

The Battle of the Eateries – Exploring Food Venues in Dubai

Introduction

Dubai is a booming cosmopolitan city with a very diverse population. Dubai has also become an international travel hub, with many flights that transit through its airport. Given its increasing popularity, the number of hotels and restaurants has significantly increased over the last decade with many new outlets being opened every year. Additionally, Dubai's growth has meant that construction projects have increasingly sprawled across previously undeveloped areas. Given the hot summers, it is also not surprising that another increase has been experienced in the number of indoor shopping malls, where in addition to stores, food courts, cafes and restaurants abound.

As the most populous city in the UAE and being a central business hub in the middle east, several interesting questions could be explored. Firstly, are there certain areas of Dubai where more growth in the number of food-related establishments has increased more than others? And if so, what type of establishments are the most popular? Other interesting questions of interest include the cost of visiting such establishments? Does Dubai's often-cited population wealth mean that more establishments are on the high-end range of the pricing spectrum? If so, are there any establishments that cater to those with lower incomes and if so, are those establishments located in different areas of the city?

Audience

The target audience of this Capstone project and analysis varies greatly. Firstly, given that it is a hub for commerce and travel, knowing where certain food establishments are clustered/located might be of interest to any visitors to the city. Other variables of interest that the analysis will explore are the ratings of various establishments (provided via other patrons) as well as the average cost of visiting different establishments in different areas of the city. Having this information would allow visitors to make informed decisions that cater to their personal preference. Another target audience of interest are individuals seeking to open new restaurants, cafes etc. The information that the analysis will provide can shed some interesting insights into what locations are most popular, what type of restaurants are most prevalent and by extension are there certain categories of restaurants that are not available and may present an interesting business opportunity? The analysis that will be performed will include informative visualizations of the data that could reveal interesting trends.

Data Sources

In order to perform this analysis, two main sources of data will be used. First, in order to get location information about different venues that currently exist in Dubai, Foursquare API data

will be used to gather complete information about different types of venues (location, name, category, etc.)

In order to explore the ratings of each venue, a second set of data will also be used. Urbanspoon rating data will also be collected (Zomato API) and the ratings from this API will be combined with the Foursquare data. I chose to utilize this second dataset because of the popularity of the Urbanspoon/Zomato API, and as such, combining the information from both sources could lead to increased confidence in the findings of the analysis and allows me to answer the questions that are of interest. Below are the types of information that can be retrieved from each source.

Foursquare API:

- Name of venues
- Category of venue
- Location (longitude, latitude)

Urbanspoon/Foursquare API:

- Name of venue
- Ratings
- Price range
- Location (longitude and latitude)

Once the two datasets are combined, I will perform exploratory analysis as well as provide different visualizations in order to explore the questions listed in the introduction. Some techniques that will be used include production of descriptive statistics, maps and other visualizations and clustering.