Article

Topic Modelling for Ski Resorts: An Analysis of Experience Attributes and Seasonality

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Abstract: Knowing how to improve skiers' experiences in ski resorts is vital for developing the ski industry. This study aims to provide a holistic understanding of the key attributes of skiers' experiences and explore them in the context of seasonality. Based on the user-generated content of 14 ski resorts and the topic modelling and sentiment analysis method, a framework of skiing experience attributes was built. Compared with the seasonal data, the dynamic of skiers' concerns and perceived performance was revealed. The skiers' concerns in peak seasons and off seasons manifested different orientations. The results show that the relatively important attributes tend to have relatively low performance in the peak seasons. In off seasons, skiers emphasise non-skiing-oriented attributes. This study showcases that skier's interests and evaluations of various experience attributes vary with seasons. The findings help to understand the skiers' peak and supporting experiences, which could be used to build ski resorts management and seasonal hedging strategies.

Keywords: ski resort experience; seasonality; topic modelling; user-generated content; importance–performance analysis

1. Introduction

Skiing became popular worldwide in the 19th century. All kinds of skiing and winter sports promote ski resort development [1], a typical industry suffering from seasonality [2]. The ski industry contributes a considerable portion of its local income for regional development across various industries, such as hospitality, transportation, and retail [3,4]. For example, following the Association Ski Areas Association [5], the ski industry contributed almost USD 29 billion to the US GDP and more than 500 thousand jobs. However, the ski industry suffered a substantial loss in 2020 because of COVID-19, and ski areas have reinvested profits into the infrastructure of ski resorts to improve skiers' experiences [5]. Understanding skiers' experiences for ski industry development is important.

Prior studies have shown that the demand, performance, and development of ski resorts are influenced by multi-aspect factors, such as service quality, time, transportation, local development, natural resources, climate, economy, and skiers' characteristics [2,6–10], which revealed the complicated nature of the ski resort industry. However, in terms of the skiers' experiences perspective, most studies have only focused on single-aspect factors, such as service quality attributes or subjective experience [11–13]. Few studies have synthesised multi-aspect attributes into the skiers' experiences perspective.

Against this backdrop, prior studies may not comprehensively explore skiers' experiences. Thus, the current study raises the first research gap and question: the key attributes in skiers' ski resort experiences must be identified. Prior studies have highlighted the critical role of tourists' experiences and revealed that improving consumers' or tourists' experiences is crucial for ski resorts' marketing and development [11–19]. Therefore, identifying which attributes in the ski resort experience are more influential for skiers, and how

these attributes contribute to the skiers' experiences, is important. Finally, many studies on ski resorts have explored the role of time, seasonality, and climate change on ski resorts' performances and skiers' behaviours [17,20–24]. However, few studies have investigated the relationships between ski resorts' experiences attributes and seasonality. Given that seasonality plays a unique role in ski resorts and tourism industry development [25–27], exploring the heterogeneity of perception among different seasons across these attributes is still needed.

In order to fill these research gaps while reducing the possibility of collecting intrusive and prompted data [28–30], this study takes advantage of user-generated content (UGC) (i.e., online reviews) and adopts the machine learning method and topic modelling to address these research questions. UGC is a source for mining marketing meanings with temporal features [31]. The shared content of online reviews is controlled by consumers, which provides a chance to reveal what is most important to consumers in an unpromoted way without interference from researchers [32]. Furthermore, topic modelling could perform the information reduction of unstructured textual data, which is suitable for UGC [33]. Followed by topic modelling results, this study will conduct importance–performance analysis (IPA) and radar IPA (RIPA) by seasonality to address the research gap.

In summary, based on the above research gap and questions, combined with the UGC, topic modelling, and other statistical analysis, this study aims to identify: (1) the key attributes in skiers' ski resort experiences, (2) the importance and performance of these attributes, and (3) the heterogeneity of perception among different seasons across these attributes. The significance of this study is manifold. First, to reduce the intrusive influence generated from researchers, the UGC and machine learning approaches are introduced into ski tourism studies to extend the current literature. The findings might better reflect skiers' honest and unprompted opinions. Second, this study identifies and provides a comprehensive understanding of the multi-aspect attributes in the ski resort experience in the seasonality context. The results could provide new sights of the seasonal dynamic changes of skiers' interests and evaluations of various experience attributes in casino resorts. Third, this study further provides practical implications for ski resorts operators and destination management organisations about enhancing skiers' experiences and hedging strategies in terms of seasonality based on the findings.

The current study is organised as follows: The next section includes the literature review on ski resorts and tourists' behaviours in terms of seasonality. In Section 3, the research method, which analysed the online reviews of 14 ski resorts, is presented. The results are discussed in Section 4 before the Conclusion Section for the theoretical implications for ski resort management, and the study's limitations and future directions.

2. Literature Review

2.1. Ski Tourism Research

Prior studies in ski tourism could be roughly divided into three perspectives, which reflect the complicated characteristics of the ski resort industry. First, many studies have investigated the topic of ski resorts from economics, finance, and business perspectives. Various sets of factors were introduced into the ski resorts' performances, profits, and pricing, and demands prediction problems, such as resorts' facilities [6,34], snow conditions [9,34–38], slope conditions [6,9,34], altitudes [6], prices [37–42], weather [8,10,20,22,35,40,41,43,44], policy strategies [4,21], original country GDP [2,36,38], time period or season [10,36,43,45], consumer income [10,40], local economy [9], distance or location [6,46], transportation or related costs [10,34], and other consumer characteristics [8,9,47].

The second perspective focused on ski resorts' sustainable development and the influence of climate change. Some studies have investigated skiers' perceptions of climate change and related consequences. For example, Cholakova and Dogramadjeva [48] explored the influence of climate change on demand-side adaptation strategies. Haugom, Malasevska, Alnes, and Mydland [7] investigated skiers' purchase intentions regarding the sustainable attributes of a season pass for ski resorts' sustainable development. Chen et al. [49] explored how skiers' knowledge of climate change influences their mitiga-

tion behaviours. Rutty et al. [50] revealed skiers' behaviour adaptations in the context of climate change. In addition to the demand side, other studies focused on ski resort management. For example, Kuščer and Dwyer [51] revealed the effect of resort size and altitude on the sustainable development of ski resorts. Dannevig, Gildestad, Steiger, and Scott [24] investigated ski resorts' adaptive capacities in the context of climate change. Kaenzig et al. [52] explored the renewed attraction of ski resorts through local stakeholders' perspectives.

The third perspective focused on ski resort marketing, revealing the factors influencing skiers' visit intentions, revisit intentions, satisfaction, and loyalty. Many studies pay much attention to the supply side. For example, several studies have paid attention to ski resorts' service quality. Hudson and Shephard [53] provided a service quality measurement involving 10 factors in ski resorts. Similarly, Ormiston et al. [54] and Weiermair and Fuchs [55], respectively, provided 14 and seven service quality indicators for ski resorts, which involved various facilities and services ranging from tangible to intangible, such as ski slopes, accommodation, restaurants, lift ticket service, employee service, and tour operator service. Furthermore, Barlas et al. [56] and Alexandris et al. [57] measured service quality based on interaction, the physical environment, and outcome dimensions. Matzler, Füller, Renzl, Herting, and Späth [11] estimated the impact of service quality factors, such as slopes, restaurants, bars, ski lifts, and employees, on skiers' overall satisfaction. Engeset, Hull, and Velvin [14] investigated the relationship among resort employees' attitudes, satisfaction, and loyalty. Hall, O'Mahony, and Gayler [12] revealed the importance of resorts' transportation, employees, lifts, slopes, action, accommodation, and dining on overall satisfaction. Haverila and Haverila [13] focused on the service quality of employees and skiing aspects on skiers' perceived image, value, and satisfaction. Other studies focused on skiers' subjective experiences. Clark and Maher [15] investigated the influence of skiers' trust, commitment, satisfaction, and value on loyalty. Bonnefoy-Claudet and Ghantous [16] investigated the influence of skiers' emotional experiences and perceived value on their satisfaction. Lee, Shin, Bunds, Kim, and Cho [17] revealed the influence of pleasure, flow, and involvement on skiers' satisfaction. Furthermore, few studies explored multi-aspect factors in ski resorts marketing. Vassiliadis et al. [58] and Alexandris et al. [59] investigated the impact of leisure constraints, such as individual self-efficiency, partners, environment, cost, and time, on skiers' attitudinal loyalties or revisit intentions. Chua et al. [60] explored the environmental stimulus on skiers' perceived value and exciting experiences.

