Restaurant Analytics

Problem Statement

In the ever-evolving landscape of the restaurant industry, making informed decisions that enhance customer satisfaction, optimize operations, and drive business growth is paramount. To address this challenge, our goal is to analyze this dataset, which encompasses a comprehensive array of restaurant-related information including geographical data, consumer preferences, ratings, and operational attributes. The objective is to extract meaningful insights to guide strategic decision-making for restaurant owners, marketers, and stakeholders.

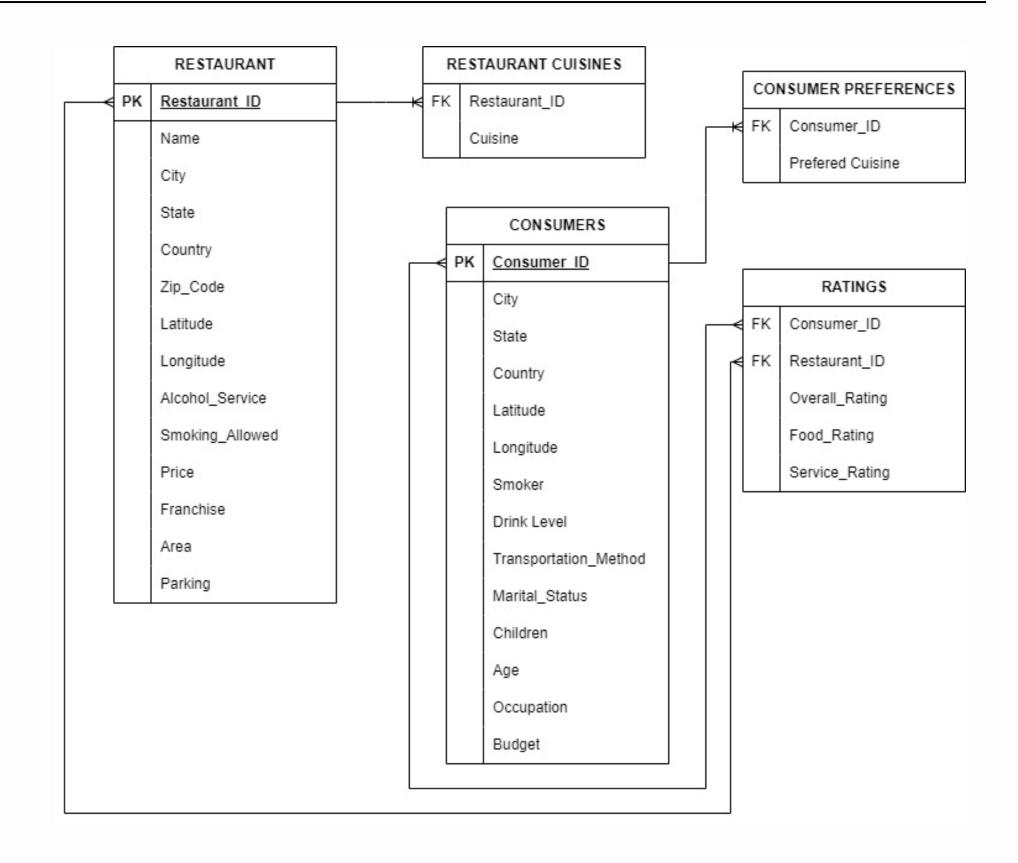
Data Analysis Approach

- Understanding Business Problems and Define Objectives
 - 2. Data Preparation and Cleaning
 - 3. Data Processing and Analysis
 - 4. Visualization, generating insights and Recommendations

Data Overview

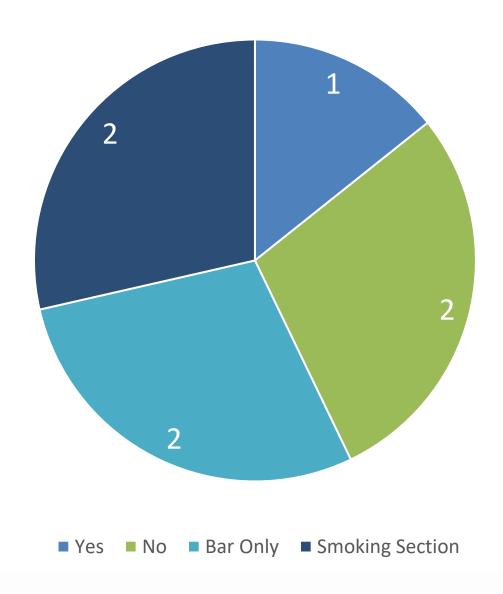
This dataset provides comprehensive insights into the restaurant industry, offering valuable information to shape strategic decisions and enhance customer engagement. Key attributes include restaurant details, consumer demographics, preferences, and ratings. By analyzing this data, stakeholders can uncover trends, preferences, and correlations that drive success in a competitive market.

