

Pizza Place Sales Report

Background:

Pizza Place is experiencing a steady drop in customer numbers over the past year, which has negatively affected its sales and profitability. The company has gathered a year's worth of data on various aspects of its business, such as date and time of each order and the pizzas served, with additional details on the type, size, quantity, price, and ingredients.

Problem Statement:

Using the data the company wants to analyse this data to identify the root causes of the customer decline, the current and potential customer segments, and the opportunities to enhance customer satisfaction and retention. The ultimate goal is to increase customer traffic and sales by implementing data-driven strategies.

Solution:

A data driven overview of solution to gain important insights to tackle the problem is proposed as follows:

- **Data Analysis:** Leveraging the power of Excel to analyse & manipulate the data to gain important patterns and trends followed by the customers and making dynamic dashboards for better understanding of trends.
- **Data-Driven Insights:** Using dashboards and manipulated data to understand the insights of the customer behaviours and framing strategies according to it to boost the revenue and sales.
- **Stakeholder Engagement:** Meeting with the stakeholders to gain more insights of the data and about the company. Explaining the insights extracted from data to them and working on the feedbacks given by the stakeholders.

Project scope:

Product:

- Analyse customer preferences to identify the most popular pizzas and bestsellers of each time..
- Determine which pizza sizes are most in demand.
- Exploring the possibility of offering new or limited-edition pizza products.

Price:

- Analyse prices of each pizza to ensure that they are on the winning side of the market competition.
- Consider offering discounts or promotions to attract new customers and encourage repeat business.
- Implement a dynamic pricing strategy to adjust prices based on demand and other factors.
- Offer value-added options, such as combo meals or sides, to increase the average order value.

Promotion:

- Develop a targeted marketing campaign to reach your target audience.
- Use social media, email marketing, and other digital channels to promote your pizza restaurant.
- Partner with local businesses to offer cross-promotional opportunities.
- Run contests and giveaways to generate excitement and engagement.

Place:

- Make sure your pizza restaurant is conveniently located and easy to access.
- Offer online ordering and delivery to make it even easier for customers to purchase your pizzas.
- Consider expanding your distribution network to sell your pizzas in grocery stores or other retail outlets.
- Create a welcoming and inviting atmosphere in your pizza restaurant.

People:

- Train your staff to provide excellent customer service.
- Develop a loyalty program to reward repeat customers.
- Offer employee training and development opportunities to create a more positive and productive workplace culture.
- Conduct customer surveys to gather feedback and identify areas for improvement.

Methodology:

- **Data sources:** The data is provided by the Pizza Place in csv format which is then imported in Excel as table format. The dataset contains four files naming orders, order_details, pizzas, pizza_types.
- **Data wrangling:** After importing and loading the files into excel as table format, the tables are looked up for blank data and any unreadable data. After checking the content related information it is then concatenated with the order_details file which becomes the main file for further analysis.
- **Data analysis:** Combining the data into one table, we start with the analysis. For instance finding relation between columns using Pivot Table, preparing charts to get insights of the trend, Find total revenue over the year and for each month as well, finding the customer preferences of what type of pizza is liked by the customers, etc.
- **Data visualisation:** After all data has been analysed and pivot table is created then, prepare charts and create dashboards for providing a great understanding to each and everyone this project concerns.

Goals and KPIs:

Goals:

- Finding insights as to why the customers are declining.
- Finding customers' preferences and their buying patterns to understand their psychology.
- Providing data driven solutions to increase the sales of Pizza within a year.

KPIs:

- Total revenue of the company for the year.
- Average number of customers buying pizzas.
- Peak months and hours for better sales.

Technical Processes:

- Vlookup formula
- Pivot Table
- Quantity and price multiplication
- Average of the customers
- Countif formula
- Rounddown formula

Business Concepts Used:

Market Understanding:

- Identify the target market for the pizza restaurant and analyse their needs and preferences.
- Segment the market into different customer groups and develop targeted marketing campaigns for each group.

