

Determining Ideal Locations for Salon Owners by Venue Density

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1. Introduction

1.1 Background

In today's economy, it is hard to be a business owner trying to open their own business. With COVID-19, many small businesses are having to close their doors, leading to income and profit losses. Business owners are having to postpone opening their small businesses, and places like salons are struggling without having been opening for several weeks. This can have several different impacts on new business owners.

1.2 Problem

It is needed to determine which cities would be the best geographic climate to open a new business in. If a city has a dense salon population, this can heavily impact the initial success of a newly opened salon.

2. Data acquisition and cleaning

2.1 Data sources

Data for salon venue locations is collected from Foursquare to determine venue density among cities.

2.2 Data cleaning

As venue location data is sourced from Foursquare, there isn't much cleaning to do. Most venues in the four cities are fairly evenly spread out, so no outliers have been removed from the data set.

3. Methodology

3.1 Exploratory data analysis

After collecting venue information into one list for each city, these data points are then placed onto a map using Folium. To determine density, the average of each cities' venues' coordinates is determined. Each venues' distance from this point is then determined, and the average distance among all venues in each city is calculated.

4. Results

The observation I made is that some metropolitan areas of a less dense salon population. This could be due to lower popularity of salons, or simply due to a larger population. The results of this analysis show that Dallas and Austin, TX, are ideal locations for new salon business owners to start their businesses. Both locations have a lesser density than cities such as San Francisco, CA, and New York, NY, which have higher density when it comes to salons. In Dallas and Austin, there would likely be less competition in the immediate area, leading to the potential of higher immediate success upon opening. In cities like New York that have a higher density of salons, there is more competition in the immediate area, leading to the potential of lower immediate success upon opening.

5. Conclusion

Among these four cities, Dallas would be the best for a new salon owner to open a business if they are looking for less competition, as they would likely have a smaller chance of immediate failure upon opening. With less competition in the nearby areas, consumers would likely be willing to chance going to a new

location if it might be closer to their home, work, etc., while in New York with a much more dense salon population, there is more likely to be a salon that is conveniently accessed by them.