

Cafe Sales Power BI Dashboard Project Report

Project Overview

The Cafe Sales Power BI Dashboard project aims to analyze sales data from a fictional cafe business to gain insights into revenue, customer behavior, and product performance.

The project involved data cleaning, exploratory data analysis (EDA), and data visualization using SQL and Power BI.

Objectives

- To clean and transform the raw cafe sales dataset.
- To conduct exploratory data analysis to identify patterns and trends.
- To create interactive and visually appealing dashboards using Power BI.
- To provide key business insights that can help the cafe improve its sales performance and customer experience.

Tools Used

- SQL (MySQL) for data cleaning and transformation
- Power BI for data visualization and reporting
- GitHub for project version control

Data Cleaning Process

The dataset underwent several data-cleaning steps, including:

- Removing duplicates
- Handling missing values
- Standardizing date formats
- Splitting columns

- Removing unnecessary white spaces
- Converting text-based numeric fields into numeric data types

Exploratory Data Analysis (EDA)

Key questions explored during EDA:

- What is the total revenue generated?
- What are the top-selling items?
- Which payment methods are most preferred by customers?
- What is the revenue trend across different months?
- Which days of the week generate the most sales?
- How are customers segmented based on location?

Visualizations Created

1. Key Performance Indicators (KPIs)
2. Top 5 Selling Items (Bar Chart)
3. Monthly Revenue Trend (Line Chart)
4. Payment Method Distribution (Doughnut Chart)
5. Weekly Sales Trend (Area Chart)
6. Customer Segmentation by Location (Pie Chart)

Business Insights

- The cafe generated a total revenue of \$8.55K from 965 orders.
- Smoothie is the best-selling item with 407 units sold.
- Most customers prefer Cash and Digital Wallets as their payment methods.
- Saturday is the best-performing day of the week in terms of revenue.
- The In-store location contributes the highest revenue share (35.97%).

Conclusion

This Power BI dashboard provides valuable insights into the cafe's sales performance. The interactive visualizations help stakeholders quickly understand business trends and make data-driven decisions.

This project has enhanced my SQL, Power BI, and Data Analytics skills and is a strong addition to my data analytics portfolio.

Project Repository

GitHub Link: <https://github.com/thriving-with-kandie/cafe-sales-data-cleaning-project>

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