

Restaurant Order Analysis

Data Analysis for the new menu using Power BI





Project Overview

The Challenge

Restaurant management needs to design a new menu based on customer ordering patterns. Analysis focuses on identifying frequently ordered dishes and least popular items.

Data Source: Maven Analytics

The Data

Two primary tables analyzed:

- Menu Table - dish details and pricing
- Order Table - customer order history

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Menu Exploration

Price Range

Least expensive items identified through ascending price sort. Most expensive items at top of range.

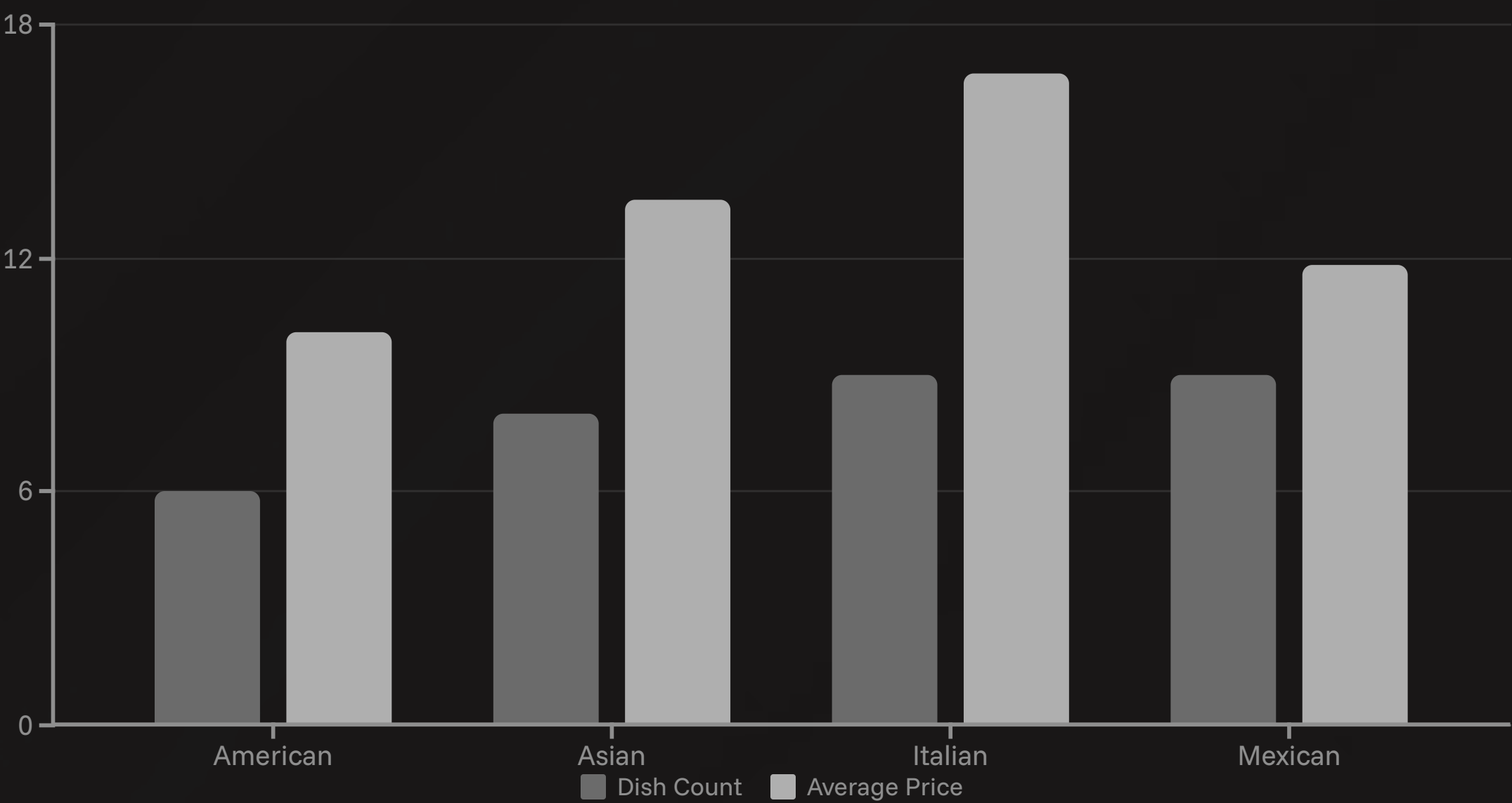
Italian Cuisine

9 Italian dishes on menu. Price analysis conducted using DAX functions.

Category Breakdown

Dishes analyzed across American, Asian, Italian, and Mexican categories with average pricing.

