

PIZZA SALES ANALYSIS REPORT

Introduction:

This report covers the analysis of pizza sales from January 2015 to December 2015. The aim of the analysis is to uncover valuable insights that will drive business growth and make data-driven decisions.

Problem Statement:

The pizza business has been thriving, but to sustain and enhance its growth, a deeper understanding of sales performance is needed. Specifically:

1. What is the total revenue generated?
2. In total, how many pizzas have been sold?
3. What is the average order value?
4. What are the daily and monthly sales trends?
5. Which pizza categories generate the most sales?
6. Which pizza size generates the most sales?
7. Which pizza has the highest and lowest sales by Revenue, Quantity and Total Order?
8. How do sales vary across pizza categories and sizes?

Data Exploration:

To kickstart the analysis, I first take a look at the dataset which provides information about pizza orders, namely, pizza id, order id, pizza name id, quantity, order date, order time, unit price, total price, pizza size, pizza category, pizza ingredient and pizza name. The dataset span from January 2015 to December 2015.

The exploration led me to identify the following as Key Performance Indicators (KPIs):

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

Results:

From the exploration, the following were seen:

- The total revenue from pizza sales was \$817,860.05
- The total number of pizza orders was 21,350
- The average order value was \$38.31
- The total sales of pizza were 49,574
- The average pizzas per order was 2.322.

Data Analysis:

1. Sales Trends: I analyse daily and monthly sales trends to spot patterns in customer ordering behaviour.
2. Percentage of Sales by Pizza Category and Size: I determine the percentage of sales for each pizza category and size which gives more insights into the business performance.
3. Total pizzas sold by Pizza Category: I determine which pizza categories sell out the most.
4. Top and Bottom Performers by Revenue: I identify the top and bottom 5 pizza names by total revenue. This helps me understand which pizza is generating more income.
5. Top and Bottom Performers by Quantity: I identify the top and bottom 5 pizza names by the quantity sold. This reveals which pizzas are most and least popular.
6. Top and Bottom Performers by Order: I identify the top and bottom 5 pizza names by the number of orders. This helps me understand customer preferences.

Key Findings

The following are some of the key findings from the data analysis:

The daily trends of pizza were:

- Friday: 3538
- Thursday: 3239
- Saturday: 3158
- Wednesday: 3024
- Tuesday: 2973
- Monday: 2794
- Sunday: 2624

The Monthly trends of pizza were:

- July
- May
- January

The percentage of sales by pizza category were:

- Classic - 26.91%
- Supreme - 25.46%
- Chicken - 23.96%
- Veggie - 23.68%

The percentage of sales by pizza size was:

- Large - 45.89%
- Medium - 30.49%
- Regular - 21.77%
- X-Large - 1.72%
- XX-Large - 0.12%

Note: During the data cleaning, I did some conversion changing L – Large, M – Medium, S – Regular, XL – X-Large and XXL – XX-Large.

The total pizzas sold by pizza category were:

- Classic - 14,888
- Supreme - 11,987
- Veggie - 11,649
- Chicken - 11,050

Top and Bottom Performers by Revenue:

Top 5:

- The Thai Chicken Pizza
- The Barbecue Chicken Pizza

- The California Chicken Pizza
- The Classic Deluxe Pizza
- The Spicy Italian Pizza

Bottom 5:

- The Spinach Pesto Pizza
- The Mediterranean Pizza
- The Spinach Supreme Pizza
- The Green Garden Pizza
- The Brie Carre Pizza

Top and Bottom Performers by Quantity:

Top 5:

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

Bottom 5:

- The Soppressata Pizza
- The Spinach Supreme Pizza
- The Calabrese Pizza
- The Mediterranean Pizza
- The Brie Carre Pizza

Top and Bottom Performers by Order:

Top 5:

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

Bottom 5:

- The Chicken Pesto Pizza
- The Calabrese Pizza
- The Spinach Supreme Pizza
- The Mediterranean Pizza
- The Brie Carre Pizza

Conclusion:

The analysis has unveiled critical insights that can guide business decisions. Some of these are as follows:

- Friday records the highest received orders followed by Thursday and Saturday. Similarly July and followed by May and January.
- The Classic Category and Large Size Pizza contribute the maximum sales.
- The Classic Deluxe Pizza is a top performer in terms of quantity showing strong demand.
- The Thai Chicken Pizza generates the highest revenue while Classic Deluxe Pizza is the most patronised pizza by customers.
- The Brie Carre Pizza is the least patronized and hence generates the lowest revenue.
- Percentage of Sales by Pizza Category and Percentage of Sales by Pizza Size provide insights into the contribution of different products.

From the above, it can be seen that even though Thai Chicken Pizza generated the highest revenue, it wasn't the most patronized pizza. Rather fifth patronized pizza (from top 5 pizzas by quantity and order). This can be attributed to price and size differences.

Recommendations:

- The month of July records the highest patronage periods. To keep sales going smoothly and prevent any eventuality of shortage, it is recommended that additional staff and resources should be allocated to this month. Same as Fridays.
- The Classic Deluxe Pizza are customer's favourite and should be marketed more prominently.
- It is also recommended that priority should be given to the Large Size and Classic categories since they dominate sales.