Based on the above literature review, on the one hand, previous studies have revealed that the ski resort industry was influenced by multi-aspect factors that are not limited to a single aspect. On the other hand, from the skiers' perspective, most prior studies have paid more attention to the influence of the several selected factors or only focused on service quality on the suppliers' side [11–13]. Therefore, studies that provide a comprehensive investigation about the multi-aspect attributes in the skiers' ski resort experiences are scarce.

2.2. Tourist Behaviour and Seasonality

Tourism seasonality refers to the 'temporal imbalance in the phenomena of tourism' [27]. Apart from a body of studies investigating demand forecasting, travel flows, and mitigating issues in tourism destinations [61–63], other studies have paid more attention to the relations between tourists' preferences, perceptions, experiences, behaviours, and seasonality. For example, in terms of tourists' preferences, Zheng et al. [64] found that Chinese tourists prefer different attractions in Nordic regions across warm and cold seasons. Muñoz et al. [65] revealed that tourists are more sensitive to Spain's weather conditions in the spring and summer seasons. Similarly, R.-Toubes et al. [66] and Nguyen et al. [67] found that the climate or weather factors in different seasons affect beach and island tourism. Furthermore, the study showed that tourists' motivations for mountain tourism also varied with seasons [68].

In terms of tourists' perceptions and experiences, Padilla et al. [69] revealed that tourists' emotions during travel are affected by seasonal weather. Perles-Ribes et al. [70] showed that seasonality could influence tourists' perceived satisfaction levels and found

that tourists who visited in the off season have higher satisfaction. This finding is consistent with Soldić Frleta and Smolčić Jurdana [71] regarding urban tourism. Shang et al. [72] concluded that tourists have different thermal sensations in different seasons. Sæþórsdóttir et al. [73] found that tourists of nature destinations tend to have higher satisfaction with facilities and services, and perceive scenery as beautiful; such tourists find destinations as more crowded in winter than summer and more accessible and safer in summer than winter. Tyrväinen et al. [74] found the seasonal differences in tourists' perceived landscape quality in a commercial forest.

In terms of tourists' behaviours, Che et al. [75] revealed that tourists' revisit intentions significantly varied across seasons in the context of rural tourism. Choe et al. [76] focused on tourism advertising and revealed that tourists have a different response to advertising across seasons. Gálvez-Rodríguez et al. [77] and Villamediana et al. [78] focused on tourists' online behaviours and found that tourists tend to have different online interactions and engagement with destinations across seasons. Shimamoto [79] revealed the significant difference in tourists' consumption of items across seasons.

Based on the above literature review, prior findings revealed the relations of tourists' preferences, perceptions, evaluations, behaviours, and seasonality across various research contexts. In the ski resort context, studies have also highlighted the unique role of seasonality on the ski industry and skiing-demand patterns [2,35,36,40,44,48]. However, little research has paid attention to the seasonality from the skiers' experiences perspective.

3. Materials and Methods

In this section, research methodology and data analysis methods are presented. Section 3.1 introduces the unprompted data source and online review into the ski tourism field. The samples of the ski resort and the process of data collection are presented. The following subsection reports the adopted methods to pre-process and analyse the unstructured textual data. In the last subsection, the methods of results visualisation are reported.

3.1. Data Collection

This study selects 14 ski resorts as samples: Aspen Snowmass, Catedral Alta Patagonis, Courchevel, Deer Valley, Kitzbühel, Niseko Hanazono, Grand HIRAFU, Park City Mountain, St. Anton, Telluride, Whistler Blackcomb, Val d'Isere, Zermatt, and Vail Mountain Resort, which are top-rated ski resorts in recent years [80]. The online reviews of each resort were retrieved from TripAdvisor (tripadvisor.com, accessed on 20 February 2022), which has been widely adopted as the data source in prior studies [33]. Apart from the text content of online reviews, this study also collects the post date and overall rating of each skier. Data were retrieved on 7 December 2021. A total of 13,758 reviews were collected, which could be separated as 78,172 sentences. The posting date ranged from July 2010 to December 2021. These online reviews were analysed through topic modelling, IPA, and RIPA.

3.2. Topic Modelling

Topic modelling methods vary [81] in which latent Dirichlet allocation (LDA) methods are commonly adopted in tourism research [33,82]. The LDA could conduct information reduction to a collection of documents, yielding several topics and related topic distributions of each document [83]. Before LDA analysis, the raw online reviews should be pre-processed through many steps. In this study, the pre-processing of steps included tokenisation, removing stop words, lemmatisation, removing high-/low-frequency words and n-grams [33,84], which were accomplished through NLTK [85] and SpaCy [86] packages in the Python environment. After that, this study conducted LDA analysis through the Gensim [87] package and the MALLET model [88]. Topic coherence was adopted to identify the topic numbers [89]. The topic names (i.e., attributes) were identified by top frequency words, and the results of the LDA model were used for IPA.

3.3. IPA and RIPA

This study estimated the performance and importance of each attribute (topic) in a big data context based on the prior proposed approach [90,91]. The steps are as follows: First, each review was separated by sentence level because reviews include many sentences and the sentences were relevant with different attributes [91]; second, on the basis of the pre-trained LDA model, sentences could be placed under its associated attributes; third, to estimate the performance of each attribute, a lexicon-based method in the social media context, VADER [92], was adopted to measure each sentence sentiment score. The original sentiment scores (−1 to 1) were converted to 1–5 to match the TripAdvisor rating scale [90]. The performance of each attribute is the mean of sentiment scores of sentences belonging to corresponding attributes; fourth, the importance of an attribute was estimated by the correlation between the sentiment mean of the attribute in each review and the overall rating of each review [90]; finally, based on the data-centred quadrants approach, the IPA matrix was divided by arithmetic means [93]. Followed by the IPA result, the four seasons of importance and performance of each attribute were estimated separately and illustrated on radar charts.

4. Results

In Section 4, this study reports the results of the topic modelling analysis and the related evaluation of the importance and performance of the experience attributes. In Section 4.1, this study presents the process of identifying topic numbers and topic names. In Section 4.2, the results of the IPA analysis and the RIPA of experience attributes' importance and performance in seasonality contexts are represented.

