

PROBLEM STATEMENT

KPI's REQUIREMENT

We need to analyze key indicators for our pizza sales data to gain insights into our business performance. Specifically, we want to calculate the following metrics:

1. **Total Revenue:** The sum of the total price of all pizza orders.
2. **Average Order Value:** The average amount spent per order, calculated by dividing the total revenue by the total number of orders.
3. **Total Pizzas Sold:** The sum of the quantities of all pizzas sold.
4. **Total Orders:** The total number of orders placed.
5. **Average Pizzas Per Order:** The average number of pizzas sold per order, calculated by dividing the total number of pizzas sold by the total number of orders.

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CHARTS REQUIREMENT

We would like to visualize various aspects of our pizza sales data to gain insights and understand key trends. We have identified the following requirements for creating charts:

1. **Daily Trend for Total Orders:**
Create a bar chart that displays the daily trend of total orders over a specific time period. This chart will help us identify any patterns or fluctuations in order volumes on a daily basis.
2. **Monthly Trend for Total Orders:**
Create a line chart that illustrates the hourly trend of total orders throughout the day. This chart will allow us to identify peak hours or periods of high order activity.
3. **Percentage of Sales by Pizza Category:**
Create a pie chart that shows the distribution of sales across different pizza categories. This chart will provide insights into the popularity of various pizza categories and their contribution to overall sales.

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CHARTS REQUIREMENT

4. **Percentage of Sales by Pizza Size:**
Generate a pie chart that represents the percentage of sales attributed to different pizza sizes. This chart will help us understand customer preferences for pizza sizes and their impact on sales.
5. **Total Pizzas Sold by Pizza Category:**
Create a funnel chart that presents the total number of pizzas sold for each pizza category. This chart will allow us to compare the sales performance of different pizza categories.

6. **Top 5 Best Sellers by Revenue, Total Quantity and Total Orders:**
Create a bar chart highlighting the top 5 best-selling pizzas based on the Revenue, Total Quantity, Total Orders. This chart will help us identify the most popular pizza options.
7. **Bottom 5 Best Sellers by Revenue, Total Quantity and Total Orders:**
Create a bar chart showcasing the bottom 5 worst-selling pizzas based on the Revenue, Total Quantity, Total Orders. This chart will enable us to identify underperforming or less popular pizza options.

Pizza Sales Performance Dashboard

Project Overview

This Power BI project provides an in-depth analysis of pizza sales data to uncover business insights, identify trends, and evaluate key performance indicators (KPIs). The dashboard is designed to help decision-makers understand sales performance, customer preferences, and product profitability through interactive visualizations.

Objectives

The main goal of this project is to analyze and visualize various aspects of pizza sales data to:

- Track key business metrics such as revenue, orders, and quantities sold.
 - Identify sales patterns and trends over time.
 - Understand customer purchasing behavior based on pizza category and size.
 - Determine the best and worst performing pizza products.
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Key Performance Indicators (KPIs)

The following KPIs were calculated to measure business performance:

1. **Total Revenue** – The sum of the total price of all pizza orders.
 2. **Average Order Value (AOV)** – The average amount spent per order, calculated as total revenue ÷ total number of orders.
 3. **Total Pizzas Sold** – The total quantity of pizzas sold.
 4. **Total Orders** – The total number of orders placed.
 5. **Average Pizzas per Order** – The average number of pizzas sold per order, calculated as total pizzas sold ÷ total orders.
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Visualizations and Insights

To provide actionable insights, the following visualizations were created:

1. Daily Trend for Total Orders

- **Type:** Bar Chart
- **Purpose:** Shows daily order volumes over time to identify fluctuations and sales patterns.

2. Monthly Trend for Total Orders

- **Type:** Line Chart
- **Purpose:** Highlights order trends across months to pinpoint high-performing periods.

3. Percentage of Sales by Pizza Category

- **Type:** Pie Chart
- **Purpose:** Displays the proportion of total sales contributed by each pizza category, revealing customer preferences.

4. Percentage of Sales by Pizza Size

- **Type:** Pie Chart
- **Purpose:** Illustrates sales distribution by pizza size, helping identify which sizes generate the most revenue.

5. Total Pizzas Sold by Pizza Category

- **Type:** Funnel Chart
- **Purpose:** Compares total pizzas sold across categories to highlight performance differences.

6. Top 5 Best Sellers

- **Type:** Bar Chart
- **Metrics:** Revenue, Total Quantity, Total Orders
- **Purpose:** Identifies the top-performing pizza types contributing most to sales.

7. Bottom 5 Best Sellers

- **Type:** Bar Chart
- **Metrics:** Revenue, Total Quantity, Total Orders
- **Purpose:** Highlights underperforming pizzas to inform inventory and marketing decisions.

Tools & Technologies

- **Data Visualization:** Microsoft Power BI
 - **Data Source:** SQL Server / Excel (Pizza Sales Dataset)
 - **Data Transformation:** Power Query (M Language)
 - **Data Modeling:** DAX (Data Analysis Expressions)
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Business Impact

This dashboard empowers management to:

- Monitor overall sales and operational performance.
- Make data-driven decisions to optimize product offerings.
- Identify opportunities for sales growth and customer satisfaction improvement.