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Impact of the Atmospheric Science on Clouds Destination and Weather Conditions

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Abstract: Climate and weather conditions at a destination influence the decision regarding what season and which location tourists might travel to. Assuming that the holiday experiences and satisfaction during their stay are influenced by weather and climate as well, this study investigates the question: does bad weather lead to a higher complaint rate among guests who booked vacation rentals? To answer this question, the complaint behavior and the weather parameters temperature precipitation, wind speed and humidity are examined. The correlations between weather and complaining behavior are proven using the four-field coefficient. The chi-square four-field test is used to subsequently test independence. As a result, a correlation between the weather parameters and complaints cannot be proven based on the applied methods and used data. The four-field coefficient cannot confirm a correlation, as it is close to zero for all four weather parameters. For further investigations, more complaint data are required to obtain more significant results.

Keywords: weather; climate; holiday destination; leisure tourism; vacation rentals; complaint rate; beach holiday

1. Introduction

Leisure tourism is highly dependent on local climatic conditions, especially in the case of beach or activity holidays [1–5]. The weather is decisive for 43% of tourists after the influencing factors of landscape and price when choosing a holiday destination [6]. Tourists choose destinations because of their climate, both for summer holidays [7,8] and for winter holidays [9,10]. With regard to weather and climate, factors such as the intensity, frequency or spatial distribution of meteorological parameters play a decisive role. Exemplary meteorological factors are precipitation, wind speed, air temperature, air humidity and air pressure. In addition, prevailing conditions play a decisive role as well [11]. Weather can enhance the holiday as well as the experience of holiday activities [12]. On the other hand, it can prevent a nice holiday or a positive holiday experience [13]. Even in retrospect, holiday weather influences the memories of tourists far beyond the day of departure [14,15]. From the perspective of tourists, weather is good or bad, depending on the impact of weather on the holiday experience and the expectations of the tourists [16,17]. The expectations of tourists regarding the weather at their holiday destination are shaped by destinations, tour operators and the media, for example, through catalogues, advertising and images [18,19]. The vast majority of tourists—according to studies, 70% [20] to 90% [17])—inform themselves about the holiday weather before traveling. Tourists have a sufficiently concrete idea of the parameters temperature, precipitation or sunshine duration they can expect during their stay at a specific destination [3,6]. These weather data are long-term averages over a period of 30 years (climate data). However, they offer no guarantee of how the short-term weather conditions will actually turn out during the holiday [21]. Therefore, tourists cannot rely on these data and must expect worse weather during the holiday, which can reduce holiday enjoyment [17]. However, bad weather is not a legitimate reason for a complaint. The tour operator is not responsible for the weather and catalogue information on the climate is not part of the contract (LG Hannover, judgement of 17 August 2009, 1 O 209/07). Weather is, therefore, a natural risk that every tourist must bear. Bad weather, thus, has the potential to spoil a trip [15,22,23], but tourists cannot protect themselves against this risk.

Nevertheless, the question arises as to whether tourists try to obtain financial compen- sation for bad weather from the tour operator. A course of action might be complaining about defects that tourists would not otherwise complain about, or defects that are difficult to verify afterwards, such as lack of cleanliness or bad smells of their accommodation. Us-ing the example of tourists booking vacation rentals in Western Europe, this study focuses on the question: will more frequent complaints be devised by tourists if bad weather occurs during the stay?

Many authors have dealt with opportunistic complaints behavior of guests [24–27]. For example, Berry et al. distinguish the behavioral patterns of disingenuous guests who, for various personal reasons, try to gain financial advantages by making up complaints. Huang et al. examined different aspects of this practice, and divided guests into opportunistic conspirators, repeat complainers and opportunistic bullies [28]. The result exhibits that some tourists have sufficient criminal energy to deceive service providers or organizers in order to gain a personal advantage. Approximately one to two percent of all tourist services are complained about by guests to tour operators and service providers. This proportion would be even higher if all dissatisfied guests actually complained. That they do not do this is due to loyalty to the service provider, and due to the convenience of the guests. The effort of a complaint is often perceived as too high compared to the expected compensation. Some of those affected prefer to express their dissatisfaction in other ways, e.g., through negative word of mouth or with the help of third parties, such as lawyers and consumer-protection organizations. Due to its strong service orientation, the tourism industry is vulnerable to unjustified complaints. In turn, some guests exploit this to their advantage. This has a negative impact on the industry sector.