4.1. Attributes in Ski Resort Experience

The number of attributes is determined by topic coherence [89]. The result shows that the increase of topic coherence becomes slower when the topic number is higher than 10–20 (see Figure 1). Based on the elbow method [94] and interpretation [84], this study identified 15 attributes (topics) for ski resorts' online reviews. The two researchers named the attributes separately based on the top frequency words to ensure the reliability of naming. The Kappa value of the result is above 0.8 [95]. The disagreed names were determined through the researchers' discussions. The final result of the attributes in the ski resorts experience is presented in Table 1. As presented in Table 2, the top three most frequently mentioned attribute of the 14 ski resorts are the 'value for money', 'lift line service', and 'slope variety' attributes.
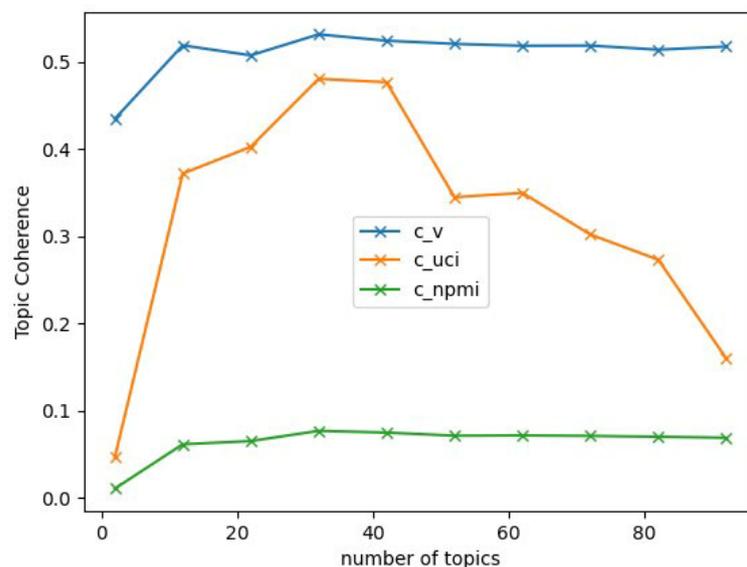

Figure 1. Topic coherence.

Table 1. Attributes in ski resorts experience.

Attributes	Top Word	References
weather-based activity	trail, summer, winter, hike, mountain, bike, hiking, beautiful, activity, mile, enjoy, biking, lionshead, lake, month	[4,96]
resort amenity	resort, excellent, service, food, good, quality, grooming, facility, lodge, fantastic, groom, amenity, outstanding, top_notch, snowboarder	[53,54,97]
transportation	stay, free, hotel, parking, bus, room, minute, night, car, service, location, convenient, condo, shuttle, drive	[10,34]
ski lesson	school, kid, instructor, lesson, group, learn, family, child, class, son, level, adult, daughter, friend, young	[13]
lift line service	lift, line, long, wait, short, crowd, minute, weekend, fast, crowded, chair, move, slow, base, quick	[6,11–13,34,53,54,97]
pistes grooming	back, bowl, run, powder, tree, terrain, groom, big, favorite, head, side, park, steep, groomer, blue_sky_basin	[53,54]
value for money	lift, ticket, price, day, pass, expensive, buy, pay, cost, discount, money, purchase, cheap, save, deal	[15,16,53,54,97,98]
weather	snow, weather, condition, day, powder, week, rain, warm, cold, spring, low, march, sunny, light, cover	[7,20,35,40,48]
slope variety	run, blue, green, easy, black, long, steep, red, beginner, intermediate, skier, wide, groom, challenge, challenging	[6,11–13,53,97]
tour service	bear, tour, guide, trip, hour, spot, close, stop, fantastic, pm, time, drive, watch, back, recommend	[53]
information service	make, feel, people, find, time, thing, hard, work, review, expect, part, hear, fine, end, person	[53,97]
scenery	view, beautiful, enjoy, visit, top, worth, walk, scenery, spectacular, gorgeous, wonderful, stunning, cable_car, breathtaking, picture	[60,99]
staff	staff, friendly, helpful, resort, super, maintain, family, pcmr, wonderful, extremely, lift, clean, operator, job, employee	[12,13,53]
rental equipment	rental, make, boot, check, people, equipment, hill, gear, board, work, foot, rent, give, tip, guy	[53,97]
F&B	food, lunch, eat, lodge, drink, restaurant, meal, bring, sit, coffee, dining, option, serve, delicious, dinner	[12,53,54,97]

Table 2. IPA results.

Attribute	Sentences	Reviews	Performance (Std)	Importance
transportation	5943	4333	3.779 (1.013)	0.273
ski lesson	3263	2678	3.853 (0.963)	0.204
value for money	12,966	7404	3.817 (0.943)	0.241
pistes grooming	5379	4107	3.810 (1.011)	0.259
F&B	1909	1644	3.687 (1.070)	0.301
slope variety	8661	5919	3.893 (0.963)	0.248
resort amenity	5977	4392	3.835 (0.982)	0.239
rental equipment	3098	2602	3.798 (1.057)	0.244
weather-based activity	8051	5446	3.921 (0.957)	0.248
weather	3767	2902	3.593 (0.991)	0.231
information service	1539	1346	3.630 (1.018)	0.264
scenery	1927	1688	3.852 (0.991)	0.237
staff	3072	2621	4.043 (1.017)	0.264
lift line service	9235	6184	4.139 (0.908)	0.235
tour service	3385	2750	3.765 (1.024)	0.230

4.2. Results of IPA and RIPA

Based on the IPA results (see Table 2), the arithmetic means of the performance (3.825) and the importance (0.247) were obtained, and the four quadrants of the IPA were illustrated in Figure 2. 'Staff', 'slope variety', and 'weather-based activity' positioned in the first quadrant represent the strengths of the ski resorts. 'F&B', 'information service', 'transportation', and 'pistes grooming' positioned in the second quadrant are important for skiers but have a relatively low performance, which represents the weakness of the ski resorts. Ski resort managers should pay more attention to these attributes. The third quadrant contained 'low priority', involves 'weather', 'rental equipment', 'value for money', and 'tour service', which have a relatively low performance and importance for skiers. The fourth quadrant contained 'possible overkill', 'resort amenity', 'scenery', 'ski lesson', and 'lift line service', which have relatively low importance but high performance.
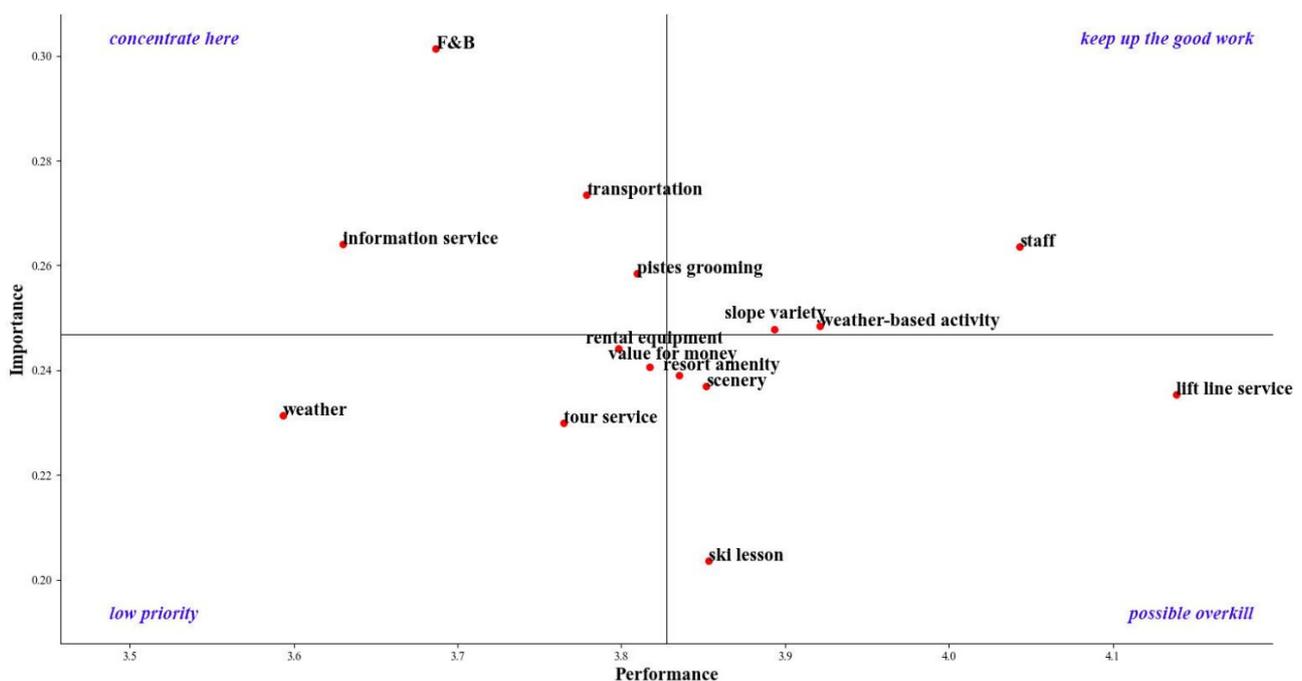
Figure 2. IPA matrix.

