Pizza Sales Analysis – Problem Statement

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1. Introduction

The food and restaurant industry is highly competitive, and customer preferences change frequently.
To remain profitable, restaurants must understand their sales performance and customer demand patterns.
Pizza restaurants generate large volumes of sales data every day.
However, raw data alone does not help management make effective decisions.
There is a strong need to analyze this data and present it in a meaningful and visual format.

This project focuses on analyzing pizza sales data to gain valuable business insights.
The analysis helps in understanding sales trends, popular products, and revenue contribution.
The goal is to support data-driven decision-making through effective visualization.

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2. Background of the Problem

The pizza store collects transactional sales data for every order placed.
This data includes order date, pizza category, pizza size, quantity sold, and total price.
Over time, the dataset grows large and becomes difficult to analyze manually.
Management finds it challenging to identify which pizzas perform well and which do not.

Without proper analysis, decisions related to pricing, promotions, and inventory are based on assumptions.
A dashboard-based analytical approach is required to simplify complex data and highlight key insights.

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3. Problem Definition

The main problem is the lack of clear visibility into pizza sales performance.
Management is unable to identify the top-selling and least-selling pizzas.
There is no easy way to track revenue contribution by category and size.
Sales trends across different days and months are not clearly understood.

Due to this, business decisions are not fully data-driven.
The organization needs a structured sales analysis and an interactive dashboard to solve these issues.

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4. Objectives of the Project

The primary objective of this project is to analyze pizza sales data and extract meaningful insights.

Specific objectives include:

- To calculate total revenue generated from pizza sales
- To determine the total number of orders placed
- To calculate the total number of pizzas sold
- To identify best-selling and least-selling pizza categories
- To analyze sales performance based on pizza sizes
- To understand daily and monthly sales trends
- To identify peak business days and time periods

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5. Scope of the Project

The scope of this project is limited to historical pizza sales data.
Only sales-related attributes are considered for analysis.
Customer demographic information is not included in the dataset.
The project focuses on descriptive analysis and visualization of sales data.

Advanced predictive modeling is not part of this project.
The analysis is designed to support business understanding and reporting.

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6. Key Performance Indicators (KPIs)

The following KPIs are used to evaluate sales performance:

- Total Revenue
- Total Number of Orders
- Total Pizzas Sold
- Revenue by Pizza Category
- Revenue by Pizza Size
- Daily Sales Trend

- Monthly Sales Trend

These KPIs help management quickly assess business performance.

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7. Tools and Technologies Used

SQL is used to extract, filter, and aggregate sales data.
Microsoft Excel is used for basic data cleaning and validation.
Power BI is used to create interactive dashboards and visual reports.
Charts and visuals are used to represent data in an easy-to-understand manner.

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8. Expected Outcomes

The project results in a well-structured and interactive sales dashboard.
Management can easily track key metrics and sales trends.
Top-performing and underperforming pizzas are clearly identified.
Business decisions can be made based on actual data instead of assumptions.

9.Business Impact

This analysis helps improve decision-making accuracy.
Inventory planning becomes more efficient, reducing wastage.
Marketing strategies can be aligned with peak sales periods.
Overall operational efficiency and profitability can be improved.

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10. Conclusion

The Pizza Sales Analysis project transforms raw data into actionable insights.
It provides a clear understanding of sales performance and customer demand.
The dashboard enables management to monitor business growth effectively.
This project demonstrates the importance of data analytics in business success.