

Predicting the Optimal City Location for a Central Florida Barbecue Restaurant

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1. Introduction

1.1 Background

Barbecue is a cooking method, and a name for a meal or establishment at which this style of food is cooked and served in large, specially designed brick or metal ovens. Barbecue is practiced in many areas of the world and there are numerous regional variations. The technique for which it is named involves cooking using smoke at low temperatures and long cooking times (several hours). Central Florida is a region of the Southern U.S. state of Florida. Different sources give different definitions for the region, but as its name implies it is usually said to comprise the central part of the state. Success in the barbecue restaurant industry is not easy. Sixty percent of all restaurants do not make it past their first year and eighty percent go out of business within five years. Despite the hurdles, many barbecue restaurant owners and operators believe that if they will be able to make any money, they are doing “good enough.” The failure in this approach is that it does not account for multiple location elements which when combined are critical for success with any barbecue restaurant in Central Florida.

1.2 Business Problem

Data that might contribute to determining optimal location conditions might include visibility, parking, space size, crime rates, surrounding businesses, accessibility and affordability. Data that might contribute to determining optimal city profile might include population, competitor analysis and economy. This project aims to predict whether and how likely a location having these elements in optimal ranges within a ranked Central Florida city will succeed based on these data.

2. Data acquisition and cleaning

2.1 Data Sources

I will scrape comparing cities and their population data from https://en.wikipedia.org/wiki/Central_Florida. I will scrape consumer spending and personal income by county from <https://www.bea.gov/data/economic-accounts/regional>. I will scrape competitor metrics from <https://developer.foursquare.com/docs/api-reference/venues/search/>. I will scrape visibility, parking, accessibility and traffic data from <https://www.google.com/maps>. I will scrape crime rate statistics from [https://www.fdle.state.fl.us/FSAC/Data-Statistics-\(1\).aspx](https://www.fdle.state.fl.us/FSAC/Data-Statistics-(1).aspx). I will scrape location and space size availability from <https://totalcommercial.com/territory/usa/florida/central-florida>. These datasets lack data for certain desired years, cities and locations so these datasets will be cleansed and additionally sourced as needed to provide a ten-year analysis as closely as possible.