Restaurant Business Analytics Dashboard (Power BI)

Project Overview

This project focuses on analyzing restaurant operational and customer-related data to uncover patterns, performance drivers, and business insights that could support pricing, positioning, and decision-making in a restaurant or restaurant SaaS environment.

The analysis was designed to mirror real-world business analytics use cases: defining KPIs, segmenting data, and presenting insights through interactive dashboards suitable for non-technical stakeholders.

Business Questions Addressed

The analysis was guided by the following questions:

- How are restaurants distributed across locations, cuisines, and service attributes?
- How do pricing tiers relate to customer volume and restaurant ratings?
- Are there observable differences between franchise and non-franchise restaurants?
- How do service features (parking, alcohol availability, smoking policy) vary across restaurants?
- What customer segments dominate different budget and service categories?

Key Metrics & KPIs

The dashboard tracks and summarizes:

- Total number of restaurants
- Number of cuisines offered
- Geographic distribution (states, cities, areas)
- Customer counts and segmentation
- Distribution by price range
- Restaurant ratings (food, service, overall)

- Franchise vs non-franchise split
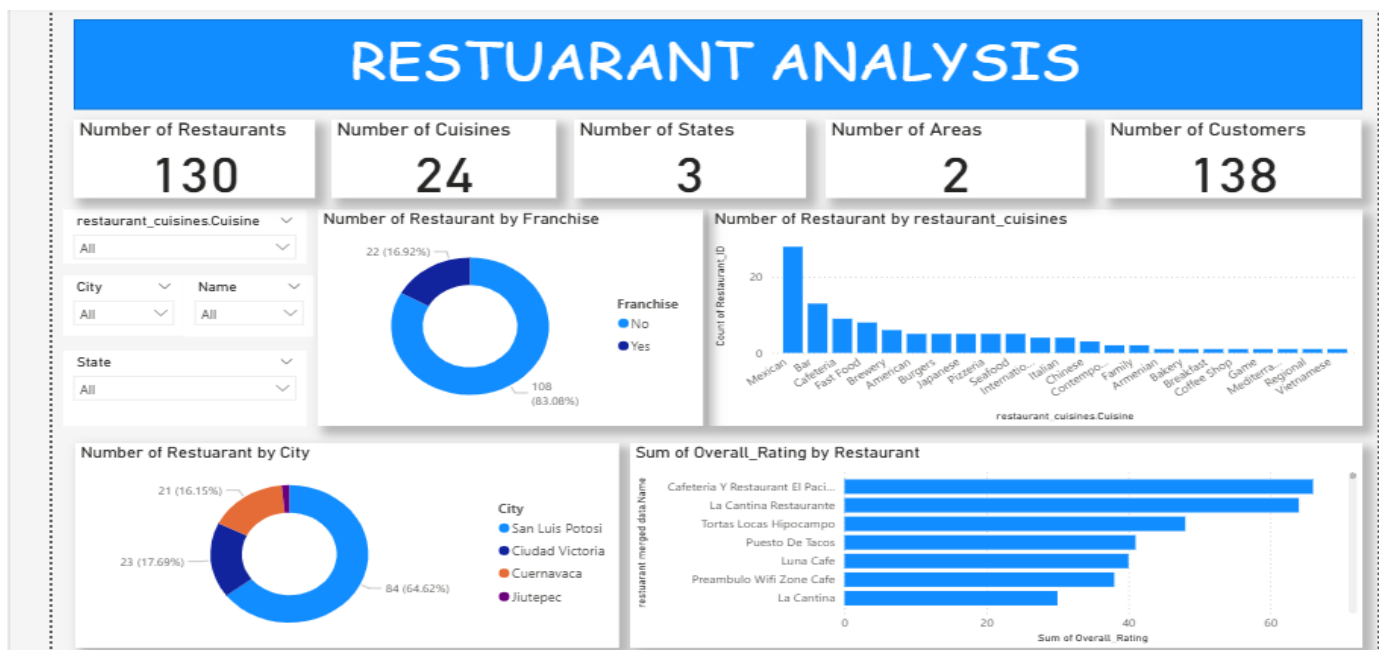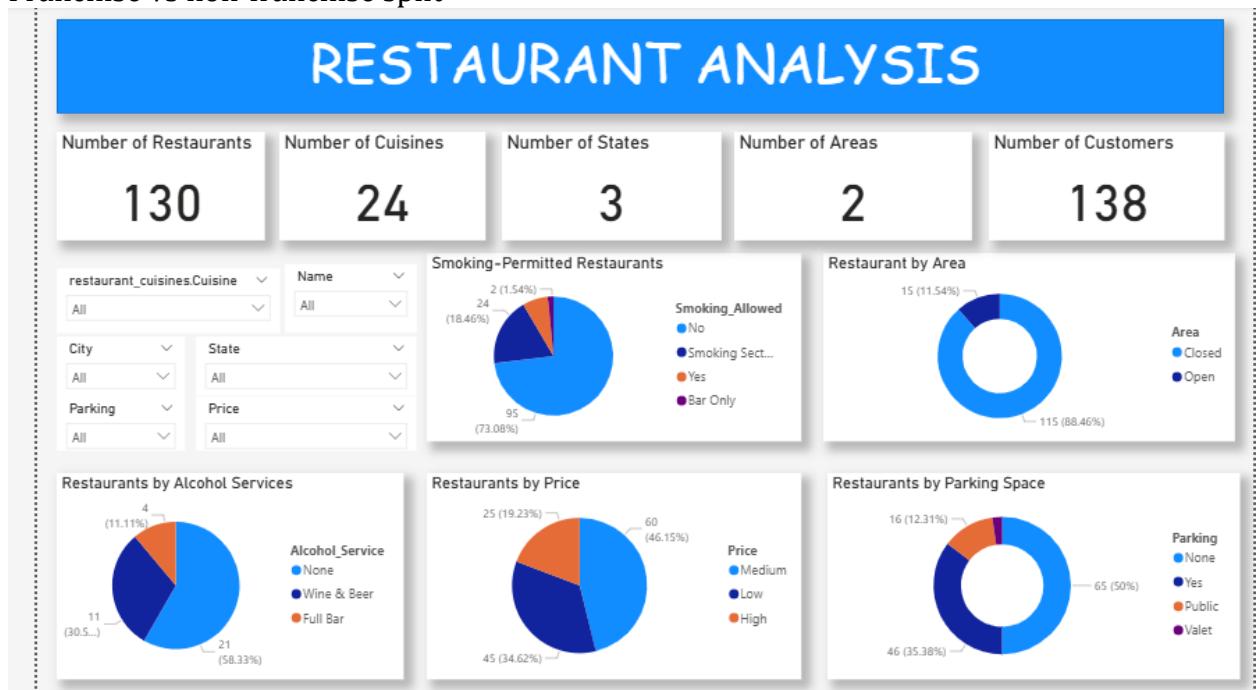
Key Insights