According to the IPA results among four seasons, the RIPA of importance and performance are illustrated in Figure 3. In terms of the importance of attributes, most of the attributes include 'transportation', 'tour service', 'lift line service', 'staff', 'weather', 'weather-based activity', 'rental equipment', 'resort amenity', 'slope variety', 'value for money', and 'ski lesson', which are more important for skiers in winter. Furthermore, 'information service' is more important for skiers in spring. 'Pistes grooming' is more important for skiers in summer. 'F&B' and 'Scenery' are more important for skiers in autumn. In terms of the performance of attributes, the results do not show a clear fluctuation among the four seasons.
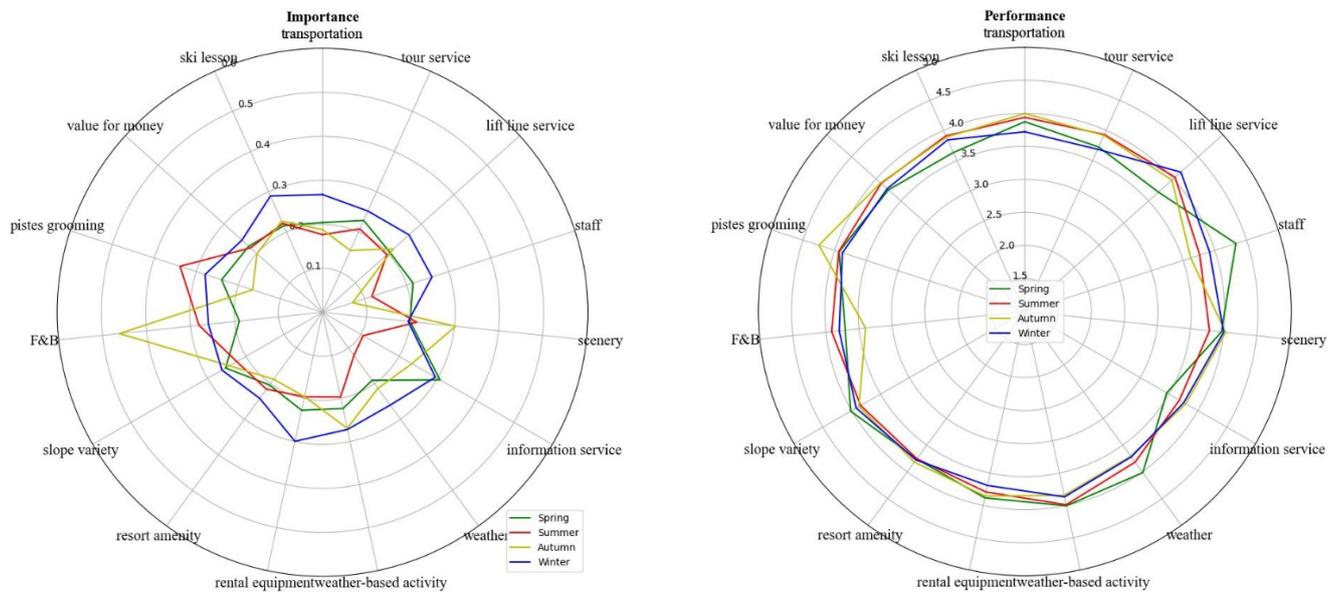

Figure 3. Four seasons for attributes importance and performance.

5. Discussion

This study retrieved 15 attributes from 14 ski resorts' online reviews. The findings of 'F&B' (i.e., food and beverage), 'lift line service', 'slope variety', 'rental equipment', 'information service', 'resort amenity', 'tour service', 'staff', 'ski lesson', and 'pistes grooming' are consistent with prior studies of ski resort service quality [6,11–13,15,16,34,53,54,97,100]. In addition to these service quality attributes, several attributes from other aspects are also identified as skiers' experiences attributes. The 'transportation' attribute is often a concern from the economic and financial perspective [10,34]. The present study reveals its role from the skiers' experiences perspective. The 'weather' attributes are often discussed in the context of climate change, ski resort sustainability, and financial performance. Prior studies have shown that the weather conditions in the context of climate change influence skiers' demand, performance, and adaption strategies of ski resorts [7,20,35,40,48]. This study further extends the understanding of the 'weather' attributes from the skiers' experiences perspective. Corresponding to the concern of ski resorts' hedging strategies from operators' perspectives [4], this study retrieved 'weather-based activity' attributes, which refers to the related outdoor activity depending on the weather [96], implying that enhancing product variety among seasons [4] is important for skiers' experiences. Few studies have focused on the 'scenery' attribute in the context of ski resorts. Chua, Lee, Huffman, and Choi [60] explored the aesthetics of ski resorts' facilities. Kaenzig, Rebetez, and Serquet [52] found that a beautiful landscape is a key factor of renewed attraction in ski resorts from a local stakeholder perspective. The role of the scenery of the surrounding natural environment is also revealed from the UGC of skiers in this study. 'Value for money' or skiers' perceived value for ski resort consumption have been discussed in ski resorts marketing research, which significantly impacts skiers' overall satisfaction and destination loyalty [15,16].

The results of the IPA identify four attributes ski resort managers should focus on. First, 'F&B' is the most important attribute for skiers in the ski resort experience but shows relatively poor performance. Prior studies have highlighted the important role of food in sports fans' sporting venues experience [100,101]. In addition to the food price and quality that are commonly evaluated by consumers, the variety of healthy-eating options in sporting venues is special for sport fans [102]. Drawing on the prior findings, this study implies that skiers in ski resorts may value the various food options oriented toward sports, valuing healthiness, nutrients, and quality. Second, 'information service' has been identified as one of the service quality attributes in ski resorts [53,97]. From the experiential quality perspective, 'information service' enhances the access quality for the consumer experience [103]. Prior studies have found that the information curiosity of sports fans plays an important role in their interest in sports, including specific sports-activity information, general sports information, and sports facility information [104]. Thus, based on prior findings, the importance of 'information service' for skiers may be associated with their high information curiosity corresponding with skiing sports, such as specific skiing skills, related equipment, and knowledge of general sport, which also forms their experiential quality. Third, the results reveal that the ski destinations should also pay attention to their transportation. Malasevska [6] and Malasevska and Haugom [46] found that travel distance between the ski resorts and the nearest large urban area has a significant effect on the profitability of ski resorts. Transport to resorts has been identified as a key service quality attribute [53,54,97]. The main reason 'transportation' is important for skiers may be that ski resorts are often located in rural areas, far from large urban areas. Fourth, 'pistes grooming' is also revealed as an important attribute for skiers' ski resort experiences. Miragaia, Conde, and Soares [97] and Hudson and Shephard [53] identified 'grooming service' as a key factor in ski resort service attributes. Prior studies revealed that snow condition is positively related to a ski resort's demand and revenue [38] and is important for skiers' revisit intentions for ski resorts [99]. The grooming of ski slopes is a part of snow management operations in ski resorts, which is relevant to a skier's expected snow condition [105].

