Pizza Sales Analysis

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Problem Statement

The pizza business lacks visibility into key sales metrics, customer behavior, and product performance. Without data-driven insights, it's difficult to make informed decisions for menu planning, marketing, and operational efficiency.

Project Objective

- Analyze sales data using SQL and Power BI.
- Identify trends in customer purchasing patterns.
- Determine top-performing and underperforming pizzas.
- Enable data-driven decisions to optimize the menu and maximize revenue.

Data Collection

•Dataset of pizza orders including order date, time, category, size, quantity, and price.

Data Cleaning & Preparation

•Handled nulls, standardized formats, and ensured consistency using Power Query.

Exploratory Data Analysis (SQL)

•Derived KPIs and insights: total revenue, order trends, best/worst sellers, etc.

Dashboard Design (Power BI)

•Built interactive visuals and KPIs for clear business insights.

Insight Generation & Recommendation

•Interpreted visual and SQL insights for strategic decision-making.

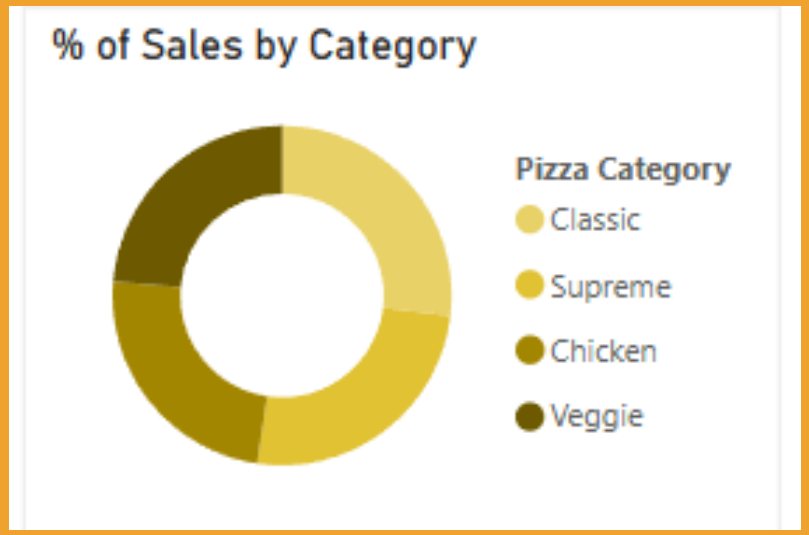
KPIs and Their Insights

KPI	Value	Insight
Total Revenue	$817,860	Strong sales performance across the dataset period.
Average Order Value	$38.31	Each order on average contributes significantly to revenue.
Total Pizzas Sold	49,574	High volume of individual pizza sales.
Total Orders	21,350	Steady stream of customer orders.
Average Pizzas per Order	2	On average, customers purchase 2 pizzas per order—potential group ordering behavior.

1. % of Sales by Pizza Category

•Categories: Classic, Supreme, Chicken, Veggie.

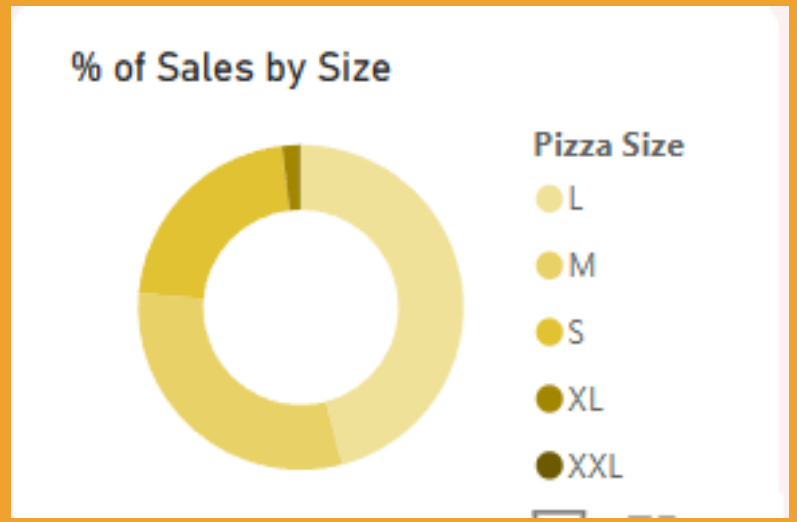
•Insight: Classic pizzas dominate sales revenue followed by Supreme. Chicken and Veggie trail behind.



