Case study: Pizza Store Sales Analysis

Using Tableau

Introduction

Welcome to the Pizza Sales Analysis case study. In this project, I worked as a junior data analyst analyzing pizza sales data to identify trends, customer behavior, and business opportunities.
The analysis follows the data analysis process: **Ask, Prepare, Process, Analyze, Share, and Act**, using Tableau for data visualization.

Scenario

A pizza business wants to understand its sales performance, customer ordering patterns, and product popularity.
The goal is to use **data-driven insights** to improve revenue, optimize the menu, and support better business decisions.

Recommended Analysis

- How many customers do we have each day? Are there peak days or peak hours?
- How many pizzas are typically included in an order? Which pizzas are best sellers?
- How much revenue was generated this year? Is there any seasonality in sales?
- Are there underperforming pizzas, and what promotional opportunities can improve sales?

01. Customers per Day & Peak Hours

Customers per Day

The dataset does not contain unique customer details. Therefore, the following assumptions were made:

- **Count of order_id ≈ number of customers**
- **Assumption:** One customer orders one pizza

Based on this assumption, the average number of customers per day is **1,599**.

Peak Hours

To identify peak hours:

- **Hour (order time)** was used as columns
- **Sum of quantity** was used as rows

The analysis shows that **12:00 PM (noon)** is the peak ordering hour.

02. Pizzas per Order & Best Sellers

Pizzas per Order

- order_id was used as columns
- pizza_id was used as rows

The analysis shows that **2 pizzas** are typically included in each order.

Best Seller

- pizza_id was used as columns
- quantity sold was used as rows

The best-selling pizza is **Big Meats**, with **1,914 pizzas** sold.

03. Revenue & Seasonality

Total Sales

Since total sales were not directly available, a calculated field was created:

Total Sales = Quantity × Price

Using this calculation, the **total annual revenue** is **₹817,860**.

Seasonality

- **Month (order date)** was used as columns
- **Total sales** was used as rows

The analysis shows **clear seasonality**, with certain months generating higher sales than others.

04. Underperforming Pizzas & Promotions

Category-Based Analysis

- Chicken and Veggie categories generate the **lowest revenue**
- Veggie pizzas sell in higher quantity but have **lower pricing**

Recommendation:
Introduce **promotions or combo offers** on Chicken pizzas to increase sales volume.

Size-Based Analysis

XL and XXL pizzas generate low revenue and low quantity sales

Recommendations:

- Offer discounts or promotions on XL pizzas
- Consider removing **XXL pizzas** from the menu if sales do not improve

Top Customers Analysis

Most customers order **fewer than 4 pizzas per order**.
Only a small number of customers order **more than 5 pizzas**, but these orders generate higher revenue.

Recommendation:
Offer special discounts or deals for customers ordering **more than 5 pizzas** to encourage higher-value purchases.

Final Recommendations

1. Promote best-selling pizzas during peak hours
2. Introduce targeted offers for Chicken and XL-sized pizzas
3. Use bulk-order discounts to increase average order value
4. Optimize or remove consistently underperforming menu items

Summary

This case study analyzed one year of pizza sales data to understand customer purchasing behavior, sales trends, and product performance using Tableau. The analysis focused on key business questions such as **customer volume per day**, **peak ordering hours**, **average pizzas per order**, r**evenue trends**, and the performance of different **pizza categories and sizes**.

The findings showed that customer demand is highest during **lunch and evening hours**, with weekends contributing significantly to overall sales. Most customers typically order **one to two pizzas per transaction**, while a small number of best-selling pizzas generate a large portion of total revenue. Seasonal patterns were also observed, with certain months showing higher sales compared to others.

In addition, the analysis identified underperforming pizza categories and sizes that contribute less to revenue. Based on these insights, recommendations such as **targeted promotions during peak hours**, **discounts on low-performing pizzas**, **menu optimization**, and **bulk-order offers** were proposed. Overall, this analysis demonstrates how data-driven insights can help improve sales performance, optimize product offerings, and support better business decision-making.