According to the RIPA by seasonality (Figure 3), most attributes, such as 'transportation', 'lift line service', 'staff', and 'information service' are more important for skiers in the peak season (winter (December to February)). However, the performance of these attributes in winter does not manifest a higher evaluation than other seasons, which is consistent with prior findings highlighting the influence of higher expectations of tourists and the social and personal cost in seasonality, such as low service quality in peak seasons [73,106]. The results of the RIPA further provide more detailed information for those attributes ski resorts managers should consider. 'Transportation' and 'information service' are more important but have lower performance for skiers in winter followed by spring. Both attributes could be classified as access quality in experiential quality theory [103]. The underlying reason for this phenomenon may be the skiers' perceptions of overcrowding in the peak season, which is vital for tourists' satisfaction [73]. 'F&B' and other attributes such as 'weather-based activity' and 'scenery' are more important for skiers in autumn (off season). The common feature is that these attributes are not oriented towards skiing activity. Therefore, skiers in off seasons do not mainly aim at skiing but pay more attention to other factors [107], such as eating options, other activities (e.g., hiking and biking), and natural scenery. This result corresponds to prior researchers' attentions towards ski resorts' hedging strategies, which aim to enhance product variety and reduce the influence of climate change [4,23]. Furthermore, 'pistes grooming' is more important for skiers in summer. The underlying reason may be relevant to artificial snow-making in high-temperature seasons [108].

6. Conclusions

Theoretical Implications: Prior studies have revealed the complicated nature of the ski resort industry [2,6–10]. However, few studies identified the key attributes of skiers' ski resort experiences comprehensively. The present study takes advantage of the UGC [31]

and topic modelling method [83] to retrieve relatively more unprompted key attributes in the ski resort experience [32]. Findings reveal 15 key attributes, including multi-aspect attributes such as service quality attributes, activity, natural environment, destination infrastructure, and skiers' subjective perception attributes. Prior studies have identified many service quality attributes ranging from tangible to intangible [53,54]. Confirmed by prior findings, this study identified the key service quality attributes that are more salient in skiers' ski resorts experience, that is, 'F&B', 'lift line service', 'slope variety', 'rental equipment', 'information service', 'resort amenity', 'tour service', 'ski lesson', 'staff', and 'pistes grooming'. Furthermore, many attributes in other aspects, that is, 'transportation', 'value for money', 'scenery', 'weather', and 'weather-based activity', are also identified and confirmed by prior studies [4,10,16,34,48,52]. The IPA synthesised these multi-aspect attributes to identify which attributes are more important and have higher performance for skiers' experiences in ski resorts. Findings manifested that 'staff', 'weather-based activity', and 'slope variety' are the strengths of 14 ski resorts, whereas 'F&B', 'transportation', 'information service', and 'piste grooming' should be given more attention by ski resorts managers. Compared with prior studies, the IPA results provide a more comprehensive understanding of the skiers' ski resort experiences. Seasonality plays a unique role in the ski resort industry [25–27]. However, few studies in ski resorts focused on skiers' experiences in the context of seasonality. The RIPA confirmed the unique role of seasonality in ski resorts from a skiers' experiences perspective and provided more detailed information about the heterogeneity of perception among different seasons across these attributes. The findings show that many attributes are more important for skier experience in the peak season (i.e., winter). However, the performance of these attributes is relatively lower compared with other seasons. In the off season, such as summer and autumn, skiers may less emphasise the skiing-oriented attributes but pay more attention to other activity and consumption items, such as 'F&B', 'weather-based activity', and 'scenery'.

Practical Implications: Prior studies have identified many attributes that may influence ski resort development [2,6–10]. This study revealed 15 key attributes that may be more salient in skiers' experiences. According to the findings, ski resort and destination managers should concentrate on 'F&B', 'transportation', 'pistes grooming', and 'information service' attributes, which are more important for skiers but have lower performance. Ski resort managers should understand skiers' food preferences and provide more eating options, especially healthy eating options for sports fans [102]. Furthermore, the nutrients in each eating option may assist skiers in choosing suitable products. Sports fans may have high information curiosity toward sports [104]. Managers should provide more detailed information about their ski resorts facilities, skill knowledge, and a general introduction to skiing for skiers and first-time skiers. For example, ski resort operators could share more skill knowledge and skiing experience with followers using social media and live streaming. Sharing local history, geography, and attractions is also a marketing tool to draw tourists with various motivations. The operators should further segment skiers and provide more personalised promotions around a particular theme to potential and experienced skiers via emails or phone calls. The results show that a grooming service is vital for skiers. Therefore, the managers should emphasise grooming services and related snow conditions in their marketing. The ski resorts should inform the skiers about the snow condition in updates via various communication platforms. Furthermore, ski resort managers should pay attention to seasonality. The results show that hedging strategies are vital for skiers' experiences in different seasons. More recreation activities and services that are non-oriented to skiing should be provided for visitors in off season, such as hiking and biking trails and food and beverage. Ski resorts could host special events to draw targeted markets for different seasons. Through providing various themed products and services for different seasons, ski resort could find a more salient position among competitors. Given that many key attributes are most important for skiers in peak season, managers should put in more investment, such as in more employees, lift lines, and amenities, to cope with the overcrowding issues, avoiding social and personal costs and a lower service quality.

In conclusion, this study aims to provide a relatively inclusive view of skiers' ski resort experience attributes. By combining the UGC of ski resorts and the topic modelling method, this study reveals 15 multi-aspect attributes and identifies which attributes should be paid more attention to by ski resorts managers. The findings also reveal some patterns of skiers' perceptions among different seasons, which complement prior findings in seasonality from the skiers' experiences perspective. We hope this study can inspire future studies in ski tourism.

7. Limitation and Future Direction

Some limitations should be considered when interpreting the results. Although this study retrieves more unprompted information from the UGC, filtering out fake reviews in data, which may distort the current results, is challenging. Furthermore, this study only chooses one famous platform as the data source, which may induce biased results. Future studies could synthesise data from multiple platforms. Prior studies highlighted the influence of weather and air pollution on tourists' experiences [109]. Instead of seasonality, by taking advantage of online review metadata and related external information, future studies could explore the influence of more detailed weather conditions, such as temperature, wind velocity, and air quality, on skiers' perceptions and interests of various experience attributes. In addition, cultural differences may also influence skiers' preferences and behaviours. Future studies could further investigate the heterogeneity of perception among different national cultural backgrounds across the attributes.

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References

1. Gaille, B. 20 Ski Industry Statistics, Trends & Analysis. Available online: https://brandongaille.com/20-ski-industry-statistics-trends-analysis/ (accessed on 12 December 2021).
2. Aranda-Cuéllar, P.; López-Morales, J.M.; Such-Devesa, M.J. Winter tourism dependence: A cyclical and cointegration analysis. Case study for the Alps. *Tour. Econ.* **2020**, *27*, 1540–1560. [CrossRef]
3. Lasanta, T.; Laguna, M.; Vicente-Serrano, S.M. Do tourism-based ski resorts contribute to the homogeneous development of the Mediterranean mountains? A case study in the Central Spanish Pyrenees. *Tour. Manag.* **2007**, *28*, 1326–1339. [CrossRef]
4. Ballotta, L.; Fusai, G.; Kyriakou, I.; Papapostolou, N.C.; Pouliasis, P.K. Risk management of climate impact for tourism operators: An empirical analysis on ski resorts. *Tour. Manag.* **2020**, *77*, 104011. [CrossRef]
5. Isaac, A.S. The Economic Impact of Skiing and Snowboarding. Available online: https://nsaa.org/webdocs/Media_Public/IndustryStats/Economic_Impact_2020-21.pdf (accessed on 12 December 2021).
6. Malasevska, I. A hedonic price analysis of ski lift tickets in Norway. *Scand. J. Hosp. Tour.* **2018**, *18*, 132–148. [CrossRef]
7. Haugom, E.; Malasevska, I.; Alnes, P.K.; Mydland, Ø. Willingness to pay for "green skiing". *J. Hosp. Tour. Manag.* **2021**, *47*, 252–255. [CrossRef]
8. Witting, M.; Schmude, J. Impacts of climate and demographic change on future skier demand and its economic consequences—Evidence from a ski resort in the German Alps. *J. Outdoor Recreat. Tour.* **2019**, *26*, 50–60. [CrossRef]
9. Joksimović, M.; Gajić, M.; Vujadinović, S.; Milenković, J.; Malinić, V. Artificial Snowmaking: Winter Sports Between State-Owned Company Policy and Tourist Demand. *J. Hosp. Tour. Res.* **2020**, *45*, 1170–1187. [CrossRef]
10. Holmgren, M.A.; McCracken, V.A. What Affects Demand for "The Greatest Snow On Earth"? *J. Hosp. Mark. Manag.* **2014**, *23*, 1–20. [CrossRef]