Some of the insights derived from the analysis include:

- **Mid-priced restaurants accounted for the largest share** of listings, but did not consistently achieve the highest overall ratings, indicating potential gaps between pricing and perceived value.

- **Franchise restaurants showed more consistent service ratings** compared to independent restaurants, suggesting standardized operations may positively impact service quality.
- **Customer budget preference skewed toward low to medium price ranges**, highlighting where demand concentration exists.
- Restaurants offering additional services such as **parking and alcohol availability** tended to cluster within specific price tiers, suggesting service features influence pricing strategy.

Dashboard Features

- Interactive slicers for cuisine, city, state, price range, and service attributes
- Visual breakdowns of restaurant distribution by category and location
- Rating comparisons across restaurant types and service offerings
- KPI summary cards for high-level performance monitoring

The dashboards were designed to allow business users to quickly explore trends and drill down into specific segments without technical assistance.

Tools & Skills Demonstrated

- **Power BI**: data modeling, visual design, KPI tracking, interactive dashboards
- **Business Analytics**: translating raw data into actionable insights
- **Data Exploration & Validation**: identifying inconsistencies and patterns within structured datasets
- **Stakeholder Communication**: presenting insights in a clear, decision-focused format

Relevance to Business & SaaS Analytics Roles

This project demonstrates the ability to:

- Support decision-making with dashboards and KPIs
- Analyze pricing-related data and customer behavior
- Work with domain-specific datasets (restaurant industry)
- Bridge technical analysis with business interpretation

The structure and outputs reflect the type of analytics commonly required in data-driven SaaS environments supporting restaurant operations.