Climate is crucial for long-term holiday planning. On the other hand, the short-term weather during the holiday is most important for the local experience [29]. Since the 1990s, relationships between weather conditions and holiday requirements have been scientifically analyzed and interpreted [6,14,29–31]. Tourism weather research to date can be divided into three areas:

1. Research on regional climate indices [32];
2. Studies on the influence of weather and climate on tourism flows [16,33–35];
3. Behavior of tourists and preferences regarding different weather conditions [17,36,37].

Assessing the influence of weather on tourists is complex because people react differ- ently to individual meteorological parameters. The meteorological parameters and their changes evoke physical, physiological or psychological reactions [38]. These reactions usually have an impact on the holiday experience when all factors are combined. The literature has also addressed the issue of optimal weather [20,34,39,40]. Depending on the type of holiday, tourists prefer different weather conditions for beach holidays, city breaks or hiking [9,38]. Scott et al. also tested how tourists evaluate different weather elements and which range of values is perceived as pleasant. The authors concluded that there are different ideal weather conditions depending on the influencing factors of home country, holiday activity and choice of destination. In addition, these different ideal weather condi- tions are only suitable for specific situations. Therefore, weather elements should not be considered statically, but dynamically.

2. Materials and Methods

2.1. Hypothesis

The hypothesis to be investigated is that the complaint rate of guests who booked vacation rentals is higher when the weather is bad during a holiday stay.

H0: Bad weather during the holiday stay leads to a higher complaint rate.

Bad weather during the holiday stay is defined as negative deviations of the four rele- vant weather factors (air temperature, precipitation, wind speed and air humidity) from the climatic mean, or from the expectation of the guests. Air pressure is not examined because this weather factor is not visible or tangible for tourists. Since there are no thresholds at which air temperature, precipitation, wind speed, or air humidity can be defined as bad weather, the exceeding of three levels is investigated for each weather element and the results are compared. The following sub-hypotheses are formulated for this purpose:

H1: Temperatures that are below the expected temperatures lead to higher complaint rates.

H2: High amounts of precipitation lead to higher complaint rates.

H3: Sustained wind speeds that are above the expected wind speeds lead to higher complaint rates.

H4: Relative humidity above the expected humidity leads to higher complaint rates.

To test the hypotheses, data on the four weather elements are analyzed in comparison to the booking-and-complaint data of guests who booked vacation rentals for summer 2018 in selected Western European destinations (along the coasts of Belgium, France and Spain).

2.2. Data

2.2.1. Climate Data

Daily data of temperature, precipitation, wind, and relative humidity from nearby located meteorological stations at the following selected Western European destinations were used:

1. Bredene (Belgium, Ostend, North Sea) → station: Ostend (6407).
2. Cabourg (France, Calvados, North Sea) → station: Caen (7027).
3. Dénia (Spain, Costa Blanca, Mediterranean Sea) → station: Valencia (8284).
4. Jávea (Spain, Costa Blanca, Mediterranean Sea) → station: Valencia (8285).
5. L'Amettla del mar (Spain, Costa Dorada, Mediterranean Sea) → station: Reus (8175).
6. La Grande Motte (France, Occitanie, Mediterranean Sea) → station: Montpellier (7643).

Daily average temperatures were compared with those of the climatic mean in the respective destination. Deviations from the normal temperature of more than 10%, 15% and 20% to the local mean values were observed. The group of guests was divided into complaining guests and satisfied guests. For the data analysis of the rainy days, the total precipitation was measured on each holiday day. The observed precipitation limits were
>0.1 mm, >0.5 mm and >1 mm. The influence of wind on the complaint behavior of guests was investigated for wind durations of more than three, eight and twelve hours a day. To investigate the effects of higher relative humidity on the complaint behavior of guests, the number of holiday days was identified on which there were deviations in relative humidity from the climatic mean. Three scenarios were observed with deviations of more than 10%, 15% and 20% to the local mean values of relative humidity.

