PIZZA PLACE SALES ANALYSIS

# Problem

The pizza restaurant has experienced a notable drop in sales. To address this issue, management is turning to customer and order data for insights. The goal is to conduct a detailed analysis of sales trends and customer behavior, identifying key areas for improvement to reverse the decline and boost revenue.

# Background

This report provides a comprehensive analysis of pizza sales data from January 2015 to December 2015. Data was collected from various pizza locations across the United States and analyzed to uncover patterns, customer preferences, and sales trends over the year.

# Proposed Solution

To counter the drop in sales, we recommend a holistic approach that combines thorough data analysis, actionable insights, and collaboration with key stakeholders.

## Key Insights and Data-Driven Strategies :

**Insight Application:** Insights gained from the data analysis reveal the factors contributing to the sales decline. This enables the creation of tailored strategies to address specific challenges.

**Targeted Solutions**: For instance, if weekday sales are identified as a weak spot, the restaurant can introduce weekday promotions to encourage more orders.

If customer dissatisfaction with ingredients is evident, steps can be taken to improve ingredient quality or the cooking process to enhance customer satisfaction.

## Stakeholder Engagement :

* **Staff and Management**: Collaborated to gather and analyze sales data, ensuring accuracy and relevance.
* **Frontline Team**: Provided feedback on customer behavior, cross-referenced with sales data to uncover patterns.
* **Data Analyst**: Developed custom dashboards to track performance metrics and identify areas for improvement.
* **Customer Feedback Team**: Analyzed reviews to pinpoint common complaints and service gaps.
* **Marketing Team**: Assessed promotional impact on sales and optimized future campaigns.
* **Strategy Advisors**: Provided insights and guidance for aligning data findings with long-term business growth plans.

## Project Scope and Key Focus Areas :

### Product:

* Analyze customer preferences to pinpoint the most popular pizza toppings and combinations.
* Determine which pizza sizes are in the highest demand.
* Explore the introduction of new or seasonal pizzas to increase variety.

### Pricing:

* Conduct a competitor pricing analysis to ensure competitive pricing.
* Introduce promotions and discounts to attract new customers and reward loyal ones.
* Consider dynamic pricing strategies to adjust prices based on demand fluctuations.
* Offer combo deals or value-added meals to increase the average order size.

### Promotion:

* Design a targeted marketing campaign aimed at reaching specific customer segments.
* Leverage social media, email, and other digital platforms to increase brand visibility and engage customers.
* Partner with local businesses to offer collaborative promotions.
* Run contests and giveaways to generate excitement and drive customer engagement.

### Place:

* Ensure the restaurant is in an easily accessible location.
* Enhance convenience by offering online ordering and delivery services.
* Expand the distribution network by exploring partnerships with grocery stores or other retail outlets.
* Create a warm, inviting atmosphere in the restaurant to enhance the dine-in experience.

### People:

* Provide staff training to ensure excellent customer service.
* Introduce a loyalty program to encourage repeat customers.
* Offer ongoing employee development programs to create a motivated and productive workforce.
* Conduct regular customer surveys to gather feedback and identify areas for improvement

## Methodology :

* **Data Resources**: Sales data was provided in Excel, containing multiple tables with transaction details.
* **Data Wrangling**: Data was cleaned, formatted, and consolidated while addressing outliers and missing values.
* **Data Analysis**: Pivot tables and formulas were used to extract patterns and visualize key metrics like orders and sales.
* **Data Visualization**: An interactive dashboard was created to provide a user-friendly summary for quick performance assessment.

## Goals and KPIs :

### Goals:

* Increase in pizza sales within six months.
* Pinpoint and resolve the root causes of declining sales.
* Improve customer satisfaction and foster greater customer loyalty.
* Gain deeper insights into customer preferences and buying behaviour.

