At this point, the ski industry in the whole world converged. The issue of lacking ski culture was also pregnant in the developing ski markets of Asia. Therefore, the current challenge everywhere is to teach skiing to generations with no ski background and bring them back to ski areas. The traditional teaching methods, either the family-based one from parent to child, or the in-resort ski weeks are no longer so effective. Paradigm shift is the cause for the latter phenomenon. With no background of winter sports, part of the new generations will not dedicate a full week to visiting a ski resort and even try to get familiar with this sport, as there is not any guarantee they will enjoy it. They have no such tradition and many other priorities to allocate their budgets, with the huge consumerist fever of the emerging markets and the nearly unlimited attractions from other recreational activities. This challenge is how to address this customer base. None of the 68 ski nations has found the magic formula yet (Vanat, 2021).

5.2 Addressing the current challenges of the ski business

5.2.1 Learning to develop customer groups

Considering the ski industry is facing a demographic challenge, it becomes increasingly important for the mountain to come and meet the public where it lives. That means in the large cities, even if they are actually remote from the ski resorts. Although as one of the newcomers to this industry, China already performed pretty well in this regard. Opening skidomes in Guangzhou and other southern places, spreading urban indoor ski training centres on simulators (revolving carpets) in Shanghai and other cities of the country, with the recent developments of dry slopes, all contributed to bringing skiing far away from the mountains. In this way, it attracted audiences that would otherwise be unlikely to take a long shot. As new generations all over the world have decreasingly ski culture, this can be the right way to reach them by going where they are, shaping an environment that is much less foreign to them as ski areas. No need to travel a long time, no need to carry on luggage, no need to care about attires or ski gears, no need to worry about the cold (except in skidomes). It all makes the journey to the skiing much simpler. No need to sacrifice a whole day, you can do this at lunchtime or after-work. You can arrive by the sub-

way or your bike. No complicated trip. No need for a car. However, the industry still needs to avoid leaving the beginners unattended. Skiing is not like bowling or karaoke. One needs the minimum training, some good tricks and sometimes some physical assistance for the first trial. Here is the key point: Those in the industry that performed well will gain new clients and those acted badly will lose them forever, so will the entire industry. Ski lessons to youngsters in an urban environment is at a fully new area of renewing competences of the ski industry. Unfortunately, it totally lacks experience in this regard at all major markets. None of European, American, Japanese and South Korean markets developed core competencies in this field. With a fleet of 31 indoor centres, 45 dry slopes and 400 skis simulator, China became the world leader in urban ski training (Wu, 2019). However, it remained in its infancy. Even in this country, there were still no massive partnerships between these urban training centres and ski resorts. There remained very few packages that would bundle five 2-hour urban learning sessions and one weekend in a ski resort. Long-time skiers dedicated to this activity as a healthy sport requiring practices. And opposite to numerous other sports, ski practice is really gratifying, once you mastered the techniques and equipment. But beginners need to be brought to this stage rather than being kept to the funny leisure activity for one evening ski trial. Still a big challenge!

5.2.2 Public transportation access

Young urban generations decreasingly own cars. So how can an industry that requires a car to reach the place of practice expect to develop among these younger generations? Many major markets, such as the United States or France, do not consider reaching a ski resort by public transportation. No way, except that you are ready to dedicate a full day just for this transportation experience. In some other countries like Switzerland, ski resorts are well connected to the rail networks or public bus services. However, even in such countries, the proportion of skiers using the public transportation remains relatively low. Except some places like the Swiss resort of Zermatt (and some others in Switzerland), the only way to arrive in the village is the train. In fact, the ski resorts are often failed to offer full transportation packages with their lift passes. Even better would be to sweeten the deal with the full equipment rental. Thus, travel can be light. Given the sustainable development goals, ski resorts all over the world begin to improve their public transport connectivity. France is considering to build what is called valley lifts in several places. That means cable-car, gondolas or funiculars which depart from the bottom of the valley are trying to avoid the lengthy drive uphill or the parking problems in the ski resorts. Even better if they can be connected to a rail link. Now Chongli resorts are linked with a one-hour high speed train journey from Central Beijing. As long as the neighbouring resorts manage to handle the last mile properly, this travel will be very convenient

even for day visits. But still, public transport connectivity of ski resorts is a domain where there is much more to do.