2.2.2. Destinations

All destinations are in Western Europe, which can be explained by Interhome's cus- tomer group, which is 98% of European origin. In particular, 29% of guests come from Germany, 24% from France and 10% each from Holland, England and Switzerland.
Four destinations are in the Western Mediterranean, and two on the North Sea. The Atlantic and the Baltic Sea are completely missing. This has both advantages and disad- vantages for the analysis. The advantage is that the destinations at Mediterranean and North Sea are easily comparable in terms of weather-related expectations of guests to these regions. The disadvantage is that a comparative analysis of the destinations in terms of their geographical and thus climatic characteristics is only possible for the Western Mediter- ranean and the North Sea. To reduce the complexity of the selection of holiday destinations and for better comparability, places close to the beach were chosen. Large cities by the sea (e.g., Cannes and Barcelona) were excluded, as city visitors are less influenced by weather events than tourists in rural areas [33].

2.2.3. Booking Data

For the analysis, more than 7000 trips to vacation rentals were examined for the spe- cialist Holiday Home Division AG (HHD) from summer 2018. HDD is a Swiss tourism company that has been offering holidays in vacation rentals and flats since 1965. Its portfo- lio, which includes the Interhome and Interchalet brands, consists of around 50,000 vacation rentals and flats in 31 countries. In 2018, HHD arranged 1.5 million guests. This makes the company sufficiently large to generate a representative data set of bookings-and-complaints data for the Western European market for vacation rentals.
Only bookings of the tour operator Interhome with arrivals from May up to and including October were considered, as this is the main travel season in the segment of vacation rentals. It is known that the weather effect on tourists is highest in the months of August and September, and that the sensitivity of tourists is most intense in late summer [33]. Finally, the data situation for complaints is also significantly better in summer than in the winter months due to the higher occupancy. July and August are the most frequently booked months (Table 1). Customers travel least frequently in the month of October.

Table 1. Travel behavior of vacation home guests. Source: Interhome.

May	June	July	August	September	October
12%	14%	24%	29%	15%	6%

For an evaluation, there had to be at least 15 complaints in a destination for the summermonths of May to October.

2.2.4. Complaints Data

A total of 7084 bookings were made for the six destinations from 1 May to 31 October 2018. These bookings are distributed relatively evenly among the four largest destinations (Bredene, Cabourg, Dénia, and Jávea), with just beneath 20% each. La Grande Motte and L'Ametlla de Mar are underrepresented with 12% and 7% respectively. Compared to the number of complaints—a total of 188 for summer 2018 in the six destinations—the picture is less uniform. On average, 2.65% of guests made complaints. In relation to the accounting data, the complaints data in Bredene (1.3%) and Cabourg (1.6%) are below average, while they are—in some cases, significantly—above average in the other regions (between 3% and 4%).

2.3. Statistics

The bookings of satisfied guests were compared with those of complaining guests for verification. To assess the correlations between weather and complaining behavior, the four-field coefficient Phi (Φ) was used, which measures the strength of the correlation between the two dichotomous variables weather and guest. A distinction was made between guests who complained and guests who were satisfied, i.e., guests who did not complain to the tour operator after their holiday. Phi (Φ) can be between 1 and 1 and is interpreted like the Bravais–Pearson and Spearman correlation coefficients, where the sign has no meaning:
rΦ = 1 perfect correlation;
1 > rΦ > 0.6 strong correlation;
0.6 > rΦ > 0.3 weak correlation;
0.3 > rΦ > 0 no correlation.

The chi-square four-field test (χ^2) is used to subsequently test independence. The chi-square four-field test checks whether two dichotomous characteristics are stochastically independent of each other or whether the distribution of the groups

examined is identical. The degree of freedom is one. If χ^2 is greater than the critical test value (p) of the selected significance level (α), there is a significant difference between the samples. α is set at 5%. The quantile of the chi-square distribution with only one degree of freedom and an α-level of 5% is p = 3.841.

3. Results

3.1. Total Bookings and Complaints

The overall number of complaints on a monthly basis reveals that in July, with 36% of all complaints, a disproportionately high number of guests complained (Table 2). In relation to the travel dates, the complaints for all other months (except August) were clearlybelow those of the total bookings.

Table 2. Bookings 2018 by month.