2. % of Sales by Size

•Sizes: L, M, S, XL, XXL.

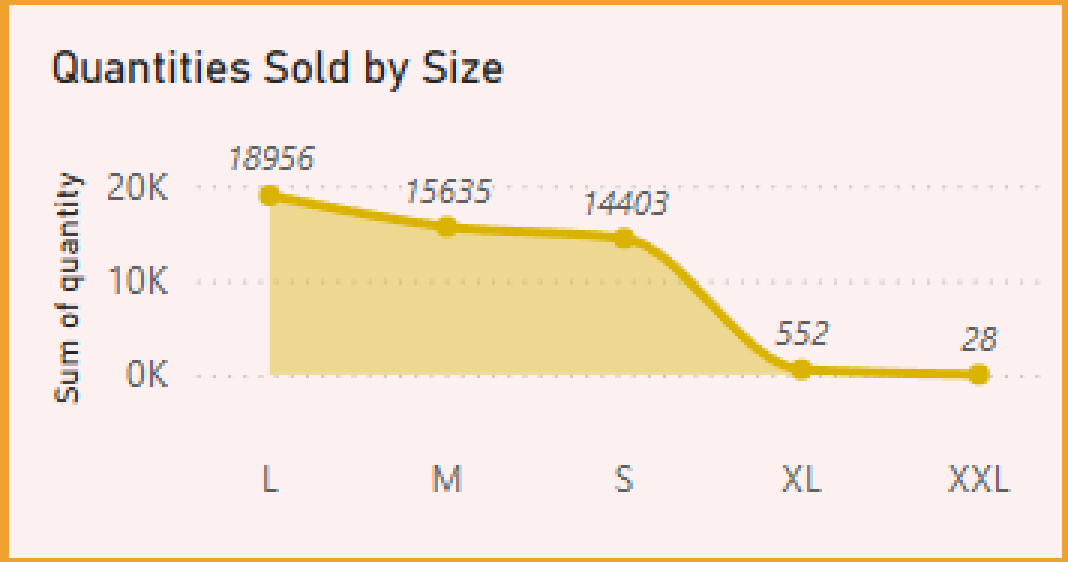
•Insight: Large (L) and Medium (M) pizzas contribute the highest revenue. Small and extra-large sizes have lower contribution; XXL is negligible.