ER Diagram

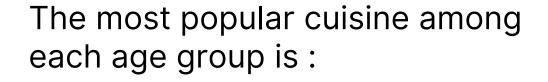


Overall Ratings where Smoking was allowed.

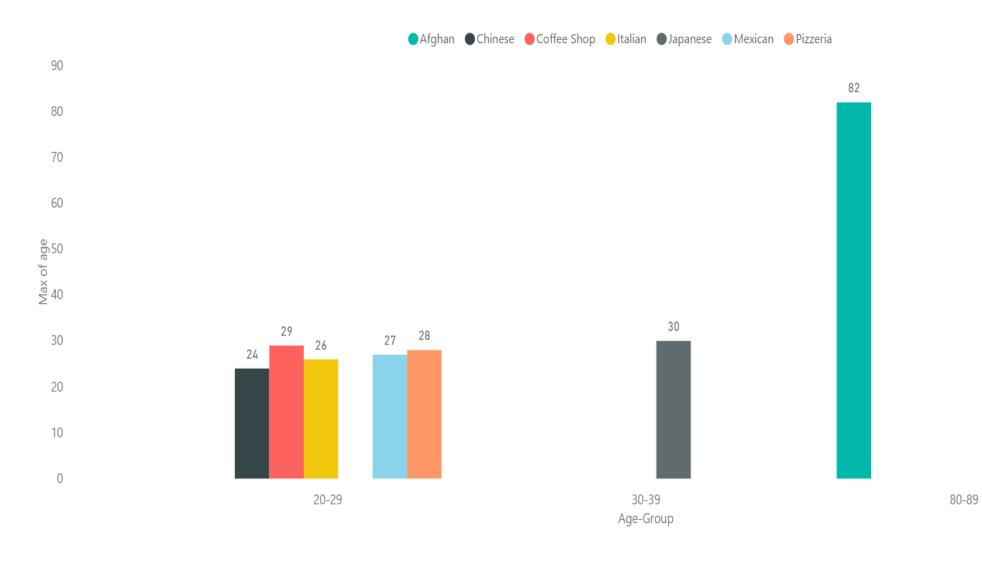
In the restaurant where Smoking was allowed got the ratings of 1 on the scale of 0-2. Restaurants rating was dropped due to smoking allowed in the restaurant



Popular Cuisines for each age group.

