Determining Candidate Neighborhoods for Health Food Store Expansion Using Cluster Analysis

Adam Horin September 22, 2019

1. Introduction

1.1 Background

Sunac Natural Market is a health food business that offers organic, health-conscious foods to their customers. With a rise in health and wellness awareness, it is not surprising health-related businesses are intereted in expanding. This project will suggest candidate neighborhoods for Sunac Natrual Market to expand to a new location in a Manhattan neighborhood. One factor that could contribute to health food markets' success in their current locations could be the similarities in surrounding venues. If they are looking to expand, they should likely look into neighborhoods that share these similarities. This project will use a k-means clustering method to cluster neighborhoods based on similarities in venues. Based on the outcomes of this analysis a suggestion can be made for candidate neighborhoods to look into for expansion locations.

1.2 Problem

Location expansion for a business has certain risks. There are many factors that may influence the success of a business in various locations, including the types of businesses that are also in the neighborhood. If Sunac Natural Market would like to expand to a new location, similarities in their current locations with other candidate neighborhoods should be considered. This can be accomplished using a k-means clustering analysis, a method of unsupervised machine learning that will cluster neighborhoods based on similarities of other businesses in their locations.