3. Quantities Sold by Size

•L size: 18,956 units (Most popular)
•M size: 15,635 units

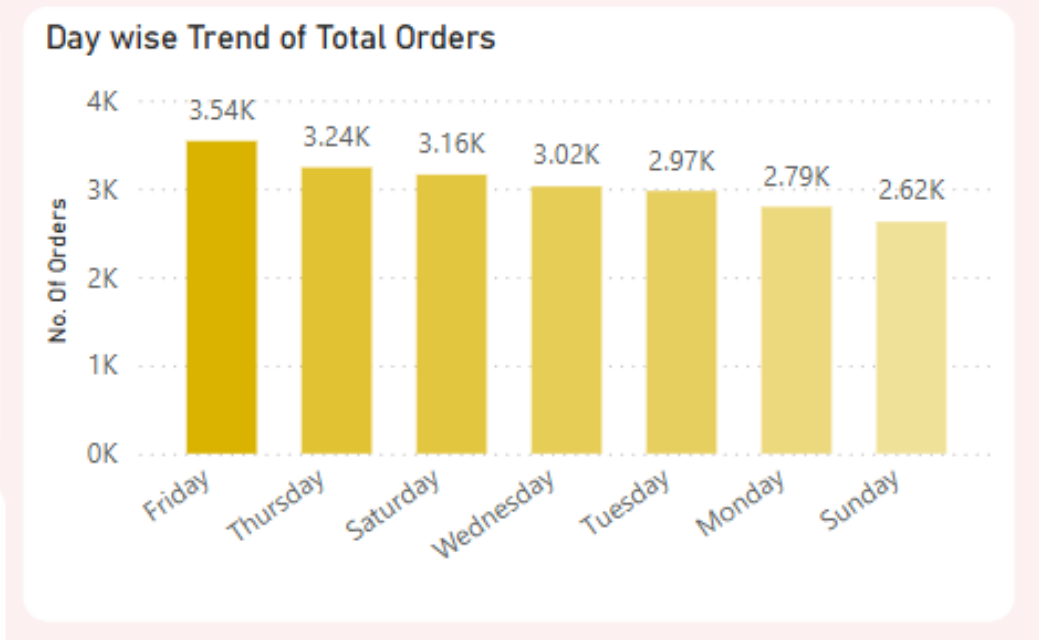
•Insight: Customers prefer larger portions; XXL is least preferred (28 units only).



4. Day-wise Trend of Orders

•Friday has the highest orders (3.54k), followed by Thursday and Saturday.

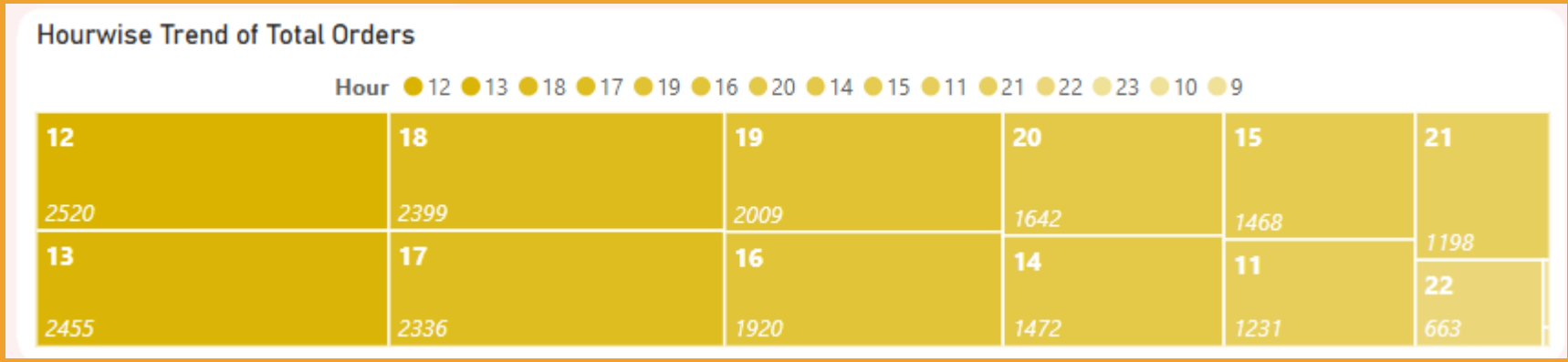
•Insight: Peak sales towards the weekend—possibly due to social/family gatherings.



5. Hour-wise Trend of Orders

•Peak hours: 12 PM - 2 PM and 6 PM - 8 PM.