Category Analysis



Italian dishes command the highest average price at \$16.75, while American dishes are most affordable at \$10.07. Mexican and Italian categories have the most variety with 9 dishes each.

Order Timeline Analysis

5,370

Total Orders

Distinct orders placed during analysis period

12,097

Items Ordered

Total items across all orders

Date range tracked using order date slicer for comprehensive temporal analysis.

Order Date

1/1/2023

3/31/2023



Customer Favorites & Least Popular



Most Ordered

Tofu Pad Thai (Asian) - 407 orders

Clear customer favorite with highest order volume



Least Ordered

Steak Tacos (Mexican) - 166 orders

Veggie Burger (American) - 167 orders



Strong Performers

Steak Torta (Mexican) - 371 orders

Spaghetti & Meatballs (Italian) - 334 orders

Top 5 Highest Spend Orders

Order #440 \$192.15	Order #2075 \$191.05	Order #1957 \$190.10
Order #330 \$189.70	Order #2675 \$185.10	

Order Date

1/1/2023

3/7/2023

Total Items

8986

Total Orders

3937

High-Spend Order Insights

Analysis of top 5 orders reveals key customer behavior patterns:



Category Diversity

High-spend orders consistently include items from all four categories (American, Asian, Italian, Mexican), suggesting group dining or variety-seeking behavior.



Italian Preference

Italian dishes dominate high-spend orders with 3-8 items per order, reflecting both higher pricing and customer preference for premium items.



Large Party Orders

Top 5 orders total 69 items with average of 14 items per order, indicating large group dining experiences driving revenue.

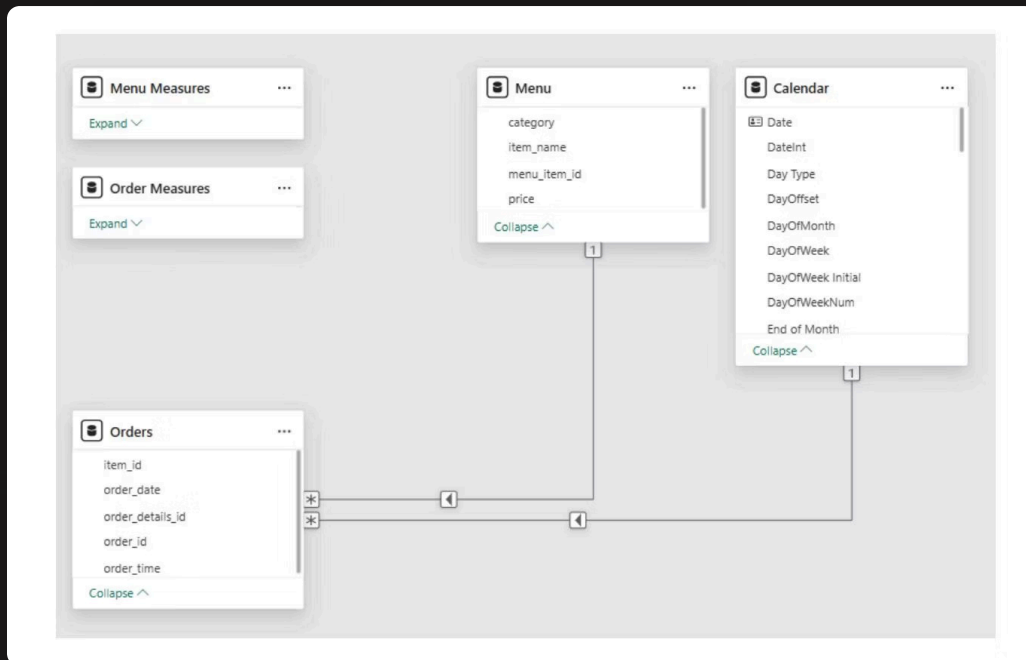
Data Architecture

Data Model

Relational structure connecting Menu and Orders tables through menu_item_id, enabling comprehensive analysis of ordering patterns and pricing.

Key Measures

- Average Price by Category
- Dish Count by Category
- Italian Dish Analysis (Count, Min/Max Price)
- Order Price Calculations
- Total Orders Per Item
- Total Items & Orders





Key Recommendations



Expand Winners

Increase Asian offerings, especially items similar to Tofu Pad Thai (407 orders). Consider adding more vegetarian Asian options.



Optimize Pricing

Italian dishes drive high-spend orders. Maintain premium pricing while ensuring quality justifies the \$16.75 average.



Revise Underperformers

Reevaluate Steak Tacos and Veggie Burger (166-167 orders). Consider recipe improvements or removal from new menu.