

The Impact of Climate Variability on Tourism Businesses in Wanaka and Queenstown

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Summary

- Interviews with 27 tourism operators in Wanaka and Queenstown were undertaken to better understand sensitivity to climate/weather and coping mechanisms.
- Most businesses are sensitive to more than one climatic condition (or weather event), either directly or indirectly. Most commonly, strong winds and heavy rain were found to affect tourism operations.
- Weather events increase operating costs (e.g. evacuation, higher maintenance costs) and are responsible for loss of revenue (e.g. cancellations).
- Whenever there is an adverse weather event (e.g. heavy snow) – from a destination perspective – there are ‘winners’ and ‘losers’. Winners are those that are able to pick up business from those that are unable to operate.
- Due to the high natural variability of climate in this region, tourism business in Wanaka and Queenstown are well prepared for changing weather and adverse conditions. They are also prepared to make the most out of favourable conditions.
- Climate change projects for Southern Lakes indicate increased westerly winds, more erratic weather and higher precipitation. These will exacerbate the conditions which pose a challenge for many tourist operations.
- The Achilles heel of both destinations in terms of long term climate change lies in the ongoing existence of ski tourism, i.e. the ski fields’ ability to make snow in the face of warming temperatures.
- At this point, interviewees were very confident about the future of the regions’ snow industry, pointing to the great efforts made by ski fields.
- Both destinations maintain strong networks that allow for an overall product diversification. The nature of networks differs for the two destinations, Wanaka and Queenstown.
- Staff experience with the weather and local environmental conditions was seen as a key ingredient to a successful business. High staff turnover and low retention would therefore constitute a considerable vulnerability factor.
- Further dimensions of vulnerability (e.g. the extent to which a business is linked to a particular location) will be explored in future research.

Introduction

This report summarises the findings from 27 operator interviews in Wanaka and Queenstown (June 2010). The main goal of the interviews was to identify which climatic factors are relevant to the different kinds of tourism businesses and how sensitive the businesses' operation and economic viability are to specific conditions. Interviewees were also asked about the measures they put in place to deal with favourable or adverse weather conditions. The focus of the interviews was on the winter season, but relevant information on summer activities was included as well.

The following section will provide an overview of the wider context in which businesses in Wanaka and Queenstown operate, followed by a summary of the main climatic factors discussed in the interviews. The section on adaptation measures presents the different ways businesses already incorporate climate into their decision making and planning. A concluding section outlines the next steps in the research project.

Operating Environment

The key challenge for tourism in New Zealand, perceived by interviewees, is to continue to attract visitors from overseas. One key barrier to further growth was seen in tourists' increasing environmental consciousness related to their carbon emissions, and also potential increases in global oil prices. Tourist operators noted the importance of understanding what drives market changes and which markets are diminishing (e.g. Japanese) and which ones are emerging (e.g. Indian). The heavy reliance on the Australian market, especially in winter, was noticeable. Domestic tourism is also important, but the yield from New Zealand visitors is relatively low. Also, seasonality is more pronounced for domestic visitors.

Access to the region is vital and the introduction of direct flights from Australia to Queenstown has increased visitor numbers substantially. Some operators pointed out that tourists would always come to Queenstown as Queenstown and Milford Sound are key attractions and the reasons why people come to New Zealand.

Wanaka and Queenstown differ in their geography, microclimate, product offering, and market mix. Operators believed that ski tourists visiting Wanaka are more focused on skiing, whereas those in Queenstown are also interested in many other activities. The need to deliver a 'world class experience' was more often mentioned in Queenstown than in Wanaka. The nature of tourism businesses in Wanaka tends to be somewhat more life-style based and smaller, and the networks between businesses are therefore more explicit. Businesses in Queenstown tend to be bigger and horizontally integrated, so that they can provide a range of services within their own company rather than having to partner with someone else.

Wanaka and Queenstown are competing for visitors, but at the same time they benefit from each other and the different experiences that tourists can have in these geographically close resorts. Wanaka was seen by some as the smaller sibling of Queenstown.

Relevant Climatic Factors

A wide range of climatic factors were identified as relevant by the 27 operators. An overview is provided in Figure 1, and a more detailed discussed is provided below.