Customer Demographic:

- Analyse the customer demographic data (e.g., age, gender, location, income) to better understand the customer base.
- Use this information to develop marketing campaigns and product offerings that are tailored to the specific needs of different customer groups.

Customer Behaviour:

- Analyse customer behaviour data (e.g., order history, website traffic, social media engagement) to identify trends and patterns.
- Use this information to improve the customer experience, develop new products and services, and target marketing campaigns more effectively.

Customer Retention:

- Implement strategies to retain existing customers and encourage repeat business.
- This may include offering loyalty programs, discounts, and other incentives.

New Customer Acquisition:

- Develop strategies to attract new customers and grow the customer base.
- This may include marketing campaigns, public relations initiatives and partnerships with other businesses.

Recommended Analysis:

- **How many customers do we have on average each day?**
On average there are **66 customers** each day which was calculated by dividing the total average of order_details of each month and then dividing it by the total number of days in a year.
- **What are the peak hours or busiest hours of the day?**
In daytime **12PM to 1PM** is the busiest interval and in evening **5PM to 6PM** is the most selling time.
- **What are the bestsellers in the menu of the Pizza Place?(size, name & category)**
The best category of pizza sold the most this year was the **Classic** category and of **Large size**. Within the category most orders this year were for **Classic Deluxe Pizza**.
Besides Classic Deluxe Pizza the other bestsellers in list are:
 - The Barbecue Chicken Pizza
 - The Hawaiian Pizza
 - The Pepperoni Pizza
 - The Thai Chicken PizzaPoint to be noted here is each has their own bestsellers but for the complete year the above list holds true.
- **What is the revenue of the year whose analysis is being performed?**
The total revenue of the year 2015 is **₹817860.05** which is calculated by multiplying order quantity and price of the selected pizza.
- **What is the maximum, minimum and average quantities placed by customers?**
Maximum number of order quantities ordered by a customer is 4.
Minimum number of order quantity ordered by a customer is 1.
Average number of order quantities for any customer is 1.
- **What is the most possible order quantity for a customer?**
Most possible count of order quantity for a customer is 1 because the order count for quantity 1 is much larger than the count of orders for other quantities.
- **What are the pizzas with the least number of sales for the whole year?**
Pizza with the least number of sales is **The Brie Carre Pizza** with order count of just 480 for the whole year. Other than this some of the other less selling pizzas are:
 - The Spinach Pesto Pizza
 - The Soppressata Pizza
 - The Spinach Supreme Pizza
 - The Calabrese Pizza
 - The Mediterranean Pizza

- **What months have the least sales and is there any seasonality?**

The least sales months are **September, October and December**. Yes, there is seasonality in the dataset and the seasons having most sales are **Spring, Summer & Rainy** seasons.

Conclusion:

The analysis of the pizza place revealed some key insights and recommendations for improving the business performance. The main findings were:

- The restaurant has peak hours of customer traffic during the afternoon and evening hours, which can be leveraged to optimize staffing, inventory, and pricing.
- The average number of pizzas per order is 2.6, and the order with the highest number of pizzas was 18845, which had 12 pizzas.
- The best-selling pizza types are Classic Deluxe, Barbecue Chicken, Hawaiian, Pepperoni, Thai Chicken, and California Chicken, which can be promoted more or offered as combos or specials.
- The total revenue for the year 2015 was \$817,860.05, and there was a seasonal pattern of higher sales in the summer and lower sales in the winter, which can be used to plan marketing campaigns and menu changes.

Project owner:

Name: Akash Raj Nigam

Date: March 3, 2024

Have any problems contact me via:

1. LinkedIn : <https://www.linkedin.com/in/akash-raj-nigam-46b348192>
2. Gmail : akashrajnigam38@gmail.com
3. Peerlist : <https://peerlist.io/akashrajnigam>