Report for Capstone Project, "The Battle of Neighborhoods"

Applied Data Science Capstone

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1. Introduction

Pizzerias are one of the most emblematic icons of New York City, and one of the most lucrative business opportunities: a popular venue can easily earn millions of dollars in profits per year. However, the pizza market is rather crowded, with hundreds of pizza restaurants calling the city home. In addition, the potential downside of a failed restaurant is high. With startup costs running in the hundreds of thousands of dollars for ovens, kitchen fixtures, HVAC modifications, and dining area improvements. Few if any of these startup costs can be recouped in the event that the restaurant must be closed, creating the potential for large losses. How can an aspiring restauranteur maximize their chances of success in this challenging and high-stakes market?

Location is the most important feature of any business. Starting a pizzeria in a location that has little interest in pizza, or in a place that is already well-served by popular established venues, leaves little chance for success. Conversely, finding a location that has high demand for pizza, but is poorly served by existing establishments, creates great opportunities for a new pizzeria.

The business problem addressed by this report is to find the best NYC neighborhoods to start a new pizza location. The first criterion is that the neighborhoods should have high demand for pizza, as measured by the number of existing pizzerias in the neighborhood. The second criterion is that the neighborhoods should be poorly served by existing pizzerias, as measured by low ratings for existing venues. By finding neighborhoods with high demand but poor existing options, we will locate the most profitable potential locations for a startup pizzeria.

This report will be of interest to entrepreneurs who are interested in starting a new pizza retail business in New York City, but who do not yet know where their business should be located.