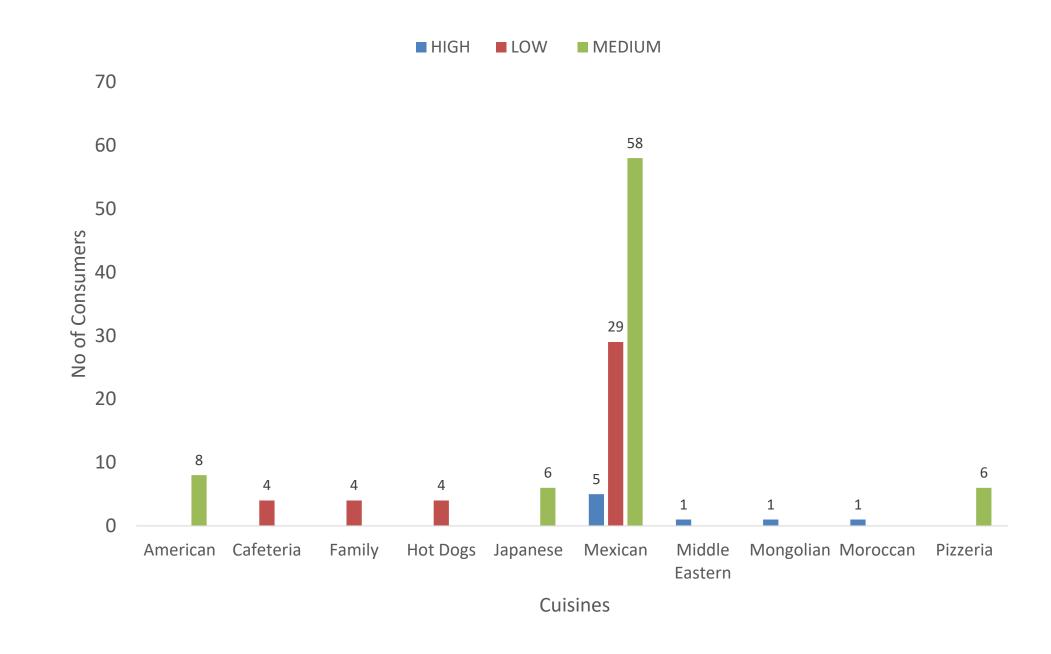


Age Group 20-27 popular cuisine is Mexican, Chinese & Italian,
Age group 28 popular cuisine is
Pizzeria,
Age Group 29 popular cuisine is
Coffee Shop,
Age Group 30 popular cuisine is
Japanese,
Age Group 82 popular cuisine is
Afghan.



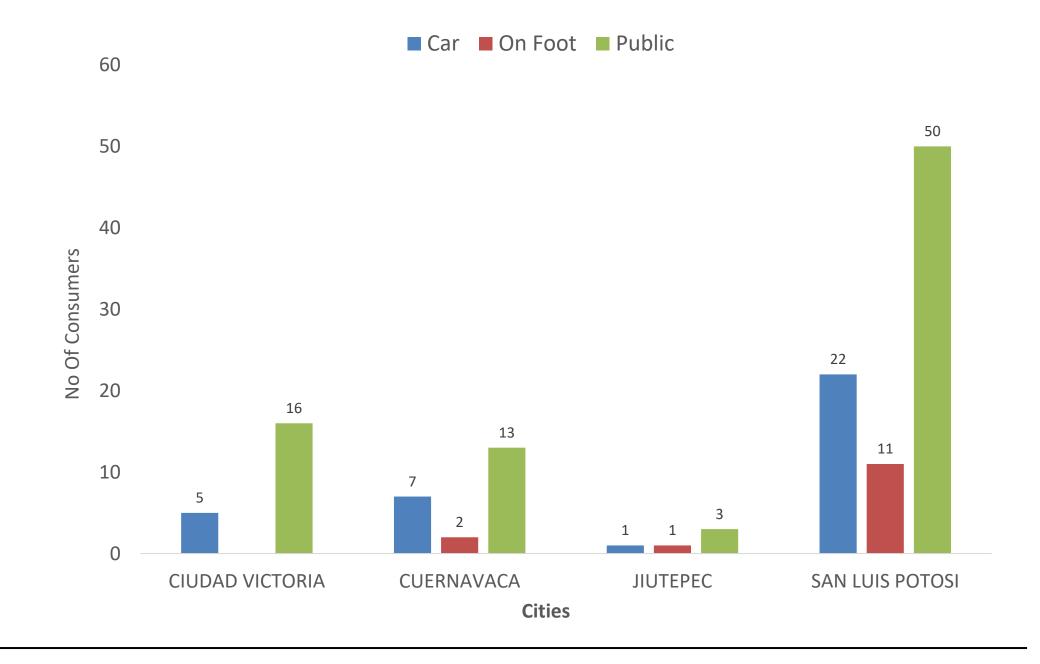
Budgets Influence on Cuisine.

- 1. Majority of consumers prefer a medium budget for their preferred cuisine.
- 2. While the majority of consumers prefer a medium budget, there are certain cuisines that attract higher-budget customers as well. Some cuisines, such as Italian, Japanese, and American, have a relatively higher consumer count across all budget levels. Indicating that these cuisines have a broad appeal and can attract customers with varying budget preferences.