5.2.3 User-friendliness of the ski areas

This issue is not only complementary to the connectivity but also partly associated with aspects of the last mile transportation and the full package offerings, like transportation and ski gears. Unfortunately, the atomisation of numerous players at the traditional ski villages in the Alps did not set up the best example for the global business of ski resorts. At the beginning of the ski industry, there has been a lot of individualism. Each farmer had his unique lift in his field, and everyone did everything to prevent its potential customers from going to his neighbour. Fortunately, ski lifts designed by larger companies usually ended up being managed by a single operator for one destination, with a common pass. But the lift operator focused on operating the lifts, while every inhabitant wanted to make its own business with the ski. Some turned into ski teachers, others started renting out equipment, or offering foods and accommodations, running souvenirs shops and else. This nice traditional picture of the Alpine ski village got some troubles in a globalised world where people wanted to book everything online in advance. And still today, it is difficult to book a full stay on a one-stop shopping platform in a resort of the Alps, not to mention on an app. This makes purchasing of skiers hard, which is far away from the younger generations' consumption patterns. Once you have enjoyed the convenience of a comfortable base lodge where you arrived in casual wear, got off your car in the underground parking lot, moved straight through an escalator to the main lobby where you can find everything you need, the standard was completely set. The state-of-the-art base lodges in some Chinese resorts look closer to shopping malls than to the ticket window chalet in a traditional alpine resort. But they offer all the conveniences that a modern skier needs before getting on the slopes. And it sets high expectations for the next visit to the next resort! Ski industry in general was incompetent at developing such conveniences. It was as if necessary to suffer for deserving the privilege of skiing. Young urban generations will never accept this. Want it or not. And there are plenty of commercial opportunities that remain unexplored in many traditional resorts. Guests are sometimes happy to pay for some delightful privileges. They are happier to pay for some extra conveniences. Let's just mention the possibility of renting a locker without needing to carry your ski gears each time you visit. Some Chongli resorts got the idea to offer their passholders a dedicated lounge at the top of the mountain. Such features also existed in some places like Austria and United States, but it remained quite rare. The search for user-friendliness and convenience still leaves the ski industry vast spaces to improve and surprise their customers with an unforgettable experience.

5.2.4 Operational excellence

The need to orchestrate all these requires course operational excellence. It will be useless to obtain all the right features but manage them badly. The only way to apply these features is to have superior management teams of customer services. There is no alternative. Lift operation demands basically technical competences and this is the kind of skills privileged for long in the history of ski resort business. The technicians and engineers did get promoted to be ski area managers, but managing it requires much more knowledge than just to start/stop a lift or fix a grip. Since the end of the 1990s, the qualities of managements were widely improved in Western ski resorts. Genuine management, marketing and relevant skills have become prevalent within the new leaders of resorts. But again, the weight of history remains in many places. There are still old reflexes and sometimes lacking of forward thinking or thinking out of the box. Extraordinary ski resort leaders are not that numerous. But in many ski countries, you can always find a few, who led their ski resorts to be a prominent place, which created some uniqueness for their resorts. That managed to bring excellence in each aspect of the ski experience. It is necessary to point out that this ski experience is actually a rather complex process and the client's experience will only be good as the quality of the weakest link of the chain. Weak links will jeopardise the whole process. Customer surveys highlighted that some bad experiences of skiers had nothing to do with skiing at all. Dickson and Faulks (2007) found that for Australian ski tourists, experiences other than on-snow activities and nightlife were fairly insignificant. According to them, Australians differed from American and Swiss tourists who felt that off-snow experiences were a crucial part of a skiing trip. British (Richards, 1996) and other tourists in Alpine ski areas (Matzler et al., 2008) also appreciated off-snow services and experiences on their skiing trips. Matzler et al. (2008) found that restaurants and bars were actually the most central determinant of customer satisfaction in general. Issues like problems at the parking lots, unpleasant clerks at the ticket counters or unhelpful rental staffs can garble a full ski day. Therefore, such a complex customer journey requires highly qualified managers looking after each step of the procedure to eliminate any weak link. Here again, the ski industry is still looking for more great leaders that will render customer experiences in their resorts pleasantly unforgettable.

6 Outline of future developing markets

In a market showing a general flattening trend over the last 20 years, identifying the emerging ski markets with future growth potential for the ski industry is not a rocket science. For the objective of this article, a tentative assessment was performed on some empirical bases.

