Executive Summary

The analysis leverages SQL queries and complementary exploratory work in a Jupyter Notebook to deliver a comprehensive view of Walmart's sales performance and customer behavior. Key highlights of the analysis include:

- **Payment Method Efficiency**:
  • Detailed insights were generated on the distribution of transactions and quantity sold across different payment methods.
  • The analysis identified the most common payment methods, reflecting customer preference trends across branches.

- **Branch Performance and Customer Satisfaction**:
  • Each branch's highest-rated product category was determined by analysing the average customer ratings, providing a benchmark for quality and satisfaction.
  • The busiest day of the week for each branch was identified, offering guidance for operational planning and resource allocation.

- **Profitability and Revenue Trends**:
  • Profit margins were assessed by calculating the total profit for each category, which aids in understanding the financial health and contribution of each product segment. • A comparative analysis between 2022 and 2023 revenue data highlighted the top five branches with the most significant revenue declines, informing strategies for revenue recovery.

- **Temporal Sales Analysis**:
  • Sales were categorized into morning, afternoon, and evening shifts to capture customer purchasing patterns throughout the day, supporting targeted marketing and staffing decisions.

- **City-Level Insights**:
  • A detailed review of customer ratings by city and category revealed variations in performance metrics (average, minimum, and maximum ratings), offering additional context for regional market strategies.

This overview not only highlights the data-driven insights that can guide operational improvements and strategic planning but also sets the stage for more detailed exploration into specific areas of interest within the Walmart business landscape.