PIZZA SALES analysis

BACKGROUND & PROBLEM STATEMENT:-

**Investigate the pizza sales data to identify trends, patterns, and insights pivotal for strategic decision-making. This comprehensive analysis will encompass key performance indicators such as total revenue, average order value, total pizzas sold, total orders, and average pizzas per order. By dissecting sales patterns by category and size, identifying peak sales times, and determining top and bottom-selling items, our aim is to optimize operational efficiency and enhance customer satisfaction. The goal is to leverage these insights to refine marketing strategies, menu offerings, and overall business approach, ultimately driving increased profitability and sustained growth.**

SOLUTION:-

**Our solution involves conducting a thorough analysis of our pizza sales data using advanced analytical techniques. By employing tools such as SQL queries, data visualization, and statistical modelling, we aim to uncover actionable insights that will drive strategic decision-making. Through this data-driven approach, we will optimize our marketing campaigns, refine menu offerings, and improve operational efficiency to maximize profitability and enhance customer satisfaction .**

PROJECT SCOPE & METHODOLOGY:-

1. **Data Collection**: **Gather sales data from all restaurant locations for the specified time period.**
2. **Data Cleaning and Preparation:** **Cleanse the data to remove any inconsistencies or errors, and prepare it for analysis.**
3. **SQL Querying**: **Utilize SQL queries to extract relevant data subsets based on the analysis objectives. This may involve filtering, aggregating, joining tables, and performing calculations to derive key metrics such as total revenue, average order value, etc.**
4. **Exploratory Data Analysis (EDA**): **Conduct EDA to understand the distribution of key variables, identify outliers, and explore relationships between variables.**
5. **Key Performance Indicator Analysis**: **Calculate and analyze key performance indicators such as total revenue, average order value, total pizzas sold, total orders, and average pizzas per order.**
6. **Sales Pattern Analysis**: **Analyze sales patterns by category and size to identify top-selling and bottom-selling items.**
7. **Peak Sales Time Analysis:** **Determine peak sales times to optimize staffing and inventory management.**
8. **Statistical Analysis**: **Apply statistical techniques to identify significant trends and correlations in the data.**
9. **Data Visualization**: **Visualize the findings using charts, graphs, and dashboards to communicate insights effectively.**
10. **Recommendations**: **Provide actionable recommendations based on the analysis to optimize marketing strategies, menu offerings, and operational efficiency**

GOALS & KPIs:-

**The goal is to leverage these insights to refine marketing strategies, menu offerings, and overall business approach, ultimately driving increased profitability and sustained growth.**

**KPIs:-**

* **Total Revenue**
* **Average order value**
* **Total pizzas sold**
* **Total orders**
* **Average pizza per order**

RECOMMENDED ANALYSIS:-

1. **Busiest Days and Times**:
   * **What are the busiest days and times for pizza sales ?**
2. **Sales by Category and Size**:
   * **How do sales vary by pizza category (e.g., classic, specialty) and size (e.g., small, medium, large) ?**
3. **Best and Worst Sellers**:
   * **Which pizza varieties are the best and worst sellers in terms of revenue generation ?**

**CONCLUSION:-**

**In conclusion, this project has provided valuable insights into the sales performance of our pizza restaurant chain. Through meticulous analysis of sales data using SQL and other data analysis techniques such as MS Excel, we have gained a deeper understanding of key aspects such as busiest days and times, sales by category and size, and best and worst sellers.**

**The findings reveal that Fridays are the busiest days for pizza sales, with peak sales . Additionally, sales are predominantly driven by the classic category, particularly large-sized pizzas, indicating a preference for traditional favourites among our customers. Furthermore, our analysis identifies the Classic Deluxe pizzas as top** **performers in terms of revenue generation, while The Brie Carre lags behind as a bottom seller.**

**These insights provide actionable recommendations for optimizing our operations, marketing strategies, and menu offerings. By capitalizing on peak sales times, promoting popular categories and sizes, and potentially reevaluating underperforming menu items, we can enhance overall sales performance and customer satisfaction.**

**DATASET LINK:-** <https://www.kaggle.com/datasets/mysarahmadbhat/pizza-place-sales>