

Tourism Forecasting in New Zealand - Capstone Three Proposal

Springboard July 2022

Problem Statement

Accurate forecasting for tourism can be important for municipalities. Some areas of New Zealand may rely on tourism for a major part of their budget. Creating accurate forecasts can impact their ability to properly budget for their fiscal year. To-date, we have seen an extreme decrease in tourism due to the COVID-19 pandemic. As we return to normalcy we must be able to predict the potential growth of the tourism industry. This will allow industries to appropriately prepare for the ramp-up. Our major areas of concern are any ports of entry and accommodation occupancy; the security of New Zealand and its ability to accommodate an increasing wave of tourists should become the top priority for its tourism board.

Context

The COVID-19 pandemic caused a complete halt to tourism in New Zealand. As the borders of New Zealand open and tourism begins to return, there are concerns of preparing the country and tourism industry for this influx. To start, we should look at the amount of visitors to each port of New Zealand. As more visitors enter the country, there must be appropriately staffed security and border control to make sure the system is not overwhelmed and slowed down by tourists. We should also look at accommodation occupancy within New Zealand to ensure that for each visitor there is enough space to house them. Being able to predict average occupancy each month will allow these industries to have appropriate staffing and preparations for any influx of tourists/visitors without becoming a burden. Additionally, our accurate predictions of the future may impact budgeting for local municipalities which may rely on tourism income for their budgets. Creating an accurate forecasting model will be key for the preparation of New Zealand for tourism as we come out of the pandemic.

Criterion for Success

Our criterion will be a reasonably confident forecasting model as judged by the tourism board and our model metrics.

Scope

The primary focus will be on accommodation data and on visitor arrival data. We will not be breaking down the visitor data too granularly (by country) and instead focusing on overall monthly volume.

Constraints

Our data is primarily at the monthly level and thus does not provide an extreme level of granularity which may be an issue for projecting staffing. However, it should still be a good place to start for proof of concept.

Stakeholders

Tourism Board of New Zealand
Government of New Zealand

Hotel, motel, etc; owners
Border control
Airports

Data Source

The data comes from the New Zealand Infoshare run by the government of New Zealand. We can find the data here: <https://infoshare.stats.govt.nz/Default.aspx> where it was queried for our specific research question and where more information is available for further research.