Applied Data Science Capstone Project: Battle of the Neighborhoods

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1. Introduction

Data Science is an important tool for decision making in almost every business. It allows managers and analysts to take advantage of the data available to make intelligent decisions. The data used for these decisions can come either from within the company and its records or can be obtained from an outside provider. This project will focus specifically on location data made available by Foursquare and the analysis that can be made based on it to help a business grow its profits.

Objective
The objective of this project is to identify the best corners in the city of Santiago, Chile to place on-field sellers for a flower shop named Crocus. According to the company, the average daily sales of a flower shop show seasonality within a week, increasing by 200% on the weekends. Additionally, profits increase to 9 times the average daily profit for special dates, like Valentine's Day or Mother's Day. The company is interested in capturing more of the market in those dates, and to achieve that they plan on placing on-field sellers in 5 corners of certain neighborhoods of Santiago for weekends and special dates.

To decide which corners are better than others, Crocus has provided a list of 30 potential corners of the city that have shown high foot traffic. The company also requested that the choice is made based on nearby complementary products, such as chocolate shops, restaurants and movie theaters, and competitor location. The final criteria for the selection of corners will be explained in detail in the methodology section.

Audience
The specific client for this project is a flower shop named Crocus that has online operations on the city of Santiago and has been in operation for 5 years. The company is a small business; hence the scope of this specific project is small. However, the basic logic and methodology can be scaled to satisfy similar needs for larger companies.

There is a large amount of businesses in the city of Santiago that rely on on-field sales force or promoters that are located on specific streets or corners. The results of this project have the potential to help these types of businesses make decisions that would grow their profits and help them capture a higher percent of the market. Any business interested in deciding the placement of on-field sales force can replicate this model and add to it if necessary, in order to make the decision based on Foursquare location data, or any other location data provider.

2. Data

3. Methodology

4. Results

5. Discussion

6. Conclusion