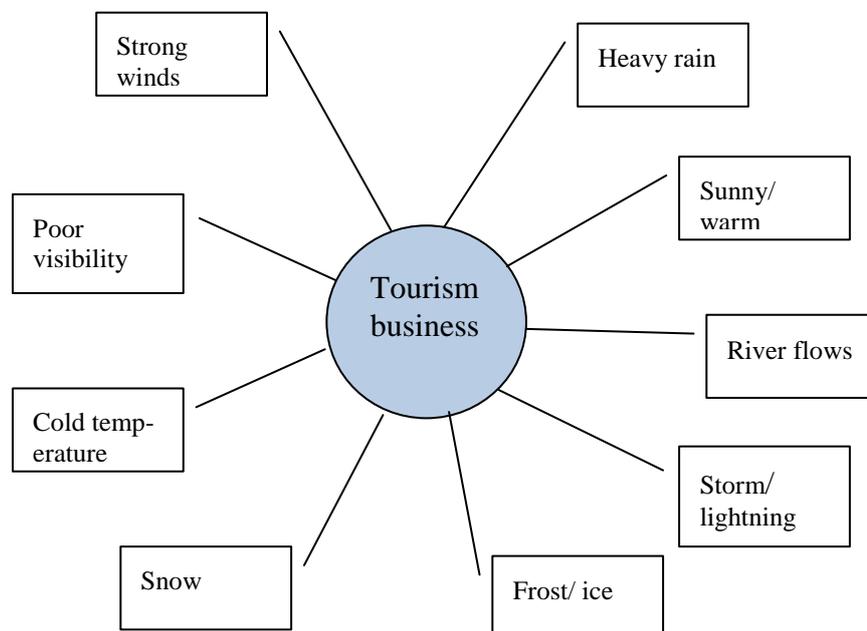


Figure 1 Summary of climatic factors that are relevant for tourism businesses in Wanaka and Queenstown.

Sunny/warm

While sunny and warm conditions are generally good for tourism businesses (or even necessary, as in the case of fishing which requires sunlight for spotting fish), the competition over resources also increases during those times and could affect the experience (e.g. fishing, kayaking). A small number of businesses reported reduced business during nice days (e.g. 4WD tours) due to greater overall competition.

Good weather increases the visibility of some operators as a result of tourists walking along the lake or through town. An extended period of 'good days' can have negative effects when tourists' expectation of ongoing good weather reduces their willingness to book an activity.

Heavy rain

Heavy rain impacts negatively on most activity (e.g. hiking, kayaking, luge and gondola, horse riding), but it was also noted (especially in relation to activities in Fiordland) that rain and variable weather are part of the experience. Campgrounds and 4WD tours are affected by continual rain as it saturates the ground and makes use unpleasant or impossible. Extended periods of wet weather also increase maintenance costs, for example for vehicles, tracks, bridges and garden areas.

Rain is often associated with strong winds and/or poor visibility, therefore affecting airborne activities and those that rely on scenic views (e.g. gondola).

Heavy rain also affects access, e.g. in the case of flooding or road slips. The flooding of Queenstown in 1999 and to a lesser extent in 2010 were major issues for the tourism industry, largely because of closed access routes (e.g. to Milford Sound), but also because of debris in the lake. The issue of inaccurate media representation of extreme events was mentioned as a challenge for the ongoing operation of tourism both during and after the event.

Some outdoor activities benefit from rain and increased water flows (e.g. rafting). However, it was noted that Queenstown generally lacks adequate supply of wet-weather activities, possibly because weather is never bad enough for long enough to justify such investments.

Prolonged 'bad' weather impacts on businesses as it noticeably reduces tourists' inclination to book anything. It also affects word-of-mouth recommendations.

Strong winds

Wind affects most air activities with flying limits for scenic flights and skydiving. Both wind direction and consistency are relevant. Wind speed on the ground is also an important factor, for example for lake-based activities (e.g. impacted on by high waves, such as kayaking) or skydiving, which relies on calm conditions for landing.