## Key Performance Indicators (KPIs):

* **Total Revenue**: The restaurant generated an impressive **$817,860.05** in total revenue, showcasing its significant market presence.
* **Average Order Value**: Each order brought in an average of **$37.56**, reflecting the balanced pricing strategy and the value customers place on the menu.
* **Total Pizzas Sold**: A total of **49,574 pizzas** were sold throughout the year, underlining the consistent demand for the restaurant's offerings.
* **Total Orders**: With **21,350 orders** placed, customer engagement was robust, supporting a steady flow of business.
* **Average Pizzas Per Order**: On average, customers ordered **2.32 pizzas per order**, indicating a tendency for group purchases or family-sized orders.
* **Average Monthly Revenue**: The restaurant maintained an average monthly revenue of **$68,155.00**, demonstrating consistent financial performance across the year.
* **Peak Times**: Peak customer traffic occurred between **12 to 1 AM** and **9 to 6 PM**, suggesting late-night cravings and dinner rushes as the busiest times for the restaurant.
* **Number of Customers Each Day**: On average, the restaurant served **60 customers per day**, reflecting a steady and loyal customer base.

## Technical Tools and Processes :

* **Excel Functions Used**: Key functions like **COUNT** and **AVERAGE** were applied to measure order volumes and calculate overall trends. **Pivot Tables** helped summarize large datasets into concise insights, while **VLOOKUP** enabled efficient data lookup across different tables. The **MAX** and MIN functions identified the highest and lowest values, such as peak sales periods or order amounts. Additionally, **Charts** and **Filters** were employed to visualize trends and make data more accessible for quick decision-making.
* **Tools**: Excel was used for various stages of the process, including cleaning and formatting raw data, merging multiple datasets, conducting detailed analysis, and creating visualizations like charts and interactive dashboards to communicate findings effectively to management.

## Business Strategy :

* **Market Understanding**: Identified key customer segments and their specific needs and preferences. Segmented the market into groups and created targeted marketing campaigns for each segment.
* **Customer Demographics:** Analyzed demographic data such as age, gender, and location to better understand the customer base.
* This information will inform tailored marketing campaigns and product offerings.
* **Customer Behaviour:** Studied customer purchase behaviour, including order history and engagement on digital platforms, to identify trends and improve the customer experience.
* Data was used to optimize marketing efforts and product development.
* **Customer Retention:** Proposed loyalty programs and other incentives to retain existing customers and encourage repeat business.
* **New Customer Acquisition:** Developed marketing strategies aimed at attracting new customers, including public relations campaigns and partnerships with other businesses.

## Recommended Analysis :

* **Daily Customer Count:** The restaurant averages 60 customers per day, with peak times from 12–1 p.m. and 5–6 p.m.
* **Pizza Orders:** The average order consists of two pizzas, with "big\_meat\_s" being the top seller.
* **Annual Revenue**: Total revenue for the year reached $801,944.70, with summer and spring being the strongest sales seasons.
* **Menu Adjustments:** Consider removing the "greek\_xxl" pizza due to low demand.
* Introduce seasonal discounts during the fall and other low-traffic periods to boost sales.

## Conclusion :

The sales data from 2015 reveals critical insights into customer behavior, such as peak ordering times, popular pizza choices, and average order values. By analyzing these trends, management can identify factors contributing to the sales decline and pinpoint areas for improvement. For example, the data might highlight shifts in customer preferences, underperforming menu items, or inconsistencies in service quality during certain periods.

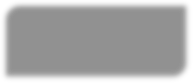
Using this data-driven approach, management can implement targeted strategies such as introducing new menu options, optimizing promotional campaigns, adjusting staffing to better meet peak demand, or enhancing the customer experience through loyalty programs.

The Excel-based analysis and visualizations make these insights accessible by presenting clear trends and correlations, which can guide decisions to improve performance. The visual reports, such as charts and graphs, offer a straightforward way to track progress over time, ensuring that the strategies implemented are both measurable and adaptable. This actionable plan, rooted in real data, positions the restaurant to reverse its sales decline and foster sustainable growth.

# Project Owner

**Name: Bhimashankar Suksen Patil**

Do you have any Questions ?



<https://peerlist.io/bhimashankar>

bhimashankar

[bhima5136@gmail.com](mailto:bhima5136@gmail.com)

<https://www.linkedin.com/in/bhimashankar-suksen-patil-1653101ab/>