11. Matzler, K.; Füller, J.; Renzl, B.; Herting, S.; Späth, S. Customer Satisfaction with Alpine Ski Areas: The Moderating Effects of Personal, Situational, and Product Factors. *J. Travel Res.* **2008**, *46*, 403–413. [CrossRef]

12. Hall, J.; O'Mahony, B.; Gayler, J. Modelling the relationship between attribute satisfaction, overall satisfaction, and behavioural intentions in Australian ski resorts. *J. Travel Tour. Mark.* **2017**, *34*, 764–778. [CrossRef]

13. Haverila, M.J.; Haverila, K.C. Examination of customer-centric measures among different types of customers in the context of major Canadian ski resort. *Asia Pac. J. Mark. Logist.* **2018**, *30*, 438–459. [CrossRef]

14. Engeset, M.G.; Hull, J.S.; Velvin, J. Promoting service excellence for tourist destinations. *Int. J. Cult. Tour. Hosp. Res.* **2016**, *10*, 440–454. [CrossRef]

15. Clark, J.S.; Maher, J.K. If you have their minds, will their bodies follow? Factors effecting customer loyalty in a ski resort setting. *J. Vacat. Mark.* **2007**, *13*, 59–71. [CrossRef]

16. Bonnefoy-Claudet, L.; Ghantous, N. Emotions' Impact On Tourists' Satisfaction with Ski Resorts: The Mediating Role of Perceived Value. *J. Travel Tour. Mark.* **2013**, *30*, 624–637. [CrossRef]

17. Lee, H.-W.; Shin, S.; Bunds, K.S.; Kim, M.; Cho, K.M. Rediscovering the positive psychology of sport participation: Happiness in a ski resort context. *Appl. Res. Qual. Life* **2014**, *9*, 575–590. [CrossRef]

18. Chen, X.; Xu, S.; Tang, C.; Fan, Z.; Xiao, X. Evaluation and Promotion Model of Tourist Satisfaction in Ice and Snow Tourism Destinations. *J. Resour. Ecol.* **2022**, *13*. Available online: http://www.jorae.cn/CN/1674-764X/current.shtml (accessed on 20 February 2022).

19. He, X.; Luo, J.M. Relationship among Travel Motivation, Satisfaction and Revisit Intention of Skiers: A Case Study on the Tourists of Urumqi Silk Road Ski Resort. *Adm. Sci.* **2020**, *10*, 56. [CrossRef]

20. Shih, C.; Nicholls, S.; Holecek, D.F. Impact of Weather on Downhill Ski Lift Ticket Sales. *J. Travel Res.* **2008**, *47*, 359–372. [CrossRef]

21. Goncalves, O.; Robinot, E.; Michel, H. Does It Pay to Be Green? The Case of French Ski Resorts. *J. Travel Res.* **2015**, *55*, 889–903. [CrossRef]

22. Malasevska, I.; Haugom, E.; Lien, G. Optimal weather discounts for alpine ski passes. *J. Outdoor Recreat. Tour.* **2017**, *20*, 19–30. [CrossRef]

23. Zach, F.J.; Schnitzer, M.; Falk, M. Product diversification and isomorphism: The case of ski resorts and "me-too" innovation. *Ann. Tour. Res.* **2021**, *90*, 103267. [CrossRef]

24. Dannevig, H.; Gildestad, I.M.; Steiger, R.; Scott, D. Adaptive capacity of ski resorts in Western Norway to projected changes in snow conditions. *Curr. Issues Tour.* **2021**, *24*, 3206–3221. [CrossRef]

25. Wu, H.C.; Cheng, C.C. An Empirical Analysis of Tourists' Switching Intention: The Case of Jiufen. *J. China Tour. Res.* **2018**, *14*, 193–220. [CrossRef]

26. Wu, H.-C.; Cheng, C.-C.; Ai, C.-H. What drives green experiential loyalty towards green restaurants? *Tour. Rev.* **2021**, *76*, 1084–1103. [CrossRef]

27. Butler, R.W. Chapter 2—Seasonality in Tourism: Issues and Implications. In *Seasonality in Tourism*; Baum, T., Lundtorp, S., Eds.; Pergamon: Oxford, UK, 2001; pp. 5–21.

28. Lu, W.; Stepchenkova, S. User-Generated Content as a Research Mode in Tourism and Hospitality Applications: Topics, Methods, and Software. *J. Hosp. Mark. Manag.* **2015**, *24*, 119–154. [CrossRef]

29. Ye, B.H.; Luo, J.M.; Vu, H.Q. Spatial and temporal analysis of accommodation preference based on online reviews. *J. Destin. Mark. Manag.* **2018**, *9*, 288–299. [CrossRef]

30. Shang, Z.; Luo, J.M. Topic Modeling for Hiking Trail Online Reviews: Analysis of the Mutianyu Great Wall. *Sustainability* **2022**, *14*, 3246. [CrossRef]

31. Tirunillai, S.; Tellis, G.J. Mining Marketing Meaning from Online Chatter: Strategic Brand Analysis of Big Data Using Latent Dirichlet Allocation. *J. Mark. Res.* **2014**, *51*, 463–479. [CrossRef]

32. Dybsand, H.N.H. In the absence of a main attraction—Perspectives from polar bear watching tourism participants. *Tour. Manag.* **2020**, *79*, 104097. [CrossRef]

33. Li, J.; Xu, L.; Tang, L.; Wang, S.; Li, L. Big data in tourism research: A literature review. *Tour. Manag.* **2018**, *68*, 301–323. [CrossRef]

34. Falk, M. A hedonic price model for ski lift tickets. *Tour. Manag.* **2008**, *29*, 1172–1184. [CrossRef]

35. Demiroglu, O.C.; Kučerová, J.; Ozcelebi, O. Snow reliability and climate elasticity: Case of a Slovak ski resort. *Tour. Rev.* **2015**, *70*, 1–12. [CrossRef]

36. Falk, M.; Vieru, M. Demand for downhill skiing in subarctic climates. *Scand. J. Hosp. Tour.* **2017**, *17*, 388–405. [CrossRef]

37. Beyazıt, M.F.; Koc, E. An analysis of snow options for ski resort establishments. *Tour. Manag.* **2010**, *31*, 676–683. [CrossRef]

38. Falk, M. A dynamic panel data analysis of snow depth and winter tourism. *Tour. Manag.* **2010**, *31*, 912–924. [CrossRef]

39. Alnes, P.K.; Malasevska, I.; Mydland, Ø.; Haugom, E. Price differentiation in the alpine skiing industry—The challenges of demand shifting and capacity constraints under pandemics. *J. Outdoor Recreat. Tour.* **2021**, *35*, 100409. [CrossRef]

40. Falk, M. The Demand for Winter Sports: Empirical Evidence for the Largest French Ski-Lift Operator. *Tour. Econ.* **2015**, *21*, 561–580. [CrossRef]

41. Malasevska, I.; Haugom, E.; Hinterhuber, A.; Lien, G.; Mydland, Ø. Dynamic pricing assuming demand shifting: The alpine skiing industry. *J. Travel Tour. Mark.* **2020**, *37*, 785–803. [CrossRef]

42. Matzler, K.; Teichmann, K.; Strobl, A.; Partel, M. The effect of price on word of mouth: First time versus heavy repeat visitors. *Tour. Manag.* **2019**, *70*, 453–459. [CrossRef]

