

The Battle of Neighborhoods

Exploring for a cafe Business Opportunity

Applied Data Science Capstone Project
Sreenivas Ramakrishnan, 31 March 2021

Table of Contents

Introduction: Business Problem and Statement	1
Data	1
References	2

Introduction: Business Problem and Statement

New South Wales (abbreviated as NSW) is a state on the east coast of Australia. It borders Queensland to the north, Victoria to the south, and South Australia to the west. As of June 2020, the New South Wales has a population of over 8.1 million, making it Australia's most populous state. The greater Sydney metropolitan area, which extends over 12,368 square km, has a staggering population of 5.3 million and is the most populous city in Australia and Oceania. Despite being one of the most expensive cities in the world, Sydney frequently ranks in the top ten most livable cities in the world [1]. Built attractions such as the Sydney Harbor Bridge and the World Heritage-listed Sydney Opera House are also well known to international visitors.

Business opportunities are abounded in Sydney, but the food-and-beverage (F&B) sector has long been an attractive target for investors. The NSW food industry is a significant contributor to the economy with 55,000 food businesses across the state. The food processing industry alone contributes \$25 billion [2].

Australia's cafe and coffee shops generated about \$9.9 billion of revenue last financial year, according to an IBISWorld Industry Report, across almost 21,000 businesses – one-third of which are in NSW. Cafe and restaurant culture is key to a great lifestyle, according to the recently released Domain Livable Sydney study. It was one of 19 factors used to assess the livability of 569 suburbs across Greater Sydney. [3]

With the aforementioned prospect, various stakeholders (entrepreneurs, investors) may be interested to explore cafe business opportunities in Sydney. This data science project is thus carried out to help them answer the following question: **Which of the Sydney suburbs are strategic for opening a cafe business?**

The project may also be of interest to fellow restaurant enthusiasts.

Data

To explore potential answer to the problems, the following data are required:

1. **The names of administrative regions in Sydney and their corresponding postal codes.** The regions include only the division of suburbs in Sydney. The information was scraped from a directory on <https://www.intosydneydirectory.com.au/sydney-postcodes.php>. The suburb names are useful to perform analysis across different areas. The postal codes are needed to obtain coordinates of each suburbs.
2. **Geographical coordinates** of Sydney's suburbs, which will in turn be needed to utilize Foursquare API in the subsequent step. Coordinates are obtained using GeoPy libraries, with [Arcgis](#) and [Nominatim](#) API.
3. **Information about venues in Sydney suburbs:** the names, venue category, venue latitudes, venue longitudes. These are obtained using [Foursquare](#) API. The suburbs of Sydney will be clustered based on their surrounding venues to find the best location candidates for opening a cafe.

References

1. Levy, Megan (2014). "Sydney, Melbourne more expensive than New York, says Living Index". The Sydney Morning Herald. Retrieved 20 July 2014.
2. <https://www.foodauthority.nsw.gov.au/industry>
3. Sydney's top suburbs for density of cafes and restaurants, KATE BURKE, Nov 29, 2019.