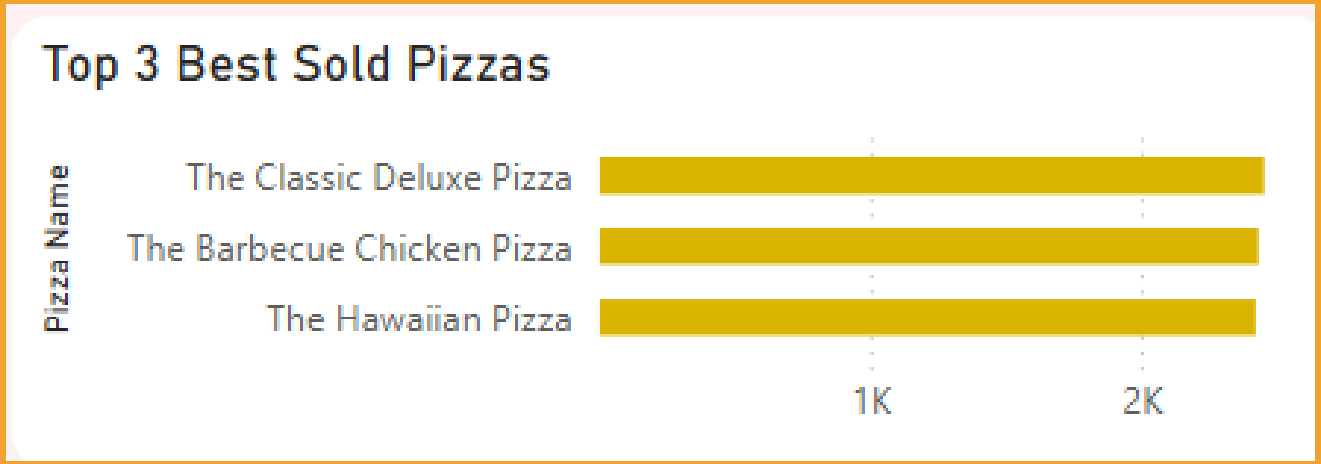
•Insight: Lunch and dinner time drive majority of the orders.



6. Top 3 Best Selling Pizzas

- The Classic Deluxe Pizza
- The Barbecue Chicken Pizza
- The Hawaiian Pizza

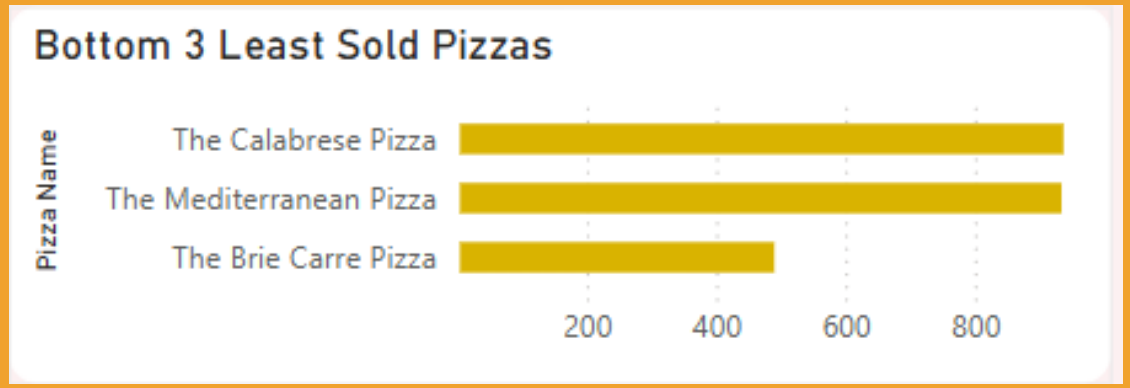
- Insight: These items should be featured and promoted more.



7. Bottom 3 Least Sold Pizzas

- The Calabrese Pizza
- The Mediterranean Pizza
- The Brie Carre Pizza

- Insight: Consider reviewing pricing, visibility, or removing from menu.



Conclusion

This **Pizza Sales Analysis** project offers a complete overview of business performance through KPIs, visual trends, and SQL-driven insights. The findings highlight that:

- **Customer Behavior** peaks during weekends and meal times.
- **Large and Classic pizzas** are customer favorites.
- **Promotional efforts** should focus on best sellers and peak hours.
- **Underperforming pizzas** need re-evaluation.
- The dashboard enables effective **data-driven decision-making** for menu optimization and marketing strategy.