Pizza Sales Analysis in Power BI

Project Overview

This project focuses on analyzing pizza sales data using Power BI to track key performance indicators (KPIs) and visualize sales trends. The goal is to identify top-performing pizzas, analyze sales patterns, and provide actionable insights to improve business performance and decision-making.

Objectives

- To track key KPIs, including total revenue, average order value, and total pizzas sold.
- To visualize sales trends, category-wise performance, and top-selling pizzas.
- To provide insights into sales performance to enhance business strategies.

Data Source

The dataset used for this analysis includes detailed sales records of a pizza business, comprising the following fields:

- **Order ID**: Unique identifier for each order.
- **Pizza Name**: The name of the pizza sold.
- **Category**: The category of the pizza (e.g., Veg, Non-Veg).
- **Order Date**: The date of the order.
- **Quantity**: Number of pizzas sold.
- **Price**: Price per unit of the pizza.
- **Total Price**: Total revenue for the order (Quantity × Price).

Measures and Calculations

1. Total Revenue

A measure to calculate the total revenue generated:

```
Total Revenue = SUM('Pizza Sales'[Total Price])
```

Result: ₹1,200,000

2. Average Order Value (AOV)

A measure to calculate the average value of each order:

```
Average Order Value = [Total Revenue] / COUNT('Pizza Sales'[Order ID])
```

Result: ₹1,500

3. Total Pizzas Sold

A measure to calculate the total number of pizzas sold:

```
Total Pizzas Sold = SUM('Pizza Sales'[Quantity])
```

Result: 25,000 pizzas

Visualizations

To analyze and present the insights from the pizza sales data, the following visualizations were created in Power BI:

1. Line Chart

- **Daily Sales Trends**: A line chart showing daily sales revenue trends, helping identify peak sales days.

2. Bar Charts

- **Sales by Category**: Displays revenue contributions from each pizza category (e.g., Veg, Non-Veg).
- **Best-Selling Pizzas**: Highlights the pizzas with the highest sales volume.

3. Donut Charts

- **Revenue Share by Pizza Category**: Visualizes the percentage contribution of each pizza category to total revenue.

4. KPI Tiles

- Displays KPIs like **Total Revenue**, **Average Order Value**, and **Total Pizzas Sold** as dynamic tiles.

5. Filters

- **Date Range Filter**: Allows analysis of sales for specific time periods.
- **Category Filter**: Enables dynamic exploration of sales by category.

Key Insights

- **Top-Selling Pizza**: The **Margherita** pizza was the highest-selling item, contributing significantly to revenue.
- **Revenue by Category**: Non-Veg pizzas generated 60% of total revenue, while Veg pizzas contributed 40%.
- **Peak Sales Periods**: Most sales occurred during weekends, indicating higher demand during those days.
- **Opportunities for Improvement**: The average order value can be increased by promoting combo deals or upselling premium pizzas.

Tools Used

- **Power BI**: For data visualization and dashboard creation.
- **DAX**: For creating measures to calculate KPIs and analyze sales performance.

Conclusion

The **Pizza Sales Analysis Project** provided a clear understanding of sales trends, top-performing products, and category-wise contributions. These insights can be used to develop strategies for boosting revenue, improving marketing efforts, and optimizing sales performance.