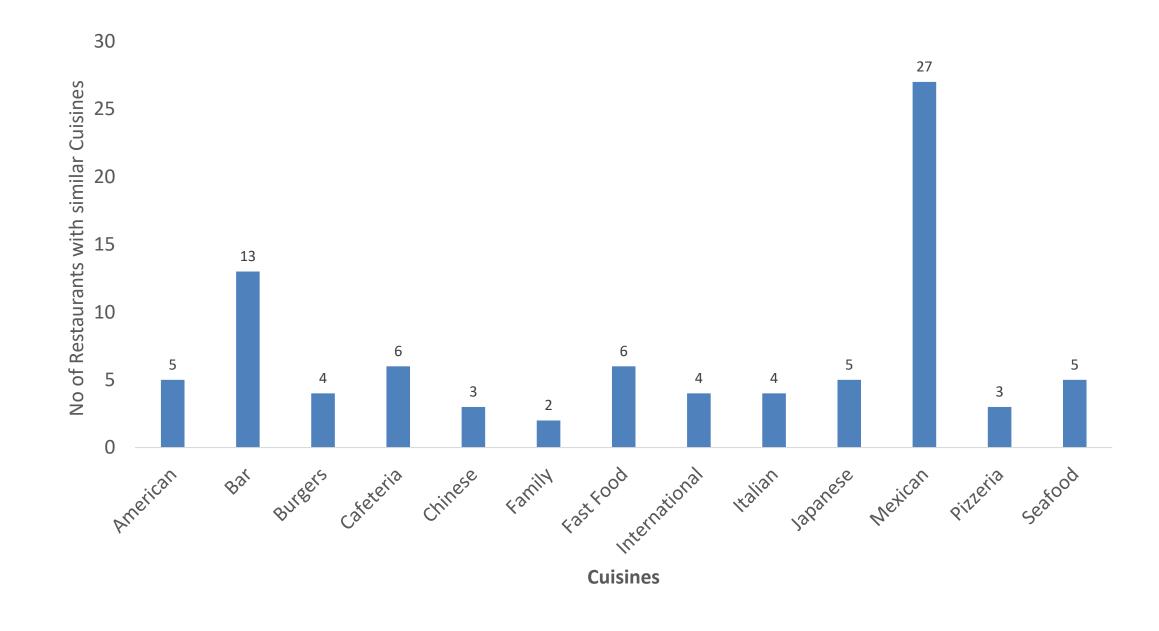
Marketing for Specific Transport Preferences.

Public transport was the most preferred mode of transportation by consumers across all 4 cities compared to car usage



Restaurants having a similar range of Cuisines.

The most common type of cuisine among the listed options is **Mexican**, with availability in **27** restaurants. This suggests that Mexican cuisine is popular among the target audience.



Mode of transportation's impact on consumer preferences.

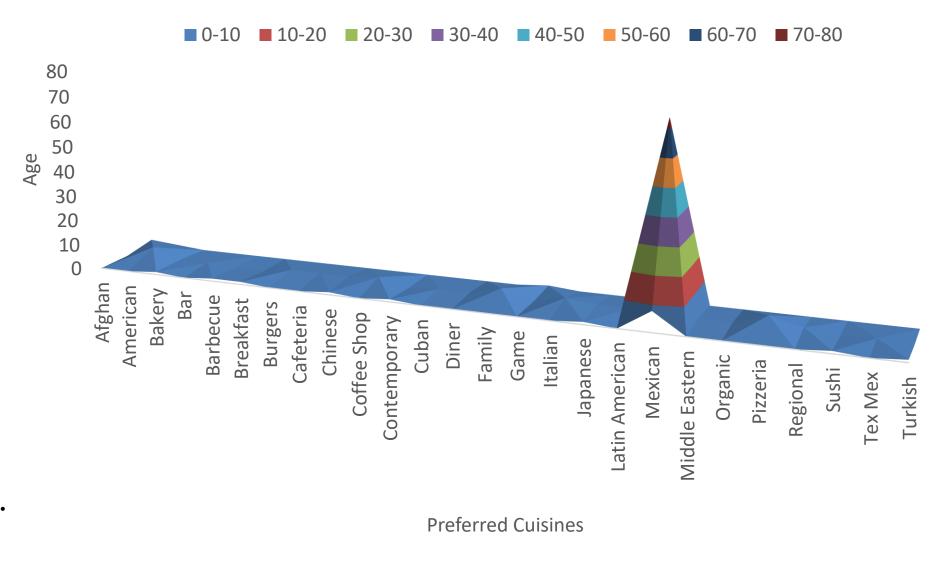
Different transportation methods does not impact consumer preferences as all 3 of transportation methods preferred cuisine was Mexican.

Transportation Method	Preferred Cuisine
Car	Mexican
On Foot	Mexican
Public	Mexican

Correlations between consumer Demographics.

Students, who make up the majority of the dataset, have a wide range of preferred cuisines, with Mexican being the most popular. Employed individuals also show a preference for Mexican cuisine. Unemployed individuals, on the other hand, have a more diverse range of preferred cuisines.

