
Applied Data Science Capstone

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Introduction:

When opening a restaurant there are many different factors to consider (food/menu choice, alcohol availability, real estate, location, local competition or market saturation, economic indicators, and pricing to name a few). Austin is among the best in the WORLD! The recognition comes from National Geographic's guide to the "places you need to visit" next year. ... Austin takes the best of its structural and cultural heritage and makes it relevant and revelatory for travelers today. The restaurant business itself is highly competitive and cut-throat.

This report will provide an in-depth analysis of an ideal location or locations to open an authentic Italian pizza restaurant in the city of austin. An analysis and recommendation will be made, provided by data courtesy of Foursquare. Any capitalist looking to invest in an Italian restaurant in the cleveland ohio area may find this analysis quite useful.

Data Collection

With the help of Foursquare and other credible data providers, For italian restaurants here are some recommended factors:

- Target market
- Population
- Competition
- Location
- Rating

There are many other factors that can be inputted and the project has huge scope in the market. Austin is home to many best restaurants. In order to understand the code, comments have been made throughout the notebook.

Now that we have our factors we need to check the web for Austin's zipcodes. Population data will be scraped from <http://zipatlas.com/us/tx/austin/zip-code-comparison/median-household-income.htm>. Downloadable .CSV will correlate neighborhoods to each zip code, a geolocator library to determine exact coordinates of each zip code/neighborhood.

Foursquare will be utilized to obtain and filter out venue categories by competition based on location. A final DataFrame combining all the desired data will be constructed to compare all the different factors mentioned above. A conclusion will be made based on this data.

Methodology

We have like toronto neighbourhoods, we will check all the .CSV files with the help of python and ML. With a Business Understanding and Analytical Approach - Decision Analytics and Data Requirement, Collection and Preparation we will use all techniques associated throughout the course.

Discussion

It's a well known fact to those familiar with Austin, that the inner city commute is very poor, making population a critical metric when evaluating prime locations. Knowing your audience and customer is the key to any business. A high end restaurant can be thought of as a luxury good, so households with higher income will likely spend more money on quality of service and food.

From the analysis above, 2 neighborhoods stand out as a prime location to open a high-end authentic Italian Restaurant: North Campus and West Congress. Both have high Population, high Average Household Income, low Competition, and close proximity to the city. From a business standpoint, West Congress makes a more logical choice. North Campus is located on the outskirts of University of Texas and towards the heart of the city. College students would make a poor target customer for a restaurant of this caliber. Real estate and land cost would be far higher towards the heart of the city, making it a riskier investment, and due to traffic and long commutes, a location closer to the city may deter potential customers from the outskirts of the Austin area. West Congress, on the other hand, is located right off Highway TX-71, providing easier access to customers further from the city. It's also close enough to the city (4 miles), making it convenient for the population within the Downtown area.