Total Bookings			**Complaints**	
	Bookings	**In Percent**	**Bookings**	**In Percent**
May	852	12%	19	10%
June	1.020	14%	20	11%
July	1.677	24%	67	36%
August	2.031	29%	52	28%
September	1.072	15%	22	12%
October	432	6%	8	4%
Total	7.084	100%	188	100%

3.2. Temperature, Precipitation, Wind Speed, Relative Humidity

In the following, the results of the analyses on temperature, precipitation, wind speed and relative humidity for the period May to October 2018 are presented.

For the temperature, Table 3 exhibits that, regardless of whether the daily average temperature was 10%, 15%, or 20% lower than the climatic mean, the satisfied guests experienced more frequently one or more cooler days during their holiday comparedto the complaining guests. This contrasts with the hypothesis that temperatures below expectations lead to more complaints.

Table 3. Portion of guests (complaining and satisfied) depending on the meteorological conditionsduring their holiday.

Deviation of Daily Average Temperature from Climatic Mean	**<10%**	**<15%**	**<20%**
complaining guests	14%	9%	5%
satisfied guests	22%	14%	8%
Daily precipitation sum	**>0.1 mm**	**>0.5 mm**	**>1 mm**
complaining guests	53%	32%	18%
satisfied guests	51%	33%	18%
Daily duration of wind speed > 8 m/s	**>3 h**	**>8 h**	**>12 h**
complaining guests	69%	50%	32%
satisfied guests	80%	65%	46%
Deviation of relative humidity	**>10%**	**>15%**	**>20%**
complaining guests	10%	9%	7%
satisfied guests	18%	14%	10%

For precipitation, Table 3 reveals that the proportion of complaining guests and satisfied guests is almost identical for each of the three observed characteristics (>0.1 mm, >0.5 mm and >1 mm of precipitation per day). These results suggest that there is no correlation between precipitation amount and complaint behavior.

For wind speed duration, Table 3 depicts similar to the results concerning temperature that the percentage of complaining guests was lower compared to the percentage of satisfiedguests. With regard to the weather factor wind speed, the satisfied guests thus had worse weather than the complainants in the observed three scenarios. Guests who had holidays with more than three hours of wind have a higher complaint rate than guests who had holidays with wind durations of eight hours or more. Guests who had holidays with morethan twelve hours of wind per day had the lowest complaint rate.

Like the results on temperature and wind speed, it is noticeable that for relative hu- midity, more satisfied guests experienced days with higher humidity than the complaining guests for all three threshold values. Accordingly, the holiday weather was worse in terms of relative humidity in the group of satisfied guests than the weather in the group of complaining guests. The complaint rates are also higher in good weather conditions thanin bad weather (Table 3).

3.3. Correlation Analysis

The correlation analysis reveals that no correlation between lower temperatures and complaints to the tour operator can be established (Table 4). In all three observed scenarios, the four-field coefficient r Φ is below the threshold of 0.3. Thus, a correlation between the variables weather and complaints cannot be proven. The same applies to the chi-squares, which are

also close to zero. Exemplarily, the results for the deviation of daily averaged temperature lower than 20% compared to the climatic mean are presented (Table 4).

Table 4. Results of correlation analysis for the relationship between temperature, precipitation, wind speed or relative humidity and complaints.

Good Weather		Bad Weather			
r					
Dev. Temperature > 20%				**0.015**	**0.20**
Complaining Guests	182	10	192		
Satisfied Guests	6539	545	7084		
Complaints Rate	2.78%	1.83%			
Precipitation > 1 mm				**<0.001**	**0.97**
Complaining Guests	158	34	192		
Satisfied Guests	5822	1262	7084		
Complaints Rate	2.71%	2.69%			
Wind > 8 h/Day				**0.051**	**<0.01**
Complaining Guests	96	96	192		
Satisfied Guests	2471	4613	7084		
Complaints Rate	3.89%	2.08%			
Deviations RH > 20%				**0.015**	**0.21**
Complaining Guests	178	14	192		
Satisfied Guests	6371	713	7084		
Complaints Rate	2.79%	1.96%			

The hypothesis

H1: Lower temperatures inducing higher complaint rates could, therefore, not be confirmed on thebasis of these results.

