Methods

Date Collection

Data used for this analysis come from StatsNZ (https://www.stats.govt.nz/), an official department collecting and providing statistic data for all aspects of New Zealand. The data have two parts: goods and services trade by country (by Sep. 2018) and international travel and migration (by Oct. 2018). The data were downloaded and analysed in Python programming language. Furthermore, Foursquare location data were also used to explore such kind of connection so as to highlight the needs of shipping and freight potential.

Exploratory Analysis

Exploratory analysis main focused on data quality and distribution. By the exploratory analysis appropriate factors and terms were selected for further clustering and regression model. In detail, the exploratory analysis consisted of 1) examining the raw data, 2) standardizing data for further analysis, and studying data plots for understanding data features and trends.

Statically Modelling

In order to understand the connection between New Zealand and other countries, a hierarchical clustering was performed. The choosing of the model was informed by results in the preparatory step, aka, the exploratory analysis.