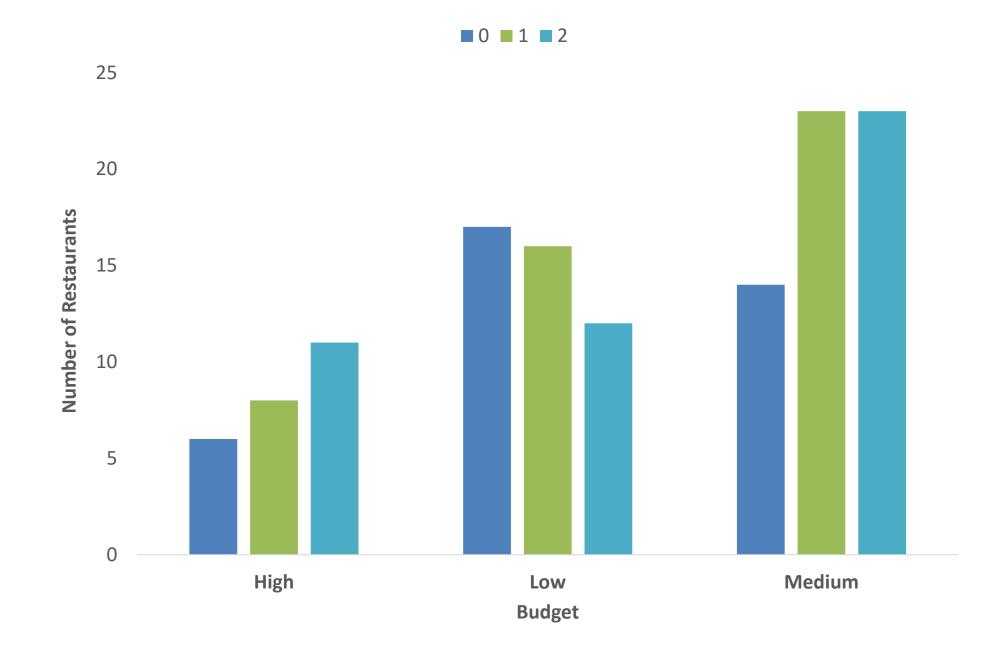
There is no clear pattern in cuisine preferences based on age. Mexican cuisine remains popular across different age groups.



Restaurants with similar price ranges.

The majority of the restaurants in the dataset have a high price range, followed by medium and low price ranges. This suggests that there are more upscale restaurants in the dataset.

The overall ratings of the restaurants vary from 0 to 2. The majority of the restaurants have an overall rating of 1 or 2, indicating that they have average to good ratings.



Recommendations

Some of the recommendations based on the generated insights are:

- Avoid promoting smoking-friendly environments in restaurant marketing efforts, as the data shows that allowing smoking
 negatively impacts overall ratings and customer satisfaction, potentially leading to a decrease in customer engagement and
 revenue.
- Tailor restaurant promotions and menu offerings to cater to specific age groups' preferences; for instance, feature popular cuisines like Mexican, Chinese, and Italian for younger diners, while highlighting Afghan cuisine for the older demographic, to effectively attract and engage diverse customer segments.
- Craft targeted marketing campaigns that highlight cost-effective options for budget-conscious consumers while strategically
 promoting high-appeal cuisines like Italian, Japanese, and American to attract a diverse customer base across varying budget
 levels, maximizing engagement and revenue potential.
- Tailor restaurant promotions and advertising strategies to match the predominant transportation preferences of each city; emphasize public transportation accessibility and convenience in Ciudad Victoria, Cuernavaca, Jiutepec, and San Luis Potosi to effectively target and engage local consumers, boosting restaurant patronage.

Recommendations continued...

- Leverage the insights on similar cuisines to identify opportunities for collaborative marketing initiatives among restaurants with comparable offerings, creating synergy and enhancing visibility within the market segment, ultimately attracting a broader customer base seeking specific culinary experiences.
- Focus marketing efforts on promoting Mexican cuisine across all transportation preferences, capitalizing on its widespread appeal and alignment with consumer tastes regardless of transportation method, to maximize customer engagement and drive consistent patronage.
- Tailor marketing strategies to emphasize the diverse appeal of Mexican cuisine among various consumer demographics, while
 highlighting other popular cuisines like American, Italian, and Japanese to attract a broader range of preferences, aligning
 restaurant offerings with the multifaceted tastes of students, employed individuals, and the unemployed for increased patronage.
- Utilize the insights on price ranges and ratings to segment restaurants based on their positioning, guiding marketing efforts to strategically emphasize unique selling points of upscale establishments like "La Posada Del Virrey," "Shi Ro Ie," and "Restaurant Las Mañanitas," while tailoring campaigns for mid-range and budget-friendly restaurants to attract customers seeking diverse dining experiences within their preferred price range.

Thanks

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