# **Starting a Business in Hospitality Post Covid**

Mark Buchbach

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1. Introduction
   1. Background

With a large tourism sector and high per capita disposable income Queensland has supported a robust hospitality industry. The Covid-19 virus has caused significant damage to the industry directly and indirectly. The closing of Australia’s borders has reduced tourism dollars to a trickle which has reduced sales even in areas without any business restrictions. Areas that have had large numbers of cases have had severe restriction on the number of customers that can be served or even been forced to close down in the worst hit regions. This has led to many businesses to close down permanently.

1.2 Problem

The hospitality industry is a competitive one and often has low margins. The ability to predict which regions have the largest capacity to support new restaurants and bars as well as which types are currently being underserved in the area can provide a necessary edge in making a new business a success.

* 1. Interest

There are many chefs who desire to open their own restaurant but are understandably concerned about the feasibility of starting a new business in this economic climate. Being able to reduce the uncertainty over whether a market exists for their planned business and where that market exists will help encourage their investment leading to improvement in overall economic conditions.

1. Data
   1. Sources

The data on each area in Queensland has been compiled by Matthew Proctor which he has made available online [here](https://www.matthewproctor.com/full_australian_postcodes_qld). Information on venues in each area was sourced from Foursquare.

* 1. Data Processing

The location data contained information on several distinct region types. Non metropolitan areas were removed as Australia’s borders are still closed meaning that tourism is still minimal. Therefore, only areas with high population density will be evaluated for this project. Additionally, it contained several districts for each geographical location which were combined into individual rows.

Venue data was then extracted from Foursquare and assigned to each region. The venues were then grouped into broad venue types and normalized. At this point several areas had no venues within the radius used in the API call due to being more rural. These areas were removed from consideration as increasing the radius used would lead to too much overlap in the denser areas. Also due to smaller population density the regions would be less likely to be able to support as many venues in any case. Some venue types were removed from the data frame as they remain unused or underused due to the ongoing pandemic.