Other activities such as bungy jumping, jetboating, rafting, recreational boating, skiing, and fishing are also constrained by strong winds. Strong winds affect the ability of vessels to manoeuvre and may lead to cancellation of trips.

Many operators mentioned that North-westerly or westerly winds were most detrimental. Westerly winds also generally melt the snow faster and affect summer water flows for rafting. These winds are also associated with blowing dust onto waterways which affects jetboating.

Some activities benefit when other operators can not run their tours due to strong winds. 'Winners' include indoor attractions and soft adventure activities.

Poor visibility/fog

Poor visibility affects all those activities that offer 'scenic views', and in some instances visibility also affects the safety of the operation (e.g. for flights). One operator stated that their scenic flight operations are not taking place unless the visibility is 100%, as the view is the experience they are selling.

Airports in Wanaka and Queenstown are affected by fog. Fog can also be a problem for river-based operations, such as jetboating. Operators in Wanaka suggested that Wanaka airport was less impacted by fog than Queenstown.

Cold temperature

Cold temperatures affect tourists' "willingness to get out of bed", and also decrease participation in outdoor events, especially for families. Some operations are restricted during winter time due to safety considerations (e.g. kayaking). For some activities, such as rafting, the temperature is more important than whether it is

sunny or rainy. Cold temperatures increase businesses costs as a result of increased demand for heating.

Snow

Snow is a key resource for both destinations in the winter season, not only for the season in question but also the year following a 'good' or 'bad' season. Good snowfall early in the season (even as early as April) attracts great numbers of skiers, and these are vital for all tourism businesses: ski fields, accommodation providers, transport, restaurants, retail and other activities/attractions. It was noted that snowfall in domestic tourists' home cities also leads to an increase in visitation.

Good snow conditions (i.e. abundant and high quality snow) are important for the profitability of businesses, but also affect positively other aspects of the business, such as staffing. Factors mentioned related to staff retention (within and across businesses), year-round employment opportunities and motivation. The existence of a reliable winter season has also allowed camping grounds to remain open year-round, although costs for electricity go up markedly in winter.

New snow events during winter are good for the ski-fields, but big dumps can also cause a range of problems. They often lead to road closures and may also force the airport in Queenstown to close. Avalanche risks poses problems for bus operators into Milford Sound, for mountaineering and spring hiking, and for heliskiing.

Excessive snow may impact on the visibility conditions for river based operations (e.g. jet boating). Some other businesses such as indoor attractions or specialised transport operators, however, pick up businesses on these days. The perfect weather patterns in winter are frequent but small snow storms that provide a regular top-up of snow on a good base.

Insufficient snow due to general warming or lack of snow storm events is a challenge for the whole destination. However, there seems to be widespread belief in the future of skiing, and an admiration for what the ski fields are doing to make snow and to guarantee business for the whole destination. It was noted though that the predictability of snowmaking at ski fields influences people's perception and expectations of snow resources which can impact on other operators such as heliskiing operators who may not be able to operate early in the season.

Frost/ice

Frost and ice pose operational challenges and costs. Ice can affect jetboats and also may reduce the river level which makes operations impossible. Some mechanical equipment is not safe to operate under freezing temperatures (e.g. bungy jumping). Ice on the ground is a hazard for transport (also black ice) operations, walking and hiking, and horse trekking.

Storm/lightning

Storms usually bring multiple effects of weather, including strong wind and rain, and lightning. All of these pose hazards for the safe operation for a range of outdoor based tourism businesses. A sequence of severe storms affects the image of the destination, for example for international mountaineers who are believed to perceive New Zealand's weather as 'fierce'.

Water flow & visibility

Many tourist activities are based around the water and the conditions of rivers and lakes are therefore critical. Both extremely high (often in spring due to snow melt and storms) and low water (often in autumn) pose safety issues for boat operators. High water flow or flooding impacts in a number of ways, as they: i) impede access and constrain walking routes (may require costly evacuation), ii) cause safety concerns, iii) result in debris on lake and rivers, iv) and relate to poor visibility.

Issues around visibility and water quality were mentioned by many operators. While visibility is important for the tourist experience and photo opportunities, it is also a safety issue, for example for jetboating and bungee jumping. Dirty water also poses a problem for fishing guides. Winter was reported to generally have the clearest waters.