43. Malasevska, I.; Haugom, E.; Lien, G. Modelling and forecasting alpine skier visits. *Tour. Econ.* **2015**, *23*, 669–679. [CrossRef]
44. Malasevska, I.; Haugom, E. Alpine skiing demand patterns. *Scand. J. Hosp. Tour.* **2019**, *19*, 390–403. [CrossRef]
45. Holmgren, M.A.; McCracken, V.A.; McCluskey, J.J. Should I ski today? The economics of ski resort season passes. *Leisure/Loisir* **2016**, *40*, 131–148. [CrossRef]
46. Malasevska, I.; Haugom, E. Optimal prices for alpine ski passes. *Tour. Manag.* **2018**, *64*, 291–302. [CrossRef]
47. Haugom, E.; Malasevska, I. Variable pricing and change in alpine skiing attendance. *Tour. Econ.* **2018**, *24*, 1029–1036. [CrossRef]
48. Cholakova, S.; Dogramadjeva, E. Climate change and ski industry in Pamporovo resort, Bulgaria: An exploratory study on the tourists' perceptions. *Eur. J. Tour. Res.* **2019**, *22*, 166–192. [CrossRef]
49. Chen, F.; Dai, S.; Zhu, Y.; Xu, H. Will concerns for ski tourism promote pro-environmental behaviour? An implication of protection motivation theory. *Int. J. Tour. Res.* **2020**, *22*, 303–313. [CrossRef]
50. Rutty, M.; Scott, D.; Johnson, P.; Jover, E.; Pons, M.; Steiger, R. Behavioural adaptation of skiers to climatic variability and change in Ontario, Canada. *J. Outdoor Recreat. Tour.* **2015**, *11*, 13–21. [CrossRef]
51. Kuščer, K.; Dwyer, L. Determinants of sustainability of ski resorts: Do size and altitude matter? *Eur. Sport Manag. Q.* **2019**, *19*, 539–559. [CrossRef]
52. Kaenzig, R.; Rebetez, M.; Serquet, G. Climate change adaptation of the tourism sector in the Bolivian Andes. *Tour. Geogr.* **2016**, *18*, 111–128. [CrossRef]
53. Hudson, S.; Shephard, G.W.H. Measuring Service Quality at Tourist Destinations: An Application of Importance-Performance Analysis to an Alpine Ski Resort. *J. Travel Tour. Mark.* **1998**, *7*, 61–77. [CrossRef]
54. Ormiston, D.; Gilbert, A.; Manning, R.E. Indicators and standards of quality for ski resort management. *J. Travel Res.* **1998**, *36*, 35–41. [CrossRef]
55. Weiermair, K.; Fuchs, M. Measuring tourist judgment on service quality. *Ann. Tour. Res.* **1999**, *26*, 1004–1021. [CrossRef]
56. Barlas, A.; Mantis, K.; Koustelios, A. Achieving positive word-of-mouth communication: The role of perceived service quality in the context of Greek ski centres. *World Leis. J.* **2010**, *52*, 290–297. [CrossRef]
57. Alexandris, K.; Kouthouris, C.; Meligdis, A. Increasing customers' loyalty in a skiing resort. *Int. J. Contemp. Hosp. Manag.* **2006**, *18*, 414–425. [CrossRef]
58. Vassiliadis, C.A.; Bellou, V.; Priporas, C.-V.; Andronikidis, A. Exploring the negotiation thesis application among ski resort tourists: A segmentation approach. *J. Hosp. Tour. Res.* **2018**, *42*, 716–739. [CrossRef]
59. Alexandris, K.; Du, J.; Funk, D.; Theodorakis, N.D. Leisure constraints and the psychological continuum model: A study among recreational mountain skiers. *Leis. Stud.* **2017**, *36*, 670–683. [CrossRef]
60. Chua, B.-L.; Lee, S.; Huffman, L.; Choi, H.-S. The Role of Physical Environment in Leisure Service Consumption: Evidence from a Ski Resort Setting. *Int. J. Hosp. Tour. Adm.* **2015**, *16*, 375–407. [CrossRef]
61. Lau, P.-L.; Koo, T.T.R. Multidimensional decomposition of Gini elasticities to quantify the spatiotemporality of travel and tourism distribution. *Tour. Manag.* **2022**, *88*, 104422. [CrossRef]
62. Grossi, L.; Mussini, M. Seasonality in tourist flows: Decomposing and testing changes in seasonal concentration. *Tour. Manag.* **2021**, *84*, 104289. [CrossRef]
63. Vergori, A.S.; Arima, S. Cultural and non-cultural tourism: Evidence from Italian experience. *Tour. Manag.* **2020**, *78*, 104058. [CrossRef]
64. Zheng, Y.; Mou, N.; Zhang, L.; Makkonen, T.; Yang, T. Chinese tourists in Nordic countries: An analysis of spatio-temporal behavior using geo-located travel blog data. *Comput. Environ. Urban Syst.* **2021**, *85*, 101561. [CrossRef] [PubMed]
65. Muñoz, C.; Álvarez, A.; Baños, J.F. Modelling the effect of weather on tourism: Does it vary across seasons? *Tour. Geogr.* **2021**, 1–22. [CrossRef]
66. R-Toubes, D.; Araújo-Vila, N.; Fraiz-Brea, J.A. Influence of Weather on the Behaviour of Tourists in a Beach Destination. *Atmosphere* **2020**, *11*, 121. [CrossRef]
67. Nguyen, T.-N.; Nguyen, H.-X.; Pham, H.-H.; Le, T.-H.; Truong, T.-H.; Lieu, T.-D.; Luu, T.-T.H. Influence of some climatic factors on tourism activities on Co To Island, Vietnam. *Int. J. Adv. Appl. Sci.* **2021**, *8*, 50–57.
68. Giachino, C.; Truant, E.; Bonadonna, A. Mountain tourism and motivation: Millennial students' seasonal preferences. *Curr. Issues Tour.* **2020**, *23*, 2461–2475. [CrossRef]
69. Padilla, J.J.; Kavak, H.; Lynch, C.J.; Gore, R.J.; Diallo, S.Y. Temporal and spatiotemporal investigation of tourist attraction visit sentiment on Twitter. *PLoS ONE* **2018**, *13*, e0198857. [CrossRef] [PubMed]
70. Perles-Ribes, J.F.; Moreno-Izquierdo, L.; Torregrosa, T.; Ramón-Rodríguez, A.B. Satisfaction, seasonality and tourist expenditure in consolidated tourist destinations. *Anatolia* **2021**, *32*, 489–500. [CrossRef]
71. Soldić Frleta, D.; Smolčić Jurdana, D. Seasonal variation in urban tourist satisfaction. *Tour. Rev.* **2018**, *73*, 344–358. [CrossRef]
72. Shang, C.; Huang, X.; Zhang, Y.; Chen, M. Outdoor thermal comfort in a tropical coastal tourist resort in Haikou, China. *Indoor Built Environ.* **2019**, *29*, 730–745. [CrossRef]
73. Sæþórsdóttir, A.D.; Hall, C.M.; Stefánsson, Þ. Senses by Seasons: Tourists' Perceptions Depending on Seasonality in Popular Nature Destinations in Iceland. *Sustainability* **2019**, *11*, 3059. [CrossRef]
74. Tyrväinen, L.; Silvennoinen, H.; Hallikainen, V. Effect of the season and forest management on the visual quality of the nature-based tourism environment: A case from Finnish Lapland. *Scand. J. For. Res.* **2017**, *32*, 349–359. [CrossRef]

75. Che, C.; Koo, B.; Wang, J.; Ariza-Montes, A.; Vega-Muñoz, A.; Han, H. Promoting Rural Tourism in Inner Mongolia: Attributes, Satisfaction, and Behaviors among Sustainable Tourists. *Int. J. Environ. Res. Public Health* **2021**, *18*, 3788. [CrossRef] [PubMed]

