Coursera Capstone Project
The Battle of Neighborhoods

Open a new Chinese restaurant in New York City

By: Andrea Ceschini
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Business Problem

New York City has a various demography from an ethnical and multicultural point of view. It is the largest city in the United States and it's the home of numerous legal immigrants from all over the world.

This aim of this final project is to explore the perfect location in order to open a new Chinese restaurant in the city of New York. Chinese restaurants are becoming more and more popular among new yorkers, since they offer an authentic Chinese cusine with affordable prices. This is the reason why opening a new Chinese restaurant is convenient nowadays. However, despite the incredible success asian food is having lately, it's crucial to find the right location for the restaurant, as it contributes for the most part to the success of the restaurant. The question my project wants to answer to is the following: "Where should an investor open a Chinese Restaurant?"

Data

Collecting data is crucial to answer the above question. Data on New York City must include information about neighborhoods, boroughs, latitude, longitude, restaurants, restaurant ratings and tips. All data regarding neighborhoods and boroughs, latitudes and longitudes can easily be obtained from this dataset: https://cocl.us/new_york_dataset.

On the other hand, all data related to locations and quality of Chinese restaurants will be obtained via the FourSquare API utilized via the Request library in Python.

Methodology

• Data are collected from the following dataset: https://cocl.us/new_york_dataset. They are cleaned, prepared and processed into a dataframe.

• FourSquare is used to locate all venues and then filtered by Chinese restaurants. Ratings, tips, and likes by users are counted and added to the dataframe.

• Data are sorted based on rankings.

• The last passage regarding data consists in visually assessing using some well known Python libraries.

Results

Manhattan, Brooklyn and Queens have the best rated Chinese restaurants on average. Staten Island and The Bronx have the least amount of Chinese restaurants per borough, and also the lowest rated ones on average. As expected, Chinatown in Manhattan has the highest number of Chinese restaurants in all of NY. Despite Manhattan is not the borough with the highest number of Chinese restaurants, since Queens and Brooklyn have many more restaurants, it has the highest rated restaurants.

Discussion

With all this information in mind, it's clear that Manhattan is by far the best location for Chinese cuisine in NYC. In order to have the best chances of success, I would open a Chinese restaurant in either Brooklyn or Queens. In fact, although they have many more Chinese restaurants with respect to Manhattan, their average ratings are low (4.0 vs 8.0 in Manhattan) and this may be an advantage for a new investor who wanna offer high-quality Chinese food. Moreover, real estate prices in Brooklyn and Queens are much cheaper than in Manhattan.

Conclusion

The business project was a success and it managed to answer to the question "Where should an investor open a Chinese Restaurant?". The answer is Queens and Brooklyn. It could easily be used in a real-life-situation for a new investor who wants to be supported by Data Science in his decision of opening a Chinese restaurant.

Further developments would be a more in-depth analysis of real estates and venues in NYC using tools and data from other databases, not only from Foursquare, and also perform a Sentiment Analysis on restaurants' reviews in order to discover what customers really think.