

Opening an Italian Restaurant in the city of Chicago

Introduction:

Chicago is a major metropolitan area in the United States. The city has the third-largest gross metropolitan product in the country. Additionally, the city is rated as having the most balanced economy because of its diversification. In 2007, MasterCard Worldwide Centers of Commerce Index named it as the 4th most important business center. In 2014, it recorded the greatest increase in the number of corporate facilities.

Target Audience:

The audience is an investor interested in opening an Italian restaurant. The investor lives in Chicago and would like to stay in the area where the new restaurant will be located. The investor wants to find the best location to open an Italian Restaurant.

Business Problem:

The project aims to select the best location in Chicago for a new Italian restaurant. By selecting the best location in the area, the owner will be able to optimize his/her profits.

Data:

The project will be using data from Foursquare. The data will contain geographical locations of Italian restaurants as well as all the other types of restaurants in the Chicago area. The data will be classified as Italian or as another group consisting of all the other types of restaurants. As an example, "Italian Village" is the name of a restaurant in Chicago. The data will include that it is Italian and its geographical location in terms of latitude and longitude.

Methodology:

The main methodology behind the project involves using k-nearest neighbors clustering. The locations of all the restaurants in Chicago excluding Italian restaurants were used to find three clusters. Three clusters were used as there were three main areas in central Chicago. Only the restaurants not including Italian were used to represent the demand for food in each area. The study counted the number of restaurants in each area. In contrast, the number of Italian restaurants were then found in each area to represent how much of the demand for food was saturated by Italian restaurants. The study then found the ratio of the number of total restaurants to Italian restaurants in each area.

Results:

The study identified three main clusters in Chicago: Near Northside, Downtown and Near Southside. Near Northside, Downtown and Near Southside recorded 18, 24 and 8 non-Italian restaurants respectively. Additionally, Near Northside, Downtown and Near Southside

recorded 16, 26 and 6 Italian restaurants respectively. The study found the ratio of non-Italian restaurants to Italian restaurants in each area. The Downtown area had the highest ratio at 1.083. Near Northside had the second highest at 0.888 and Near Southside had the lowest at 0.75.

Discussion:

The study found the highest ratio of non-Italian restaurants to Italian restaurants to estimate the unsaturated demand of Italian restaurants in each Chicago area. The scope of the study involves restaurant locations only and does not include restaurant revenues and location costs. The study found the Downtown area to be the best location to start a new Italian restaurant, with Near Northside the second best, and Near Southside as the worst.

Conclusion:

The study found the best location for a new Italian restaurant in the city of Chicago based on the locations of other restaurants in the city. It does not include factors such as restaurant revenues and location costs as they were not available. Based on the locations of Italian and non-Italian restaurants in the city, the study found the Downtown area to be the best, Near Northside second best, and Near Southside as the worst.