The second correlation analysis also confirms that there is no correlation between precipitation amount and reclamation behavior (Table 4). The evaluation of the three levels provides very close complaint rates for both conditions (good and bad weather conditions) with exemplary results between 2.71% and 2.69% for precipitation > 1 mm per day. The four-field coefficient rΦ cannot confirm a correlation, as it is close to zero in all three cases.

The comparison between the observed and the expected results also reveals that there is no measurable correlation. The exemplary chi-square for rainfall amounts > 1 mm comprises $\chi^2(1, N = 7276) = 0.97$.

The hypothesis

H2: High precipitation levels inducing higher complaint rates could, therefore, not be confirmedbased on these results as well.

Despite the clear deviations between complaining and satisfied guests during condi-tions with wind speed above 8 m/s for >3, >8 or >12 h per day, a correlation between wind duration and reclamation behavior could not be proven either. Both the four-field coeffi- cients rΦ and the corresponding chi-squares—all smaller than 0.01—show no significant correlations.

The hypothesis

H3: Sustained wind speeds above eight meters per second leading to higher complaint rates could, therefore, not be confirmed on the basis of the results.

For humidity, the correlation analysis in Table 4 reveals that the four-field coefficient rΦis always below 0.3. Thus, there is no correlation between relative humidity and complaint behavior. The chi-squares for the deviations in relative humidity from the local meanof >10%, >15% and >20% are, respectively, $\chi^2(1, N = 7276) < 0.01$; $\chi^2(1, N = 7276) = 0.03$ and $\chi^2(1, N = 7276) = 0.21$.

The hypothesis

H4: A relative humidity that is higher than the expected humidity leading to higher complaint ratescould, therefore, not be confirmed based on the results.

With the rejection of all four sub-hypotheses, the following hypothesis:

H0: Bad weather during the holiday stay leading to a higher complaint rate must be rejected.

4. Discussion and Conclusions

The aim of this study was to analyze the relationship between weather conditions during holidays and the complaint behavior of guests who booked vacation rentals in Western Europe. As a result, it can be stated that no significant correlation could be found for any of the four weather parameters temperature, precipitation, wind duration and relative humidity. Therefore, the working hypothesis, which was supposed to prove the opposite, must also be rejected. This unambiguous result was not expected, since in practice the prevailing opinion is that bad weather leads to a higher complaint rate. Sometimes, even the claim is made thatone can recognize the holiday weather in the destination on the basis of the complaints. However, this could not be proven. On the contrary, the data examined suggest in some places that guests who complained had even better holiday weather than those who weresatisfied.

Many studies determined that temperature has a strong influence on tourists [5,20,34,39,40].Scott et al. even determined an ideal beach temperature, which was determined to be 26.8 ˚C on average. However, the authors also state that the results are influenced by the nationality of the respondents and the expected weather in the destination [9]. Experiences from previous vacations can also influence the expectations of tourists, depending on the destination and time of year.

Precipitation has the greatest influence on the perception of the vacation among tourists [14]. Beach tourists desire a precipitation-free vacation [7,36]. Guests who have already spent a vacation in the destination are less bothered by precipitation than guestswho stay there for the first time [15,41,42]. For tourists, however, it is important on which day it rains and for how long, because this affects the planning and execution of vacationactivities. For example, a long-lasting rain at night may be less disturbing for tourists than a short rain shower during a hike. Unfortunately, for the regions studied, only total precipitation amounts are available, but no precipitation data with information on rain duration and intensity.

Wind is a weather factor that is perceived differently depending on the person. Studies reveal that, depending on the wind conditions they are used to at home, some tourists find a breeze pleasant, while others prefer calm conditions [15]. Regarding wind conditions during beach holidays, Scott et al. determined that nearly 90% of tourists prefer a light breeze with wind speeds between one and nine kilometers per hour [9]. Like precipitation, for tourists, the duration is more important than wind speed in the presence of strong winds. Humidity affects the temperature perception—thermal comfort—of tourists [5]. High relative humidity has a temperature-enhancing effect on sensation. Even though relative humidity is the most used humidity variable in health research—it has a limiteduse as a measure. This is because relative humidity varies as a function of both water vapor content and air temperature. It is not possible to draw conclusions about the relationshipof the two to the dependent variable.