76. Choe, Y.; Kim, H.; Joun, H.-J. Differences in Tourist Behaviors across the Seasons: The Case of Northern Indiana. *Sustainability* **2019**, *11*, 4351. [CrossRef]

77. Del Mar Galvez-Rodriguez, M.; Alonso-Cañadas, J.; Haro-de-Rosario, A.; Caba-Pérez, C. Exploring best practices for online engagement via Facebook with local destination management organisations (DMOs) in Europe: A longitudinal analysis. *Tour. Manag. Perspect.* **2020**, *34*, 100636. [CrossRef]

78. Villamediana, J.; Küster, I.; Vila, N. Destination engagement on Facebook: Time and seasonality. *Ann. Tour. Res.* **2019**, *79*, 102747. [CrossRef]

79. Shimamoto, K. Examining the Seasonality of Travel-Related Expenditure by Travel Purpose: The Case of Japan. *Acad. Tur. -Tour. Innov. J.* **2019**, *12*, 55–72. [CrossRef]

80. Rogers, B.R.; Rogers, S. 16 Top-Rated Ski Resorts in the World. 2022. Available online: https://www.planetware.com/world/top-rated-ski-resorts-in-the-world-us-co-88.htm (accessed on 3 November 2021).

81. Jelodar, H.; Wang, Y.; Yuan, C.; Feng, X.; Jiang, X.; Li, Y.; Zhao, L. Latent Dirichlet allocation (LDA) and topic modeling: Models, applications, a survey. *Multimed. Tools Appl.* **2019**, *78*, 15169–15211. [CrossRef]

82. Luo, J.M.; Vu, H.Q.; Li, G.; Law, R. Topic modelling for theme park online reviews: Analysis of Disneyland. *J. Travel Tour. Mark.* **2020**, *37*, 272–285. [CrossRef]

83. Blei, D.M.; Ng, A.Y.; Jordan, M.I. Latent dirichlet allocation. *J. Mach. Learn. Res.* **2003**, *3*, 993–1022.

84. Maier, D.; Waldherr, A.; Miltner, P.; Wiedemann, G.; Niekler, A.; Keinert, A.; Pfetsch, B.; Heyer, G.; Reber, U.; Häussler, T.; et al. Applying LDA Topic Modeling in Communication Research: Toward a Valid and Reliable Methodology. *Commun. Methods Meas.* **2018**, *12*, 93–118. [CrossRef]

85. Bird, S.; Klein, E.; Loper, E. *Natural Language Processing with Python: Analyzing Text with the Natural Language Toolkit*; O'Reilly Media, Inc.: Newton, MA, USA, 2009.

86. Vasiliev, Y. *Natural Language Processing with Python and SpaCy: A Practical Introduction*; No Starch Press: San Francisco, CA, USA, 2020.

87. Rehurek, R.; Sojka, P. Software framework for topic modelling with large corpora. In Proceedings of the LREC 2010 Workshop on New Challenges for NLP Frameworks, Valetta, Malta, 22 May 2010.

88. McCallum, A.K. Mallet: A Machine Learning for Language Toolkit. Available online: http://mallet.cs.umass.edu (accessed on 3 November 2021).

89. Röder, M.; Both, A.; Hinneburg, A. Exploring the space of topic coherence measures. In Proceedings of the Eighth ACM International Conference on Web Search and Data Mining, Shanghai, China, 2–6 February 2015; pp. 399–408.

90. Albayrak, T.; Cengizci, A.D.; Caber, M.; Nang Fong, L.H. Big data use in determining competitive position: The case of theme parks in Hong Kong. *J. Destin. Mark. Manag.* **2021**, *22*, 100668. [CrossRef]

91. Hu, F.; Li, H.; Liu, Y.; Teichert, T. Optimizing service offerings using asymmetric impact-sentiment-performance analysis. *Int. J. Hosp. Manag.* **2020**, *89*, 102557. [CrossRef]

92. Hutto, C.; Gilbert, E. Vader: A parsimonious rule-based model for sentiment analysis of social media text. In Proceedings of the International AAAI Conference on Web and Social Media, Ann Arbor, MI, USA, 1–4 June 2014.

93. Bacon, D.R. A Comparison of Approaches to Importance-Performance Analysis. *Int. J. Mark. Res.* **2003**, *45*, 1–15. [CrossRef]

94. Kirilenko, A.P.; Stepchenkova, S.O.; Dai, X. Automated topic modeling of tourist reviews: Does the Anna Karenina principle apply? *Tour. Manag.* **2021**, *83*, 104241. [CrossRef]

95. McHugh, M.L. Interrater reliability: The kappa statistic. *Biochem. Med.* **2012**, *22*, 276–282. [CrossRef]

96. Verbos, R.I.; Brownlee, M.T.J. The Weather Dependency Framework (WDF): A tool for assessing the weather dependency of outdoor recreation activities. *J. Outdoor Recreat. Tour.* **2017**, *18*, 88–99. [CrossRef]

97. Miragaia, D.; Conde, D.; Soares, J. Measuring service quality of ski resorts: An approach to identify the consumer profile. *Open Sports Sci. J.* **2016**, *9*, 53–61. [CrossRef]

98. Sato, S.; Gipson, C.; Todd, S.; Harada, M. The relationship between sport tourists' perceived value and destination loyalty: An experience-use history segmentation approach. *J. Sport Tour.* **2018**, *22*, 173–186. [CrossRef]

99. Tjørve, E.; Lien, G.; Flognfeldt, T. Properties of first-time vs. repeat visitors: Lessons for marketing Norwegian ski resorts. *Curr. Issues Tour.* **2018**, *21*, 78–102. [CrossRef]

100. Sukalakamala, P.; Sukalakamala, S.; Young, P. An Exploratory Study of the Concession Preferences of Generation Y Consumers. *J. Foodserv. Bus. Res.* **2013**, *16*, 378–390. [CrossRef]

101. Parry, K.D.; Hall, T.; Baxter, A. Who ate all the pies? The importance of food in the Australian sporting experience. *Sport Soc.* **2017**, *20*, 202–218. [CrossRef]

102. Ireland, R.; Watkins, F. Football fans and food: A case study of a football club in the English Premier League. *Public Health Nutr.* **2010**, *13*, 682–687. [CrossRef]

103. Wu, H.-C.; Ai, C.-H. Synthesizing the effects of experiential quality, excitement, equity, experiential satisfaction on experiential loyalty for the golf industry: The case of Hainan Island. *J. Hosp. Tour. Manag.* **2016**, *29*, 41–59. [CrossRef]

104. Park, S.-H.; Ha, J.-P.; Mahony, D. Development and Validation of a Measure of Sport Fans' Specific Curiosity. *J. Sport Manag.* **2014**, *28*, 621–632. [CrossRef]

105. Spandre, P.; François, H.; George-Marcelpoil, E.; Morin, S. Panel based assessment of snow management operations in French ski resorts. *J. Outdoor Recreat. Tour.* **2016**, *16*, 24–36. [CrossRef]

106. Koenig-Lewis, N.; Bischoff, E.E. Seasonality research: The state of the art. *Int. J. Tour. Res.* **2005**, *7*, 201–219. [CrossRef]

107. Meleddu, M.; Melis, G.; Pulina, M.; Zapata-Aguirre, S. Expectations and service quality: Perceived performance at low-season events. *Int. J. Event Festiv. Manag.* **2019**, *10*, 110–137. [CrossRef]

108. Pickering, C.M.; Buckley, R.C. Climate Response by the Ski Industry: The Shortcomings of Snowmaking for Australian Resorts. *Ambio* **2010**, *39*, 430–438. [CrossRef]

109. Yang, Y.; Zhang, X.; Fu, Y. Foreign tourists' experiences under air pollution: Evidence from big data. *Tour. Manag.* **2022**, *88*, 104423. [CrossRef]