

# Project Report: Pizza Sales Dashboard

## Introduction

The Pizza Sales Dashboard project aimed to create a comprehensive reporting tool using SQL for data extraction and Power BI for data visualization. This report provides an overview of the project's objectives, methodology, data sources, and key findings, with a focus on the specific charts included in the dashboard.

## Project Objectives

The primary objectives of the Pizza Sales Dashboard project were as follows:

- **Data Extraction:** Extract relevant data from a relational database using SQL.
- **Data Transformation:** Clean, preprocess, and transform the data for analytical purposes.
- **Dashboard Creation:** Develop an interactive and user-friendly Pizza Sales Dashboard using Power BI.
- **Analysis and Insights:** Provide valuable insights into pizza sales performance and trends.

## Methodology

### Data Extraction

Data for this project was extracted from a relational database that stores information related to pizza sales. SQL queries were used to retrieve the necessary data, including sales transactions, pizza category, pizza size, and sales details.

### Data Transformation

Once the data was extracted, it underwent several transformations, including:

- Data cleaning to handle missing or inconsistent values.
- Aggregation of sales data to create meaningful metrics.
- Merging data from multiple tables to enrich the dataset.
- Creating calculated columns for date-related analysis.

### Dashboard Creation

Power BI was used to create the Pizza Sales Dashboard, which includes the following key charts:

- **Daily and Monthly Trends:**
- Line chart displaying daily and monthly sales trends over time.
- Interactive date slicers for users to focus on specific time periods.
- **Sales by Pizza Category:**
- Bar chart showing sales revenue by pizza category (e.g., Margherita, Pepperoni, Supreme).
- Color-coded bars for easy identification of top-performing categories.
- **Sales by Pizza Size:**
- Stacked bar chart illustrating sales revenue by pizza size (e.g., Small, Medium, Large).
- Hover-over tooltips for detailed information on each size category.
- **Total Pizzas Sold by Pizza Category:**
- Donut chart displaying the distribution of total pizzas sold by category.
- Data labels indicating the percentage of pizzas sold in each category.
- **Best and Worst Seller Pizzas:**
- Table highlighting the best-selling and worst-selling pizzas based on sales quantity and revenue.
- Sorting options for users to explore top and bottom performers.

## Data Sources

The project relied on the following data sources:

- **Relational Database:** The primary source of data containing sales, pizza category, pizza size, and sales details.

## Key Findings

Through the Pizza Sales Dashboard, several key findings and insights were obtained:

- **Sales Trends:** The dashboard clearly illustrates fluctuations in daily and monthly sales, helping identify seasonal patterns.
- **Sales by Category:** The "Pepperoni" category consistently generates the highest sales, while "Vegetarian" lags behind.
- **Sales by Size:** Medium-sized pizzas are the most popular among customers, followed closely by large pizzas.
- **Total Pizzas Sold by Category:** The donut chart demonstrates that "Supreme" and "Hawaiian" categories together account for over 50% of total pizzas sold.
- **Best and Worst Sellers:** "Pepperoni - Large" is the best-selling pizza in terms of quantity and revenue, while "Vegetarian - Small" performs the worst.

## Conclusion

The Pizza Sales Dashboard project successfully achieved its objectives of creating an informative and user-friendly reporting tool. This tool will empower stakeholders to make data-driven decisions, optimize the pizza menu, and allocate resources effectively.

Continuous data updates and periodic reviews of the dashboard will ensure that the insights remain current and valuable for business operations.

This project highlights the effectiveness of SQL and Power BI in transforming raw data into actionable insights, helping businesses enhance their pizza sales strategies.

## Acknowledgments

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