There are also limits to the booking data, the analysis, and the results: on the one hand, in the selection of the data examined and, on the other hand, in the method. Regarding the data, it would have been ideal to be able to compare a significantly higher number ofcomplaints per destination. In total, 188 complaints were available for the six destinations studied, which seems low compared to the 7084 bookings, but corresponds to the usual complaint rate in tourism. For the correlation analyses, however, there were only six destinations and merely between 17 and 51 complaints per destination, so all complaints of all destinations were considered as a total sample. One solution could have been to enlarge the geographical space of the destinations and group several destinations together. However, this would have made it necessary to average the data from several weather stations, but the local differences, especially in wind speeds and humidity, are too great insome places. Alternatively, other weather elements, e.g., cloud cover, could have been used for the study. Finally, the study sample could have been extended to the years 2017 to 2021. This will be analyzed in further studies.

References

1. Becken, S.; Hay, J. Climate Change and Tourism: From Policy to Practice; Routledge: London, UK, 2012.
2. Becken, S.; Hay, J.E. Tourism and Climate Change: Risks and Opportunities; Multilingual Matters Clevedon: Buffalo, NY, USA; Toronto, ON, USA, 2007; Volume 1.
3. Denstadli, J.M.; Jacobsen, J.S.; Lohmann, M. Tourist perceptions of summer weather in Scandinavia. Ann. Tour. Res. **2011**, 38, 920–940. [CrossRef]
4. Denstadli, J.M.; Jacobsen, J.K.S. More clouds on the horizon? Polar tourists' weather tolerances in the context of climate change. Scand. J. Hosp. Tour. **2014**, 14, 80–99. [CrossRef]
5. Matzarakis, A. Weather- and climate-related information for tourism. Tour. Hosp. Plan. Dev. **2006**, 3, 99–115. [CrossRef]
6. Lohmann, M.; Kaim, E. Weather and holiday destination preferences image, attitude and experience. Tour. Rev. **1999**, 54, 54–64. [CrossRef]
7. Moreno, A.; Amelung, B.; Santamarta, L. Linking Beach Recreation to Weather Conditions: A Case Study in Zandvoort, Netherlands. Tour. Mar. Environ. **2008**, 5, 111–119. [CrossRef]
8. Rutty, M.; Scott, D. Comparison of climate preferences for domestic and international beach holidays: A case study of Canadian travelers. Atmosphere **2016**, 7, 30. [CrossRef]
9. Scott, D.; Gössling, S.; de Freitas, C.R. Preferred climates for tourism: Case studies from Canada, New Zealand and Sweden. Clim. Res. **2008**, 45, 61–73. Available online: https://www.int-res.com/abstracts/cr/v38/n1/p61-73/ (accessed on 5 October 2022). [CrossRef]
10. Williams, P.W.; Dossa, K.B.; Hunt, J.D. The influence of weather context on winter resort evaluations by visitors. J. Travel Res. **1997**, 36, 29–36. [CrossRef]
11. VDI 3787 Blatt 2 Environmental Meteorology – Methods for Human-Biometeorological Evaluation of the Thermal Component of the Climate. 2022. Available online: https://www.scirp.org/(S(351jmbntvnsjt1aadkozje))/reference/referencespapers.aspx?referenceid=2053900 (accessed on 23 October 2022).
12. Gómez-Martín, M.B. Climate potential and tourist demand in Catalonia (Spain) during the summer season. Clim. Res. **2006**, 32,