The first indication that a country can feature a future growth potential for skiing is that for its GDP per capita. As

outlined above in this article, there are some empirical evidences that over a certain level and below a superior cap, GDP growth can increase the population's participation rate of skiing. Major audiences of ski sport belong to the middle class. With increasing purchasing power, access to this sport is resultantly widened to more people. However, it was clear from several studies that the middle class is not currently growing in many western countries. Countries showing a growth in GDP per capita higher than 30% over the last decade have been identified as more likely to offer a good foundation for developing the ski industry.

Another sign of growth potential for the ski market is a currently low penetration rate of skiing, in countries which was already featured as ski areas. However, other indicators could also demonstrate potentials for developments, such as the increase in the number of ski areas, the growth in visitation, or the rise in the number of skiers over the last decade. This involves typically no unrealistic expectations by countries that feature some positive indicators but without globally presenting a favourable environment for the development of skiing (Wu, 2019). It has been considered that countries with a current participation rate lower than 5% of the population maintained the highest improvement potential, as long as last decade's historic record of such skier visits was also on the growth.

With these pre-requisites, the list got quickly short. To explore if some other countries may also present certain growth potentials without fully fitting to the above conditions, some wider searches have been conducted. Thus this study was enlarged to countries with a GDP per capita growth higher than 20% over last decade and a penetration rate lower than 10%. Alternatively, countries featuring a low load factor of lifts were also included (less than 10000 skier visits per lift in a season). As long as other indicators were positive, these countries would also be added to the list.

All selected countries were then processed through a predictive model to examine their potential for raising national and foreign skier visits figure for 2050 in both a low and a high case. Projections of GDP growth over the years had also been made by basic prevision function computed on former 10 periods. Participation rates had been based on the country's actual situations, with an additional 1% impact of every additional 10000 USD GDP per capita for the low case, and 2% for the high case. Only to assess the high case's figure had the number of visits per domestic skier been also increased with the GDP growth. A flat 1% population annual growth hypothesis had also been made in both cases, even if it might be questionable, especially over the long term.

After processing, only the countries with a high case potential of over 100% increase in skier visits from 2020 to 2050 were short listed. In fact, besides China, the list of emerging ski markets with development potential proved to be rather limited. Only 7 Eastern European countries qualified, featuring a total growth potential between 3 and 5 mil-

lion new skiers, with a sum of 5 to 13 million additional skier visits per winter in 2050. Needless to say that the single potential of China was estimated beyond tenfold the combined potential of the other countries.

Few ski nations with a significant GDP growth potential

may significantly impact the participation in skiing. Moreover, most countries that meet these requirements featured only low volumes of skiers. Over the countries short-listed in this analysis, only Poland showed some substantial potential for increasing volumes of additional skiers.

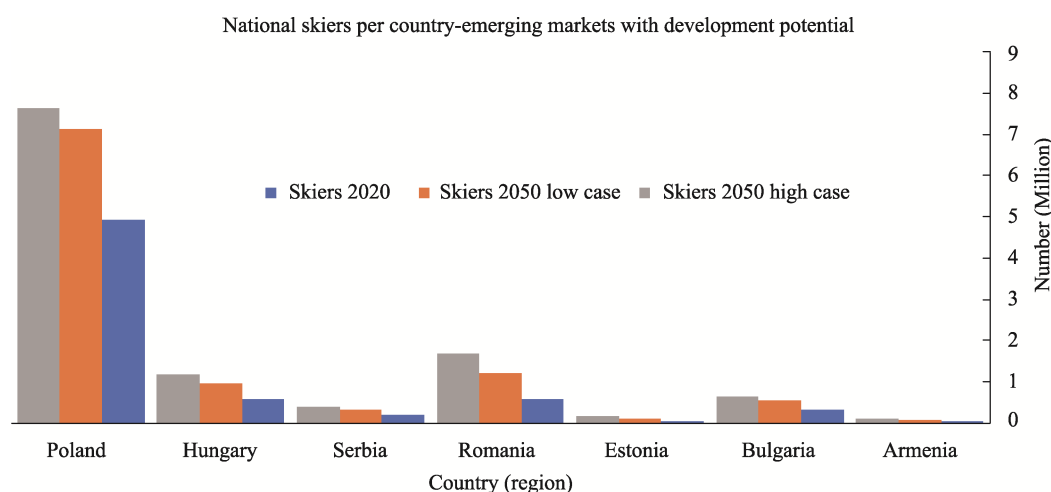


Fig. 3 National skiers per country in emerging markets with development potential being short-listed after predictive modelling

