

Pizza Sales Report

This report delivers an in-depth analysis of pizza sales performance based on the final Power BI dashboard built for our pizza sales dataset in 2015. It evaluates business performance metrics, seasonal sales behaviors, product popularity, and ordering patterns. Recommendations are grounded in the data to optimize sales strategy, inventory, and customer experience.

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I. Key Performance Indicators (KPI)

KPI cards summarize the core business metrics:

- **Total Revenue:** \$817.86K
- **Total Orders:** 21.35K
- **Total Quantity Sold:** 49.57K
- **Average Pizzas per Order:** 2
- **Average Order Value:** \$38.31

These indicators reflect steady demand and solid per-customer spending, supporting sustainable growth.

II. Sales Trends and Anomalies

a. Daily, Weekly, and Monthly Sales Trends

- **Daily Revenue:** Fluctuated between \$99.2K and \$136.07K. Notable highs on Fridays, which is at \$136.07K.
- **Weekly Sales:** Peaked in Week 48 (\$19.2K), and dropped significantly to \$10.5K in Week 39.
- **Monthly Trends:** July recorded the highest (\$73K), while September and October dipped to ~\$64K.

b. Peak Periods & Seasonal Patterns

- Revenue increases approaching holidays (Nov–Dec), consistent with festive spikes.
- Summer (Jul) appears to boost outdoor and group orders.

c. Weekday and Hourly Performance

- **Top Day:** Friday (\$136K)
- **Bottom Day:** Sunday (\$99.2K)
- **Peak Hours:** 12 PM (lunch) and 6 PM (dinner) across most weekdays

d. Anomaly Investigation

- **Week 39 Drop:** Possibly post-holiday lull or marketing gap.
- **End-of-Year Slump:** Likely due to operational closures or customer travel.

III. Product Performance Analysis

a. Category Performance

- **Classic:** 15K sold, \$220K revenue
- **Supreme:** 12K sold, \$208K

- **Veggie:** 12K sold, \$194K
- **Chicken:** 11K sold, \$196K (lowest revenue per unit)

b. Top & Bottom Pizzas

Top 5 by Revenue and Quantity:

1. Thai Chicken Pizza (\$43K, 2.4K)
2. Barbecue Chicken Pizza (\$43K, 2.4K)
3. California Chicken Pizza (\$41K, 2.4K)
4. Classic Deluxe Pizza (\$38K, 2.5K)
5. Spicy Italian Pizza (\$35K, 1.9K)

Bottom 5 by Revenue and Quantity:

1. Brie Carre Pizza (\$11.6K, 490 units)
2. Mediterranean Pizza (\$15.4K, 934 units)
3. Spinach Supreme (\$15.3K, 950 units)
4. Spinach Pesto (\$15.6K, 970 units)
5. Green Garden Pizza (14.0K, 997 units)

IV. Size and Ingredient Analysis

a. Pizza Size Preferences by Category

- **Classic:** Small sizes dominate
- **Chicken, Supreme, Veggie:** Medium and Large most popular
- **XL/XXL:** Negligible across all categories

b. Popular & Unpopular Ingredients

Most Frequent Ingredients: Garlic, Tomatoes, Red Onions, Red Peppers

Least Used: Brie, Pesto Sauce, Kalamata Olives, Zucchini, Alfredo Sauce

Classic pizzas lean toward high-frequency base toppings, while specialty pizzas include rare ingredients with lower frequency and volume.

V. Order and Ingredient Correlations

b. Price vs Sales Volume by Category

- **Chicken ($r = 0.99$):** Higher price, higher volume — likely premium perception
- **Classic ($r = -0.28$):** Higher price, lower volume — price-sensitive
- **Veggie & Supreme:** Minimal correlation — other factors at play (e.g., taste, ingredients)

Bubble charts segmented by average price and volume illustrate 4 quadrants, highlighting which pizzas under- or over-perform.

VI. Order Frequency and Timing

a. Single vs Multi-Item Orders

- **Single-item Orders:** 38%
- **Multi-item Orders:** 62%, which shows that customers often buy in groups or bundles

b. Order Interval Timing

- **Average Interval:** 24.58 minutes
- **Min:** 0 minutes (back-to-back)
- **Max:** 4,000 minutes, suggesting a system idle or bulk gap

VII. Conclusion and Recommendations

1. Product Portfolio Optimization

- Promote and bundle best-sellers (Thai Chicken, Barbecue Chicken)
- Reevaluate low-performers (Brie Carre, Mediterranean)
- Consider adjusting sizes/prices for underperforming Chicken pizzas

2. Promotions & Sales Strategy

- Run campaigns in Week 39 and low-revenue months
- Create upsell deals for small-size Classic pizzas
- Focus efforts on Friday and mealtime peaks

3. Ingredient & Inventory Efficiency

- Streamline inventory for high-frequency ingredients (Garlic, Tomatoes)
- Audit underperforming toppings like Brie and Zucchini

4. Advanced Recommendations

- Add profit margin data for ROI-based product evaluation
 - Segment customers for targeted deals based on order patterns
 - Track marketing effectiveness by campaign-to-order conversion
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