75–87. [CrossRef]
13. Tervo, K. The operational and regional vulnerability of winter tourism to climate variability and change: The case of the Finnish nature-based tourism entrepreneurs. Scand. J. Hosp. Tour. **2008**, 8, 317–332. [CrossRef]
14. Gössling, S.; Abegg, B.; Steiger, R. "It was raining all the time!": Ex post tourist weather perceptions. Atmosphere **2016**, 7, 10. [CrossRef]
15. Jeuring, J.H.; Peters, K.B. The influence of the weather on tourist experiences: Analysing travel blog narratives. J. Vacat. Mark. **2013**, 19, 209–219. [CrossRef]
16. Becken, S.; Wilson, J. The impacts of weather on tourist travel. Tour. Geogr. **2013**, 15, 620–639. [CrossRef]
17. Hübner, A.; Gössling, S. Tourist perceptions of extreme weather events in Martinique. J. Destin. Mark. Manag. **2012**, 1, 47–55. [CrossRef]
18. Gorman-Murray, A.W. Before and after Climate Change: The Snow Country in Australian Imaginaries. M/C J. **2008**, 11, 1–13. Available online: https://ro.uow.edu.au/scipapers/3276 (accessed on 5 October 2022). [CrossRef]
19. Salazar, N.B. Tourism imaginaries: A conceptual approach. Ann. Tour. Res. **2012**, 39, 863–882. [CrossRef]
20. Hamilton, J.M.; Lau, M.A. 13 The role of climate information in tourist destination choice decision making. Tour. Glob. Environ. Change **2005**, 229, 243–264.
21. Scott, D.; Hall, C.M.; Stefan, G. Tourism and Climate Change: Impacts, Adaptation and Mitigation; Routledge: London, UK, 2012.
22. Coghlan, A.; Prideaux, B. Welcome to the Wet Tropics: The importance of weather in reef tourism resilience. Curr. Issues Tour. **2009**, 12, 89–104. [CrossRef]
23. Smith, K. The influence of weather and climate on recreation and tourism. Weather **1993**, 48, 398–404. [CrossRef]
24. Berry, L.L.; Seiders, K. Serving unfair customers. Bus. Horiz. **2008**, 51, 29–37. [CrossRef]
25. Huang, Z.J.; Zhao, C.; Miao, L.; Fu, X. Triggers and inhibitors of illegitimate customer complaining behavior: Anecdotes from frontline employees in the hospitality industry. Int. J. Contemp. Hosp. Manag. **2014**, 26, 544–571. [CrossRef]
26. Jacoby, J.; Jaccard, J.J. The sources, meaning, and validity of consumer complaint behavior: A psychological analysis. J. Retail. **1981**, 57, 4–24.
27. Wirtz, J.; McColl-Kennedy, J.R. Opportunistic customer claiming during service recovery. J. Acad. Mark. Sci. **2010**, 38, 654–675. [CrossRef]
28. Huang, Z.; Miao, L. Illegitimate customer complaining behavior in hospitality service encounters: A frontline employee perspective. J. Hosp. Tour. Res. **2016**, 40, 655–684. [CrossRef]
29. Scott, D.; Lemieux, C. Weather and Climate Information for Tourism. Procedia Environ. Sci. **2010**, 1, 146–183. [CrossRef]
30. Hewer, M.J.; Scott, D.; Gough, W.A. Tourism climatology for camping: A case study of two Ontario parks (Canada). Theor. Appl. Climatol. **2015**, 121, 401–411. [CrossRef]
31. Rantala, O.; Valtonen, A.; Markuksela, V. Materializing tourist weather: Ethnography on weather-wise wilderness guiding practices. J. Mater. Cult. **2011**, 16, 285–300. [CrossRef]
32. Matzarakis, A.; Mayer, H.; Iziomon, M.G. Applications of a universal thermal index: Physiological equivalent temperature. Int. J. Biometeorol. **1999**, 43, 76–84. [CrossRef]
33. Falk, M. Summer weather conditions and tourism flows in urban and rural destinations. Clim. Change **2015**, 130, 201–222. [CrossRef]
34. Lise, W.; Tol, R.S. Impact of climate on tourist demand. Clim. Change **2002**, 55, 429–449. [CrossRef]
35. Rosselló-Nadal, J.; Riera-Font, A.; Cárdenas, V. The impact of weather variability on British outbound flows. Clim. Change **2011**, 105, 281–292. [CrossRef]
36. De Freitas, C. Weather and place-based human behavior: Recreational preferences and sensitivity. Int. J. Biometeorol. **2015**, 59, 55–63. [CrossRef] [PubMed]
37. Lohmann, M.; Hübner, A.C. Tourists' Weather Perceptions and Weather Related behavior. A qualitative pilot study with holiday tourists to Martinique. Études Caribéennes **2012**. [CrossRef]
38. De Freitas, C.R. Tourism climatology: Evaluating environmental information for decision making and business planning in the recreation and tourism sector. Int. J. Biometeorol. **2003**, 48, 45–54. [CrossRef] [PubMed]