7 Conclusions

With all the limitations and disclaimers that can be raised towards this limited empirical analysis, it verified the perception of most ski market players. In a mildly stagnating Western market, China was found representing a tremendous growth potential for the ski industry. It was never matched by even combination of other countries' potentials. With 2022 Winter Games, China now presents a window of opportunity for the ski industry worldwide and no surprise that the whole ski world is currently reviewing China. Taking advantage of the ski upsurge brought by the Winter Olympics, the Chinese government should rationally arrange resources inputs and policy supports according to the current situations and expectations for the development of China's ski industry, for promoting the steady development of the snow and ice industry. However, as China's ski industry remains at the developmental stage, it needs to carry out international cooperation with regions owning mature ski industries like Europe, Japan and North America. China should also introduce more enterprises to the winter tourism industry, such as winter clothing, ice and snow sports facilities, personal equipment and so on.

The potentials of other emerging markets for the ski will remain limited. Working to maintain and slightly increase the practices on large existing markets like the monopolies did, will give much more rewards to the ski industry.

The future development trend of global ski tourism market can thus be considered rather limited. It will focus on customer renewals on traditional ski destinations, with the demand to stabilize attendance levels. The global ski industry will benefit from the current window of opportunity with

China to elevate its number of participants. Some existing ski destinations may develop with only a very little value added to the global ski industry. New ski markets may exceptionally prosper, but with the minimal potentials. The challenges to all ski resort operators, at old and new markets, will be complied with the requirements of a new customer base that is becoming decreasingly familiar with ski culture. The ability of the industry to address this paradigm shift will reshape the future development trend of the global skiing tourism market.

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全球滑雪旅游市场现状及未来发展趋势

Laurent VANAT¹, 李 宇²

1. 劳伦特·瓦纳特咨询公司, 日内瓦 1224, 瑞士;
2. 中国科学院地理科学与资源研究所, 北京 100101

摘 要: 全球滑雪旅游市场已经处于比较成熟时期。但是目前, 许多国家的滑雪场客流量出现停滞不前, 发展前景不容乐观。旅游市场的变化使滑雪旅游产业面临新的挑战, 20 世纪建立的滑雪旅游产业模式已不再适应现在的发展需求。本文基于多种滑雪旅游产业相关报告和行业网站最新数据, 对滑雪旅游市场的供需双方统计数据进行比较系统的分析, 总结了 21 世纪以来滑雪旅游业的演变过程, 探讨了滑雪旅游产业发展与经济增长之间的关系, 揭示滑雪旅游市场的潜在驱动因素, 归纳总结了滑雪旅游市场存在的主要问题和面临挑战。研究结果表明, 全球滑雪旅游自 2000 年初就进入了成熟的发展阶段。滑雪旅游参与率与 GDP 之间存在一定的相关性, 并且因不同地域的经济水平和滑雪旅游产业成熟程度而有所差异。尽管受到 COVID-19 的一定冲击, 但全球大部分地区的滑雪旅游产业在 2021 年呈现出复苏迹象。北京 2022 年冬奥会的举办为滑雪旅游产业带来新的机遇, 有望提高全球滑雪旅游的参与率。然而, 不同国家和地区现有的一些滑雪场可能对全球滑雪旅游业发展的未来贡献不大, 未来潜在的滑雪旅游市场增长不大并将主要集中在我国。目前滑雪旅游产业发展面临的最大威胁与滑雪旅游市场紧密相关。长期以来婴儿潮一代是滑雪场游客的主要组成部分。滑雪市场面临着滑雪客老龄化问题, 普遍存在滑雪文化断层现象。如何满足缺乏滑雪背景文化的新生代客户群的需求是全球所有新建和已有雪场面临的挑战。另外, 公共交通可达性、服务质量和运营能力也是滑雪旅游市场亟需关注的提升方向。

关键词: 全球; 山地旅游; 滑雪旅游; 滑雪市场; 发展趋势