Adaptation Measures

Rerouting or changing the product

A common adaptation measure is to make changes to the product affected by a particular weather condition. For example, lack of snow forces heliski operators to use more limited and remote areas, which keeps the operation going but increases its costs. Other operators, which can draw on a range of terrain, have similar measures of relocation in place (e.g. fishing guides, jet boat operators, hiking companies, scenic boat operators). Access to new terrain (and continuing access to areas already being used) is critical. It is often dependent on resource consent, DOC concessions and land owners.

Change of equipment, for example using fixed wing planes instead of helicopters (to shuttle clients to far staging points for heliskiing) or using smaller rafts during low river flow conditions, are used to enable the activity and/or reduce its costs in specific conditions. Event organisers have some flexibility to change their programme, according to weather conditions.

Experience with the local climate and weather conditions were mentioned as an important business skill. Operators stressed the importance of having skilled staff who know about the local weather and conditions. Some companies assess weather on an hourly basis (for both ongoing and stopping/starting operations), or even have their own weather stations.

Cancellation

Operators try to avoid cancellation whenever possible, but under extreme conditions this may be the only option. Most have mechanisms in place for refunding tickets or compensating tourists in other ways, for example offering alternative products (see above). Some businesses operate adapted booking systems to allow for cancellations and postponements during the course of a day. Cancellations result in a financial loss for the company but they also affect staff, especially in those cases where staff is only contracted on a demand basis.

Protection

Unfavourable weather conditions may require extra protection for the tourist or the equipment. Examples include the installation of radar technology on planes to ensure greater reliability, the use of sand bags on the gondola to deal with wind, the provision of warm clothing for clients, and installing rain protection on boats. Some companies have different types of equipment or vehicles to suit a range of weather conditions (e.g. 4WD vehicles if necessary).

Networks and Diversification

Product diversification and networking were seen as key measures to reduce the impact of climate events. A number of companies (especially in Queenstown) offer a range of products that allows them to move customers from one activity to another, or to borrow equipment (e.g. transport) from different portfolios within the firm.

Other companies, by their nature, are highly integrated in the destination (e.g. transport providers) or make a conscious effort to link with other operators. An example includes 'combo passes' that allow tourists access to a range of activities.

Strategic links with tour companies and inbound tour operators were also mentioned as beneficial.

Operators in both Wanaka and Queenstown commented on social fabric at their destination where people help each other as 'everyone is in the same boat'.

Challenges

A number of challenges were mentioned by tourism operators. A major barrier to adaptation lies in the low frequency of extreme events and the difficulty to prepare for them, especially when costly infrastructure is required and funding is an issues. Most tourist destinations in New Zealand, including Wanaka and New Zealand, have to finance substantial infrastructure for a sizeable demand during peak times, based on a low (permanent) ratepayer basis.

It was also mentioned a number of times that tourism is operating alongside other industries and that this may pose constraints for adaptation. Competition over equipment and staff was mentioned as an example.

Conclusion

This report provided an overview of the different climatic factors that impact on tourism, as provided by tourism businesses in Wanaka and Queenstown. It also explored some of the adaptation measures already put in place by tourism businesses.

Further steps in this research include a more detailed analysis of the factors that influence vulnerability to climate variability and change for different kinds of businesses.

From the above it appears that the following factors play some role:

1. The nature of the business (e.g. size, maturity, business model)
2. The degree to which the business is fixed to a particular resource or land

3. The degree of diversification and networking
4. Size and diversity of the market base
5. The extent to which the operation is sensitive to the climatic condition

Also, the role of weather patterns, rather than just single events, deserves more attention. Finally, this research will explore the difference between those conditions that affect the operation marginally, compared with climate events that exceed a threshold above which operation becomes impossible. While the former are very important to the business for many reasons, it is the latter that result in a total loss of revenue. If these are likely to become more frequent the impact on businesses could be substantial.

This research will also build on NIWA's climate modelling to identify likely changes in the Southern Lakes areas. Along with the sensitivities identified in this report, an assessment of tourism's vulnerability will be made.