

Background / Introduction

Understanding your target market is undoubtedly one of the most important steps for any new or aspiring entrepreneur. Various demographic factors such as age, gender, race, income etc. play an important role in customer segmentation.

Among them, a customer's income gives a good measure of the buying power of your audience.

When you know the income range of consumers in a neighbourhood, you can design appropriate marketing strategies and find matching products for this population.

Problem Statement

This project aims to analyze the neighbourhoods in Edmonton, Alberta based on their income category and then predict the most preferred neighbourhood for starting a particular category of business, let's say a luxury business such as a spa or a yoga studio.

The first part of the project aims to find the borough with high income neighbourhoods in Edmonton.

We also use Foursquare API and other data science tools to analyse these the wealthy boroughs and find out the common venues in these neighbourhoods.

We will then use kmeans clustering to segment the neighbourhoods and try to predict what would be the best category of business to start in any affluent neighbourhood.

Data used :

I have used the dataset that is publicly available in the website data.edmonton.ca

1. Edmonton -2016 Census - Population by Household Income (Neighbourhood/Ward)

Source : <https://data.edmonton.ca/Census/2016-Census-Population-by-Household-Income-Neighbourhood/Ward>

Columns in this dataset and datatype

1 City Ward Number- Plain Text

2. Neighbourhood Number- Number

3. Neighbourhood Name -Plain Text

4. Less than \$30,000 -Number

5. \$30,000 to less than 60,000 -Number

6. \$60,000 to less than 100,000 -Number

7. \$100,000 to less than 125,000 -Number

8. \$125,000 to less than 150,000 -Number

9. \$150,000 to less than 200,000 -Number

10. \$200,000 to less than 250,000 -Number

11. \$250,000 or more -Number

12. No Response -Number

2. Latitude and longitude data of the neighbourhoods have been obtained from the dataset available on

<https://data.edmonton.ca/City-Administration/City-of-Edmonton-Neighbourhoods-Centroid-Point-/3b6m-fezs/data>

3 .For the information about the Boroughs to which the neighbourhoods belong , I have use Wiki

I have created a CSV file of Boroughs based on the info available on the page

https://en.wikipedia.org/wiki/List_of_neighbourhoods_in_Edmonton